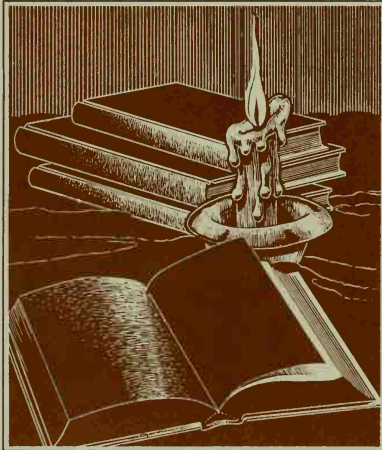




A HISTORY OF
WESTERN
ART



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A HISTORY OF
WESTERN ART

JOHN IVES SEWALL

HENRY HOLT AND COMPANY • New York



A HISTORY
WESTERN

INTRODUCTION

OF

ART

JOHN IVES SEWALL

HENRY HOLT AND COMPANY New York

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JOHN IVES SWALL

HENRY HOLT AND COMPANY New York

INTRODUCTION

This book is an attempt to provide the reader with an introduction to the study of the visual arts. The chief problem has been one of space. How, in a few hundred pages, can one cover a field with a present literature so vast that no single scholar can be physically capable of reading it all? There are two possible methods: to say a very little about everything, or to select. I have chosen the latter.

There is perhaps no principle of selection with which everybody would agree. No matter what an author may do, he is bound at many points to disappoint himself and the reader. In the main, I have assigned or denied space by reference to two criteria.

First and most important, I have asked myself not what the reader might find easiest to assimilate or be entertained to know (or what I might most enjoy writing about), but what the reader ought to know *first*. I have tried, that is, to determine when, how, why, and where the definitive decisions were made in the history of art. I have attempted to identify the crucial monuments, if such are still in existence, or at least monuments illustrative of the main course of events. Everything else I have omitted.

Secondly, I have expanded or contracted my text by reference to the comparative availability of other reading. I have construed availability as meaning the existence of books written in English — books, furthermore, which one might reasonably expect to find in every college and public library above the medium size.

The result of such selection will be evident from the Table of Contents. Chapter 9, on the Early Middle Ages, is the longest in the book; but where else can the general reader find a connected narrative covering that very difficult but vitally important field which has for fifty years been perhaps the most active of all with respect to research? It will at first seem strange, to cite another chapter, that the Baroque and Rococo are compressed into only 37 pages with a virtual omission of the Dutch, English, and Spanish painters. The immense amount of art produced during that era — and its familiarity to Ameri-

can readers — is nevertheless not a governing consideration. It can all be understood in terms of what went before; and space had to be saved for detailed explanation of the major developments which came afterward.

In many places the reader will, however, find passages of the briefest and barest summary. Worthless if they had to stand alone, such paragraphs will nevertheless prove a guide for future study. They are designed to make a connection between the present text and the important ramifications which are regretfully but necessarily left out. By consulting the index, the reader will find it possible to establish numerous other relationships not directly treated herewith.

In addition to tracing the main outline of the history of western art, I have undertaken to face up to the problem of aesthetic judgment. Numerous critical terms which lack, as yet, any strict and accepted usage will be found indexed and defined. I have endeavored to keep my own use of them constant. It would be impertinent to claim that my definitions are final; but I hope that, with the help of the index, it will be possible to understand what I have intended to say. In spelling such words, and all others, I have preferred to Anglicize everything whenever a choice was permissible. That custom often violates linguistic consistency; but it corresponds to the way we talk.

Any writer worth his salt has strong opinions; and I can hardly demand that every friend and colleague agree with mine. When undertaking interpretation or when setting forth an estimate of worth, I have done my best to be fair. The context, if it is as I have tried to make it, ought to show where statement of fact ends and where criticism begins. I hope that no one will feel that he has been tricked into agreeing with anything; and I hope that every man will find that he has at least had a plain statement of whatever he does not want to believe. For the sake of brevity and clarity, many such statements appear to be more dogmatic than they are; and I hope that the reader will remember throughout that the greatness in great art is no simple matter. Not only are two, three, and even four points of view possible; all may actually be on the road toward truth.

There is no such thing as an adequately illustrated volume on the history of art; one could always use more and more plates. In selecting those which appear here, I have done my utmost to secure examples of the best modern photography. Wherever possible, I have put in a fresh view. Many items appear for the first time. A few photographs were specially taken; and except for a small number otherwise credited, the architectural drawings are entirely original.

It is earnestly to be hoped that the plates are a proper compromise between the incompatible requirements of number and size. It is also hoped that the

arrangement, pagination, and numbering will (with the aid of the tapes bound in as bookmarkers) be convenient, minimizing the ever-tedious annoyance of having to turn over pages.

The index is unusually complete; but no index can be entirely satisfactory. Appreciating that many persons will not care to read the entire book but may wish to consult it for material upon a topic of special interest, I felt compelled to supplement the index with numerous cross-references included within the body of the text. I believe that such will be welcomed by readers who look something up only to find themselves bogged down, as it were, in a moving train of unfamiliar thought. The cross-references mar the appearance of the pages and break the cursive quality of many a sentence. I am sorry for it; but I hope those who enjoy the beatitude of total recall will be gracious enough merely to close their eyes.

Most parts of the text are easy enough, but some substantial sections are undeniably hard. Presumably the reader will often find it an onerous task to follow and to understand; but he must accept the necessity. It is a gross error to assume that an introductory volume should be or can be simpler than the subject with which it deals. It is not the erudite refinements of knowledge that challenge the mind, but the fundamental elements thereof. Learned men, if we tell the truth of it, are seldom called upon to perform the feats of comprehension we daily assign to freshmen. Having taught the latter annually for more than 20 years (and in three widely separated parts of the country) I can say that there is nothing in the book which is beyond them. I have made it a rule to start every matter from the very beginning; and that, in my experience, is all that will be asked by the ingenious youngsters with which this land is so generously blessed.

AUXILIARY REFERENCES

While the text is complete in itself, it must be assumed that the reader has access to or will find his way to a collection of photographs. Such collections now constitute a standard section of a college or departmental library, and are available in most museums and at many public libraries. "Picture books" too numerous for citation have in recent years multiplied in number until, today, they offer a comparatively inexpensive substitute for mounted photographs. It is merely necessary to discriminate between the small and inexpensive plates (useful for reminder of what one already knows) and the finer reproductions suitable for primary study.

Where no definition is supplied herein, Webster may be assumed to govern whenever a question of denotation comes up.

For serious exploration of matters all too briefly covered, the standard reference books must be consulted; the earnest student will, with the help of the librarian, be able to find his own way. For succinct articles of the kind needed to clarify a point instantly, the *Columbia Encyclopedia* is unexcelled; but one should also have at hand Webster's *Biographical Dictionary* and W. L. Langer's *Encyclopedia of World History*.

No one can learn very much about the history of art without appreciating the necessity for geographical information. Unfortunately, however, the best and latest American atlases give better coverage on Indiana than on France and Italy. Places like Cluny — the center of the world during the 12th Century — are unlisted and perhaps all but uninhabited. European atlases are better for the purpose; but the best are none too good. A big atlas of any kind is, moreover, a major investment.

What we need is an art historical atlas; but none exists. There are various "classical" and "historical" atlases, of course; but not one of them, or all together, supply the want. They all went out of print years ago, anyway, and are only to be obtained when one is lucky enough to make a find on the second-hand counter.

I have therefore tried at every point to indicate the location of important sites by distance and direction from some modern city. With that much information, the reader will be prepared to search out further details in the excellent guidebooks of Baedeker, Hachette, Muirehead, and others. It is further recommended that he purchase for himself a set of the excellent maps available at nominal cost from the National Geographic Society in Washington.

ACKNOWLEDGEMENTS

In this as in every other book, considerations of space sternly curtail what may be said under the heading above. Indeed, whenever a reader sees this heading, he has learned to expect nothing more than a list of names and a few flourishes of rhetoric. I doubt whether I can do better; but that is not how I feel.

This book has been in preparation for seven years. During that time, I have bothered and badgered people with innumerable inquiries both large and small. Many such have been addressed to my friends, upon whom I had at least some claim; but in the nature of the case, and in a correspondence extending from Honolulu to Constantinople and Tel Aviv, I have perforce frequently imposed upon the good nature of persons to whom I was a complete stranger. The response? Kindliness, generosity, trouble straightway undertaken and without stint, cordial encouragement in my task, and the best of good wishes.

When I reflect that more than one of those to whom I refer was but lately an enemy in war, I take renewed confidence in the worth of the visual arts and I feel new hope for the whole world.

It is obviously impossible to mention by name everybody who has helped me. I can only refer to those who were most intimately concerned and most constantly appealed to. I am sure that all the others will know that the memory of their assistance is very much alive, and will be content.

Almost all the architectural drawings (and they constitute a major contribution) are the work of Dr. W. D. Richmond of Boston. Few persons possess his technical training as both architect and art historian. His experience as a teacher will be obvious to all who have themselves taught. I would make it emphatically plain that the ingenuity displayed is his own, and not mine.

Most of the photographs used as copy for the illustrations were sought out abroad by Flaminia Guerrini and Barbara Ives Beyer. Unless he has tried it, the reader can have no idea of the tedious complexity of such an enterprise, or of the unremitting demands upon knowledge and taste. I think that the illustrations are very good; but I can claim little credit for it. Had it not been for the devoted aid of the two ladies mentioned, the plates would have been pedestrian indeed — or at least I fear so.

Whenever a photograph came from a private or commercial photographer, that fact is indicated by the signature which appears with the plate. Material obtained direct from a museum bears no signature; in such cases, the reader will understand that the work of staff photographers is represented. The several directors, curators, and trustees, appreciating the desirability of brevity in the captions, have been most cooperative in waiving the necessity for lengthy and repetitious statements of acknowledgement. For that, as well as for the permission to reproduce, my publishers join me in expressing cordial thanks. The List of Illustrations at the front of the volume contains detailed citation for all the plates borrowed from other publications; for permission to use those, I am grateful to the respective publishers.

The generosity to which I have referred in general terms at the beginning of this section demands specific attention in three further instances. Professor Clarence Kennedy of Smith College took an immense amount of trouble to furnish me with prints from a number of his incomparable negatives. Professor Clarence Ward of Oberlin was equally openhanded in letting me use many of his unique and remarkable photographs of the Gothic; these were taken especially for his own use in a projected work on medieval architecture. The new Brogi photographs of statuary by Donatello were intended first to appear in a new monograph being prepared by Professor H. W. Janson of

New York University. All three gentlemen instantly released the material when asked. The reader will have gathered that their action was typical of my general experience, but I am not one whit the less heartily in their debt.

In writing the text, I have enjoyed the continuous support and encouragement of Julian Park, Dean of the College of Arts & Sciences at the University of Buffalo. I first undertook the work in response to the urging (perhaps better stated as the demand) of my friend the late Philip Wickser; I hope it is worthy of his all too generous expectations. Professor Ulrich Middledorf of Chicago was kind enough to read several of the early chapters in first draft, and he encouraged me to continue. My dependence upon my sometime teachers Karl Weston, C. R. Morey, Arthur Pope, Chandler Post, P. J. Sachs, Kingsley Porter, G. H. Edgell, and George Chase will be evident to all who know their work — but none of them has had a chance at me for twenty years, and none may be blamed for anything.

On matters of historical information and upon matters of critical estimate, I have been much advantaged by day to day advice from my colleagues Mrs. Beyer (already mentioned), Edgar C. Schenck, and Patrick J. Kelleher — the two latter being Director and Curator, respectively, at the Albright Art Gallery. How could a man write without someone to answer queries over the phone? If I have bothered these people once, I have bothered them ten thousand times apiece. Their immense knowledge of the field has saved me from more mistakes than I should like to acknowledge.

Professors Sumner Crosby and S. L. Faison, Jr., generously read through the penultimate draft of Chapter 12, and gave me the benefit of their criticism. Chapter 19 is the end result of protracted conference and argument between myself, Mr. Wickser, and my quondam colleague Professor William C. Seitz. In saying that I am grateful to these persons, and to those mentioned in the paragraph above, I make no suggestion that they endorse what I have written in its entirety. In fact, they have done no such thing; but I see no more reason for agreeing with them than they with me. By learning, logic, and wit, however, they have sharpened up many a point and forced me to clarify my own position. That is what I am grateful for.

Even the shortest book involves an author in bibliographical problems quite beyond his ken. A long book full of illustrations presents a multiplication of perplexities, some of them seemingly hopeless. But just as I used to do in student days, I always asked Miss Louise Lucas, the distinguished librarian of the Fogg Museum in Cambridge. And just as she did then, Miss Lucas produced the answer without fail and in almost no time, often when others had confessed themselves stumped. All librarians are patient and kind; but was ever one more learned in her craft?

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1



THE STUDY OF ART

THE SEVERAL DIVISIONS OF THE SUBJECT

Let us begin by defining our field.

The history of art as conceived today in the American university is an all-embracing subject; the name means much more than the words say. In a strict and narrow sense art history is merely a department of all history; and the first duty of the art historian is to explain the monuments of architecture, sculpture, and painting in so far as they stand as records of the past. As such, works of art are often more accurate than any other indication about the state of affairs at some remote but crucial juncture in the progress of humanity. When men speak or write, they are often guarded and devious. But when they build or paint, they are usually perfectly open about what they want. By studying the visual arts from any society, we can usually tell what the people lived for and for what they might be willing to die.

As just defined, the history of art is surely a legitimate and rewarding field of knowledge, but no one could possibly accept the limitations implied by what we have so far said. Over and above the attractions of political, military, and social history, art history has the special advantage of dealing with material that tends to expand the personality, refine the emotions, and increase the domain where the sympathies are at home. Art is a product of man's creative impulse. It is as old as the race. A society without artistic taste and standards is a society forever yearning and confused. For reasons like these, art history merges by imperceptible degrees with philosophy, psychology, and religious impulse. We find ourselves constantly involved with ideals and aspirations, and with questions of hope, pride, tragedy, exaltation, and a host of other experiences having to do with the soul's welfare or defeat. Only

in part are we concerned with the problem of beauty, although we must labor hard over it. The fundamental concept with which we should begin is this: the visual arts are a means of communication and record; they open straight into the heart and mind of all humanity both living and dead.

The matters just mentioned are not susceptible of measurement on any numerical scale, but art history, like all other modern studies, nevertheless depends for its validity upon a solid foundation of fact. Except for the research of countless scholars, a book like this one would be an impossibility. It is important for the reader to have some picture of the process by which our knowledge has been built up and of the present state of the subject. In general, it may be said that scholarly activity has tended to divide itself into various specialties, each making an essential contribution to the field as a whole.

Archaeology is the field work of art history. Its business is to recover objects preserved from earlier times. *Anthropology* does the same thing; but as ordinarily understood, it implies research into remote and primitive mankind while archaeology deals with material from periods of high civilization. Both activities result in the accumulation of *artifacts* (objects worked by the hand of man) and *monuments* (artifacts construable as cultural expression) in our museums.

Archaeological scholarship, as distinct from field work, is the further study of the monuments we possess with the purpose of establishing relations of cause and effect between the earlier monuments and the later. Such scholarship deals indiscriminately with objects unearthed yesterday, and with monuments that have never been out of sight. Ostensibly its purpose is narrowly historical and facts are its object; but we must not overlook the insight it offers into the creative process. The most original artist is incapable of total creation; all are necessarily creatures of their own past and their own present. We can tell much from the work of art alone, but it is folly to overlook the connotations and overtones opened up for our understanding by apposite if collateral evidence.

Whenever he can locate it, the archaeological scholar depends upon evidence external to the work of art itself. The ideal thing to have, of course, is a receipted bill from someone like Titian saying in unmistakable language that he has, on a certain date, received payment for such and such a Madonna. Sadly for the scholar, elaborate bookkeeping is a very recent addition to our civilization, and efficient filing systems are still largely unknown and unpopular except in the United States of America and in Germany. Neat and conclusive proof in documentary form is rare indeed when artistic monuments are being traced to their source. As a general statement, it is probably fair to say that, for any period earlier than the 16th Century, such documents

exist only by the merest chance. After that, one can usually locate something or other if he hunts long enough.

The *archivist* is the man who makes a specialty of finding such papers. With respect to getting covered with dirt, his daily task is not unlike that of the archaeologist in the field; and his patience must be even greater because there is less drama in his life. Devoted men and women are nevertheless at work every day in the libraries of Europe and in the repositories where public and private records are stored, usually in indescribable lack of order. The archivist must not only be an expert linguist in the ordinary sense; he also has to know tricks of script and abbreviation with which most of us are never concerned. Once in a while, he finds himself reading words that settle once and for all a question long vigorously debated.

An immense amount of work remains to be done in the archives, but conceivably at some future time we shall have assembled all the apposite documents on earth. In the meanwhile, life goes on and decisions must be made about works of art about which we know nothing except what we may properly infer by inspecting the object itself; or, to put it in technical language, we have to base our judgment upon *internal* or *stylistic evidence*.

The situation will be clear if we attempt to visualize the problem of a museum director who is considering the purchase of a painting for the collection under his care. Works of art are unique; the opportunity to purchase may never come again. The art market is also unique; and the price of a painting depends upon a number of things extraneous to its absolute value as a picture, but most of all upon its authenticity as the work of a great master. If public funds in a large amount are to be disbursed, a heavy responsibility rests upon the man who must decide whether to purchase or whether to let the offer go.

Because there are all kinds of pictures, no individual can possibly be intimately familiar with every class and variety. It is customary, therefore, to seek the advice of some scholar known to be an expert, or *connoisseur*, of the particular category in which the contemplated purchase falls.

Connoisseurship is that branch of archaeological study which deals entirely with the single work of art, and depends altogether upon stylistic evidence. As before, the purpose is to establish the *provenance* (place of origin), the date, and the authorship of a given picture or statue. After thorough study, the professional connoisseur signs an affirmation of authenticity or the opposite. This amounts to an assertion that he risks his reputation upon his belief that the work of art is truly what he says it is.

Every once in a while, the public prints burst forth with an announcement that the connoisseurs have been fooled. A great museum pays \$100,000

for a marble tomb; it turns out to have been made, not in the 15th Century and at Florence as confidently supposed, but a year or two ago by a forger in Milan. Paintings celebrated as newly discovered examples by a great Dutch master are presently found to be nothing but a psychopath's pitiful attempt to gain recognition.

Such news makes exciting headlines, and at times even good reading. As ordinarily presented in the papers, however, it is all too commonly false in emphasis and interpretation, if not in fact.

It is conceivable that a forger might so perfectly imitate the work of an earlier great master as to fool everyone forever. If so, his work would be as "good" as that of the great master even if discovery of the fraud destroyed its value on the market. In effect, the forger would actually have brought about a resurrection of the dead master's personality; we would be dealing with the work of the same mind once again set into motion. Such a thing is certainly difficult to credit; but no one can prove it has never happened. Most indications suggest that genius sufficient for success in so devious and unrewarding an enterprise ordinarily finds a more direct and legitimate outlet.

It should be noted, moreover, that in the several instances where important forgeries have recently been detected, the fraud has come to light within a year or two — certainly no very great interval of time. If we look behind the scenes, we can appreciate that even the curator of a public collection may at times feel compelled to take a chance: to buy something, that is, without waiting for the report of a connoisseur who might need several months to arrive at his opinion. It takes great courage to announce that one has been fooled, but such announcements are the rule rather than the exception.

The reader must realize that any attribution based only upon internal evidence is necessarily a statement of probability. General confidence in the authenticity of an undocumented work of art is established only over a substantial period of time. Things that stand up for years to the repeated inspection of experts are either genuine or miraculous in their power to deceive.

Connoisseurship, it must also be understood, cannot be undertaken effectively except by direct contact with the originals. Photographic reproductions are among the tools of the trade, of course, but they merely aid the memory in matters of comparative study. A sound attribution on stylistic evidence demands that the eye be close to the surface of the picture. Chemical tests, X-ray, and other laboratory techniques extend one's power to observe, but to date nothing has the scope and reliability of the trained eye aided, perhaps, by a simple magnifier.

There is nothing occult about the method. Everyone who recognizes a signature on a check is to that extent a connoisseur. In general it is believed that

authenticity is best indicated by the minute physical characteristics of the picture. The master under review might, for instance, have had a favorite sort of brush with hairs that left a special kind of mark. Small details of every kind tend to be handled in the same way by the same man: as, for example, a routine trick for drawing the corner of the eye or a favorite contour for the finger nails.

Obviously such indications of manual usage are often so insignificant that the painter himself might not recognize them as his own. All indications point to the likelihood that such data are all the more reliable for the very reason of their being the product of unconscious habit.

By its very nature, connoisseurship is intensively specialized. The professional is ordinarily compelled to limit himself to the work of a single school, or even to the work of one or two masters within a school. And because he must deal with the minutiae of so narrow a field, the connoisseur is hardly ever a reliable guide on the broader and more philosophical aspects of art history and criticism.

Once the work of art is installed in a museum — by purchase, by gift, by bequest, or however else it got there — its worth to the community may or may not be instantly self-evident. Before accepting anything as an important cultural monument, people require to know something about it. What does the picture represent? Is it beautiful, or is it important and moving in some other way? Such questions bring us to still other departments of our general field.

Iconography (from *icon* or *ikon*, an image or representation) is the study of the subject matter of the visual arts. Except for modern art of the so-called nonobjective sort, almost every picture and statue has content. It was produced, that is to say, for the purpose of expressing something or communicating something. Narrative subject matter is only the most obvious type of content. Pictures that tell no story may possess great devotional significance. Upon occasion, abstract design carries a symbolic meaning for those who know the key. Inasmuch as many things that once were common knowledge are now obscure, an immense effort of research has been required and still goes on with the simple purpose of enabling us to make sense of what we see.

It has been fashionable for the past thirty years or so to declare that an interest in iconography is beneath the dignity of the true art critic. He should, we are told, confine his attention to the problem of beauty which, according to this school of thought, is to be sought solely in the abstract organization of mass, line, light and dark, and color. Such study is of course both legitimate

and necessary, to say nothing of its fascination. The error in the view just summarized is in what it denies, not in what it asserts.

Under the name *aesthetics*, philosophers have long recognized that art criticism formed part of their responsibility. By analogy to such absolutes as good and evil, it has been presumed that beauty might be isolated from other and extraneous elements, and contemplated, defined, and understood by and for itself. This study deals primarily with the professional competence of the artist; not with what he does, but with how well he does it. Its ultimate achievement would be to explain why some artists are great, some merely good, and some not worthwhile.

As generally understood, aesthetics aims to solve the problem of beauty on a universal basis. If successful, it would presently furnish us with an explanation of the quality common to Greek temples, Gothic cathedrals, Renaissance paintings, and all good art from whatever place or time. As distinct from this grand approach, we shall find it convenient to limit our objectives now and again, and think in terms of *historical criticism*. Making no attempt to find the common denominator between Greek and Gothic beauty, the historical critic undertakes to explain both styles by reference to their own internal logic. He takes either as a law unto itself, and tries to show how things must work so long as we accept the Greek or Gothic premises and follow them out to the end.

The *theory of art*, sometimes called the *theory of design*, is another important department of aesthetics which attempts to make tangible progress by similar limitation of its field of inquiry. The facts of the visual universe are the beginning of all artistic theory. The second level of its foundation rests in the physiology and psychology of sight. Beyond that, theory studies the tools and materials of the artist, their special powers and limitations, and the consequences of such. By studying what the great artists have done with their materials, one builds up an idea of what is artistically appropriate, what can be done, and what had best be avoided.

Linear perspective, worked out once and for all at Florence during the early part of the 15th Century, is the most familiar part of artistic theory. Without some fairly clear notion of its laws, one cannot draw anything. Another branch of theory studies the properties of color, and of light and dark, both as they act in nature and as they may legitimately be applied in painting. From such fundamental beginnings, the further study of theory involves the arrangement of pictorial materials into *compositions*, an investigation involving the interrelation of masses, lines, colors, statics and dynamics, and all the harmonies, rhythms, balances, tensions, and compensations that may enter into the exhaustive effort of a great artist as he struggles to produce a perfect

thing. It is important to understand that theory proceeds inductively; it deals not with artistic law, but with the actual practice of artists and with the phenomena of nature.

Art criticism is the process of arriving at a just estimate of the cultural value of artistic monuments. If he is to command respect, the critic must be vigilantly alert to the implications of anything and everything that may shed light upon the work of art under review; he cannot afford to neglect any department of art study as we have described it above. Walter Pater's estimate of Leonardo is considerably weakened today, for example, because we know that Pater accepted as genuine paintings which have not stood the test of connoisseurship. Romanesque sculpture was once considered barbarous, and the very name *Gothic* originated as a term of contempt; today, on the basis of comparative study and historical criticism, both are recognized at what is probably their true and permanent worth. During the early centuries of Christendom when the Roman polity was crumbling, there was no place for artistic theory and little for technical skill. We nevertheless can make out a very strong case for Early Christian sculpture as a human and historical document of priceless value. And in the same voice, we may admire the dazzling accomplishment of many a Baroque artist while deploring the essential vulgarity of the display. In short, it is not the business of the critic to further the popularity of any particular style or kind of art at the expense of any other kind. His obligation lies, rather, in the direction of exhausting all resources in an effort to be fair.

THE STATE OF THE SUBJECT

Modern art history is almost exactly two centuries old. It commenced with the work of the German scholar J. J. Winckelmann who published his *Geschichte der Kunst des Altertums* (*History of the Art of Ancient Times*) in 1764. At that time, factual knowledge was in an appalling state. Winckelmann's statements about date and authorship are often wrong almost beyond belief. His critical estimates, however, have become part of our folklore; the man in the street who never heard of Winckelmann will nevertheless quote him if asked to express an opinion about art. No other art historian has had a comparable influence upon European taste.

Since Winckelmann, our factual knowledge has steadily increased. Under his inspiration, classical art was the first field to be systematically worked. The Italian Renaissance next claimed attention; and during the second half of the 19th Century, the art of the Middle Ages, hitherto the province of a few independent thinkers who refused to accept the notion that an era of darkness

separated the enlightenment of Rome from the felicity of modern times, came strongly into its own.

As things stand today, the narrative chronicle of European art history will probably remain forever much as we find it set forth. The important buildings are known. Most of the great pictures and statues have gravitated into the public domain, and are generally accessible in museums or otherwise. Debate still takes place about matters of historical probability; but the contention has to do with particulars and details rather than with fundamentals: the major historical forces have been identified, and the main trend of their operation is clear to all.

Two things combined to forward the grand program of research. Both were impossible until the Industrial Revolution had done its work. Western Europe became crisscrossed with a network of railways. Photography was invented. Travel for the first time became safe, fast, and inexpensive. Photography made it possible to make trustworthy records of what one had seen, and gradually to accumulate a reference file of reproductions. The net result was to open art history to any one who might be interested.

The efficiency of the study has also been tremendously improved. It is still necessary for the specialist to inspect the originals no matter how far he must travel to see them, but he can prepare himself for the experience by the study of photographs and thus make his first-hand investigation more intelligently. Even more important than that, comparisons are now conveniently made which, for Winckelmann, would have required the expenditure of tremendous energy. At Harvard, at Princeton, in the Frick Library, in Sir Robert Witt's library, or in the files of Marburg University one can have a look at almost anything merely by consulting the card catalogue. The required photograph awaits him in its proper place in a drawer that runs on wheels. Valid conclusions on most matters are as easily made in Chicago as in Vienna or Rome.

What remains to be done?

There is probably more classical art underground than we have yet dug up. One of the great outstanding issues in medieval archaeology, to name another possibility, is the likelihood that the Near East in some way furnished the inspiration for the architectural styles common in Western Europe during the later Middle Age; but only a few competent persons have toured the back country of Syria where Christian cities existed until the Arab conquest of the 7th Century. Almost nobody has seen the lands between the Black and Caspian Seas, to say nothing of the Oxus River valley further east and the Altai region still further on to the north and east. And yet important secrets are to be solved by anyone who can look at visible monuments with a trained eye. Where travel is difficult and dangerous, art history hangs fire.

But that does not mean that new information can be acquired only by heroic methods. Spain and Portugal still offer the chance for significant achievement, as distinct from refining what has already been done. Latin America contains much important art of which we are all but ignorant. The papers of more than one major artist of the 19th Century merely await the arrival of the student who has the skill, the time, and the patience.

Even so, it would seem that the opportunity to make a further contribution to factual knowledge looms small by comparison with the vistas that beckon in aesthetics, theory, and criticism. These matters have occasionally received the attention of some of the greatest men in our intellectual history, but none of them possessed anything like our facilities for arriving at sound judgments. It seems hard on Plato, for instance, to search his words for statements that might be definitive with regard to the Gothic cathedral at Amiens — Plato died in 347 B.C., or about 1,600 years before the church was built, and never saw anything remotely like it. On the other hand, both Plato and Aristotle have left us remarks that stand as a capital instance of historical criticism: about the Greek style with which both were familiar, they speak with clarity and authority. What would such men have been able to say if, like ourselves, the whole history of European art was spread out before them?

In the field of theory, progress of the most obvious and practical kind may be expected within the next generation, for it is here that scholar, scientist, and artist meet on common ground. Painters no longer need to learn their art in the narrow channel of the local school to which they happen to belong; the museums, of which there were none before the 19th Century and no good ones until the last part of that period, offer all the wisdom of the past to the young artist trying to work out his own mode of expression. The ultimate historical position of Paul Cézanne (died 1906), the founder of modern art, will probably rest upon the intelligent use he made of such sources, and also upon the fact that most of his painting, like that of Matisse, is a record of theoretical research. Had Cézanne chosen to write down his ideas, we might have been closer to a theory of art which would compare in utility and profundity to the theoretical understanding of music that is now accepted as essential for all well-educated musicians.

In the publications of D. W. Ross and Arthur Pope, we already have a color theory which has now stood the test of about fifty years of practical application to the problems of painting. The same theory, because of its simplicity and substantial accuracy, is at this date gaining increasing popularity among scientists.

The theory of architecture is being pursued even more enthusiastically. Eminent practitioners of the art, like M. le Corbusier and Mr. Frank Lloyd

Wright, feel obliged to explain their buildings; each new project is accompanied by a statement of the philosophy behind it — one need not agree with what is said in order to appreciate the profound sense of responsibility felt by the architect. In this general effort, the writings of social thinkers, like Mr. Lewis Mumford and Mr. Sigfried Giedion, supplement the utterances of the active designers.

The end result of artistic theory should be twofold. All those who look to art for wisdom and for aesthetic nourishment need a more reliable method of procedure. The artist — and all 19th-Century Romanticism to the contrary, for the creative process is as much rational as intuitive — should find a mature artistic theory extremely useful; it would set forth the possibilities and the limitations, and save much trial and error.



Fig. 2.1 Altamira. Drawing to show the arrangement of animal paintings on the ceiling of the cave.

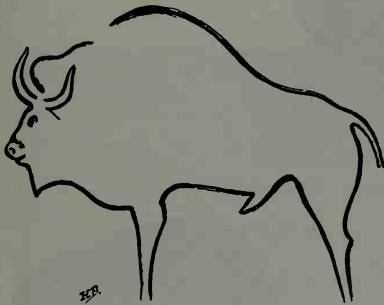


Fig. 2.2 Bison. Incized on the roof of a cave.



Fig. 2.3 Altamira. Deer's head.

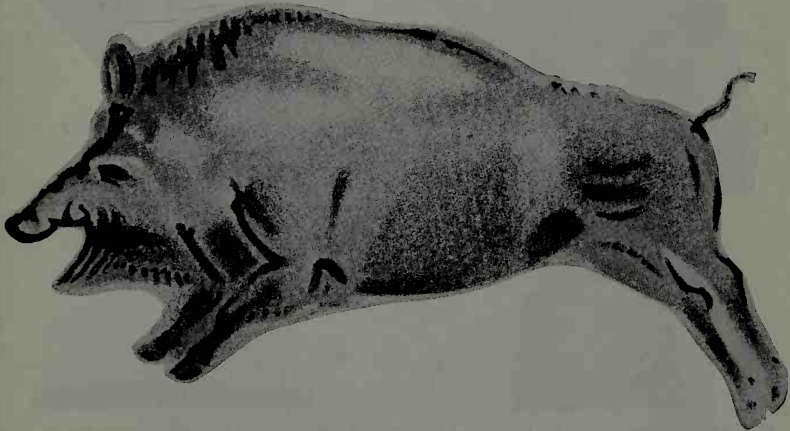


Fig. 2.4 Altamira. Wild Boar.



Fig. 2.5 Boston. Museum of Fine Arts. Head of a priest. Basalt.



Figs. 2.6-7 Berlin, Staatliche Museum. Head of Nofretite. PHOTOGRAPHS TAKEN FOR THE U. S. MILITARY GOVERNMENT,



Fig. 2.8 Boston. Museum of Fine Arts. Mycerinus and his Queen.



Fig. 2.9 Boston. Museum of Fine Arts. Relief from the Mastaba of Ptah-Sekhem-Ankh.



Fig. 2.10 Williamstown, Mass. Lawrence Museum. Ashurnasirpal the 2nd.



Fig. 2.11 New York. Metropolitan Museum. Five-legged gateway monster from the Palace of Ashurnasirpal the 2nd at Nimrud. First half of the 9th Century B.C.



Fig. 2.12 London. British Museum. Dying Lioness. From the Palace of Ashurbanipal at Nineveh. 7th Century B.C.



Fig. 2.13 New York. Metropolitan Museum. A Median leading two horses. 8th Century B.C.

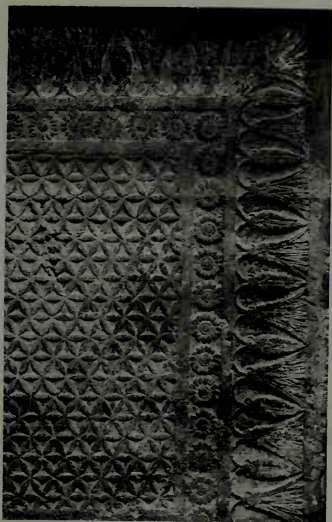
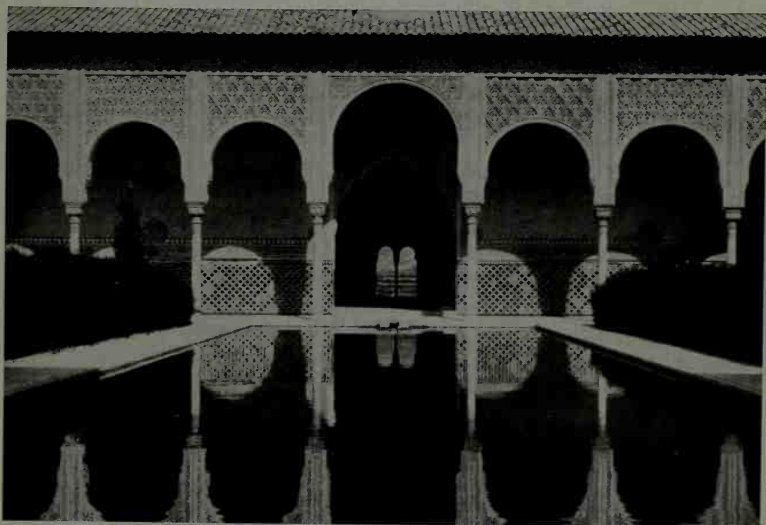


Fig. 2.14 London. British Museum. Fragment of pavement from Nineveh. About 700 B.C.



STOEDTNER

Fig. 2.15 Berlin. Glazed tiles from the Palace of Nebuchadnezzar at Babylon.



RICHARD W. DWIGHT

Fig. 2.16 Granada. The Alhambra. Court of the Myrtles. 13th Century A.D.

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2

FORERUNNERS
OF THE WESTERN
TRADITION

PALEOLITHIC, EGYPTIAN, AND
MESOPOTAMIAN ART

THE PALEOLITHIC CAVE PAINTINGS

The extreme antiquity of the visual arts was dramatically demonstrated in 1880 by the announcement that paintings of Paleolithic date had been discovered on the roof of the cave of Altamira near Santander on the Biscay coast of Spain. In 1879, a gentleman named Sautuola had explored the cave in company with his small daughter. The child was the first to discern the pictures on the ceiling above her, and delightedly shouted out to her father, "Toros! Toros!" — having mistaken some ancient bisons for modern bulls.

Sautuola's discovery naturally stimulated interest in the exploration of other caves. In all, about fifty are now known which contain important paintings. They lie mostly in the general region of southwest France and the northeasterly section of Spain. A great many bits of bone and ivory, some of them carved or incised with drawings, have been unearthed from strata of Paleolithic date. We thus possess a considerable body of material from that remote era.

The assertion that any artistic material whatever falls between 20,000 B.C. and 40,000 B.C. is not one to be accepted lightly; but as a matter of fact, it rests upon data considerably more sound than the evidence we often depend upon to set the period of objects only a few centuries old. Some of the animals represented are extinct, but are known to have been native to the region before the last glacier. Many of the caves, moreover, were closed by gravel deposits

laid down as the glacier retreated, thus furnishing proof that the cavern behind had not been entered since.

Because we know nothing of the people who painted the pictures and because the pictures themselves came to light so recently, Paleolithic art hardly forms part of the European tradition. Certain general conclusions may be drawn from the paintings, however; and these are perhaps more cogent for the very reason that historical continuity is not involved.

In the first place, it is interesting to see that the Paleolithic artists knew all the fundamental techniques of drawing and painting. In one place or another, we may find instances of pure *delineation*, of *form drawing* (line plus modeling in monotone), of *line and local tone* (line plus flat washes of color), and of complete painting (Figs. 2.2-4).

In the manipulation of all techniques, moreover, these early and forgotten artists reached a level of skill which must be described as superb. They understood how to vary the character of their line to express the sleek grace of the antelope and the bumpy stance of the buffalo; for a similar demonstration we must look to the great painters of China and Japan. Their modeling is equally subtle. They grade their tones from light to dark in a way that defines contour in no uncertain fashion. More than that, they manage to work the brush in such a way as to suggest textures without actually describing them; few artists of our era have been capable of a similar performance.

Splendid as they were in the rendering of single animals, these remote artists appear to have had no notion of the artistic possibilities inherent in the arrangement of several figures in relation to each other and in relation also to a setting. The art of *composition*, that is to say, seems not yet to have been conceived. Many of the best animal figures overlap others, and a general view of any large number together furnishes us with a definition for the term *belter-skelter* (Fig. 2.1). Composition aside, however, Paleolithic painting stands as irrefutable proof that the history of art is by no means equivalent to an upward evolution of technique. As more than one competent critic has felt impelled to declare, these artists were as skilful as anybody since. One cannot paint better; he can only paint differently.

EGYPTIAN ART

The Pyramids are the most conspicuous and famous of all Egyptian monuments. The three biggest stand at Giza on the western bank of the Nile a short distance upstream from modern Cairo. In the old days, a prodigious and romantic antiquity was assigned to these imposing piles, but more modern research has sobered our estimate. Reasoning largely from astronomical events

recorded in the written history of Egypt, scholars have found it possible to fix the chronology within broad but sure limits. It is now generally believed that King Khufu, or Cheops, who dedicated the biggest pyramid, reigned about 3000 B.C.

The monument he left us remains to this day the largest of man-made structures. It is the largest, that is, ever raised from a level footing as distinct from the application of masonry to a hill or mound. Originally it measured approximately 755 feet square on the base, rose to an apex 481 feet above the ground, and defined a volume of about 85,000,000 cubic feet. It has been estimated that 2,300,000 blocks of cut stone went into its construction, each weighing two and a half tons or thereabouts.

The mere act of raising such a structure bespeaks a prosperous and highly organized society, but the devotion of so much labor upon a single monument also declares the existence of a compelling motive in any society whatever, no matter how rich. The accurate orientation of the pyramids, each with its sides facing the cardinal points of the compass, has suggested to some that astronomical observations might have been part of the intention. But accurate surveying was commonplace in Egypt, having developed early because landmarks were so often washed away by the inundations of the Nile. Casting aside this and other suggestions of an equally ingenious kind, we come back in the end to the traditional explanation; namely, that the pyramids were no more and no less than royal tombs.

As such, they reflect several aspects of the Egyptian character. More than power and social leadership was centered in the person of the Pharaoh. He was believed to be something very close to a deity on earth; and yet, by a paradox, he was mortal enough to make it of supreme importance that his immortality be guaranteed by a tremendous effort devoted to the permanent preservation of his body. The body itself was elaborately embalmed, and the great mass of the pyramid did no more than secrete and shelter it.

The student of social history might well pause at this point to consider the implications of so immense an investment for such a purpose, but it is our present business to learn artistic lessons from the pyramids. In some ways they are peculiarly useful simply because they are extreme. They illustrate better than any other monuments, in fact, the three-part nature of architecture. Because we must look at it, architecture is an art of form, like sculpture. Because we must build it, architecture is a department of mechanics and may be assessed as good or bad merely by reference to the efficiency with which physical problems are solved. And because we must use it, any building is a device devoted to the functions of human life. Every structure on earth represents a balance of some kind between these three elements.

The designers of the pyramids chose to emphasize form at the expense of engineering and utility. Their construction, while simple in principle, was wasteful of material to an almost unbelievable degree. No buildings on earth contain a smaller useful volume of space in proportion to their bulk; and for the special function of safeguarding the royal mummy, the pyramids proved a complete failure — every tomb-chamber was rifled at an early date. But over against these faults, we must list the tremendous effect of a simple, lucid shape rendered on the colossal scale. Geometric beauty has never been made more impressive.

In addition to that virtue, we must mention still another that might at first escape attention: the virtue of permanence. In some form and to some degree, every great artist has always intended that his work should last forever. Indeed, it may be questioned whether greatness is a psychological possibility without the sobering discipline of a beckoning eternity. In any case, it is an obvious probability that the pyramids will remain in plain sight long after every other work of our race has passed into nothingness, for in durability those great landmarks surpass anything and everything else in the history of art.

Even so, the pyramids remain an historical curiosity. As an architectural type, they did not survive the so-called Old Kingdom (about 2980–2475 B.C.), and except for the three big ones at Giza, there are no others of general interest or importance. Thus even in Egypt, these celebrated buildings must be thought of as a passing episode in art history.

The Egyptians built houses, palaces, and public buildings, but their temples are the only other type of building where the urge for permanence governed the design and construction. As an architectural type, the Egyptian temple is of local interest only, and we need not delay over it. It nevertheless had its importance in history for several reasons.

At some very early date and for reasons impossible to explain, the Egyptians decided to engineer their temples on the post-and-lintel system. (See Chapter 7, Structural Principles.) They were perfectly familiar with the arch, which in many ways is a better method for spanning the gap between vertical supports; but with characteristic fixity of mind, they made a convention of the lintel and used nothing else for the next 4,000 years. Greek architecture, as we shall presently see, maintains exactly the same convention during the course of its shorter but much more important development.

The peculiar form given the post and the lintel by the Egyptians may also have served as an example to Greece. The typical Egyptian post is a column, which is to say a vertical supporting member with a circular, or nearly circular, cross-section; and the typical Egyptian lintel finishes off at the top with an

overhanging member, or *cornice*. Columns were destined to be habitual in Greece, although direct adaptations of the several Egyptian types are almost unknown. All Greek architecture uses the cornice; and here and there, especially during the Hellenistic Period, one may find reflections of the *cavetto cornice*, sometimes called the *Egyptian gorge*, which was native to the Nile Valley.

Egypt produced an immense amount of sculpture. The motive was religious. It had to do with the belief that survival of the soul depended upon preservation of the body, and statuary furnished a method of providing the soul with extra bodies in the shape of portrait figures. Sometimes these were duplicated and reduplicated in job lots in the apparent hope that at least one might survive.

Accurate portraiture was the prime desideratum for such a purpose, and it developed early and remained a distinctive feature of Egyptian art throughout its long history. It is notable that the bodies and legs of Egyptian statues are often rendered in perfunctory fashion, and that attached to these rather nondescript torsos we find heads modeled with such subtlety that they seem literally to be alive. The Egyptian sculptors thus furnish us with the first demonstration of the artistic philosophy we may recognize as *objective realism*.

The objective realist starts out by subjecting some living model to minute scrutiny. He then attempts in straightforward, honest fashion to describe that human being without permitting either prejudice or preference to guide his hand. Because neither sculpture nor painting can reproduce the conditions of nature, a strict copy of the model may not be attempted and never results in any normal studio. But within the simple limitations of his medium, the artist sticks to the facts as best he can.

The strength of objective realism is the same as the strength of science. In those few periods where it has flourished, the greater artists were in fact scientists engaged in the investigation of optical phenomena. The weakness of objective realism is made all too apparent, however, by the general run of Egyptian portraiture. As a philosophy, it tends to chain the artist to the particular person or object he is attempting to describe and record. He is unlikely to permit the intrusion of ideas, much less to make positive suggestions of an idealistic sort. The net result is all too likely to be no more than a mere statement of fact, without discrimination between the importance of facts.

For our better understanding of objective realism, it is necessary to remark that the word *realism* (without the adjective) has attained a special meaning through its frequent application to the work of artists and authors who de-

liberately select unlovely and even sordid subject matter. Without suggesting that their philosophy lacks a legitimate place in art, we must recognize that they employ the unlovely or the morbid for reasons of their own which have to do with the expression of particular ideas — and not with the reality of the visual world. Nature, so far as we can tell, is impartial. The rain falls on the just and unjust alike, and both beauty and the hideous are brought into being in equal measure. As objective realists, the Egyptian portrait sculptors were as neutral as nature herself. Given an elderly and wrinkled sitter (Fig. 2.5), they turned out many a portrait head which can hardly be described as handsome. Such work bristles with artistic integrity nevertheless. And when confronted with the fact of beauty, these artists proceeded in the same honest fashion, as we may see in the well-known bust of *Queen Nofretite* (Figs. 2.6–7). Too often photographed in what the lady herself might have described as a favorable light, the piece is generally thought to be an example of idealism. When it came under the jurisdiction of the American Fine Arts officers at Wiesbaden in 1945, those gentlemen were impressed with the fact that Nofretite was well past her girlhood at the time she sat for this portrait. A series of new photographs were taken, from two of which our book plates come. When lighted with the deliberate intention of showing every modulation of surface, the bust tells us of a woman just beginning to lose the smooth contours that go with youth. Her beauty remains, but it depends upon the fundamental structure of the skull. It would have been easy for the sculptor to smooth over the nascent wrinkles, or to alter the angle and proportion of the oddly elongated neck. Obviously, his philosophy forbade such tampering with visual fact, and the lady we see in the bust is the lady who actually lived in Egypt 3,400 years ago.

In accordance with the Egyptian habit of repeatedly solving the same problem in the same way, the sculptors of the Nile Valley settled very early upon a certain list of conventions, and maintained them without change for nearly 4,000 years. Far from unfortunate in themselves, these conventions have much merit.

Almost every material that might be made into a statue was used at some time or other: metal, wood, pottery, stone. But the favorite and standard medium for full-size statuary remained one of the harder stones like basalt or diorite. The motive, as usual, was permanence; and as a by-product, it results that most Egyptian sculpture is dark in color — a fact responsible for a considerable part of its distinctive character and effect.

When statues were carved out in the round, certain other measures were taken to insure their durability. It was customary, for example, to leave part

of the original block in the shape of a slab attached to the back of the figure (Fig. 2.8). The familiar way of dressing the hair in the form of a long, wide bob is not reflective of contemporary fashion, but signifies the artist's desire to brace the head against being broken off at the neck. The wisdom of these arrangements is attested by the fact that most Egyptian figures have survived in almost perfect condition — a statement that cannot be made about any other school of sculpture.

For the pose of standing and seated figures rendered in the round, the Egyptians almost without exception adhered to the anatomical arrangement we know as *the convention of frontality*, also illustrated by Fig. 2.8. The expression means that a vertical line drawn from the middle of the forehead to the ground will approximately bisect the statue. It follows that the body must be stiffly erect. It is impossible to maintain this pose and represent any action more complicated than putting one foot slightly forward from the other; and by the same token, the expression of content or feeling through physical movement is foreclosed. A certain degree of ceremonial dignity is nevertheless realized. It is doubtless for that reason that these superb technicians felt it appropriate to continue a feature often unconsciously produced in the sculpture of children and other genuinely primitive artists.

In addition to portrait statues in the round, the Egyptians covered vast areas of wall space with narrative paintings or with sculpture in relief. The necessity for rendering the human body (a three-dimensional form) on a flat surface demanded some systematic method of representation. As accomplished geometers, the Egyptians were perfectly familiar with our modern perspective projection, and minor or incidental figures were occasionally drawn with ease and accuracy even in complex and difficult poses. But for major art, which is to say wherever the artist became self-conscious about matters like dignity, *the convention of broadest aspect* was applied (Fig. 2.9).

A figure drawn according to this convention exhibits the following peculiarities: The head is seen in profile; but within the profile of the face, the eye is presented in full-face view. The torso is also presented in full-face view. To it are attached the arms and legs, both rendered in profile. All parts are hooked together without any indication of the muscular contortion that would have to take place were the pose attempted by a living model.

Because children tend to draw this way, it seems likely that the convention reflects an original state of technical ignorance, but we cannot dispose of it so lightly. For very good reasons, Picasso and other modern artists occasionally revert to broadest aspect or something very near it. Among the things that recommend the idea to the mature mind are such concepts as these.

Our modern convention of perspective and foreshortening permits us only

the view of a man as he might appear across our line of sight at a particular and passing instant of time. The merit of this convention inheres in its correspondence with visual experience; but far from being sacred, visual experience of an instantaneous kind is often extremely unsatisfactory. When asked to examine a house, a tree, or a statue we instinctively take more than one look. We walk around the object in an effort to observe each part to the best advantage. We do not remember what we have seen as we saw it at any single moment; we recall, rather, each part of the whole at the time that part impressed us the most. If asked to write a description of what we saw, it is a virtual certainty that we will set down the facts not according to the convention of perspective and foreshortening, but in a manner very close to the convention of broadest aspect.

It will be appreciated, therefore, that the difference between this ancient convention and our own is not a difference between truth and untruth, but merely the question of whether we wish art to correspond with ocular experience or with the procedure we in fact follow when comprehending a set of visual data and remembering them. From the standpoint of completeness, the advantage is with the convention of broadest aspect. It gives emphasis to the significant, disregards the nonessential, and leaves nothing to luck. Outlandish though it may seem until we become accustomed to it, there is no denying that the method is rational, and no escaping the conclusion that it opens up the possibility of a more considered analysis of whatever truth may be communicated by way of the visual arts.

MESOPOTAMIAN ART

The Tradition of Savagery

Two ethnic groups composed the ancient population of Mesopotamia, the Babylonians and the Assyrians. The greatest cities of the region were Babylon on the Euphrates and Nineveh on the Tigris, the latter being the Assyrian capital. These two races remained separate to an unusual degree and hated each other. The political history of the region is an account of shifting ascendancy, first one race being on top and then the other. Warfare was developed almost to its logical conclusion. The so-called Palace of Sargon at Khorsabad remains the most imposing fort ever built. It contained about 700 rooms, some of them immense, and it rose from the ground on a platform over 50 feet high, about 1,100 feet long, and about 950 wide. The exterior walls were 28 feet thick, and their continuity was broken by a sophisticated arrangement of salient towers designed to permit cross-fire from archers stationed on the battlements. The need for such a structure, and one aspect of the nature of

the people, may be inferred from the action of the Babylonians in 612 B.C. In that year they captured Nineveh, killed most of the inhabitants, and did their utmost to destroy the city. Xenophon, who passed that way in 401 B.C. as a member of the ill-fated army of Cyrus the Younger, merely noted (*Anabasis* Bk. III) the existence of a vast and totally uninhabited ruin. He estimated the circuit of the place as about twenty miles, recorded that the walls rose to a hundred feet at some places, and called the site Mespila.

These things are important because one of Mesopotamia's chief contributions to later art is a tradition of savagery. The ceremonial portraits of Mesopotamian kings present an appalling class of humanity (Fig. 2.10). Prodigious strength, described all too unmistakably by the method of broadest aspect, is vested in the person of a monarch whose face, while intelligent, is both fierce and pitiless. Reliefs with more personal and intimate subject matter have also been found in large numbers. Some of these give us vignettes into the daily life of the time, but those in which both artist and patron obviously took the greatest satisfaction are devoted to the most sanguinary kind of hunting scene. The king always seems to be in the very act of killing. Some of the animal portraits, if considered merely as demonstrations of representative skill, are rendered with a delicate hand guided by sensitive observation — an impression which is all but reversed by the cruelty of their content (Fig. 2.12).

Among the various monuments that emphasize the savage aspect of Mesopotamian character, we should make special mention of the imaginary monsters. These exist in various sizes and in the round as well as in relief. Best known, simply because they are immense and therefore conspicuous, are the five-legged beasts, half-bull and half-human, habitually set up to either side of a palace gateway (Fig. 2.11). It is from this general category, including dragons and griffins as well as fanciful combinations of more ordinary anatomy, that we get, by a vague and devious route presently to be explained (page 293), the gargoyles and other grotesques of Western medieval art.

The Matter of Artistic Style, and the Three Fundamental Styles of European Art

An even more cogent and far-reaching contribution made by Mesopotamia was the invention and perfection of the mode of artistic expression we have come to recognize as the *Style of the Near East*, often loosely and conveniently referred to as "the Oriental Style." Before attempting a definition and analysis, we must digress for a brief account of recent events in art history.

C. R. Morey's most important contribution to scholarship was contained in a short but profound article which appeared in the *Art Bulletin* (Vol. 7,

No. 2) for December 1924. At the moment, Mr. Morey was attempting to produce an explanation which would bring order out of the chaos in which he found the archaeology of the Early Middle Ages. He succeeded in that objective, but in so doing, he wrote down some of the most penetrating, fundamental, and illuminating observations that have ever been put forward by an art historian. His judicious view encompassed a broader horizon than any heretofore vouchsafed; and he saw that his immediate problem was no local and temporary mix-up. It was, rather, a single instance in the operation of the broad forces which account for the entire history of European art.

His great idea was to realize that the apparent confusion of the Western tradition in art might be explained much as we explain the history of the several spoken languages, namely, by reference to the history, operation, and amalgamation of only three fundamental styles — each of which had at one time and in its native region existed in a comparatively pure and unadulterated form. The styles Morey recognized were: the *Style of the Near East*, the *Classical Style* which originated in Greece, and the *Northern Style* which was introduced by the barbarian races who destroyed the Roman Empire.

We shall deal immediately with the Style of the Near East, and with the other two in due season. In approaching all three, it is necessary to remember that we are speaking in broad generalizations. As over against the truth of such generalizations, numerous exceptions bear no weight. The reader should neglect them. Still a hypothesis, Morey's theory has so far stood the test of nearly a generation, and when his *Medieval Art* appeared in 1942, the theory was republished virtually as first stated.

Once the main tenor of Morey's thought is accepted, it follows that every later work of art may to a large extent be explained by reference to the cross-breeding that has taken place between the elements that form its heritage. Artists, that is to say, find their personal expression through an artistic language they inherit. They do not invent the language, although a single great career may serve to modify it. They use artistic styles as naturally and unconsciously as we speak English — a native tongue which is a historical accident for each of us, and a tool we turn to our own purpose without complaining that we did not choose it.

It is necessary at this point to give a more formal definition to the word *style* than has hitherto been required. It is a mistake to use the word as a term of praise or to confuse it with passing fashion. We shall be wiser if we reserve it for cases where we discern an established artistic usage. Things that happen only once are not styles. The term becomes appropriate only when we can see a familiar set of visual facts in a familiar coordination.

What facts do we look for, and what coordination? If distinguishing between the numerous assistants who worked for Rubens and produced the paintings Rubens signed, we must deal with the minutiae which separate collaborators in the same enterprise. But in the present situation, where we are merely attempting to explain the broadest and most general kind of difference, a few coarse and obvious criteria will serve us better. In approaching this matter, the reader must remember that all styles tend to make themselves universal, tend to dictate the design of every man-made object from the cathedral to the punctuation point. At the same time, every known style has been flexible enough to permit a broad scope of individual expression.

The first way in which we can distinguish one style from another is by reference to its *favorite medium*. We cannot tell the reason, but we can nevertheless note the fact that whenever and wherever a number of artists may be thought of as a school or related group, all members share the tacit assumption that some particular art is the fundamental art. During the 19th Century, it was painting. It was architecture in Gothic France, and sculpture in Greece. Modes of expression natural and appropriate for the favorite medium invariably affect everything else, and sometimes appear in strange applications.

The stylistic psychology of any artistic school is perhaps even more intimately affected by the *aesthetic means* appropriate to its favorite medium. The sculptor thinks always of mass and contour, and the painter who imitates the sculptor will do the same thing. Draftsmen express themselves by using the line, and keep doing it when they paint. The rug-maker and the weaver are inevitably self-conscious about color and texture; if such a man becomes a sculptor, his carving will betray his background.

Subject matter is a third element to which we may refer when defining an artistic style or when contrasting it with another. History shows that the preference for one kind of subject has at times been virtually exclusive — as, for example, the Greek preoccupation with the human figure and the northern genius for the grotesque.

Fourthly and finally, we may know a style by the principles to which it habitually appeals when arranging the component parts of a painting or building into an artistic composition, as, for example, the Greek use of geometry and the dynamics of the Baroque. Once set, the same compositional system will be used innumerable times for works of art which differ radically in scale and purpose, and even in effect upon our sensibilities.

The Style of the Near East

Keeping in mind the nature of style as such, and the four bare essentials just mentioned, we may now define and characterize the Style of the Near

East which, in all essentials, originated in ancient Mesopotamia and was brought to perfection there.

Everyone knows that the Near East produces most of the world's finest rugs and carpets, and that was so during Antiquity also. Every object of Mesopotamian art bears the imprint of a mind that conceived rug-weaving as the fundamental art. Whenever men are made into statues, the Mesopotamian sculptor dwells with infinite care upon the rendering of textures in whatever garments constitute the costume. Hair and beard rarely appear as they would on the living model; the opportunity is taken, rather, to work them into patterns of the kind appropriate to a fine stuff. Fig. 2.13 shows an example in which the special taste of the artist for carpet-textures is obvious.

As to subject matter and in spite of the numerous instances during Antiquity where outright and descriptive representation takes place, the artists of the Near East preferred to use only decorative patterns of the kind still familiar on modern Persian rugs. As time went on, the preference for abstract design grew into something very close to a phobia — if we look ahead to the start of the Christian era, we shall see a Near East which abhorred the representation of humanity and found visual expression only in decorative patterns composed of motives originally derived from plants and flowers and other natural forms but so conventionalized as to make specific recognition impossible.

We have no rugs from ancient Mesopotamia, but we know just what they looked like. The stone slabs of palace pavements (Fig. 2.14) were often carved in very low relief to imitate carpets, and we have some of the slabs. Even better for our purpose are the colored tiles used as exterior finish on walls made from sun-dried brick. An unusually interesting bit of this work is preserved at Berlin; originally it decorated Nebuchadnezzar's palace at Babylon (Fig. 2.15). This single specimen is in itself a demonstration of the Oriental means of expression and of the principles used for composition, both self-evidently derivative from practices suitable for the design of textiles. The power of the textile tradition may be gauged by the very fact that an aesthetic preference of so specialized a type could be deliberately carried over into the manufacture of building materials.

The patterned tile now brought under review exists like a rug as a flat surface. There is no relief of any kind. No graded shadows suggest convexity or concavity of form. The technique is a pure case of line and flat tone; and while any skilful artist can manipulate line and flat tone in such a way that contours are suggested but not described, even that expedient was deliberately avoided. Each separate and conventionalized floral motive asserts its visual existence solely as a spot of color in contrast with the background. Contrasts

of color, or light and dark, or both together, constitute the ultimate means of aesthetic expression to which the Near Eastern artist instinctively turns.

As a whole, the work of art may be described as a succession of spots of light-on-dark, and in understanding the system according to which these are composed, two points need explanation. They are: *rhythm* and *indefinite extension*.

Rhythm depends upon the existence of accents. In music, the accented note is struck louder, more sharply, or otherwise given distinction among the rest. The rhythm of poetry depends upon the accented syllable, and the rhythm of dancing depends upon the accentuation of certain motions. But accents alone cannot produce a rhythm; the important thing is to make the accents come according to a system. The system may be utterly simple or unbelievably complex, but without a schedule for the appearance and reappearance of accents, there is no rhythm.

In the visual arts, the rhythmic sensation may be evoked in numerous ways. Undulations of drapery often produce the effect, as do the rise and fall of arches in an arcade. Human figures represented as in rhythmic motion can have a similar influence upon our sensibilities. The essential thing in talking about any particular instance of rhythm is to name the means by which accent is called into being: in the present case we are looking at a rhythm established by spots of light against a dark ground. Each spot gives the eye a kind of shock, and the shocks come at systematic intervals.

Within the field covered by our book plate, we see three different bands of spots across the surface. They differ in the shape and scale of the single motives which are brought out in accent, and they differ in the schedule that governs the arrangement of accents. The phenomenon before us is familiar in music; namely, the experience of comprehending several rhythms simultaneously.

Rhythm, in itself, has no limits. The internal logic of our detail from the brick frieze once at Babylon tells us nothing about where the frieze began or where it will end. It might be a few yards long, or extend from Babylon to Boston without self-contradiction. Conceivably, the composition might spread indefinitely in all four directions until it covered the universe. There is no necessary beginning, middle, or end; no frame and no boundaries.

But what could be better common sense if one is in the business of designing textiles? Can the weaver predict how we will cut up his bolt of cloth, or the rug-maker tell what sections of his rug we may choose to obscure with furniture? Such men are wise if, as in the present case, they restrict themselves to the compositional method studio jargon knows as the "all-over pattern," an expression meaning that every section of the area covered is quite as interesting

as every other section, and that our attention is evenly distributed all over the surface. Color, in short, is the means and rhythm is the method for producing the desired result of indefinite extension.

In assessing the value and determining the propriety of the compositional method of the Near East, we must never forget that it was invented for the design of cloth and is useful wherever a more or less indefinite area must be covered with decoration — extensive wall paintings, for example, and continuous friezes of any kind (Fig. 2.16). We must not confuse these peculiar and special advantages with artistic excellence arrived at by other methods and for different purposes. Artistic unity, which we often hear mentioned as an essential element of all aesthetic goodness, is absent by the very nature of the Near Eastern method. Unity was, in fact, exactly what they did not want. It is here, we shall find (page 64), that the Oriental mind comes most radically into contrast with the Greeks.

GREEK ART

TO 450 B. C.

OUR KNOWLEDGE OF GREEK ART—
ITS LIMITS AND ITS IMPORTANCE

Our knowledge of Greek art is more limited than we sometimes permit ourselves to suppose.

The subject has been under assiduous investigation, almost without pause, since Winckelmann published his famous *History of Ancient Art* in 1764. It is impossible to exaggerate the amount of scholarly effort expended upon digging and other forms of archaeological activity. It is similarly difficult to find words to describe in any adequate way the intelligence and the patience brought to focus on every tiniest bit of evidence; everything we possess has been worked to the limit in the hope of shedding all possible light on problems that still remain uncertain.

As a result of this prolonged effort we have assembled a substantial collection of Greek art, and we have established with something close to certainty the main outlines of its evolution. We can trace its development in orderly fashion from primitive beginnings to the so-called "Great Age" of the 5th and 4th Centuries B.C. Somewhat less neatly but still with reasonable assurance, we can explain how Greek influence spread with the conquests of Alexander and how outside influences affected Greece. Still later, it is clearly established that Rome, the political mistress of the Mediterranean world, was in her art a later derivative from Greece. Finally, we can describe in a general way how the Classical Style passed out of existence as Antiquity failed and the Middle Ages began.

With respect to monuments, we are most fortunate in the field of architecture. There are enough well-preserved temple ruins to give us a completely accurate knowledge of the best Greek religious buildings. We can also be con-



Fig. 3.1 Buffalo. Albright Art Gallery. *Cycladic Idol*. About 3000 B.C. 13½ inches high.



Fig. 3.2 Boston. Museum of Fine Arts. *Snake Goddess*. Gold & Ivory. 7 inches high.



Fig. 3.3 Reliefs from the two gold cups found at Vaphio. Originals in National Museum, Athens.



Fig. 3.4 New York. Metropolitan Museum. *Dipylon Vase*. 8th Century B.C.

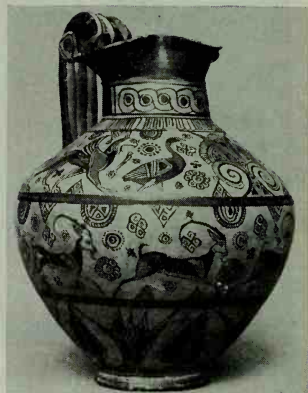
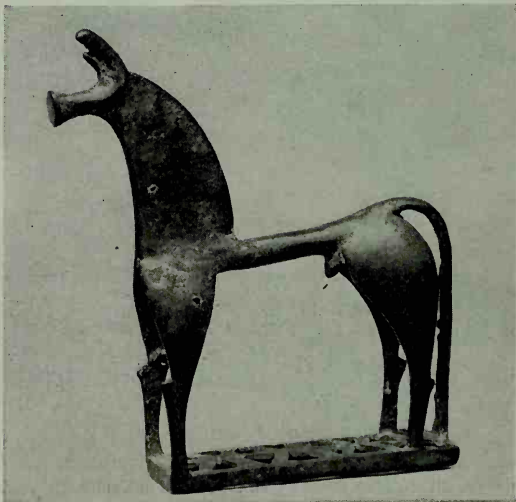


Fig. 3.6 Boston. Museum of Fine Arts. Vase from "the period of Oriental Influence." 7th Century B.C.

Fig. 3.5 New York. Metropolitan Museum. Horse. Bronze. $6\frac{5}{16}$ inches high. 8th Century B.C.





ALINARI

Fig. 3-7 Paris, Louvre. The Nikandra Statue.



ARCHIVES PHOTOGRAPHIQUES

Fig. 3-8 Paris, Louvre. *The Hera from Samos.*

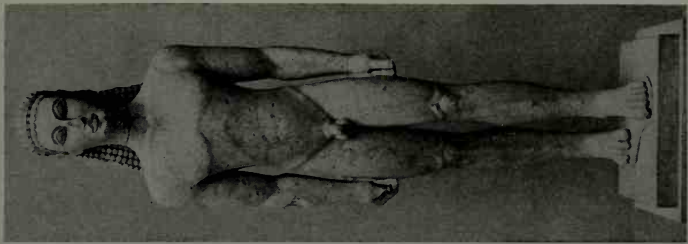
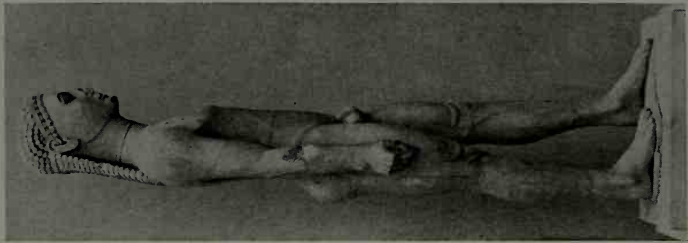
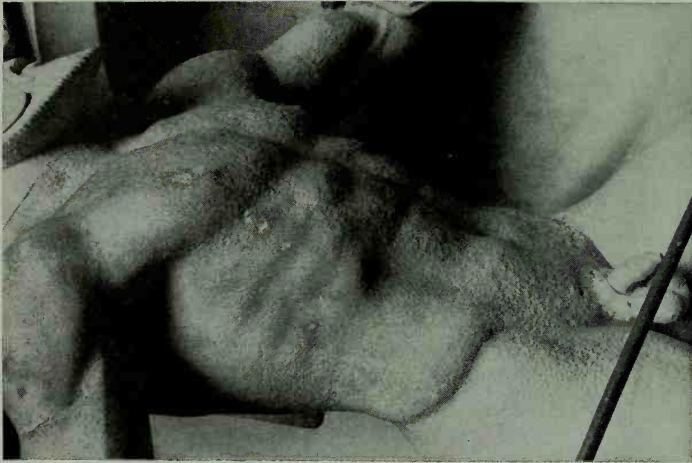


Fig. 3-9 New York, Metropolitan Museum. Statue of a young man.



ALINARI

Fig. 3.10 Athens, National Museum, Stele of Aristion. Detail.



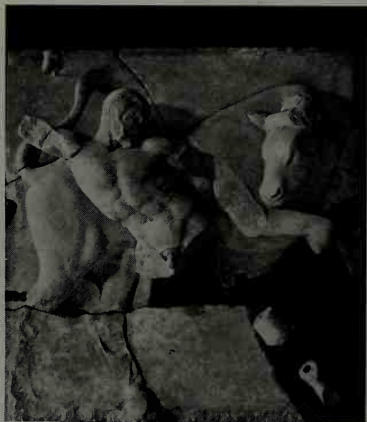
CLARENCE KENNEDY

Fig. 3.11 Torso of a warrior from the pedimental sculpture of the Temple of Aphaia at Aegina.



ANDERSON

Fig. 3.12 Rome. Terme Museum. *Birth of Aphrodite*. Central panel from the so-called "Ludovisi Throne." About 480-470 B.C.



ALINARI

Fig. 3.14 Paris. Louvre. Metope of *Heracles and the Cretan Bull* from the Temple of Zeus at Olympia. About 475-465 B.C.



ANDERSON

Fig. 3.13 One of the side panels from the "Ludovisi Throne."

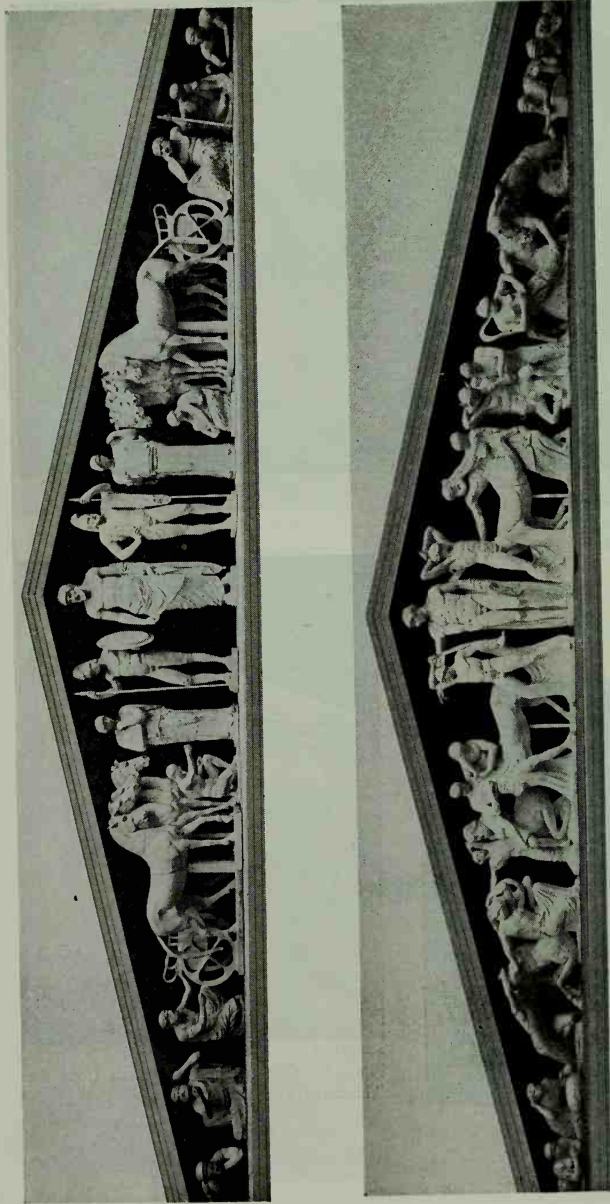


Fig. 3-15-16 The Pedimental Compositions of the Temple of Zeus at Olympia as reconstructed in the models at the Altes Museum, Berlin. From photographs by Walter Hege; retouched. Above: the moment before the chariot race between Pelops and Oenomaos (Eastern pediment). Below: the battle between the Greeks and the Centaurs (Western pediment).



ALINARI
Figs. 3.17-18-19 Delphi. Museum. *The Charioteer from Delphi.*



ALINARI

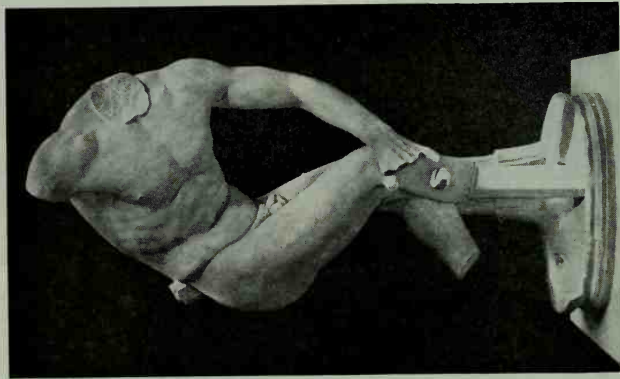


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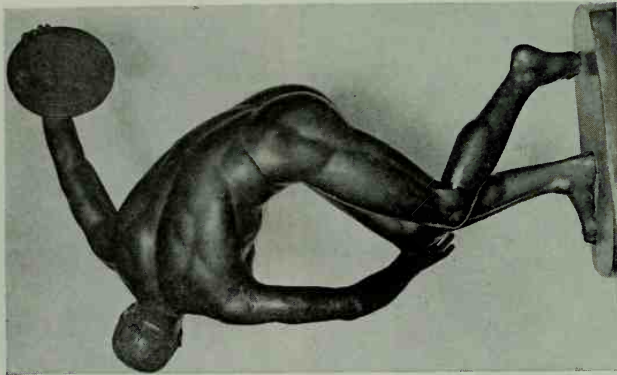
GAB. FOT. NAZ.

Fig. 3.20 Rome, Borghese Gallery (formerly in the Lancellotti Palace). *The Discobolus*. Marble, 5 feet high.



ALINARI

Fig. 3.21 Rome, Terme Museum. *The Discobolus*. Found at Castel Porziano.



STOETTNER

Fig. 3.22 *The Discobolus*. Reconstruction combining the features of several Roman copies.

fidant with regard to the Greek theatre. But we know next to nothing about any other class of Greek building.

We have an excellent collection of originals from the Archaic and Transitional Periods of Greek sculpture (about 1100-450 B.C.), and we are well off for monuments from the Hellenistic and Roman Periods (323 B.C. to about 300 A.D.). For the Great Age (about 450-325 B.C.), our monumental evidence is pitiful: we have only one putative original from the hand of a sculptor who commanded fame and prestige in ancient times. Our picture of Greek sculpture at its best, that is to say, is a mere archaeological reconstruction based upon literary evidence, analogies, and monumental evidence of the second, third, and fourth level of excellence. We nevertheless have a clear and probably a very accurate account of what happened.

We know that Greek painting was important. There is some reason to think, indeed, that the Greeks themselves ranked their painters as being greater artists, on the whole, or at least more definitive artists than their sculptors. When writing *The Poetics*, Aristotle mentioned a painter almost every time he wanted to make an analogy with the visual arts, and he hardly refers to sculpture. We may assume that the painters came most easily to mind simply because they had made a greater impression upon him.

But beyond repeating the names he mentions (Polygnotus, Zeuxis, Pauson, Dionysos) we have almost nothing to say. At times famous paintings were rather freely copied by the commercial artists employed in the decoration of Greek pottery, and we are lucky enough to have inherited a substantial number of their vases. In Greece, even those humbler artists were uncommonly fine, and Greek vase painting constitutes one of the most charming byways of art history. It would be unfair to describe it in stronger terms; and as for gaining any satisfactory visualization of the great lost paintings, many of us have studied the vase pictures without success.

In the face of this somewhat discouraging situation, it is undeniable that there is magic in Greek art. It has laid hold on the European imagination as no other art has ever done. It is always there as an influence tending to mold the shape of other modes and manners, and Greek standards are forever asserting themselves as the plane of reference to which other art should be referred.

An important and recurring phenomenon of art history is the likelihood that the Greek style in surprisingly pure form may flare up anywhere. It never completely died out in Italy, even during the Middle Ages. It strongly affected the architecture of the Romanesque cathedral at Autun, and it modified the style of the Gothic sculptors of Reims. Giotto's later compositions are according to the Greek system, and Greece is the underlying ideal of the entire High Renaissance. During the 19th Century, David, Ingres, and the other

French Neo-Classacists sought in the literal sense of the word to bring Greek art back to life — an enterprise that came close to success in the so-called Greek Revival architecture of America. We are correctly reminded of the Greek in many paintings by Picasso.

Nothing else in art history has the same importance.

HISTORICAL CONSIDERATIONS

Our Western civilization, including its artistic tradition, started with Greece, but it is necessary to make it plain what *Greece* means in this connection.

We refer to *Classical Greece*, or to the culture and civilization which achieved its special and definitive character about the time of the poet Homer, who seems to have lived in Ionia (Asia Minor) during the 9th Century B.C.

The people we call the Greeks were an amalgam of several races. So far as we can tell, the population of the area sprang from the mixture of its aborigines with the peoples who entered the region in at least three successive waves of invasion and migration, each separated from the last by an interval of centuries. The aborigines appear to have had their centers among the islands called the Cyclades which stretch like a chain southeasterly from the coast near Athens. Of these people we know nothing more than we can deduce from their art, but even that is significant.

About 3000 B.C. another civilization became dominant. It centered on the Island of Crete, with the capital at Knossos. Knossos and other sites on the island have been actively excavated from the first years of the 20th Century, and the discoveries have been analyzed from time to time in the voluminous reports of Sir Arthur Evans. The ruins of an immense palace have been laid bare at Knossos. Everything points to a civilization notable for refinement of life and justifiable pride of culture. Sea power was evidently the source of its security, for Knossos was without fortification. The Cretan civilization is referred to by various names, most of them intended to be noncommittal. Sir Arthur Evans wisely prefers to call it *Minoan*, a pretty word which has at least the endorsement of later mythology, for King Minos, proprietor of the terrible Minotaur, lived on Crete. *Minotaur* means merely "Minos's bull," and both the frescoes and carvings of this race show that the bullfight was a favorite sport.

About 1400 B.C. Crete was invaded and Knossos destroyed by fire. We are probably justified in calling the conquerors Achaeans. Their centers were on the mainland at Mycenae and Tiryns, both places being near the head of the Gulf of Argolis. These sites were excavated with astonishing success by

Heinrich Schliemann (1822-1890), who worked at Mycenae in 1876 and at Tiryns in 1884.

Schliemann's finds were rich beyond comparison. At Mycenae, he recovered 701 decorated gold discs in one grave alone. The style of the decoration of these, and of pottery and frescoes from the same era, is similar to the style of the material found on Crete, but stiffer and less accomplished. From this and other indications, most scholars draw the conclusion that the Achaeans were culturally more rude than the Minoans, but wise enough to absorb what they could of the earlier civilization.

About 1100 B.C. the Achaeans were overwhelmed by a vigorous race we call the Dorians. Their culture was strong in those elements that make for survival and dominion; they brought the use of iron with them, all earlier inhabitants having been limited to bronze. It now seems that the Dorians were less outrageously barbaric than we used to be told, but it is still obvious their taste lacked the amenities which were characteristic of both the Minoans and the Achaeans.

The history of the next 400 years is unusually obscure. The period is often called the Greek Dark Ages, but there must have been some merit in the situation because the classical Greeks emerged at the end of it. Sculpture and painting in the earliest version of the Classical Style begin about 700 B.C. The first full-size statues appear to date about 50 or 75 years after that.

It will be noted that Homer's career falls in the middle of the period just summarized. His poems are notably disparaging whenever reference is made to the culture of his own time. Our best guess is that his narratives recount actual events in the heroic Achaean past, which he saw as a bygone age of gold.

It would not serve our central purpose to take space for a connected and detailed account of Cycladic, Minoan, Achaean, and Doric art. Certain elements from this past nevertheless survived as the classical heritage, and some aspects of later Greek art are difficult to understand without reference to earlier tastes and customs. A few comments are therefore in order.

ART OF THE GREEK AREA PREVIOUS TO THE CLASSICAL ERA

The Cycladic Idols (Before 3000 B.C.)

A number of stone statuettes, all fairly consistent in style, have been recovered on the Cyclades from strata which, from other evidence, we can place before 3000 B.C. For lack of a better name, the statuettes are known as the *Cycladic Idols*. The British Museum has a number, and there are a good

many in the Louvre. A particularly fine example was acquired in 1940 for the collection of the Albright Art Gallery in Buffalo (Fig. 3.1).

The critics of past generations could see nothing but ignorance and crudity in the *Cycladic Idols*. Today we are inclined to be more respectful. *Primitive art* used to carry a strong connotation that the artist was unenlightened and knew no better, but that the speaker did. Serious and sympathetic study of earlier civilizations, or those isolated from European influence, has inclined our more recent opinion to caution. Mature reflection very often suggests that the so-called "primitive" peoples were in fact extremely sophisticated, and that their apparent crudity often denotes profound wisdom expressed with devastating directness. In the case of the *Cycladic Idols*, there is much to sustain such a view.

Those monuments testify to the existence of a school of sculptors with extraordinary powers for *abstraction*.

As a critical term for use in discussing the visual arts, we may define *abstraction* as the act of summarizing the appearance of a man, a scene, or an object, as contrasted to attempting a complete and detailed description thereof. All art is to some degree an abstraction simply because the artist's tools and materials cannot accomplish minute visual description no matter how hard he tries. But as a useful word, we had best reserve *abstraction* for monuments where the artist declines to employ all the descriptive techniques at hand, and insists upon summarizing so radically that he obviously abbreviates.

Abbreviation, by its very nature, tends to deny us something we might wish to see, but it has the virtue of enabling the artist to select the important and eliminate the extraneous. Obviously, the process can either go a little way, or so far that all resemblance to the original subject is lost. The sculptors who did the *Cycladic Idols* abstracted perhaps as much as might be possible without causing us to wonder whether human beings are represented. What is left?

The folded arms and erect pose suggest presence at some solemn ceremony. The thighs, torso, and shoulders are described only enough to tell us that the body is in excellent tone, that the muscles carry it with ease. The head is held high, and even though the face is blank except for the prominent nose, there is a plain statement of racial and family pride. The whole carriage, in fact, suggests an aristocracy and a code of manners where grace might shift instantly into arrogance. However brief his methods, it is difficult to miss the sculptor's intent.

It is an oddity that the art of the Greek area should have commenced with so extreme a style. While it is impossible to make any direct historical connections between the *Cycladic Idols* and later Greek work, it is by no means unreasonable to suggest that the artistic theory behind them formed part of the

Greek heritage and left a taste for abstraction capable of coming into the open at any time. It is notable in this connection that the great sculpture of the 5th Century, while predominantly naturalistic, nevertheless stands as a substantial simplification of natural fact which partakes strongly of the tendency to abstract.

Minoan and Mycenaean Art (About 3000 to 1100 B.C.)

In treating the human figure, Minoan art is by no means lacking in abstraction, but exhibits at the same time a direct delight in the actual appearance of people, animals, plants, flowers, fish, and seaweeds. Almost every piece is eloquent of a happy life and a pleasant relation between man and his environment. Among the notable objects from this era, we may cite the following.

A beehive tomb was excavated in 1889 at a site beside the Eurotas River about five miles south of Sparta. The place is known as Vaphio, and the objects found there were sent to the National Museum of Athens. Among them were two remarkable gold cups generally agreed to be of Cretan provenance, and doubtless imported thence and preserved on the mainland (Fig. 3.3).

Both cups are decorated with miniature compositions in high relief, executed by the *repoussé* process (i.e., the metal being worked or beaten into a mould from behind). The technique is so delicate and yet so vigorous as to belie the scale. Nothing in all art history is more thoroughly lively. One cup shows domesticated bulls enjoying themselves in a pasture. The other shows several Minoans risking life and limb to capture some wild bulls by catching them in nets. The laws of anatomy are blithely defied with consequent gain to the spirit of the occasion.

The Museum of Fine Arts in Boston has a little *Snake Goddess* of gold and ivory, also almost certainly of Minoan workmanship (Fig. 3.2). There is considerable abstraction in the body, particularly about the waist, which duplicates in conventional fashion the waist of many another Minoan figure, but both the posture and the face are eloquent of portraiture. Whoever the young lady may have been, her person and her personality remain herself, never seen before and never duplicated again. The tiny figure can be magnified almost indefinitely without loss of refinement; indeed it rather gains from a substantial increase in size, as on the lecture screen.

Minoan painting and sculpture went dead with the Achaean invasion. Objects associated with the era of Mycenae and Tiryns are obviously derivative from the style which had centered in Crete. They are not lacking in daintiness, but they have nothing like the life typical of the best production of the

period before the destruction of Knossos. We may therefore pass over such material entirely in the present narrative.

Without going into detail, it is nevertheless necessary to record that the type of building we know as the Greek temple seems to have achieved its definitive form during the Mycenaean age. A conspicuous feature of the plan of the citadel at Tiryns is the rectangular outline of a building which, during the classical era, would have been known as a *templum in antis* — the standard plan for small temples at all times, and the central element of the plan of the largest and most elaborate buildings put up in the Greek world. Because the history of all Greek architecture is summed up in the refinement of this single type of building, we may reserve discussion until we come to the time of the greatest temples of all, those put up on the Acropolis at Athens during the latter half of the 5th Century B.C.

The Geometric Style (About 1100 to 700 B.C.)

The art that came in with the Dorians is generally known as the *Geometric Style*, and its monuments consist of small bronze statuettes and pictures painted on vases. In general, these are even more radically abstracted than the *Cycladic Idols*. The curves natural to human bodies and to animals are hardened into angular shapes or reduced to circular arcs. Such shapes are connected together to suggest a man or beast as the case may be. Decorative patterns show a similar severity; for the most part they amount to the repetition of the simplest geometric forms like the chevron, the meander, the check-board, and simple stripes or hatchings.

It was extremely difficult for the earlier critics to find anything good to say about the Geometric Style except that it came to an end in the space of about 400 years. The modern student has the advantage of broader standards of comparison, and he will reason much as we have already done with respect to the *Cycladic Idols*.

The best Geometric painting is found on the so-called *Dipylon Vases*. These are some very large pieces of pottery used as grave monuments in the Dipylon Cemetery at Athens, from which they take their name. They are not made to hold water, and might be called funnels rather than vases — where we put flowers on the grave, it was the humane custom of that time to refresh the deceased by pouring wine down to him (Fig. 3.4).

If we can accept the abstraction, and it is admittedly harsh, some of the scenes on the *Dipylon Vases* are entertaining and even exciting. The funeral procession is a favorite subject, as the purpose of the vase might suggest, but other scenes often appear. Of these, naval battles form a notable category. Some of them unmistakably reflect a memory of whole fleets in combat, and

tell us that naval warfare was highly developed and that great battles took place in that now forgotten time.

None of the Geometric vase paintings have anything like the quality of the best bronzes from the same era. Of these, a notable example in almost perfect preservation is the miniature horse now in the Metropolitan Museum (Fig. 3.5). Somewhat puzzling to adults who have formed their taste solely upon representation, the merit of the little statue is attested by its great popularity among children. They are almost invariably delighted with it, and they have no difficulty in seeing that the sculptor meant to record the proud stance, the alert ears, the sensitive distension of the nostrils, and the sleek strong thighs. If they worry about the anatomy of the knees, they do not worry long: the artist merely meant to say the knee is bumpy.

The 7th Century B.C., or "The Period of Oriental Influence"

During the 7th Century B.C., Greek taste seems to have shifted away from the severity of the Geometric Style. For reasons not entirely clear, but suggested by the establishment of Greek colonies on the Nile delta and by the spread of Phoenician commerce, the Dorian population had its eyes opened to the richer and gentler art of the Near East. The entire century is sometimes referred to, therefore, as "The Period of Oriental Influence." As before, the record of such influence is found almost exclusively in vase painting.

Geometric abstraction did not entirely die out, but the typical vase of the 7th Century is decorated with rosettes, confronted birds, grotesque monsters, and various more or less natural but rather schematized animals. Human figures are very rare (Fig. 3.6).

A strange immobility marks even the most naturalistic items in this catalogue of decoration. Running figures get nowhere. Roaring dragons make no noise. Nothing happens even though action ostensibly is represented.

The reason is not far to seek. The various decorative motives taken up by the Greek workmen come directly from the tradition of the Near East, where since the world began those with artistic inclination have turned most naturally to designing carpets and other textiles. Textile designers are forced by the nature of their medium to work toward a composition characterized by an even spread of interest over the entire surface (page 27), and it follows that any bird, flower, or animal appeals to the designer not as a factor in a narrative to be told, but merely as a spot of color against the background. He therefore arranges them without much regard for dramatic content, and his primary purpose is to produce a succession of rhythmic accents.

CHRONOLOGY OF THE CLASSICAL ERA OF GREEK ART

Such was the background when the classical era began in Greece. Each element of the heritage seems to have left something of itself in the Greek genius, and the separate parts of the heredity appear alone or in recognizable combination at odd times and places: the intellectual severity of abstraction, delight in natural fact, a certain love for rich decoration.

At some indefinite time during the latter part of the obscure period we have been covering, a new element came into the artistic philosophy of Greece. There is absolutely no way to explain how or why the decision was made, but it remains one of the most important in European cultural history. The Greeks chose to adopt the human figure as the chief and virtually the exclusive subject of their artistic endeavor. From the 7th Century onward, their sculptors made practically nothing else, and their painters seem to have done much the same.

It has long been customary to recognize five periods in the evolution of Greek art during its classical phase. These coincide with significant political and social mutations; but as stylistic divisions, the separate periods correspond most closely with the development of sculpture, and only in a general way with architecture and painting. Greek sculpture therefore stands out as a peculiarly perfect case where the history of art gives a record of the contemporary state of mind.

The earliest statues of large size date somewhere this side of 650 B.C., and the period from that moment until about 500 B.C. is known by the name *Archaic*. Statues from the Archaic Period exhibit major technical faults; namely, gross anatomical errors, timid technique, obvious lack of control over facial expression.

The Persian Wars were over by 479 B.C.; and as war so often does, they stimulated the Greek mind and forced rapid development. The first half of the 5th Century B.C. is generally called the *Transitional Period*, a somewhat unfortunate term, but one which at least suggests progress. The course of the progress was always in the direction of complete technical mastery over both the medium and the subtleties of the human anatomy. Sculpture was still somewhat clumsy at the beginning of the half-century. At the end, the Greek artists had perfect control and were thenceforth limited only by the boundaries of their own imagination. A few lingering minor errors of anatomy (such as failure to overlap the eyelid, or an almost imperceptible stiffness of pose) linger to indicate a date earlier than 450.

The "Great Age," as it is called, extends from the Age of Pericles to the death of Alexander, or from about 450 B.C. to 323 B.C. The Great Age is subdivided into the *Greek Fifth Century* (450-400 B.C.) and the *Greek Fourth Century* (400-323 B.C.), and those terms are used in the special sense indicated.

The Great Age is by common consent the period of supreme and definitive accomplishment, not only in art but in philosophy, culture, and ideals. Great civic monuments are the characteristic sculpture of the Fifth Century, usually representing the major gods. The two periods are separated by the tragedy of the Peloponnesian War, from which the political genius of Greece never recovered. Work from the Fourth Century is usually on a smaller, more personal scale. Subject matter is neither so grand nor so stirring, but more gracefully presented. The whole spirit of the century is contemplative and introspective.

Alexander's conquests spread Greek influence eastward, and exposed Greece to influences from outside. The results are both inspiring and confusing. Most of the fixed conventions of Greek art went by the board in favor of variety and experiment. Some of the greatest monuments were brought into being and some of the very worst. To distinguish the age from earlier times we call it *Hellenistic* (Greek-like, or cultivating Greek ways) as contrasted to *Hellenic* (true Greek).

The kingdoms established by Alexander's heirs survived more or less independently until the Mediterranean world came under Roman dominion. The year 146 B.C., when Mummius took Corinth and erased the last claim of Greek independence, is sometimes cited as the end of the Hellenistic Period. However significant in political history, the event marks no important cultural or stylistic change. Roman art hardly exists before contact with Greece and constitutes a further development of the Hellenistic.

THE ARCHAIC PERIOD (About 650 B.C. to about 480 B.C.)

We may skip lightly over developments during the Archaic Period. Its principal contribution was to lay technical foundation for what was to come. Its sculptural output may be classified under four simple types of figures: a nondescript seated type, flying figures, and standing figures both male and female — the male being nude in most examples and the female always draped. Only the two latter categories are of general interest.

Our very earliest statue — at least most of us believe it to be so — is a draped female figure of Naxian marble, now in the Louvre (Fig. 3.7). An inscription says it was dedicated by Nikandra in honor of Artemis. The statue is

shallow and flat, a fact which some have taken to indicate earlier wooden prototypes made from heavy planks. On the whole, it seems more likely that the sculptor, as most beginners still do, merely failed to appreciate how much space he needed for the third dimension.

The Nikandra figure has two features which in all probability reflect some contact with Egyptian work: the hair is spread broadly to either side, as though in a long bob, in an effort to brace the neck against possible breakage; and the pose exhibits the familiar convention of frontality. Both of these features had been habitual in Egypt from the earliest times.

The crudity of Nikandra's dedication did not last long in Greece, and we may next turn our attention to the *Hera from Samos*, of some uncertain later date and also in the Louvre (Fig. 3.8). This statue is almost cylindrical in cross-section, a circumstance which has often been interpreted as indicating technical crudity. One sometimes hears the explanation that the primitive sculptor was translating into stone an early and inarticulate class of figure half-formed from the trunk of a tree. Because we know that naturalism was the coming thing in Greek art, it is deceptively easy to dismiss the *Hera* as an inadequate essay in that direction, but any such notion comes into contradiction with the obvious skill with which certain passages are handled. The differentiation of textures as between the silk of the skirt and the wool of the jacket is a capital instance of unmistakable suggestion without any labored attempt at complete visual description. The same may be said for the truly adequate swell of the bust and the protruding toes. In the end we find it extremely difficult to maintain the thought that ignorance of any kind may be adduced to explain what we see. It is more reasonable to recognize this grandly columnar figure as virtually the final expression of the strong tradition of abstraction in force when the Archaic Period began.

We have a great many standing male figures from the Archaic Period. It used to be customary to refer to the lot of them as "the Apollos," but since there is little reason to believe that the god was represented, the somewhat more accurate and noncommittal word *kouros* is becoming popular. It is nothing more than a transliteration of the Greek for *young man* (Fig. 3.9).

As a class, the *kouroi* suggest very strongly that the idea of large sculpture was suggested to the Greeks because such art had been popular in Egypt. As though by convention, frontality is maintained almost to the very end of the Archaic era. Another duplication of Egyptian custom is the habit of putting the left foot forward, a nonessential feature that might well have been borrowed more or less unconsciously while trying to emulate a model.

A great gulf of difference separates the crudest Greek work from the Egyptian, however. The most important change of all is the mere fact that the

Greek statues are nude. In the first instance, this custom may have started with nothing more profound than the observation that clothes get in the way when one is exercising. As a national institution, the Olympic Games appear to date from the first recorded victories of 776 B.C., a year not overly far removed from the class of statue now under review. But however simple its beginnings, the introduction of the nude figure is one of the most important events in the history of art. The simple possibility of using the entire surface of the body opened up broader horizons almost beyond measure.

The artistic worth of the human nude derives from its superiority over the draped figure as a vehicle for communicating content. The state of the emotions and even the state of the soul makes itself manifest not in the face alone, but in every muscle. When the body is concealed by cloth, the artist simply has less area to work with and greater difficulty in making himself plain.

The nude may or may not be erotic. It is an untruth to say it never is, but it is a fair statement that such intention is absent in the overwhelming majority of the many thousand nudes in the history of European art.

During the Archaic Period itself, the Greek artists did not get very far ahead with the exploitation of the nude as a vehicle for subtle or important content. Their effort seems to have been consumed in attempting to master the complex mechanics of the human body, and to gain control over pose and expression. They succeeded only indifferently well.

Almost every example of the *kouros* class is much too wide across the shoulders. Evidently, the full width of the block was assigned for the upper part of the body, with the resultant necessity of making the hips too narrow in order to have enough material for the wrists and hands. It was customary to put the ear out of place, usually too high; and to let the eyeballs protrude like marbles from the forehead. Facial expressions usually demonstrate ludicrous lack of control. If serious, they appear to be either stupid or surly; and if a smile is intended, we see the smirk of an idiot.

Toward the end of the Archaic Period, say from about 550 B.C. onward, most critics feel the presence of two divergent tendencies of style, the Dorian and the Ionic.

The Dorian is associated with the Peloponnesus where the military and athletic regimen was most rigorously cultivated. Scientific anatomy, or any honest attempt to approach toward it, is identified with this group of sculptors. Their figure-style runs to a stocky canon of proportions, a more or less cubical head, grim facial expression, and musculature that imparts a feeling of genuine force even when it is grossly incorrect in detail. The twin *kouroi* in the museum at Delphi illustrate this trend of style in an early form.

The Ionic division of Archaic sculpture was gay. It ran to fancy clothes,

elaborate coiffures, and lively faces. The male muscles are often emphasized as much as by the Dorian sculptors, but they seem merely bulky. This light-hearted style, if we may call it that, seems to have centered at Athens and coincides in date with a considerable immigration of artists from Ionia. They fled, it would seem, from the expansion of Persian power — it was in 546 that Cyrus the Great overwhelmed the Greek kingdom of Lydia, captured King Croesus, sacked Sardis, and subdued all the other Ionian cities except Miletos. To the exiled artists, generous hospital was offered by the court of Peisistratos, then tyrant at Athens.

The Ionizing sculpture of Athens during the next generation has been preserved in good quantity largely because Athens suffered disaster during the campaign of 480. In that year, the Persians, marching south from Thermopylae to their ultimate defeat at Salamis and Plataea, paused to sack and destroy the city. A great many statues stood on the Acropolis. They were all overturned, but not utterly broken. The returning Greeks did not bother to repair them; they simply buried them there. Hence we possess in remarkably fresh condition a considerable number of late Archaic monuments, mostly female figures in richly pleated costumes and with elaborately curled hair.

As a class, these female figures are called the *Acropolis Maidens*. For our purposes the Ionic tendency will be even better illustrated by a male counterpart, the grave monument known as the *Stele of Aristion* (Fig. 3.10). Dated at about 510 B.C. by the type of lettering used for its inscription, this relief shows a Greek dandy dressed to the limit in natty but abbreviated costume. The sculptor appears to have attempted to combine strength and elegance in his rendering of the arms and legs. He did not entirely fail in the latter intention.

Because sobered by its scientific bent, the Dorian tendency was capable of greater discipline and progress along the predetermined line of sculptural development. This fact is splendidly illustrated by the *Aegina Marbles*, the last important sculpture we must classify as archaic.

The figures come from the pediments of the Temple of Aphaia on the island of Aegina, south of Athens (page 83). The date of the sculpture hinges upon the style of the architecture, which is Doric just before its final perfection at Olympia and on the Acropolis of Athens. If we make the necessary allowance for a cessation of artistic progress during the period of the Persian Wars (499–479 B.C.), it seems likely that the right moment is somewhere close to 500 B.C. or a little later.

The archaeological value of the sculpture from this temple is somewhat discredited by a series of unfortunate manipulations during the 19th Century. The site was excavated by a group of young gentlemen, English and German,

who had come to Athens as students. They lacked professional qualifications; but in those easy-going times, they were able to organize an expedition, proceed to the island, and dig. They unearthed the pedimental figures, took them off, and sold them to Ludwig of Bavaria.

Before putting them on exhibition in Munich, Ludwig engaged Bertel Thorwaldsen (1770-1844), then a leader of the Neo-Classical movement (page 844 ff), to repair and refinish the statues.

Because the excavators kept no strict records, it is impossible today to be completely certain that we have each statue assigned to its proper place in the pediment, or even to the correct end of the building. Because Thorwaldsen did a substantial amount of work and was equally vague about what he had done, it is likewise impossible to be absolutely sure we are looking at surfaces carved by Greek hands. In spite of the reservations it is necessary to make, however, the figures from Aegina stand out from all other Archaic work with an unmistakably dynamic quality (Fig. 3.11). Minor inaccuracies will strike the eye of the skilled anatomist, and it must be conceded that the sculptor's drive toward expression still outruns his technical resources. At the same time, the chunky little bodies have more snap and life than anything ever seen before.

The most important single element of the achievement at Aegina is the fact that the artist depends hardly at all upon the face to carry his meaning. One of the fallen warriors may or may not express pain upon the countenance; it is possible to contend that an accident of lighting produces the effect. Otherwise the case is clear: the faces are very nearly neutral, and almost unnecessary.

THE TRANSITIONAL PERIOD (About 480 B.C. to about 450 B.C.)

The Persian Wars ended with the battle of Plataea in 479 B.C., and the Persian menace was a thing of the past. No other political or military event has anything like the same importance for the history of Europe; it may be said, indeed, that Western civilization acquired by the fact of that victory its best and most distinctive qualities.

The Persian Wars brought spiritual values into issue as no other conflict has ever done. The westward expansion of Persia was politically normal; and, within the contemporary frame of reference, ethical. The Greek decision to resist was hardly wise if judged in relation to military probability. The Persian army was the most potent force on earth. It had a record of complete success. The Greeks had no rational evidence for expecting anything but annihilation. To resist under those circumstances amounted to an assertion of the superiority of certain ideals over every other consideration including survival.

When the unbelievable happened and it emerged as fact that the Greeks

had won the war, ideals as such assumed a new and different aspect. No longer a figment of the imagination, idealism was plainly worthwhile as a basis for practical policy, and the particular ideals of the Greeks seemed obviously more potent than any others. The whole population experienced a driving sense of uplift; no danger on earth could conceivably be worse than the danger so recently faced and conquered.

Under these circumstances, it is not remarkable that the Greeks as a people found themselves looking out upon the universe from a new and more lofty plateau. Their famous tendency to judge all things in terms of man doubtless derived from the consciousness that men seemed for the moment not mere chattels of fate, but intelligent beings capable of controlling the environment. Human dignity, a concept that had scarcely existed before, entered the philosophy of Europe at this point in history — ever to remain as the chief distinction of Western culture.

The progress of Greek sculpture is perhaps our most vivid record of the general state of mind after the Persian Wars.

Returning to find their cities in ruins and their most sacred shrines desecrated and despoiled, the Greeks seem not for a moment to have looked backward. They did not pause to repair even the monuments which might easily have been put back into good order. They simply started on a program of replacing the lot with something new and incomparably better.

Technical advance went forward with incredible rapidity. In the thirty years between the Persian Wars and the middle of the 5th Century B.C., more was learned and mastered than during the past two centuries. By about 450 Greece had the most accomplished school of sculptors, and presumably of painters as well, that the world had ever seen.

The Ludovisi Throne and the Boston Reliefs

In a period of general advance along a known course of development, we are almost certainly justified in dating monuments on style. Assuming, therefore, that those exhibiting less accurate anatomy come earlier, we may begin the Transitional Period with the marble panels of relief known as the *Ludovisi Throne* (Figs. 3.12-13) and the *Boston Reliefs*.

The two are companion pieces. Each consists of three faces of relief, one large and two small. The panels now in Boston have been separated. Originally they probably were in much the same state as those of the *Ludovisi Throne*, which is a single large block of marble hollowed out on one side to form what first was taken to be a bench of some kind.

The main panel of the *Ludovisi Throne* appears to represent the birth of Aphrodite. The main panel of the Boston set seems to show Aphrodite and

Persephone with a well-grown Cupid between them holding a set of scales. Presumably there is some reference to the story of Adonis.

The four smaller panels have caused considerable puzzlement. Each of the four has a single figure: a nude boy and a nude girl playing musical instruments, an enigmatic young priestess, and an elderly woman with bobbed hair. Because these figures are presented in a curiously intimate way, they are out of character with reference to almost all other full-size Greek sculpture. Analogous figures may be found in the minor arts, however — vase painting, statuettes, and so forth. The explanation is probably something like this: that most of the sculpture we possess is ceremonial sculpture intended for public display, and that the monuments now under view are exceptional because commissioned by a private patron. Presumably there were numerous others of the same kind which have not survived.

The *Birth of Aphrodite* is the most important panel of the six. According to the myth, the Goddess was born a full-grown young woman. She emerged from the foam of the Aegean Sea and came ashore on the Isle of Cythera, just off the southeastern tip of the Peloponnesus. Apparently we see her being assisted from the water.

Anatomical inaccuracy is evident in the figure of Aphrodite. The breasts are placed too far on either side, and are seen almost in the three-quarter view. Some indication of muscular strain would be necessary for an accurate description of a neck twisted a full ninety degrees; but none is indicated. The eye is also inconsistent with the position of the head; it is insufficiently foreshortened and presents too broad an aspect.

Such matters pale into insignificance in view of the radiant look of the Goddess as she awakens to life. No praise can be too high, moreover, for the composition; it is still unexcelled.

The arrangement depends upon the interaction of directional impulses from the sides toward the middle, and from the center out toward the sides. The two attendant figures furnish the former; both must have been looking eagerly down toward the face of Aphrodite. The Goddess's arms swing in a parabolic arc outward to right and left; and the relation between middle and sides is reinforced by the folds of the sheet of drapery below, and the arms from which it hangs.

The over-all effect is to produce a situation where every part not only fits with the next, but is connected to it by some linear device. Within the composition, coherence is tight and unmistakable, and no frame is needed to declare the integrity and unity of the whole.

If we are correct in feeling that the *Ludovisi Throne* was made during the decade between 480 and 470 B.C., it is evident that a considerable and sys-

tematic study of formal composition must have taken place even before the Persian Wars. As restored, the Aegina pediments are arranged on much the same system we find here, but for the reasons stated at the time (page 50), we cannot fairly use them as evidence for the state of Greek composition.

In addition to its excellent composition, the Ludovisi *Birth of Aphrodite* is notable in any company for the subtle linear patterns it presents to the eye. Two kinds of line are used, the zigzag and the graded curve. Angles are played off against swings, and the swings themselves vary in the speed of curvature without departing into another category of curve altogether.

On the principle that the eye will follow the bony structure of any figure down through the spine and supporting leg to the ground, we may for the sake of analysis forget that human females are represented and say that the Goddess's two assistants tell abstractly as rather sharp zigzags to either side.

These angular and somewhat staccato boundaries are connected by the swing of easy curves all of which conform fairly closely to the scheme of the parabola. Aphrodite's arms describe such an arc, and the folds of the drapery below show similar arcs, each of parabolic character, but becoming tighter step by step.

By keeping to the parabolic type of curve, the sculptor furnishes us with what we may call a *linear harmony*.

Harmony, as a critical term, is best reserved in the visual arts to indicate the existence of similarity, repetition, or reminiscence. The sense of harmony may be evoked by precise duplication; or, as here, by a more subtle method involving orderly variation upon a theme already familiar. Obviously, artistic harmony is no absolute; it may be definite and emphatic, or suggested by the merest echo of what has gone before.

It is still further necessary to stipulate that an assertion that harmony is observed must in every instance be accompanied by some statement of the terms in which the harmony is expressed. In the present instance, we have a harmony of *line*. If we were dealing with red repeated here and there, or any other color, we would have a harmony of *hue*. A row of small ivory elephants would confront us with a harmony of hue plus a harmony of shape.

In architectural decoration and in the design of cloth, harmony is often built by the repetition of identical motives. White polkadots on a blue ground are a simple example, and the Doric triglyph another. In almost every instance, the idea of harmony goes hand in hand with rhythm as it does in the case of the triglyphs (page 102) or in the colors of a Persian rug.

The application of so abstract a principle to representative art usually involves the artist, as it does in the *Birth of Aphrodite*, in even greater complexity. The parabolic curves he has so carefully worked into the folds of his

drapery are not alike; they vary from comparatively flat to a tighter and more rapid curvature. The variation is not capricious, but proceeds by orderly steps. We shall find it convenient to describe such a situation as involving not only simple harmony and simple variation, but the idea of *progression* as well.

The Charioteer of Delphi

The justly famous *Charioteer of Delphi* (Fig. 3.17) is the only full-size bronze we have inherited from Greek Antiquity in anything like a good state of preservation. It probably formed part of a complete group that originally included both horses and vehicle; some fragments of the horses' legs were found with it when unearthed in 1896. The style of the statue and some words on its original pedestal seem to settle the date as close to 470 B.C.

The frontal pose seems for an instant to suggest an earlier period, but it probably reflects nothing more than the military posture assumed when receiving the prize awarded in honor of the victory commemorated by the statue. In most other respects, the anatomy is easy and accurate, and the only significant sign of archaism is seen in the hair.

Except for a few locks about the ears, the hair scarcely exists in any substantial form. Chariot racers presumably would dislike long hair, but the presence of an abstract linear pattern around the upper part of the cranium says quite plainly that the artist wants us to read the texture of hair and not a shaved head.

The explanation of this situation is to be sought in the difficulties of casting bronze. Large statues must of necessity be cast hollow; the weight and the cost of the material preclude any other expedient. As readers of Benvenuto Cellini know from his narrative of casting the *Perseus*, it is a tricky and dangerous process to turn out anything so complicated in its shape as a statue. It should also be mentioned that no industrial castings in general use today put anything like the same demands upon the skill of the men in the foundry. Inasmuch as hair involves multitudinous tiny projections and hollows, it is perhaps the most difficult part of the figure to cast successfully. Complete freedom in modeling the hair was therefore the very last technical problem to be solved, a state of fact which surely is understandable.

A further study of the *Charioteer* tends to increase the validity of our recognizing a Transitional Period in Greek sculpture. The monument gives evidence of the intense struggle for mastery over the anatomy — the chief artistic effort of the immediate past. It also predicts the future by suggesting the idealism that was presently to become an inflexible convention of the Greek style.

A number of things indicate that the sculptor was, at least in part, committed to the philosophy of objective realism. (See above, page 20.) Without

supposing that they were actually observed in the physique of the young man who posed as model, we find it extremely difficult to explain the wispy side-burns, the peculiar curve of the mouth, and the gathering of the drapery in back — the latter being in adventitious folds of a sort that might be produced by accident in tightening the ribbon that held the gown against the chest and prevented it from ballooning in the wind. The matter is clinched if we examine the feet (Fig. 3.19). Nothing of the kind was ever committed to bronze except by direct study of the living model.

The sculptor's involvement with the coming cult of idealization is manifest in the forehead and nose (Fig. 3.18).

As an artistic philosophy, *idealism* starts, as do most other theories about art, with the appearance of a human being or some other object seen in the natural world. In contrast to the realist, the idealist does not accept visual fact as his artistic law. He does not try to describe what he has observed, but from the very first tries to represent things as they might be rather than as they are.

So understood, *idealism* involves no more than *idea*. A gargoyle may be called *idealistic* in this strict and simple sense of the term, simply because it departs from natural fact in the direction of the artist's concept of the grotesque and hideous.

Most of the time, however, we find ourselves saying *idealism* with the intention of suggesting that the artist represented things not only as they might be, but also as they should be. The word in this special and somewhat colloquial sense therefore takes on overtones. It suggests beauty greater than we are likely to find on earth. It connotes lofty thoughts, and it involves us in hope and aspiration.

As a practical proposition for use in the studio, the idealistic point of view almost automatically results in a certain degree of abstraction. The artist eliminates the accidental bump or wrinkle which detracts from the beauty of a face. He does not copy the actual outline of the eyelid, but smoothes it into a graceful curve. In the act of beautifying, he also tends to simplify and to regularize. In the end, he usually has something handsomer than his model, but much less personal.

In the case of the Delphi *Charioteer*, the contour of the forehead has been simplified into a shape closely approaching a cylindrical curve. The sinuses are radically abstracted; each is an unbroken flat surface over the eye, and meets the forehead in a sharp and altogether non-natural edge.

The nose is rather long and its bridge is straight. Seen in profile, there is almost no break in the line where the nose joins the forehead. A straight-edge, that is to say, placed tangent to the bridge of the nose would also be very nearly tangent to the surface of the forehead.

It is this peculiar arrangement of the features that became popular to the exclusion of all others. Only by special exception was any other type of head used at any time between the Transitional Period and the Hellenistic age, and it has truly been said that all Greek statues look enough alike to be cousins. It is useful to have a name for so fixed a convention. We may refer to heads with this appearance as having *the classical profile*.

We must emphasize that the classical profile was invented in the studio. It is an artistic abstraction peculiarly appropriate to sculpture — an art that lends itself to expression by means of the simplified mass. The skulls found in Greek burials have no such characteristic, and when by chance such a profile actually occurs in life, it seems hardly so handsome in flesh and blood as in marble or bronze.

The Olympia Marbles

The most important architectural sculpture of the Transitional Period comes from the Temple of Zeus at Olympia. As was customary with Greek temples (see below, pages 81–86), the building itself had but one purpose: to serve as a shrine housing an important cult image, in this instance the famous seated Zeus of gold and ivory by Phidias himself. It was customary, however, to decorate so important a building with a substantial amount of sculpture designed not so much for its own sake or as an end in itself, but as a subordinate enhancement of the architecture. Both *pediments* (Figs. 3.15–16) at Olympia carried full-scale marble statuary rendered in the round and arranged in narrative compositions. The *metopes* (Fig. 3.14) were also decorated, but in high relief.

The temple must have been complete in 457 B.C., because Pausanias (V.10.4) says that a golden shield was put at the apex of the eastern pediment to commemorate the battle of Tanagra which took place that year. In view of the imposing size of the building (about 210 feet by 91 feet) we must assume as much as a decade for construction. The *Olympia Marbles* therefore date from about 465.

The temple seems to have stood intact until the 6th Century A.D., when it was thrown down by two severe earthquakes. Landslides confused the site, and the rivers Kladeos and Alpheios periodically changed course and covered the place with sand. A French expedition worked there in 1829, taking its finds to the Louvre. Much more was accomplished by the German dig between 1875 and 1881, which brought to light the pedimental figures and the remaining metopes. All of this last material remains in the museum at Olympia.

As a source of information about the Greek figure-style, the sculptures from Olympia must be appreciated for what they are. The Doric columns of the

temple stood a little more than 34 feet high, and the entablature (Fig. 4.17) must have taken up another ten feet odd. Thus, the pediments were more than 45 feet above the ground. In order to look at them comfortably, one would have to walk to a station some little distance from the temple. This being so, delicacy was hardly appropriate. Simplicity and boldness, even coarse work, was requisite in order to make the statues carry the necessary distance. The sculptors therefore carved out only the main masses. For the hair and other details, it seems certain they relied on the application of color to make the distinction between adjacent contours. Excellent for their purpose, these very features make the *Olympia Marbles* somewhat misleading as examples for close study.

It is also necessary to remember that none of the eminent sculptors of Greece could possibly have found time to work at first hand on statuary intended merely for architectural decoration. Had time been available, the matter of prestige must be reckoned with. It was the Phidian *Zeus* which shed glory on the site, not the building that contained it.

It seems likely, on the other hand, that a master of exalted standing would take care to exert supervision over the design of architectural decoration, and would then exercise general oversight as the carving proceeded. Pausanias says that Paeonius and Alkamenes were responsible respectively for the eastern and western pediments. Our stylistic evidence, such as it is, makes it likely he was wrong; but in spirit, he probably was right. The *composition* of the pediments and metopes was probably worked out by some great artist. In studying the *Olympia Marbles*, therefore, it seems wise to concentrate our attention upon the principles of their design. For such a study, they are the most perfect demonstration of Greek art we possess.

The eastern pediment from Olympia (Fig. 3.15) shows us Pelops and Oenomaös at what is apparently the moment before their celebrated chariot race.

Oenomaös was king of the southern peninsula of Greece. He had a beautiful daughter named Hippodameia, and her loveliness attracted many suitors for her hand. This, however, did not please the monarch because he had been told by an oracle that he would meet death at the hand of his son-in-law. He therefore undertook to postpone the acquisition of a son-in-law. To the successive candidates, he had formed the habit of making a sporting proposition. "I will race you for it," he would say. "If you win, you get the girl and half the kingdom. If I win, you get executed." Inasmuch as the king maintained the best stables in Greece, he experienced little trouble in deferring his daughter's marriage. Then came the hero Pelops. Realizing he could not possibly beat the king in a fair race, he bribed a groom to remove the pins that served to

hold the chariot wheels onto their axles. As Oenomaös swung into the first turn, the wheels came off, the chariot overturned, and the king broke his neck. Pelops married Hippodameia, took the entire kingdom, and gave his name to the area ever since known as the Peloponnesus.

The modern sportsman must look askance at Pelops's methods, but he was remembered among the Greeks as the heroic prototype of all victors in the Olympic games. As such, his story was specially appropriate for the Temple of Zeus around which took place the sacrificial ceremonies which were the central and most solemn feature of the Olympic festival.

In handling the subject, the designers of the pediment were subject to certain limitations. Some of these were physical, some were arbitrarily imposed by the increasingly rigid conventions of Greek art, and some represent universal and permanent artistic problems.

During the Transitional Period, Greek taste had found itself, and public opinion was sufficiently definite to govern the mode in which an artist might express himself. The most conspicuous dictate of the sort was the stipulation that subject matter must be restricted to the human figure. This convention was even narrower than it sounds because it also stipulated the kind of human figure that might be used: men and women between 25 and 35, which is to say at full maturity of mind and body and still without blemish from time's attrition. Animals were sometimes permitted if the narrative required it; but in general, no other subject matter was seriously attempted before the Hellenistic Period.

One odd result of the exclusively anthropomorphic idiom is the total elimination of setting. Landscape detail and stage properties simply are not there. We see no indication of locality, and we may describe the standard Greek setting as completely neutral if not altogether abstract.

Because narrative subject matter often demanded some statement of the place where the events happened, the Greeks ingeniously adopted the habit of personification. The two young men lolling about at the extreme corners of the eastern pediment are probably meant for the river gods Kladeos and Alpheios, the two streams that run through the town of Olympia. Like every other kind of allegory, personification can become a dangerous habit. We may entertain doubts of its adequacy in the present instance, but it is at least illustrative of the logical consistency with which the Greeks were willing to follow their ideas out to the end.

Architectural limitations may originally have suggested the idea of the neutral setting. At any rate, they made such a setting seem proper and almost natural. The pedimental space provides a shelf on which the statues may stand. Immediately behind them runs a stone wall. There is room for only one kind

of arrangement: the figures must be placed one at a time in a single row. Movement, and indeed every sort of directional impulse, must go right or left; it cannot go backward, forward, or diagonally.

It is historically very important, in this connection, to remember that the pedimental background is *impenetrable*. It does more than curtail movement. It denies the extension of space into the indefinite distance — a point that will assume considerable importance presently.

In addition to the physical restrictions within which he had to compose, and the human figure which formed his only means of expression, the Greek artist was subject also to a convention that governed his presentation of subject matter. We refer to *the unity of time*, which also may be designated as *the instantaneous mode of presentation*.

Because most readers have been brought up with this convention and accept it without thought, it is necessary to emphasize that there are several other ways of communicating visual subject matter, and that the instantaneous mode is actually arrived at not by the operation of natural law, but by conscious selection on the part of the artist. We shall address ourselves to the other modes of presentation in due time (pages 295; 327).

The unity of time, as applied to the visual arts, amounts to the tacit assumption that everything represented in a picture is taking place simultaneously, and that the action presented to the eye represents the position of every figure, the conditions of light and every other phenomenon in view, just as they were at a special instant in the past.

It follows that a long narrative can be covered only by a series of compositions, one scene to one frame, each adding but one event to the sequence.

The effect of this convention at Olympia and everywhere else it has been used is to demand that the designer choose a *point of time*, or a moment when the characters involved in the story would appear in some situation peculiarly vital to the narrative as a whole, or at least characteristic of it. Obviously much depends upon the right selection. It is a matter of artistic strategy; a mistake can hardly be corrected by any expedient of technique.

The static nature of painting and sculpture compels the artist to assume (or to hope) that the memory and imagination of the observer will function to supply all that the work of art omits. Literature and music have a certain progress in time, as do the other modes of presenting visual data, but nothing of the sort is available to the man who works under the rule now being reviewed.

Because the sculptors at Olympia could not lay in the atmosphere created by previous events or describe what happened afterward, they were fortunate in being able to feel that everybody knew the story of Pelops. Today we have

to repeat it *in extenso* or we do not get the point. It is perhaps part of our duty as beneficiaries under the artistic transaction to perform the necessary labor of research; but it is worth remarking that one attribute of the very greatest works of art is subject matter that transcends the local and temporary — a thought to which we shall often return.

In selecting his point of time, the designer of the eastern pediment, whoever he may have been, was apparently most self-conscious with respect to his medium, and much influenced thereby in his choice of the narrative moment.

Speed is the reason for chariot races; they are no good without it. But one may entertain legitimate objections to the direct description of violent movement in a medium which, like stone, is principally characterized by inertia. Marble statues rendered in the full round must be heavy. Statues, moreover, cannot move. Some of the most skilful sculptors in history have nevertheless tried to impart the impression of fast movement. It is difficult to name an instance where the result has proven entirely satisfactory — if successful in producing the illusion, the work invariably calls undue attention to the tour de force of technique called up for the special purpose of making a sensation. Many persons therefore take the extreme position of saying that because statues must forever remain static, no sculptor should attempt to represent active figures — also that the best sculpture finds its expression in terms of what can be done with motionless and almost immovable masses.

Without endorsing that view in its literal entirety, it is nevertheless evident that there is much to be said for it whenever sculpture is used to decorate buildings. The architecture being static, an element of harmony results when the statues also are still. Certainly some such consideration must have been in the mind of the artist of the eastern pediment. We therefore find him picking the moment just before the two contestants stepped into their chariots to run the race — a moment, that is, which predicts action but escapes the necessity of describing it.

Having made his decision, the sculptor was then confronted with the necessity of arranging his adult human figures within the frame of the pedimental triangle. This presents a very tricky problem. Adult human beings come in various sizes, to be sure, but there isn't much difference between the big ones and the little ones. The height of the pediment, on the other hand, shows a radical variation from central apex to corners.

The resolution of the conflict at Olympia can best be understood by reference to the example itself. The middle portion of the eastern pediment is filled by a group of five persons. They are symmetrically arranged. In the center stands a tall male figure. A nude male, slightly smaller, comes to either side; and beyond each of these males, there comes a clothed female figure. The cen-

tral statue probably represents Zeus; he is present to oversee the race about to be run off. The others are presumably Pelops and Hippodameia to one side, and Oenomäos and his queen on the other.

The arrangement produces a neat fit in the frame, and the physical fit is achieved in a manner that makes no trespass against one's sense of the plausible. Gods are probably larger than men, and men taller than women. An arrangement of one god, two men, and two women will produce an upper silhouette sloping gently downward to either side from an apex in the middle.

A similar propriety inheres in the fit between the frame and the sloping profile presented by the horses with their chariots behind them. After that, however, the resources of the designer seems to have failed him. There is nothing in the story of Pelops to account for the figures who are made to kneel in front of each team of horses, and there is a similar lack of dramatic motivation for the seated people who fill the difficult space farther on toward the corner. The river gods lying on their stomachs at the extreme ends of the composition may perhaps be explained by reference to the small responsibility and lazy habits of minor deities as a class, but their presence seems gratuitous at best.

It will be necessary to return to the eastern pediment presently in order to discuss the way unity of the whole is achieved; but since that is best illustrated by comparison, let us shift our attention to the arrangement of the western pediment.

The subject of the western pediment (Fig. 3.16) is the battle between the Lapiths (Greeks) and the centaurs. This took place at the wedding party of Perithöos. The centaurs, who were cousins of the bride, were invited for the reasons that usually apply in such cases. Like bride's cousins the world over, they took too much to drink, became intoxicated, and became an embarrassment to their hostess. In accordance with the dash of those early and vigorous times, the embarrassment took the form of an organized attempt to abduct all the bridesmaids. A terrific fight ensued, and it is at the height of the battle that the Greek designer has put his point of time.

In the center stands Apollo, a calm, assured figure. To either side of him are figures in violent action. A close look will show that they are arranged in groups of two or three, each group being balanced by its symmetrical counterpart on the opposite side of the center.

On the whole, the triangular space is filled more effectively than that of the eastern pediment. Violent combat makes any posture likely; thus there is rational causation for varying the height of the figures by making some stand, showing some halfway down, and still others flat on the floor. The subject is almost a ready-made solution for the problem of putting adult human figures into the pediment.

The coherence between adjacent figures and adjacent groups is surely more emphatic than in the eastern pediment, if not absolutely better. The fact of combat furnishes an ideological relationship between figure and figure. As though this were not enough, every motion, every glance, and every gesture directs us to look on almost immediately to the next figure or next group as the case may be.

It will also be observed that directional impulses of every kind go outward from the middle toward the ends, and inward from either corner toward the middle. The dynamics of the violent narrative are thus brought under discipline and control, and the struggling figures form a tightly knit, intensely coherent, almost aggressively unified whole. By comparison, the arrangement of the other pediment, while unified by much the same system of directional forces, seems a collection of separate statues, each an artistic integer. But both pediments, or either, serve as an emphatic demonstration of the internal logic demanded by the Greek mind, a logic so inexorable that the entire architectural enframement may be dispensed with and still we find each composition almost a universe unto itself.

Excellent though the formal design of the western pediment may be, the reader might be pardoned for harboring a lingering query about the propriety of the subject. Why select so disgraceful an episode for commemoration in the sculpture of a great temple?

The answer is suggested by the difference between the faces of the Greeks and the centaurs. The latter show a complete lack of restraint; almost every countenance is hideous with drink and lust. The Greeks, by contrast, remain calm. This is true even of the girls most violently set upon; all of them maintain a certain serenity of expression.

Obviously, the sculptor did not intend to record a drunken brawl, but to draw a moral from the contrast between the dignity of the Greeks and the bestiality of the centaurs. It was the Greek custom to read in the myths an earlier portent of recent events, and it is probably correct to assume that this particular subject was understood as a prototype for the Persian Wars in which the Greek nation, by superior virtue, had emerged victorious. So long as the Great Age lasted, it remained the fixed custom never to represent current history in the subject matter of public and ceremonial art, pediments or otherwise. Personified abstractions like *Victory* were acceptable to public taste, as were events from the far long ago and from the myths. The Greek convention inaugurated a habit of the Western imagination; we may name it *the heroic tradition*.

The heroic tradition deals with abstractions and remote events because such material is never subject to the venal pressure of contemporary issues; the more

remote, the more that is true. If the person or event is chosen as an instance of virtue or of heroism, it is easy to construe it as inspirational with respect to present conduct. Excellence suggests goodness and heroism begets gallantry. This reasoning continued to govern the major art of Antiquity until Rome passed away. It suffered a partial eclipse during the Middle Ages, only to emerge in greater force than ever as the Renaissance reached full flower. Heroic art enjoyed still another period of popularity during the earlier half of the 19th Century, when it was revived in an effort to celebrate the advent of democratic government in France and America. No concept is more important in art history, and none has been a more cogent mother of genius: it is to this idea that we owe the very few works of art which in fact arrive at the epic level.

Still more needs to be said about the serene countenance as such. Announced, as it were, at Olympia, it became still another convention governing Greek art, and lasted until the Hellenistic Period. Such faces are far from expressionless. In fact, they are highly provocative, but it is difficult to find verbal equivalents for what they tell us. We shall not be far wrong, however, if we take it as the Greek intention to express an aloofness from environment, even a superiority to it — much the same intention that dictated the neutral setting for the pedimental composition as a whole, and indicative of a desire to rise above the particular and incidental toward the kind of truth that is contained in universal principles. These ideas received philosophical expression in Socrates and Plato, but it would appear from the indications of art that they existed in the Greek mind at this comparatively early date.

The metopes of the Temple of Zeus at Olympia were devoted to the labors of Heracles. Some are preserved only in fragments; but the most stirring one of all, *Heracles Taming the Cretan Bull*, is fortunately almost complete in all its vital parts (Fig. 3.14).

The metopes are a subdivision of the frieze of a temple of the Doric Order (see below, Figs. 4.17, 20-21), and each metope stands between two triglyphs. Because the latter are working members of the fabric, carrying the weight of the roof, all action must be confined within the boundaries delimited by the frame if we are to avoid an apparent threat to the stability of the building. At the same time, violent movement is specially desirable even within so confined a space because the architecture is heavy and static, and needs to be relieved by an element of contrast.

The design of this metope could scarcely be improved upon for the purpose. Heracles yanks one way. The bull pulls the other way. For the moment, the two figures are at a standstill, the momentum of one canceling out the opposite

movement of the other. Action was taking place an instant back. Movement will commence an instant hence. But at the precise point of time chosen, there is equilibrium, and no residual forces are left over to endanger the integrity of the frame.

The scheme used here became still another convention of Greek art. It was almost invariably employed whenever strong movement needed to be represented in major sculpture. The theory involved is merely to pick a point of time when the direction of the motion is about to reverse itself. At such a point in the sequence of any action, there is in fact an instant when things come to a complete stop. For the reasons stated elsewhere (page 61), such an instant gives a pose peculiarly appropriate to full-size sculpture in a ponderous medium, but it is also important to note that no sacrifice of expression is involved. Because the eye sees active figures most plainly at just those brief moments when motion is turned back upon itself, the memory becomes involved. We recall as characteristic of the action itself the poses of the body we saw most clearly.

Over and above its other virtues, the metope of *Heracles and the Bull* furnishes us with a capital example of an interior arrangement in subtle harmony with the shape of its frame.

In this instance, the frame is very nearly a square. The lines defining the circumference come to mind first, whenever a square is mentioned, as being characteristic of the shape. But in thinking of any rectangle whatever, thought of the circumference is promptly followed by consideration of the diagonals. By placing both Heracles and the bull in positions that correspond approximately with the run of the diagonals, the designer has given us what amounts to the theme of the frame expressed in its first variation.

The Organic Theory of Artistic Composition

The system developed by the Greeks for arranging figures in a pediment is merely an extension of the method used for simpler compositions like the *Birth of Aphrodite* from the *Ludovisi Throne*. There is every reason to believe that this very same system reflects precisely the Greek point of view toward artistic compositions of every kind. It is no accident that the matter was eventually set down in writing, and thus we find it pretty well summed up by Aristotle, who did his work approximately a hundred years after the Transitional Period of Greek sculpture.

In the *Nichomachean Ethics* (II.6), we find him dropping a passing remark, as though everyone knew it, that in a good work of art "it is not possible either to take away anything or to add anything." And in the *Poetics* (23), he comes out for "a single action, one that is a complete whole in itself with a

beginning, middle, and end, so as to enable the work to produce its proper pleasure with all the organic unity of a living creature."

Although he happened to be dealing with poetry and drama at the time, Aristotle might equally well have been referring to the pediments of the Parthenon or those of Olympia. His last allusion springs in part, doubtless, from the circumstance that he was a doctor's son and himself a formidable biologist, but he would never have put the idea forward so easily and confidently had he suspected any one might disagree. Obviously, he had heard it bruited about everywhere that there was an analogy between the structure of an artistic composition and the anatomy of a living thing. By putting the idea so succinctly into words, he succeeded in crystallizing one of the important aesthetic theories. We may call it *the organic theory of composition*.

Nothing is more completely characteristic of the Greek mind. *Organic composition* is, in fact, the most cogent and far-reaching contribution of the Greeks to the future history of art. No other theory of composition had any show in the Mediterranean world until northern and Near Eastern influences intruded as Rome declined. The Greek system of composing was revived by Giotto in the early 14th Century, was dropped again only to be taken up by Leonardo about 1475. In general, it has been the dominant idea of artistic composition ever since. Something very like it, moreover, constitutes the essence of the structural aesthetic which is today the most popular rationale for Gothic architecture.

Certain writers have rather recently formed the habit of using the adjective *architectural* as a term of praise designating a composition in painting or sculpture distinguished by clarity and logical arrangement. They would use that word where we have used *organic*, and there is merit in their idea to the extent that the process of composing involves the painter or sculptor in "building up" his arrangement of figures. *Architectural* in so esoteric a sense has proven, however, a very confusing term. It attributes a false glory to architecture, an art often very badly practiced. The analogy, moreover, between a building and a painting, while perhaps clear enough to the scholar, is likely to impress the layman as unusually farfetched.

THE GREAT SCULPTORS OF GREECE

Six sculptors were celebrated during Antiquity as the very greatest who ever practiced the art. They were: Myron, Phidias, Polycleitos, Praxiteles, Scopas, and Lysippos. Myron's career falls within the limits of the Transitional Period, and the others proceed in the order named until the time of Alexander the Great, for whom Lysippos seems to have been court sculptor.

Time and luck have been devastatingly hard on these famous men. We have nothing whatever from their hands with the possible exception of the *Hermes* of Praxiteles, and even that is suspect in responsible quarters. Scholars have nevertheless expended an incredible amount of ingenuity trying to form some idea of their art. Every resource of historical detection has been exhausted. Over and above direct excavation (which yet may yield epoch-making finds), we have been compelled to rely upon two main sources of information known respectively as *the monumental evidence* and *the literary evidence*. Neither source is in the least satisfactory, but there is nowhere else to turn.

The literary evidence is the testimony of ancient literature. Acting on the assumption that writers who lived before the fall of Rome would in the normal course of life become reasonably well-informed about Greek art, scholars have searched every sentence of every known Greek and Latin text. Every statement about art and every allusion to it has been noted out, and its meaning pondered.

From the literary evidence, we have been able to assemble a fragmentary list of the bare names of the statues that once existed, with assignment of each to its author. In many instances, we possess sufficient descriptive material to be able to identify the statues, or copies of them, should they ever be found.

The ideal monumental evidence, of course, would be an original statue of known authorship. In the absence of that, we are compelled to make the best of anything that may in some way or other reflect its appearance. Because the ancients, like ourselves, reproduced famous monuments on coins, in vase painting, or made small models of them for sale as souvenirs, we can sometimes form a surprisingly satisfactory notion of an otherwise lost masterpiece.

Our corpus of monumental evidence is immensely increased because full-size reproductions of famous Greek statues were long in demand on the Roman market. The more famous the statue, the more likely it was to be copied, and in a few instances we possess a really substantial number of copies after the same Greek masterpiece. By judicious interpretation of these, we can get closer to the original than might otherwise be possible.

MYRON

The period of Myron's activity is closely fixed by unusually reliable evidence. In 446 B.C., his son signed the pedestal of a statue at the entrance to the Propylaeum at Athens. The inscription is preserved, but the statue is gone. The son must have had a considerable reputation to have enjoyed so important a commission; presumably he was 35 years old at least. In round numbers, al-

most any father will be thirty years older than his son; and thus Myron would have been 65 in 446 B.C., and approaching the end of his active career.

The literary sources tell us he was notable as a sculptor of athletes in action and as a sculptor of animals. The latter specialty was presently destined to be squeezed almost out of respectability by the increasing tendency of Greek taste to insist upon expression exclusively in terms of the human figure, but Myron's *Cow* was nevertheless the most popular statue at Athens. Bulls made love to that celebrated bronze beast, calves tried to suckle, and lions tried to eat it up. Or at least so it is said. Whatever else we may conclude, it is evident that technical difficulties were completely under control by the date of Myron's maturity.

Myron's famous statues are impossible of visual recovery on the basis of any evidence we now have, but for his *Discobolos*, a minor work, we are more fortunate. In the eighteenth chapter of the *Philopseudes*, Lucian (2nd Century A.D.) makes one of his characters say he saw the statue in the entrance hall of the home of "Euclates the Magnificent." The *Philopseudes* ("The Lover of Lies") is one of Lucian's satirical dialogues, but his allusion to Euclates' collection of statuary has nothing to do with the satire — the citation is there simply to give an impression of the atmosphere of the great house. As translated by A. M. Harmon, the passage reads:

"Statue," said I, "what do you mean?"

"Have you not observed on coming in," said he, "a very fine statue set up in the hall, the work of Demetrius the maker of portrait statues?"

"Do you mean the discus thrower," said I, "the one bent over in the position of the throw, with his head turned back toward the hand that holds the discus, with one leg slightly bent, looking as if he would spring up all at once with the cast?"

"Not that one," said he, "for that is one of Myron's works, the discus thrower you speak of. Neither do I mean the one beside it, the one binding his head with the fillet, the handsome lad, for that is Polycleitos' work. Never mind those to the right as you come in, among which stand the tyrant-slayers modeled by Critias and Nesiotos; but if you noticed one beside the fountain, pot-bellied, bald on the forehead, half bared by the hang of his coat, with some of the hairs of his beard wind-blown, that is the one I mean; he is thought to be Pellichus, the Corinthian general."

It will be seen that Lucian, in this single passage, gives us data about several important statues. We have recognized in Roman copies the *Tyrannicides* of which he speaks, also the *Diadumenos* of Polycleitos, a statue with which we shall presently be concerned. As for the *Discobolos* of Myron, Lucian's description is sufficiently circumstantial to make confusion with any other statue unlikely. More than that, his attribution to Myron is unusually reliable for two important reasons: Lucian lived at Athens where such information was most

likely to be available, and he himself had been trained as a sculptor. We rarely get literary evidence from a man who was in the right place to know, and who also had the professional qualifications entitling him to an opinion.

According to the most recent list (prepared at Rome for inclusion in the catalogue of the *Second National Exhibition of Works of Art Recovered from Germany*) there are no less than seven full-size statues which were certainly made and sold as copies of the *Discobolos*. In addition, there are six statuettes, four separate heads, two hands, one arm, and one leg. Over and above those 21 items, we can recognize reflections of the statue on engraved gems.

These copies violate the description in matters of detail only. The British Museum *Discobolos* and that in the Vatican now carry heads of a later date wrongly attached to make the athlete look away from the discus, not toward it. An otherwise interesting statuette in Munich is compositionally correct, but shows an attempt to bring Myron up to date by using the softer modeling of a later era. An inspection of the various copies will also reveal substantial differences in quality, doubtless reflecting the standards of the shops from which they came and the price the patron was prepared to pay. Such being the case, it is probably fair to assume that the most subtle and sensitive work is closest to the master so long as we are careful to accept nothing out of line with going custom at the time of Myron's career.

A damaged marble torso found on the shore near Castel Porziano, near Ostia, and now in the Museo delle Terme at Rome, is substantially finer than any of the others (Fig. 3.21). The only copy that preserves the head in its proper position is the one formerly in the Lancellotti Palace and now in the Borghese Gallery (Fig. 3.20). By applying the Lancellotti head to the Castel Porziano torso and fitting the latter out with arms and legs, it is obvious we would be fetching closer to the original than before.

But still another step in reconstruction is necessary before we have done the best we can. Like all other marble copies after bronze originals, the Castel Porziano *Discobolos* carries the unpleasant addition of a tree stump intended to reinforce, in this brittle material, the dangerous fragility of the legs. If we eliminate the tree stump and paint the cast with bronze, we arrive at something like Fig. 3.22, which is as close as we can get to Myron.

It is rare that the work of archaeological detection proceeds in so orderly a fashion to arrive at a positive result. The very neatness with which we have solved our problem is deceptive. It lures us on to the notion we have actually rediscovered Myron himself, but the fact is we have not recovered the work of Myron at all. We merely have a Roman copy thereof which if compared with an original from the hand, say, of Donatello or Michaelangelo, will infallibly impress us as inferior. We do not begin to know Myron, in short, unless

we can supply from our knowledge and imagination the snap and life which has escaped the copyist.

Having stated that most necessary word of caution, we need not despond: our composite Roman copy of the *Discobolos* surely preserves much of Myron, and we can form a much better idea of his work than we might get of Jefferson's, for example, from the reflection of Monticello on our five-cent piece.

In the matter of technique, the only remaining hint of archaism is in the hair, which is still kept close to the skull. Otherwise, it is abundantly plain that anatomy is completely at the artist's disposal. By using so complex and difficult a pose, he seems in fact almost to parade his accomplishment; and the same may be said for the modeling of the muscles, which are rendered with hard, clean detail as though the master were still conscious of how recently such a performance had become possible. From all of this, and still allowing for the fact that our visual evidence forbids subtle reasoning about matters of surface quality, we may conclude that Myron's style was direct, chaste, and that its appeal came through the beauty of line and contour as contrasted to delicacy of texture and refinements of facial expression.

For analysis of composition, our evidence admits of definite conclusions. All the copies are almost exactly alike with respect to the pose, and are probably very reliable reproductions of Myron's arrangement in all essential particulars. They make it possible to say flatly that the world has never seen a better man when it comes to the manipulation of the single figure.

Very few statues are designed to have an omnifacial composition; and although the *Discobolos* holds up well from almost any angle of view, the effect is best from a station almost directly in front with the eye high enough to see the figure approximately as it appears in Fig. 3.21.

In accordance with the over-all Greek theory that the work of art must be complete in itself, Myron has been at pains to declare an enframing even though none exists in physical fact. By making the eye run around the curve of the two arms, he starts it off on an elliptical path, sufficient momentum being accumulated in the process to make it a certainty that we will follow the figure around through space and complete the oval where it would join the farther hand. One of the troubles with the falsely restored copies in London and at the Vatican is the breaking of the suggested ellipse by putting on a head that stares outward and thus destroys the flow of the curve. The original head, on the other hand, tends to reinforce the integrity of the boundary by keeping severely within it.

Having guaranteed the unity of the composition by establishing the concept of an enclosing curve, Myron then runs the body across the oval figure with a strong zigzag movement, and pierces the zigzag, as it were, with the

intense straight line suggested by the glance of the eye. Simple enough in principle, the resulting contrast is inexpressibly bold and subtle in execution. There has never been a better artistic demonstration of the famous Greek maxim of neither too much nor too little. After 2,400 years of further experiment with the human figure the *Discobolos* — which we know only at an archaeological remove — must still be listed as one of the greatest statues of all time.

ARCHITECTURE

The entire history of architecture is the history of the human mind. It is a record of the struggle for the better, for the more beautiful, for the more useful. It is a record of the human mind's effort to create a world of its own, a world that is more in harmony with the human spirit than the world of nature. It is a record of the human mind's effort to create a world that is more in harmony with the human spirit than the world of nature. It is a record of the human mind's effort to create a world that is more in harmony with the human spirit than the world of nature.

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GREEK

ARCHITECTURE

The entire history of architecture has been influenced by the Greek style. The Greeks lavished almost 100 percent of their architectural thought upon the temple. They needed houses and public buildings, of course; but none of those were designed to endure. Our knowledge of civil and domestic architecture is therefore limited to what we can infer from evidence that is altogether inadequate; general conclusions of any kind are inappropriate. But the reverse is true of the temple. Its plan and columnar character were established as early as 1600 B.C., if we are correct in our reading of the data unearthed at Tiryns. In the useful list of monuments published as an appendix to his *Greek and Roman Architecture*, Mr. D. S. Robertson names no fewer than 133 temple ruins dating from the 10th Century B.C. onward to about the year 150 A.D. It is rare to find any single class of monument represented by so many examples, all of which support the flat statement that the Greek temple stands as one of the finest achievements of the race in any field of endeavor, physical or otherwise.

The fundamental form of the temple seems to have given satisfaction from the very beginning. Its long history is merely an account of increasing refinement. By common consent, the best and most typical temples were those built at Athens during the second half of the Fifth Century B.C. By concentrating our attention upon those alone, we can learn almost all there is to know about Greek architecture.

The Acropolis at Athens

The Persian Wars came to an end in 479 B.C., and the Athenians returned to find their city in ruins. Their first efforts were naturally devoted to housing and to military architecture, also to political matters such as the organization

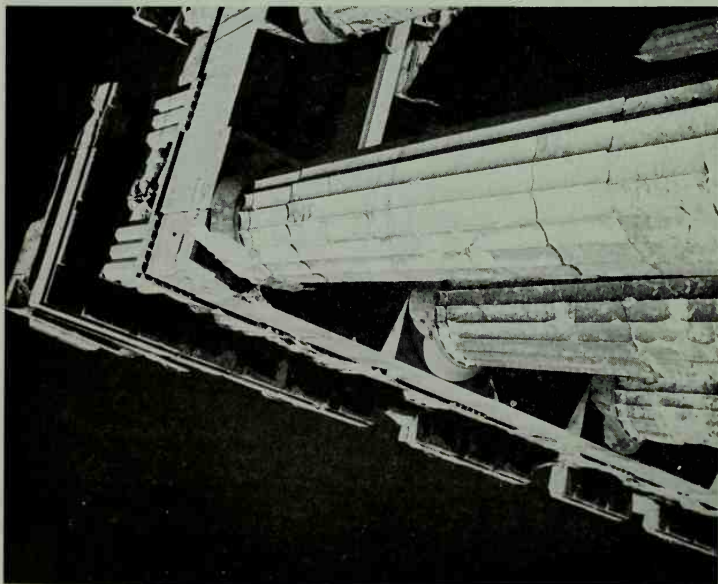


HERMAN WAGNER



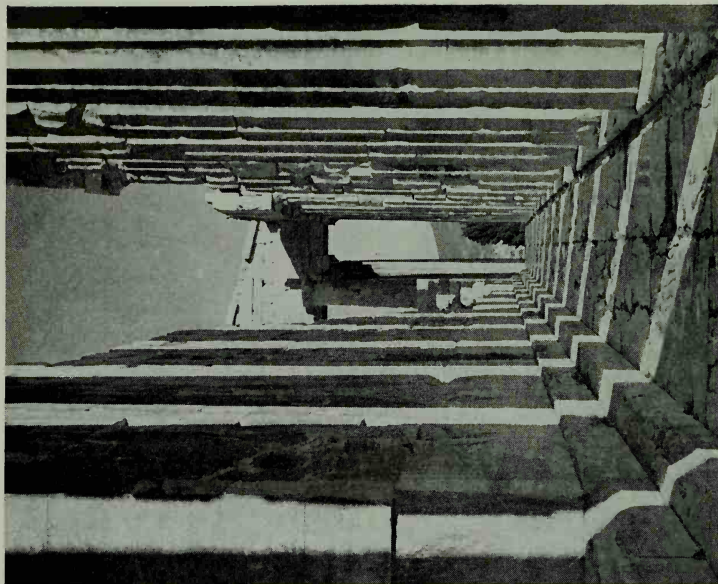
HERMAN WAGNER

Figs. 4.1-2 Athens. The Parthenon. 447-432 B.C. Approximately 228 by 104 feet. Columns 34 feet high.



S. S. WEINBERG

Fig. 4.3 Athens. The Parthenon. Southwest corner.



S. S. WEINBERG

Fig. 4.4 Athens. The Parthenon. View in the ambulatory.



WALTER HEGE

Fig. 4.5 Athens. The Parthenon. View at the west end, showing a portion of the inner frieze.



Figs. 4.6-7 Paris. Bibliothèque Nationale. The western pediment of the Parthenon as recorded in the "Carrey drawings" made in 1674.

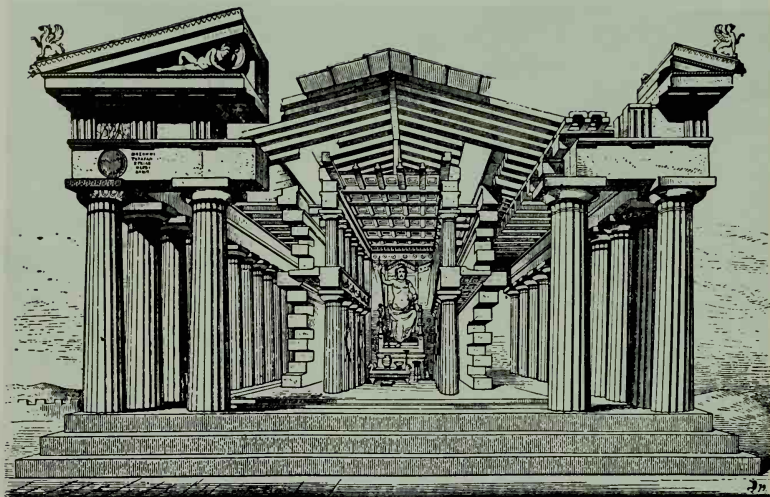


Fig. 4.8 Schematic drawing of a typical Greek temple of the Doric Order, showing the cult statue in place.



ALINARI

Fig. 4.9 Athens. Temple of Athena Nike.

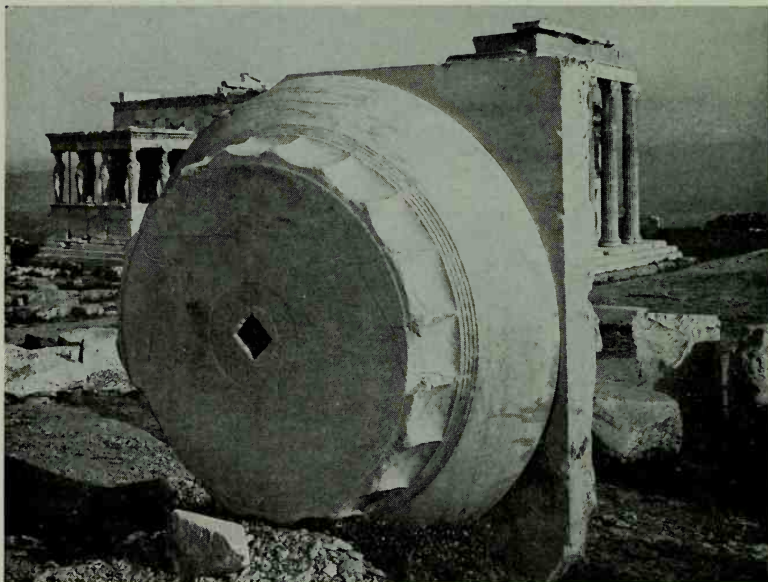


CLARENCE KENNEDY



WALTER HEGE

Figs. 4.10-11 Athens.
The Erechtheum.
Above: View from the south
Left: The "Honeysuckle
Band." Detail.



WALTER HEGE

Fig. 4.12 Athens. Acropolis. A Doric capital from the Parthenon.



WALTER HEGE

Fig. 4.13 Athens. Propylaeum. Ionic capital of the passageway.



ALINARI

Fig. 4.14 Athens. National Museum. Corinthian capital from the Tholos at Epidauros.

of the Delian League, an alliance intended to make further aggression impossible. Activities of this kind took the better part of a generation.

In 461 B.C., Pericles emerged as the civic leader of Athens. He held power until his death in 429. After devoting some time to other affairs, he turned his immense abilities to the cultural development of the city, with such brilliant success that the entire era is often and correctly referred to as the Age of Pericles. The principal artistic enterprise undertaken by him was the embellishment of the Acropolis with four new buildings, to replace those destroyed when the Persians occupied the town.

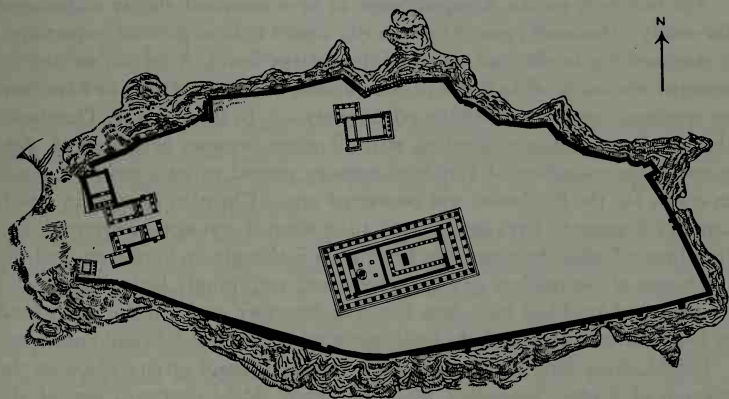


Fig. 4.15 Athens. The Acropolis. Plan.

The Acropolis (Fig. 4.15) is a hill rising abruptly from the land around it. Its rocky sides are almost vertical, and access is convenient only at the west end. The place has been fortified since time immemorial, and at the period of which we speak, the top had long ago been leveled off to a more or less even surface about 1,000 feet long by about 500 feet at its widest point. Upon the site thus prepared, Pericles caused four notable buildings to be put up: the *Parthenon* (447-438; lower center), the *Propylaeum* (437-432; upper left), the *Temple of Athena Nike* (during the 430's; extreme lower left), and the *Erechtheum* (begun at an uncertain date after 438, finished about 404; upper center). The Parthenon is the only one of the four which might be described as large, and a total of four buildings is a short list. Periclean architecture nevertheless holds its place unchallenged. The reason is quality.

The man personally responsible for the excellence of the work was Pericles's friend Phidias. His reputation had been made as a sculptor; it was for his

Athena Parthenos that the Parthenon was built. But as general superintendent or *master of the works*, as he might have been called at a later period, Phidias made a contribution that is unique. Artists of the first rank must have assembled at Athens by the score. Over this assembly of creative persons, unparalleled in world history, Phidias appears to have been able to exert a certain organizing force that was more like inspiration than direction. Every man seems to have outdone himself, and every detail of the vast project finds a common denominator in the Phidian dignity.

The buildings on the Acropolis seem to have remained almost undamaged for nearly a thousand years. After the city ceased to have political importance, it remained the intellectual center of the ancient world. A certain amount of material was taken off to Rome in Nero's time, but there appears to have been no systematic spoliation until the 5th Century A.D. In the year 426, Theodosius the 2nd issued a decree directing that all pagan temples be destroyed. Apparently the soundness of Periclean masonry proved entirely too hard a nut to crack, for the Parthenon was converted into a Christian church, in which capacity it seems to have served until 1460 when it was again converted, this time into a Turkish mosque. The Erectheum is thought to have been used for the harem of the resident governor. Even yet, surprisingly little damage of a fundamental kind had been done to the architecture, and had the worst kind of bad luck not intervened, the buildings would be in splendid condition today.

Indeed, everything survived almost intact until about seven o'clock on the evening of Friday, September 26, 1687, when in the course of one of the perennial minor wars between the Venetians and the Turks, an artillery lieutenant succeeded in dropping an explosive shell square in the middle of the Parthenon. The Turks had stored their powder there, and the entire middle portion of the temple was blown to pieces in an instant. Of an inferior building, it is probable nothing whatever would be left today.

Fortunately and by the merest chance, the Marquis de Nointel had visited the city in 1674, and was interested enough in the Parthenon to set his hack artist to work making the so-called "Carrey drawings" preserved today in the Bibliothèque Nationale (Figs. 4.6-7). These insensitive sketches constitute our only pictorial record of the building as it stood before the explosion, and our only other pictorial record of any kind is contained in *The Antiquities of Athens*, published in London in 1760 by James Stuart and Nicholas Revett and containing a number of quaint views of the stately classical ruins emerging through and above a hodgepodge of nondescript medieval building, domestic and otherwise. Unbelievable though it seems to the modern reader, Stuart and Revett's book had great value as news when it appeared. Athens had all but

passed out of the Western memory; people were startled to know that important monuments were still there, visible to the naked eye.

It was in 1801 that Lord Elgin succeeded in removing to London most of the remaining sculptures of the Parthenon; they are visible today in the British Museum. But even yet, Greek work was hardly available for study. Photographs dating from the 1890's show the Acropolis still invested with third-rate works of medieval military engineering. Only for a very few years has it been possible to see the buildings in proper fashion, or to publish good plates like those which accompany the present chapter.

THE GREEK TEMPLE AS AN ARCHITECTURAL TYPE

The excellence of the Greek temple has so often been celebrated that an effort is required to take a balanced view of the whole subject of Greek architecture. We must attempt to see the building as it is, for what it is, and certainly as no more or less than it is.

The Greek temple is a distinct form or genus in the history of architecture. It illustrates both the strength and the weakness of specialization; it is an extreme type. In order to appreciate what this means, we must understand the purpose for which the building was built. Nothing could be more simple, more direct. The temple was designed to house a single large religious statue (Fig. 4.8). It had no other function. There was no demand, as there is in a Christian church, for a large auditorium where several hundred persons might meet. There was no need to divide the enclosed space into a series of special rooms devoted to one or another of the particular purposes essential to the modern concept of efficiency. If the interior provided a single room (called the *cella*) large enough to house and display the cult statue, the Greeks were satisfied. The most elaborate and expensive temples add to this only one other room, usually called a *treasury* and presumably devoted to the storage of paraphernalia.

One can hardly exaggerate the degree to which this extreme elimination simplified the designer's problems. It was possible for him to avoid hundreds of compromises, each in itself a minor artistic disappointment, and he was saved the vexation of difficult engineering.

Seen in ground plan (Fig. 4.16) the Greek temple is a simple oblong. There was considerable experimentation with the proportions of this oblong. The evolution ran from a comparatively long and narrow shape to the proportion used for the Parthenon, this being not far from the ratio of four-to-nine.

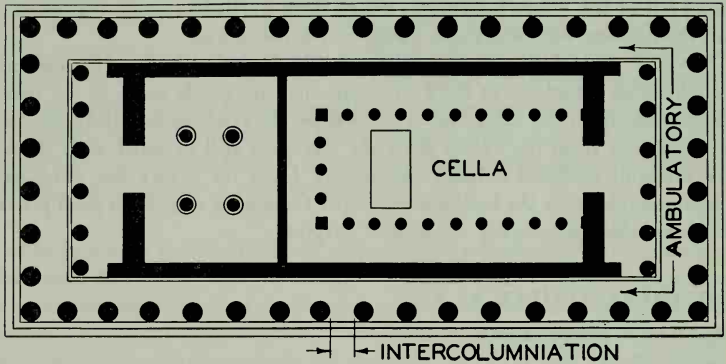


Fig. 4.16 Athens. The Parthenon. Plan.

The increased width was probably suggested by a desire to gain space for the better display of the statue.

Seen in elevation (Fig. 4.17), the Greek temple rises from a low and horizontal platform which serves as a base or pedestal. Traditionally, the platform is made up of three shallow steps; and the top step is known as the *stylobate*. Occasionally, we shall find it convenient to extend the meaning of stylobate to suggest the entire upper surface of the platform. It should be noted, also, that the custom of using three steps had to do with the Greek theory of proportion, not with utility. On a large temple, the risers would be too high for

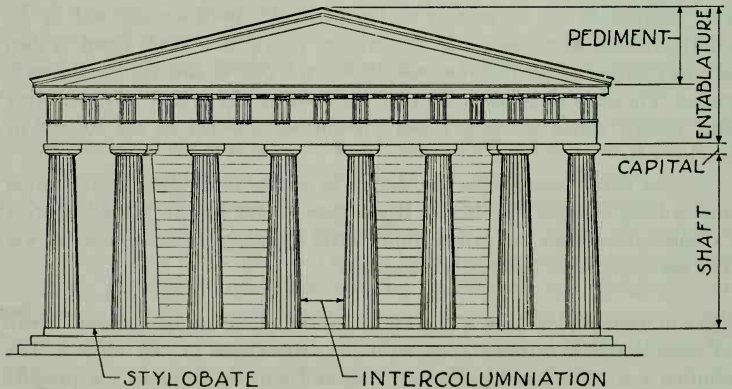


Fig. 4.17 Façade of a typical Greek temple of the Doric Order.

practical purposes, and a set of smaller steps had to be supplied to let people enter.

Around the outer edge of the stylobate there runs a range of free-standing columns known as the *peristyle*.

Between the peristyle and the cella wall, there is an open passageway known as the *ambulatory* (Fig. 4.4).

Figs. 4.1-2 give a good idea of the temple as it appears in three-dimensional actuality. They show that the general shape of the building is defined by the conjunction of two simple geometric solids. The body of the temple is a rectangular oblong solid, and the roof is a solid with triangular cross-section. Fig. 4.18 is an attempt to summarize this situation visually.

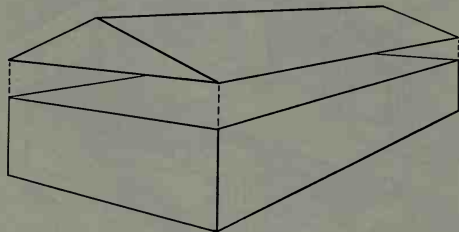


Fig. 4.18 Schematic drawing to demonstrate the shape of a Greek temple.

The appearance of the roof as shown by Fig. 4.18 was doubtless complicated in some instances by the installation of skylights; but the general shape (as indicated by representations on coins) remained that of the single, simple triangular form, with the ridge running strictly horizontally.

As seen from either narrow end, or *façade*, the roof makes a triangular gable. The Greek gable is a distinct type in architectural history; we separate it from all others by the special name *pediment*. The most important feature of the pediment is the obtuse angle at the ridge pole. In good Greek work, this ordinarily is on the order of 150° , but in many modern adaptations, a more acute intersection is employed — usually because the Greek temple-front is being applied to a block of utilitarian building out behind, and more height is desirable. The expedient is rarely satisfactory.

We have already dealt at some length with the compositional problems forced upon the sculptors first by the odd shape of the pedimental surface, and secondly by the Greek convention that it must be filled with figures representing adult human beings. (See above, page 59.)

Strong boundaries enframe the two solids that compose the Greek temple.

They function to give the building a definite, unbroken, completely closed silhouette. Aesthetically, the boundaries seem to declare that the composition is altogether self-contained, depends upon its own internal logic, and exists almost as a small universe unto itself. No other type of building asserts a more intense unity. It follows, of course, that all reference to anything outside the boundaries is suppressed, and we must recognize that the unity of the Greek temple involves a certain element of negation. It is something alone and apart, separate from the rest of the world. In general, we find that this is typical of all works of art executed in the Classical Style.

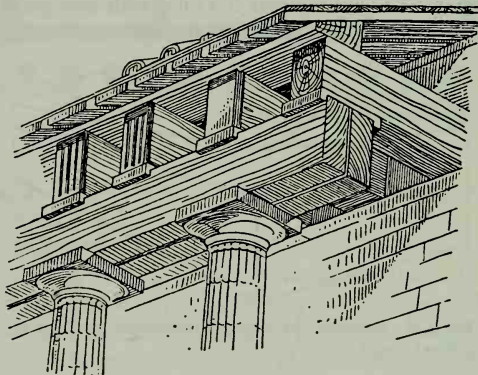


Fig. 4.19 Schematic drawing to illustrate the possibility that the Greek Doric forms had their genesis in wooden construction.

Structurally, the Greek temple is an example of the most elementary kind of engineering. At some very early date and probably as the result of contact with Egyptian customs, the convention became established that all temples should be constructed on the *post-and-lintel system*. Vertical supports (the posts) were set up at intervals, with horizontal beams (the lintels) making the span across the openings between them. The Greeks were fully informed about the arch; and they surely realized that the post-and-lintel method, while simple enough in theory, is expensive and even dangerous for the construction of good-sized buildings. Once in force, convention seems never to have been challenged, and the entire history of Greek architecture amounts to an effort to perfect the post and the lintel. (For structural details, the reader is referred to Chapter 7.)

For the wider span of the roof, stone proved too heavy and too brittle. No temple roof has survived, but it is certain that the lintels for this considerable

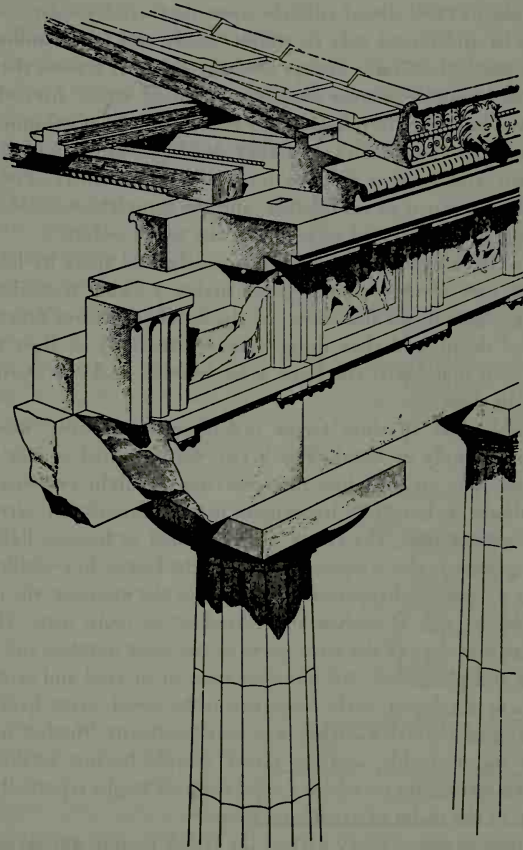


Fig. 4.20 Schematic drawing to illustrate the construction of a typical Greek entablature in the Doric Order.

span must have been of wood, doubtless assembled into a framework of the sort known as a *truss* (Fig. 9.56). An important objection to wood as a structural material is its liability to both rot and fire; otherwise it is excellent, being stronger for its weight than anything else available even today.

Having committed themselves to it, the Greek architects carried the post-and-lintel system to an unexcelled level of refinement. The merit of their

work depends, in fact, almost entirely upon perfection of detail, and its excellence can be understood only by minute study and long familiarity.

For their posts, the Greeks always used the *column*, a word that suggests a circular cross-section whenever used in a technical sense; any other kind of post is a *pier*. The Greeks developed three different types of column (the Doric, the Ionic, and the Corinthian), and they developed two kinds of lintel (one for the Doric and another for the Ionic and Corinthian). Either kind of Greek lintel is known as an *entablature*, and the complete ensemble of columns and lintel together is referred to as one of the Greek *orders*.

The three Greek orders are most conveniently told apart by looking at the *capital*, that part of the column which makes a visual transition from the vertical of the post to the horizontal of the lintel. The three orders differ also in matters of detail, and they differ very substantially in their proportions. The Corinthian is lightest, the Ionic a bit heavier, and the Doric much the heaviest of the three.

It is possible that all three Greek orders were originally worked out in temples built entirely of wood (Fig. 4.19). Often stated as fact, this notion actually rests upon an ingenious interpretation of slight evidence. There are those who doubt it, but as an hypothesis, it is admittedly attractive.

In the course of time, the Greek orders tended to become lighter in their over-all proportions; this is especially true of the Doric. But within the system of whatever proportion happened to be in use at the moment, the parts typical of each order became severely standardized at an early date. The ensemble consists, that is to say, of the same parts in the same number and in the same relative size and placement. An immense amount of trial and error went into the formula so developed; early ruins, it is to be noted, often look clumsy. By the beginning of the 5th Century B.C. or thereabouts, further improvement was almost inconceivable, and the Greek temple became established as the single known historical case where a rigid formula might repeatedly be applied successfully in the realm of artistic creation.

Because used so often, every part of the Greek temple was given a name. In the recital to follow and in labeling the text figures, we have confined ourselves to the more important details and to vocabulary that will prove generally useful.

ELEMENTS OF THE DORIC ORDER

The Doric column is, by comparison to almost all other columns, a very heavy one (Fig. 4.17). Early examples actually show a ratio between height and diameter of close to four-to-one — that is, the greatest diameter multi-

plied by four will be equal to the total height of the column from its base to the upper surface of the capital. The columns of the Parthenon, generally considered the happiest proportion ever arrived at for the medium of marble, average about 5.78 diameters to the height. The general trend of the style was to grow lighter, and there are late examples that show a proportion of about eight and one-half diameters to the height.

These proportions were worked out for buildings made of stone. There is pretty general agreement that, in the Doric Order, any substantial departure from a proportion as heavy as about five and one-half diameters to the height results in a "brittle looking" column. The columns in much American Colonial architecture are lighter than this, and they do not look brittle. The American columns are made of wood, however; and the instance is an illustration of the inseparable relation of medium to design. The ponderous proportion of the Greek Doric is in splendid harmony with the ponderous nature of stone.

It is notable, however, that people are of one mind in finding these massive columns wonderfully graceful. There is no argument on the point, and it contradicts the ordinary assumption that grace is necessarily associated with delicacy.

The beauty of the Doric columns undoubtedly derives in part from the harmony of proportion and material; much of their loveliness must also be ascribed to a list of refinements which will appear in the course of our discussion.

The Doric *shaft* (Fig. 4.21) rests flat upon the stylobate. There is no transitional moulding, or base. The shaft tapers moderately, being widest at the bottom. In the best Greek examples, the silhouette of the shaft, moreover, is not bounded by straight lines but by curves, giving it a bulge called the

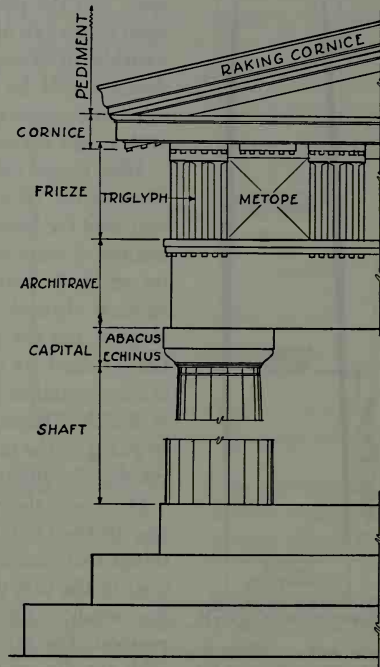


Fig. 4.21 Component parts of the Doric Order.

entasis (Fig. 4.22). The amount of bulge is very slight indeed, and the curves used are of a character more subtle than the arc of a circle.

It is impossible in a written statement to give an explanation of the delicacy of judgment imposed by the use of entasis. The amount of extension beyond a straight line, the spot chosen for the high-point of the curve, the speed of curvature to either side of this apex, and the pitch of the curve as a whole with respect to the axis of the column — these are some of the variables involved. The difficulty of resolving them is demonstrated by any number of columns, both ancient and modern, which are spoiled by some minor fault of the entasis.

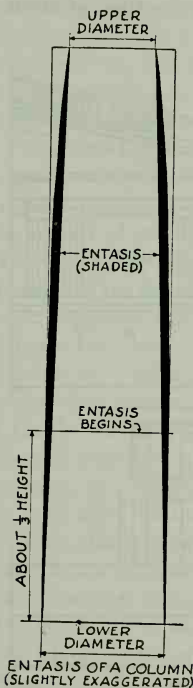


Fig. 4.22 Schematic drawing to illustrate the entasis of a Doric shaft.

Most Greek columns are *fluted*. The fluting of the Doric Order (Fig. 4.23), which differs somewhat from that used for Ionic and Corinthian (Fig. 4.24), usually consists of some twenty *channels*. The peculiar character of Doric fluting is the result of two things. The adjacent channels meet in sharp edges, each known as an *arris*, and the curvature of each channel is shallow, being a short arc of a circle of long radius. The resulting combination of crisp line and soft shadow is one of the chief beauties of the Doric Order, and gives an emphasis to the texture of fine marble not achieved by the slightly different fluting of the other orders.

Over and above the special advantages which pertain to the Doric system of fluting, there are several things that recommend the practice of fluting in general. In the first place, a column is a vertical supporting member. The force it sustains is a force of compression. The axis of each channel of fluting is in line with the direction of that force, and the total effect of some twenty channels is to give emphasis to the fundamental dynamics of the structural forces present.

The *arris*s extend up and down to form crisp lines, each of which is an unmistakable repeat of the entasis of the shaft. When facing the column, we see one-half its circumference, or ten lines, and thus we observe the entasis in every aspect from full-face to profile. The difference between the lines as so seen illustrates *variety* as we understand it in art criticism, and the similarity comes close to defining what we mean by artistic *harmony*. The complex elegance of the pattern actually presented to the eye is more evident in Doric

than in the other orders because the Doric entasis is ordinarily more pronounced.

It is sometimes suggested that the ample proportions of the shaft combine with the grace of the entasis to produce an impression that the column does its work with ease. This is really equivalent to contending that we experience a feeling of *empathy* (identification of ourselves with what we see in art) when we look at the Doric Order, and it is true that there is a resemblance between the bulge of the entasis and the bulge of muscles bearing weight. Without accepting the idea as literally true, it offers a profitable train of thought.

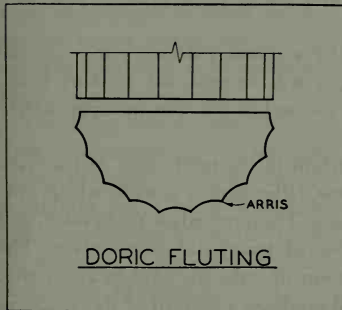


Fig. 4.23 Fluting of a Doric shaft.

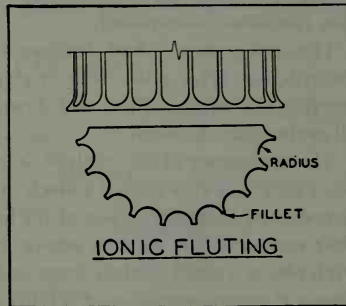


Fig. 4.24 Fluting of an Ionic shaft.

The Doric capital consists of two parts, the *abacus* and the *echinus*. The *echinus* is the lower part; it is a circular member flaring upward as though to cushion the abacus above. The abacus is a shallow square of stone placed directly underneath the lintel.

This is a very simple capital. It depends for its beauty upon the profile of the *echinus* and upon the contrast between that curvature of surface and the squared face of the abacus. In good Greek work, the curve used for an *echinus* is always a *graded curve*. The rate of curvature is not constant as in a circle, but accelerates as the curve goes upward. Careful analysis of a number of examples seems to establish a Greek preference for hyperbolic arcs in Doric *echini*. Such may have been drawn freehand, but it seems certain the Greeks possessed some sort of analytical geometry. In any case, it seems likely that the capitals were turned on a gigantic lathe, probably operated by horsepower.

The complete Greek lintel, or *entablature*, consists of three parts; the three-part division obtains no matter which order is in use. These are: the *architrave*, the *frieze*, and the *cornice* — each being a horizontal section stretching the length of the entablature.

The architrave is the lowest of the three. In Doric, it is an undecorated beam of stone resting directly on the abaci.

The cornice is the upper and overhanging member. It extends out from the face of the frieze a distance equal to about one-half the height of the architrave. The cornice may have been invented to keep the drip of the rain away from the joining between roof and wall, but its principal function is aesthetic. It tells as a line, and it casts a heavy shadow, thus forming one of the boundaries that close in the silhouette of the temple.

The frieze is the horizontal division between architrave and cornice. In Doric, it is subdivided into *triglyphs* (*τρίγλυφος*, triple groove) and *metopes* (*μετόπαι*, interspaces).

The arrangement is best demonstrated by a cutaway drawing showing the construction (Fig. 4.20). The triglyphs, it will be seen, act as short posts, carrying the weight of the roof down to the architrave. The metopes merely fill in the spaces between.

The appearance of the triglyph is important in the total effect of the temple. (See Fig. 4.17.) Each is a block of stone, taller than it is wide, which projects slightly from the surface of the building. The outer edges are beveled, and their surface is cut by two strong grooves of triangular cross-section. The triglyphs, as a result of their form and placement, take the light in a way that gives a vigorous impression of solidity, and produces a pattern of short, strong vertical lines. The over-all arrangement of the triglyphs to compose the frieze as a whole is one of the refinements of the Greek temple, to be discussed in detail later. At this point, suffice it to say there is a triglyph over every column and a triglyph over every *intercolumniation*, or space between adjacent columns — surely the longest word ever invented to signify nothing at all.

The metopes are slightly wider than their height, and they offer a surface that invites decoration. The Parthenon originally had a full set of 92 decorated metopes, each containing an original composition in high relief. Combat subjects were popular for these spaces because they offered a chance of adding movement to the ponderous statics of the temple itself; but as explained above (page 64), the stop-in-action pose was ordinarily adopted to keep the represented action within strict limits, thus avoiding an apparent threat to the stability of the triglyphs and the structure of the building.

ELEMENTS OF THE IONIC ORDER

Many features of the Doric temple are standard, also, in the Ionic Order and need no further explanation. The fundamental shape and arrangement of the building is the same, and yet the general aspect of an Ionic temple differs from

the Doric to a surprising degree. The contrast is probably the result of the more delicate proportions which govern individual parts of the building, and of the difference in texture that derives from the generous use of ornamental detail.

All parts of an Ionic temple (Fig. 4.25) are lighter than they would be in Doric buildings of the same overall dimensions. The proportions of the column will furnish an index to the general scheme of proportions in general. Ionic columns run from about eight to about ten diameters to the height, the individual cases tending to vary more than Doric custom permitted.

The Ionic column always has a base. This consists of an arrangement of concave and convex mouldings, there being no rule to govern either the scale, the form, the sequence, or the number of the mouldings. Frequently, there is a plinth (a shallow rectangular block like the Doric abacus) underneath the mouldings of the base. Occasionally one sees a statement which attempts to read regional or chronological significance into the arrangement of the Ionic base, but it seems safer to assume merely that custom encouraged innovations in this instance and that the bases therefore simply differ from building to building.

The use of entasis is less common than in the Doric order; and if used, entasis is much more delicate. F. C. Penrose, whose elaborate measurements settled once and for all the physical facts of such matters, found that the entasis of the Parthenon's Doric shafts measures 0.057 feet. Taking the Ionic shafts of the Erechtheum's North Porch as a standard and adjusting these to the same height, Penrose demonstrated that the maximum entasis for Ionic would, at that moment in Greek history, come to only 0.029 feet — roughly half as

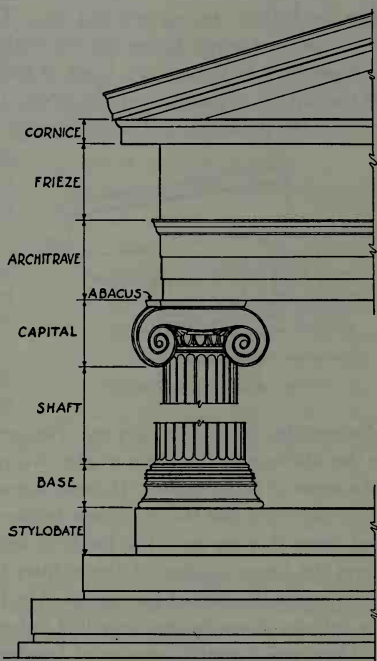


Fig. 4.25 Component parts of the Ionic Order.

much. A great many modern architects have given an Ionic shaft more bulge than this, but always with baleful effect.

Ionic fluting (Fig. 4.24) differs from the Doric (Fig. 4.23). Normally there are 24 channels around the circumference of the shaft, and the adjacent channels are separated by narrow strips, or *fillets*, left from the original surface. The channels have a shorter radius of curvature than the Doric, and thus the hollows are narrow and deep. The steeper side of the channel results, of course, in a much darker shadow within: a shadow, moreover, in immediate juxtaposition to the narrow band of full light produced when the direct rays of the sun hit the surface of the fillets. This is different from the way a Doric shaft takes the light, and the sharp alternation of brightness and dark probably accounts more than anything else for the habit we have of describing the Ionic as "more lively" than the Doric.

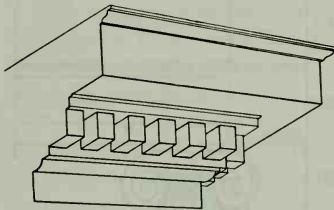


Fig. 4.26 A dentil range.

The distinctive feature of the Ionic Order is its capital (Fig. 4.13). Appearing at first glance to be completely different from the Doric, it is really remarkably similar. A close look will show that the echinus and abacus are still there, with their shape somewhat

obscured by decorative carving. The real difference between the two capitals is the addition to the Ionic of the two spiral whirls called *volutes*. Inspection of a series of Ionic capitals (Greek, Roman, and Modern) will illustrate better than anything else the difference between curves that are graceful and alive, and those that are not. The merit of an Ionic capital depends almost entirely upon the linear quality of the volutes themselves and the sweep connecting them across the face of the capital. The best examples elicit ready admiration; the inferior examples are very bad indeed.

There was a certain amount of freedom in the design of the entablature for individual Ionic temples. The general spirit of the three-part division into architrave, frieze, and cornice was maintained; but in a number of examples, the frieze proper is omitted and its place taken by ornamental mouldings.

One such ornamental moulding occurs frequently enough to demand mention as a feature of the Ionic Order. This is the *dentil range* (Fig. 4.26). The dentils are a row of small rectangular blocks placed up under the cornice and sticking out beyond the plane of the architrave about one-half the total overhang of the cornice itself. The name *dentil* comes, it is said, from their resemblance to teeth, and they do indeed look like the teeth of a jack-o'-lantern.

In Ionic, when the frieze is included, the dentil range often is omitted. In

Ionic, the frieze is never subdivided, and runs without a break for its entire length. At times, the Greeks used the frieze to introduce color contrasts; an example is the blue limestone frieze of the Erechtheum (Fig. 4.10). A very fine temple would have its frieze decorated with a continuous composition in relief sculpture — hence the use of the word for any long, narrow, continuous band of decoration.

The only feature of the Ionic entablature which is strictly standard is the architrave. This is not plain as in Doric, but is subdivided into three bands or steps, the projection of each step being very slight indeed, with the result that the shadow it casts is narrow and crisp to a degree. In some examples, there is a graduation in the width, or depth, of the three steps, the highest usually being the widest. In other examples, the steps are of uniform height.

A discussion of the Ionic Order would be incomplete without a brief reference to the problem presented by the corner capitals of an Ionic peristyle. The Ionic capital lacks an *omnifacial composition* — that is, it cannot like the Doric capital be viewed from all sides with similar satisfaction. The Greek solution is illustrated by the corner capitals of the Nike Temple on the Acropolis at Athens (Fig. 4.9). The capital is given a face on each side of the building, and the volute at the corner is bent out so that its axis bisects the right angle made by the front and side coming together. An odd and clumsy shape is made almost necessary at the inside corner opposite the bent volute, but that hardly matters because it is out of sight from any normal station of the observer.

ELEMENTS OF THE CORINTHIAN ORDER

The Corinthian Order scarcely differs from the Ionic except for its capital, the ostentatious appearance of which made it overly popular with the Romans while restricting its use by the Greeks to a very few examples.

The Corinthian capital (Figs. 4.14 and 8.5) is taller than the others, which accounts for the apparent extra delicacy of buildings where it is used. It is simpler than it looks, and its composition follows a rather mechanical routine. There are two fundamental parts: a bell-shaped core, with an abacus on top. The Corinthian abacus is ordinarily concave on the sides, and the profile of its vertical surfaces is often given a delicate reverse curve. The general shape is often called *campaniform*, a Latin derivative meaning no more and no less than bell-shaped.

Foliage in high relief decorates the surface of the bell-shaped core. Leaves of many kinds have been used, first and last, and sometimes more than one variety of leaf appears on a single capital. The Corinthian capital found at the

Tholos of Epidauros (Fig. 4.14) may be taken as a standard example. The leaves there used are a regularized form of the *acanthus*, a free-growing plant familiar in Greece, and they are arranged in systematic fashion. There are two rows of leaves, one above the other. The axis of each leaf is vertical; and the two rows are placed at equal and alternate intervals around the circumference. Usually there are eight leaves to a row.

On each face of the capital, ornaments resembling fern fronds rise from beneath the *acanthus* to swing up and meet those from the adjacent faces in miniature volutes formed under the four corners of the abacus. Smaller ornaments of the same kind sweep up toward the top and middle of each face of the core, filling in an area that would otherwise remain blank.

GREEK REFINEMENTS: THE PARTHENON AT ATHENS

The details of Greek architecture instantly impress the layman with their refinement, and years of study tend to reinforce the first impression. It is even more remarkable that a similar and much less obvious perfection is discernible in the design of the temple as a whole. The great fabric is conceived as an entity; and a number of physical facts, some of them demanding the utmost subtlety from the builders, are not to be understood unless we have some grasp of the artistic scheme governing the whole.

The idea of giving an entire building a refinement equal to that of its most delicate part was carried to the limit in the design and construction of the Parthenon. Similar refinements have been noted in other temples, but none compare with the Parthenon in the thoroughness with which perfection was demanded and sought.

There can be no doubt about the physical facts. The building was measured with minute accuracy by F. C. Penrose, who published his findings as *An Investigation into the Principles of Athenian Architecture* in 1851. Penrose worked with instruments compensated for variations in the temperature, and he rounded off his dimensions at the third decimal place of a foot. His accuracy has never been questioned, and greater precision would obviously be pointless.

While there can be no doubt about the facts, there is considerable difference between the theories which attempt to explain the intention of the architects. We had best proceed by reciting the facts first, and undertaking to explain them later.

The platform of the Parthenon is not a level plane surface. It rises toward the center in a way Mr. D. S. Robertson has neatly compared to the appearance of a carpet nailed down at the four corners only, and suddenly lifted

from the floor by a blast of wind. The curvature of the upper surface as a whole produces a curvature in each of the "horizontal" lines that bound the stylobate on its four sides. On the short ends of the Parthenon, the rise amounts to $2\frac{3}{8}$ inches, and to $4\frac{1}{4}$ inches on the long sides. These curves are repeated in the entablature with slightly less rise.

The columns of the Parthenon are not vertical, but incline inward at a very slight angle. We might compare the building to the base of an extremely tall, narrow pyramid. If we imagine the axes of all the columns projected indefinitely into the air, they would meet at an apex a little more than a mile above the earth. Our statement simplifies slightly the conditions measured by Penrose. The columns along the sides incline inward only and those at the corners alone have a compound inclination. The figure described is therefore not precisely pyramidal, a fact which need not disturb us. Figure 4.27 is an attempt to visualize the situation.

The columns of the Parthenon are not alone in their inclination. The walls of the cella are also made to incline slightly inward while all minor wall surfaces incline the opposite way. The entablature, for instance, has an outward pitch, and the upper edge overhangs the lower slightly but noticeably.

The distance between the Parthenon's columns is not uniform. There is, on the contrary, a clearly discernible difference in their spacing. Those at the corners are slightly more than six feet from their neighbors, while those along the front and sides are just over eight feet apart.

Measurement of the corner columns shows, moreover, that they are slightly heavier than all the others. The increase in diameter amounts to about 1.7 inches, or slightly more than a fortieth part of the diameter of a standard column.

A glance at the building will demonstrate, also, that there is more to the arrangement of the triglyphs than might at first be supposed. As stated earlier, there is one triglyph for every column and one for every intercolumniation. It is perhaps natural to suppose

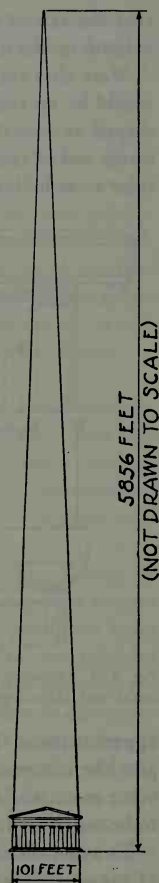


Fig. 4.27 Schematic drawing to illustrate the inclination of the columns of the Parthenon.

that the axis of each triglyph ought to correspond with the center line of its column or the middle of its intercolumniation, but such is not the case.

Were that system used, mechanical order would of course result, and there would be no trouble if we never arrived at a corner. But the triglyph being shaped as it is, centering one over the corner column would leave at the extreme end of the frieze a blank space which for lack of a better name we may refer to as half-a-metope. The corner of the building would lack weight and

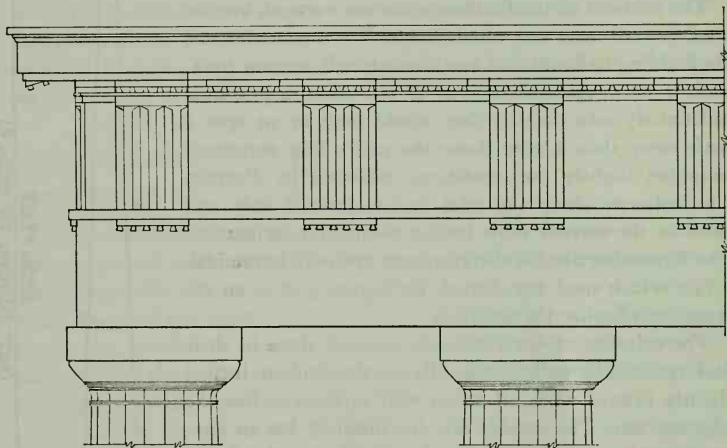


Fig. 4.28 Drawing to demonstrate the result if triglyphs were kept strictly central with columns and intercolumniations.

apparent force. This would tend to set at nothing the strong boundaries that give the composition its peculiarly intense unity. It would also conflict with other essential elements of the Greek theory of design, some of which remain to be mentioned. (See Fig. 4.28.)

To avoid the situation just outlined, the Greek architects gave up the notion of centering the triglyphs over column and intercolumniation. Instead they brought the pair on adjacent sides of the temple together at the corner (Fig. 4.3). They put the middle triglyph of the frieze centrally over the middle intercolumniation of the peristyle. The others were placed off-center in an amount that increases as we approach the corners of the building.

Such are the most important facts of curvature, position, and inclination which go to make up the so-called refinements of the Parthenon. We must now attempt an explanation. As stated, there is much difference of opinion

about the matter. It is worthwhile to summarize the most popular and important theories, after which a new and, it is hoped, a more satisfying idea will be put forward.

It is often suggested that the curves of the Parthenon are a matter of chance. It is pointed out in this connection that irregularities are common in medieval buildings, and we are induced to believe that similar irregularities are inevitable in any fairly large fabric. Other Greek temples, moreover, lack perfect regularity.

This suggestion can hardly be entertained for long. The curves of the Parthenon are symmetrically repeated on opposite sides of the structure. Irregularity might be accepted as the result of chance; systematic and symmetrical correspondence of the strictest kind has never yet happened by coincidence.

A second suggestion, not altogether different from the last, is the supposition that the builders anticipated settling and sinking of the fabric, and that the curves were intended to disappear after a certain period of time. This notion involves two separate presumptions: that the Parthenon has not subsided as expected, and that the Greek builders wanted straight lines. Neither idea will stand analysis.

It is true that many buildings, ancient and modern alike, distort by amounts greater than the curvature of the Parthenon. There are two reasons for it: poor foundations and inferior construction. Unlike the mudbank upon which London lies, the Parthenon rests on bed rock which has not subsided or become compressed by any significant amount during the past 2,500 years. Furthermore, no modern building has anything like the quality of construction put into the Parthenon by builders with something like a thousand years of experience in temple architecture. Greece is wealthy in marble, and the stones used here were of uncommon soundness. The fitting of the masonry is uniquely elegant. No mortar was used. Every joint is the conjunction of two perfectly squared and polished surfaces, and the blocks were brought tight together by methods that need not concern us except to say they virtually preclude the possibility of further movement. It is thus inappropriate to reason by analogy to inferior buildings where, in return for cheap work, we accept as inevitable shrinkage in the materials, squeezing at the joints, and the twisting that comes from a poor substratum, inadequate foundations, or both.

The assumption that the Greek builders wanted straight lines, and intended to get them when the building settled, is similarly out of order. It is true that the modern contractor works on straight lines, but his reason for doing so bears no relation to aesthetic theory. He merely knows that the plumb and

level reduce the cost by saving an immense amount of time making checks and measurements of every imaginable sort. There is no legitimate reason for comparing such work with the work that went into the Parthenon.

The builders of that great temple belong to quite another guild and class. The nearest modern parallel is to be sought in the shipyard. Anyone who has worked there will instantly appreciate the curves of the Parthenon. To establish the wonderful lines that were built into the marble and remain, what a world of patient labor in the drafting room and on the lofting floor! What infinite skill and care in cutting the innumerable perfect and subtle bevels that fit so perfectly together and produce the unparalleled loveliness!

More popular than either of these suggestions is the theory endorsed by Penrose, who seems to have elaborated upon a somewhat cryptic passage in Vitruvius.

Vitruvius was a Roman builder of the 1st Century A.D. He wrote a treatise on architecture, a copy of which was discovered at Saint Gall in Switzerland by the Florentine humanist Poggio who came that way in 1416. Nothing else survives from the pen of any man who was himself a classical architect, and Vitruvius has therefore occupied a unique position of authority ever since.

In Book III, Chapter IV, Mr. M. H. Morgan translates his text as follows:

"The level of the stylobate must be increased along the middle by the *scamilli impares*; for if it is laid perfectly level, it will look to the eye as though it were hollowed a little. At the end of the book a figure will be found, with a description showing how the *scamilli* may be made to suit this purpose."

The drawing Vitruvius mentions did not survive with his text, but the *scamilli impares*, or something very like them, survive in the building trades. As explained in a learned note by Mr. H. L. Warren, added as an appendix to Morgan's *Vitruvius*, the *scamilli* are a set of little blocks of varying height. By setting them up at carefully measured intervals and sighting along them, the builder can adjust a stylobate to any curve he wants.

There can be little doubt that Vitruvius knew how to construct such curves, and there can be little doubt, also, that his remarks reflect a general custom bruited about among Roman builders; namely, that a good and proper temple ought to have curvature and inclination something like that of the Parthenon. Further confirmation is supplied by a passing word or two in Cicero (*In Verrem* II, 1, 51) where that famous trial lawyer impeaches a witness by suggesting the man is so ignorant as to suppose that pillars should be made to stand exactly plumb.

Building upon such classical tradition and extending its implications in a

manner that is admittedly plausible, Penrose asserted that the curves and inclinations of the Parthenon were intended to compensate for optical illusions. Without such adjustments from the plumb and level, he declared that the stylobate would "seem to sag, the entablature would seem to recede, and the angle columns look thin against the sky."

Penrose's suggestion is often illustrated by drawings; a typical set appears among the superb and indispensable set of plates in Sir Bannister Fletcher's *History of Architecture*. Such drawings may not, however, be taken as rational evidence. By no means do they represent the actual conditions obtaining in a view of the Parthenon, but an exaggeration thereof. We must dismiss them as caricature.

In scrutinizing Penrose's theory, we must first of all disabuse ourselves of the prestige it has acquired by a hundred years of repetition. Often stated as fact, it still remains merely a suggestion like any other.

First of all, it is well to examine Penrose's ancient authority.

Any reader of Vitruvius is bound to observe that, Roman builder though he was, Vitruvius was hardly an educated man. His Latin was inelegant, and his powers of expression were poor. The latter undoubtedly reflect something more serious than an absence of ease and grace; the truth is that Vitruvius was neither a well-informed man nor a clear-headed man. Whenever he alludes to anything that demands close reasoning and subtle knowledge (Polycleitos's canon of proportion for the human figure, for example) he gets mixed up and gives us a garbled account. It is plain enough he knew that curvature and inclination were the going custom, and it seems likely he knew a practical method for building them into a temple. It by no means follows that he understood the aesthetic theories of the Greek architects who first invented the refinements. In that connection, we must remind ourselves, moreover, that Vitruvius was no contemporary observer. He lived about 600 years after the Parthenon was built.

Cicero was a person of different stripe. It seems probable that he might have been able to give us a succinct account of the theory involved; but, like Vitruvius, he doesn't. He merely refers to it in quite another connection, and passes on.

In sum, we must accept the fact that we have no ancient mandate one way or the other, and the idea that the refinements compensate for optical illusions, if true, must rest on modern deduction.

One way to check Penrose's assertions is to examine modern buildings known to be plumb and level. The examination must be made, of course, under conditions of diffused light and by persons trained in accurate, objective visual inspection — we cannot take a majority vote to decide the matter be-

cause the unskilled observer can so easily be persuaded that he sees what he is told to see. When plumb and level buildings are so examined, the optical illusions predicted by Penrose do not appear unless some extraneous factor is introduced. Again, we must beware of the familiar tricky drawings which do in truth deceive the eye, but which bear no fair analogy to conditions at the Parthenon.

Penrose's assertions overlook another fact of importance. They contain the tacit suggestion that the curves are not perceptible with the naked eye, and that the building impresses the observer as being plumb and level. The reverse is true. When a considerable overlay of medieval rubble was removed in 1837 to put the whole stylobate in plain sight for the first time during our era, the curves were at once noted. Three observers actually published the fact, and Penrose's research was undertaken in the first place to verify such statements. Any number of modern observers who have visited the site repeat the testimony of those who first inspected the temple: the curves are there to be seen with the naked eye. Any good-size photograph also shows them up plainly and accurately (Figs. 4.1-2).

We are thus compelled to believe that compensation for optical illusions offers no satisfactory explanation for the situation we know to obtain. In structures without such adjustments, the optical illusions do not take place, and at the Parthenon the refinements do not produce the plumb and level appearance.

The modern student, accustomed to the best engineering the world has ever seen, will also want to know whether the Parthenon's refinements perform some practical service, but this possibility must also be discarded as unimportant. Drainage is improved by making any floor convex rather than flat, but drainage can be taken care of equally well by some method less heroically expensive and difficult. The increased diameter of the corner columns and the pitch of all columns doubtless tends to increase the stability of the fabric when subjected to shock or vibration of any kind — an earthquake or an explosion, for instance. But in neither case is the adjustment of the right order of magnitude to make any significant difference, and the Doric temple, with its ponderous columns and slight superstructure, is an extremely stable building to begin with.

It would appear that the only avenue offering any hope of explaining the Parthenon's refinements is the assumption that the Greek designers were compelled by some deeply felt aesthetic necessity. The idea that aesthetic satisfaction might seem so important may not immediately impress the reader as plausible, but the facts point that way.

The artists who assembled at Athens to work under Phidias had the greatest opportunity ever afforded in the entire history of the ancient world. Because Athens controlled the Delian League, unlimited funds were available. It would have been easy to build larger buildings or more buildings. Instead, the money was expended and fabulous labor devoted to the attainment of quality.

Insofar as we can recapture the Greek state of mind and thus understand the exhaustive perfection of the Parthenon, the following considerations are apposite.

As we have seen from our study of Greek pedimental arrangement and other instances of design applied to sculpture and painting (see above, pages 56-66), the Greeks who lived and worked in Periclean Athens were possessed of and committed to a particular and excellent theory of artistic order which we have named *the organic composition*. Of this, the chief elements are the establishment of an intensive and assertive unity for the whole (usually brought about by firm boundaries, either visible or suggested), and, within the frame, the maintenance of coherence between part and part and between part and whole (usually by some logical and unmistakable suggestion). When drawing plans for their greatest temple, would the Greeks suddenly embark upon some new and untried theory of design? That is certainly possible. In one instance, it seems even to have happened (see below, page 347), but everything combines to indicate that the Parthenon is simply the largest, and also the most subtle instance of the theory of design so succinctly stated by Aristotle and cited in the last chapter. To understand the building, we merely need apply to architecture what we already know to be true of sculpture. Everything then falls into a reasonable pattern.

All architecture begins with the site. There is perhaps no such thing as a good building as such; we must ask where it is to go and in what surroundings it will come into view. In accordance with classical custom, the site of the Parthenon had been leveled off into a horizontal plane surface.

The upward curve of the stylobate is in physical juxtaposition to the horizontal ground line beneath it. If projected slightly at either end, the curve would have an origin in the ground a short distance from the façade of the building. Thence it would rise to its apex, and swing downward to an ending at a point in the ground an equal and opposite distance beyond the temple's far end.

Given the character of the curve and its reference to the horizontal beneath, any smallest arc of it tells the story. By its own internal logic it says that the middle of the building must come at such and such a point, and that its end must also come at a definite distance farther on. There is no room for doubt;

but a straight and horizontal stylobate would make no similar reference to the ground. There is nothing within a straight line to tell us where it begins, ends, or has a middle; it might stop anywhere or go on forever.

The inclination of the columns makes sense by reference to the same theory. The effect is to make the building the base of a pyramidal figure; and as a general proposition, it may be stated that once the notion of symmetry has been evoked in the feelings of the observer, inclination of any sort whatever will demand its equal and opposite.

The increased diameter of the corner columns and their closer spacing both contribute to the same scheme. They strengthen the enframing and emphasize the limits of the composition. The same may be said of the triglyphs which join at the corners of the frieze, but there is more to be discussed before we are through with the so-called "triglyph problem."

The arrangement of the triglyphs has traditionally been presented as an almost intolerable irregularity of the Doric temple which the Greek designers were clever enough to ameliorate by a kind of artistic counter-irritant so subtly applied as to escape attention. Such a view must have had its genesis in the notion that the rhythm of the triglyphs ought to be geared to the rhythm of the columns — a concept that might apply to a machine, but one which is unnecessary when dealing with a work of art.

Because of its projection, its distinctive shape, and the way it takes the light, each triglyph is of course an accent. They do not come at precisely even intervals, but that need cause us no more than a moment's difficulty. The spacing changes in a rational manner. There is order, that is to say, in the rate of change. We are perfectly familiar with that type of order in music, and we merely see it here in visual terms. It is probably an excellent thing rather than a fault to have the columns come in one rhythm and the triglyphs in another. The experience of simultaneous rhythm is also familiar enough, and we may summarize by saying that the triglyphs constitute an element of variety in the decoration of a building which tends on the whole to be overly regular.

We have been speaking of the composition of the Parthenon as though it were self-evidently a good thing. To an extent, that is true. As the supreme demonstration of organic composition, the great building is unexcelled. It is a celebration of the Greek capacity for formulating clear, consistent ideas and making practical affairs conform to an order directed by the mind. All men must admire such a quality in a people. We must nevertheless be prepared to compare the Greek achievement with others — as, for example, with the Style of the Near East which lacks (but for excellent reasons) the Aristotelean be-

ginning, middle, and end. Before proceeding, it behooves us to pause for a few remarks that may still further explain the character of Greek art.

The various refinements of the Parthenon combine to produce an extraordinary sense of integration, completeness, and fulfillment. By its very nature, the organic theory of composition seems to proceed toward that result with a beautiful inevitability. It is necessary to appreciate, however, that such a result is achieved at a cost. A work of art which exists in such a state that nothing may be added or taken away is not only static, it is inflexible. Nothing is left to do; indeed nothing more can be done. When they built the Parthenon, the Greeks had arrived at the end of a road. A great many temples were built in later generations, some of them larger and more elaborate. But what is there to be said about them?

Greek excellence was achieved by the method of setting limits. Every one of the refinements of the Parthenon contributes to the establishment of boundaries for the composition. It would appear that the Greek mind sought boundaries because limitation makes it possible to understand, to control, and to excel. But the very same feeling was also a negation: the Greeks may fairly be described as harboring a terror of the indefinite. In art and in all forms of thought, their accomplishment was bought by rigorous restriction of the field of attention, and by stern exclusion of everything beyond the problem in hand.

Thus the Greek temple makes no reference to the universe around it. Its clarity and integration is unparalleled, but it comes at the cost of dealing only with the finite.

The Sculpture of the Parthenon

Not satisfied with refinement of an architectural nature, the Athenians gave the Parthenon a prodigious wealth of sculpture. In addition to the two pedimental compositions, all 92 metopes were decorated with individual compositions in high relief; and in addition to the metopes, there was an extra and unique feature in the form of an inner frieze in low relief, 3 feet and 4 inches high, placed at the very top of the exterior wall of the cella and immediately under the ceiling of the ambulatory. The frieze ran all the way around the cella, and originally measured a full 524 feet long (Fig. 4.5).

In the absence of originals by the great masters of the Fifth Century, a special importance attaches to the marbles from the Parthenon. As architectural sculpture goes, the work is unusually fine, but can we legitimately associate it with the personal style of Phidias? Opinions vary. Some critics want to believe he designed everything; others contend that he designed nothing. On the whole, the latter seems more likely, unwelcome though it is. In view of his im-

mense responsibilities at the time, he must have been compelled to delegate even so important a task as this. From Phidias or some other personality, however, there surely emanated a certain unity both of style and spirit. All the sculpture from the Parthenon is tinged with a lofty sobriety that separates it even from the rest of the Greek output.

The subject matter of the metopes was, as usual, drawn from mythological combat. On the east we might have seen the gods fighting the giants, on the west the Greeks against the Amazons, and on the south the Lapiths and the Centaurs. Only the southern metopes are sufficiently well preserved to make study worthwhile; those from the north side were so badly damaged that even their subject is a matter of debate. On the whole, the metopes are somewhat less satisfactory than the rest of the sculpture. A few of them might even be called crude. The reason is not far to seek: the structural procedure demanded that the metopes be finished early and dropped permanently into place long before it was necessary to carve anything for the pediments or for the inner frieze. Because a very large number of sculptors were required to get the work done in any reasonable time, it is probably a good guess that the carving of the metopes took place at a period of organization during which it was necessary to accept compromises. By the time that first enterprise was complete, the corps of sculptors was capable of working together as a unit, and would by then have become familiar with the conceptions and standards at which Phidias aimed. At any rate, the metopes — taking them as a collection — exhibit unhappy variations in quality.

For its eastern pediment, the Parthenon had the *Birth of Athena*, a subject involving the emergence of that goddess from the forehead of her father Zeus. Inasmuch as she came into the world full-grown and wearing a suit of armor, the delivery was incontestably the greatest obstetrical miracle in history. One would like to know how the sculptors handled it, but except for a very doubtful reflection on a marble well-head in Madrid (showing the situation after it was all over), we have no guidance. The vital central portion of this pediment was destroyed to make room for the apse when the temple was converted into a church during the 5th Century. The rest of the composition was memorialized in one of the "Carrey drawings," and the preserved figures are on view in London. The reclining male nude known as "Theseus" has often been suggested as our best source on Phidian figure-style. The rhythmical drapery of the so-called "Three Fates" is something of a tour de force, although much admired. Best of all, however, are the figures which localize the event in the heavens and name the time as dawn: at the left-hand corner, the horses of

Helios (the Sun) rise from the sea puffing with energy; and at the right, the tired horses of Selene (the Moon) sink beneath the waves.

The western pediment had the *Contest between Athena and Poseidon for the Land of Attica*. We know the arrangement of the central portion only through the "Carrey drawing" of 1674 (Figs. 4.6-7). Poseidon's horses were lost in a clumsy attempt to lower them with the object of carrying them off to Venice when the Venetians evacuated the city in 1688 — Morosini, their leader, had descended from the Morosini who brought home from Constantinople the four bronze horses which now stand over the principal entrance to Saint Mark's.

While it is difficult to reason from so poor a source, the drawing is good enough to suggest that the subtlety of pedimental composition had advanced since Olympia. Instead of posing each figure flat against the background, many of the statues are seen in the three-quarter view, thus calling into operation a very moderate sense of space forward and back in the horizontal plane and producing a more varied pattern of shadow. The chief feature of the design, however, is the elimination of the single standing figure placed on the central axis; at Olympia and probably at Aegina also, the presence of such a figure inevitably suggested a division of the whole into halves. Here at the Parthenon, the middle of the pediment was filled with a criss-cross of diagonals. It is a fair guess that an even more intensive unity was thereby arrived at, but it is admittedly hard to tell from the source we are compelled to rely upon.

The Parthenon was first opened to the public on the occasion of the Panathenaic Festival of 438 B.C. Appropriately enough, the subject matter of its lengthy interior frieze was an idealized version of the procession that took place as its final and culminating ceremony. The Panathenaea was originally no more than a local custom. Peisistratus had undertaken to magnify its importance, and by the time of which we speak, the affair had become a national celebration scheduled every fourth year and involving games, musical contests, and oratorical performances. The procession was a great and major spectacle of old men and maidens and a cavalry escort. Forming in the town, it filed up onto the Acropolis. There was performed the focal ceremony of the whole affair: putting a new saffron-colored robe (*peplos*) on a venerable wooden statue of Athena.

The Parthenon is so placed that the visitor approaches it from the southwest corner, and it is there that the design begins. The western section of the frieze still remains in place (Fig. 4.5), and there we see preparations in progress, with some of the horsemen already in motion toward our left. The procession splits, as it were, to follow both sides of the temple; and it comes together

again at the middle of the eastern front of the building, where some gods are seated waiting for the arrival of the *peplos*. The arrangement is natural enough, and makes it impossible to inspect the composition backwards.

Although the frieze is ostensibly continuous, the Greek sense of artistic propriety made it necessary that some account be taken of the corners of the temple. Rapid motion was therefore confined to the long sides of the building. Near the corners, we see the movement slowed down, with marshalls there to direct the marchers. This is approximately what we might expect in the light of what we already know about Greek art; certain other features, however, require special mention.

Placed up under the roof and shielded by the entablature, the inner frieze received almost all its light by reflection from the ambulatory floor and the ground outside. By comparison to the intensity of the light outside, the frieze existed in comparative gloom. Dark shadows of any kind had to be avoided at all costs; otherwise, it would literally be impossible to make out what one was looking at. Relief was therefore kept exceedingly low; and the upper parts were modeled out with slightly more depth than the lower. At the top, the relief rises about $2\frac{1}{4}$ inches above the background, and at the bottom, about $1\frac{1}{4}$ inches. In order to avoid greater projection and cast shadows, some radical distortions were introduced: to accommodate the legs of the riders without bringing them out too far from the background, the sculptors simply caved in the rib-cages of the dainty little horses to get the necessary hollow. Still other distortions were employed for similarly rational reasons. Scale is violated, for example, to keep all the heads at the same height, thus repeating the architectural line which forms the upper boundary: men on foot come to the same level as men on horseback, and the horses themselves are on a smaller scale than the men.

In matters of detail, it is probably impossible to find an equally extended design that maintains the same high quality of sensibility. By exception in Greek sculpture, rapid motion is represented; the usual method is to confront the eye with a figure that would be unstable unless we understand that dynamics enter into the situation. Almost every variety of rhythm known to sculpture is to be noted at some place or other in the immense length of the frieze. The manual skill of the sculptors remains unexcelled; where can one find greater brilliance of line, or more sensitive modeling?

It is nevertheless impossible to say whether this inner frieze was a success. There is much to make one doubt it. However excellent in itself, its placement was such as to render comfortable inspection impossible. Because the eye adjusts to the brightest illumination within the field of vision, not the dimmest, did the frieze attract its fair share of attention in the bright Mediterra-

nean climate? Or was it lost in the dark as details are lost in paintings by Caravaggio and Rembrandt? Now that the roof is gone, it is difficult to guess at these things. As seen on the building, in the British Museum, and in every available photograph, the cast shadows fall downward, which is the reverse of the way they were intended to fall. Even if this were corrected by artificial light within the museum, outdoor conditions would scarcely be duplicated. In their original condition, moreover, the panels must have been most subtly finished on the surface to take the light in the best manner; but it is hopeless to attempt to restore that surface. In the end we are left in a quandary, with a number of important worries unresolved.

THE ERECTHEUM

The conventional nature of most Greek architecture is pointed up with emphasis by the very existence of the Erechtheum at Athens (Fig. 4.10). The building was designed by Mnesicles, who must be ranked high among those capable of original acts of genius.

Instead of leveling off the site as classical architects almost invariably did, Mnesicles accepted the footing as he found it. He built the structure on two levels that differ by about $10\frac{1}{2}$ feet, and he provided two separate façades, one at the east end and the other at the northwest corner. Doubtless there were religious as well as physical reasons for the arrangement. It is said that Athena's olive tree and Poseidon's salt spring both were to be seen at this very spot; and while nothing has been established with certainty, it is likely that the building was intended to incorporate several shrines, one of which had to do with Erechtheus — hence the name. The interior arrangements have been altogether erased, but it seems most likely that the Erechtheum was a double temple, with a partition at some point separating the east end from the west.

Because the building is asymmetrical, critics have invariably pictured Mnesicles as a much put upon man. We are told that he was a clever person, who tried to beguile us away from fundamental imperfection (i.e., absence of geometric order) by elegant details and by surprises like the famous *Porch of the Maidens* attached to the southwest corner on the side facing the Parthenon. On the assumption that no Greek in his right mind would willingly design the building as it stands, we are often asked to excuse Mnesicles on the ground that he hoped to set things right someday by adding an entire wing out toward the west, an expedient which would "balance" the composition by making it symmetrical to an axis through the middle of the Porch of the Maidens.

There is no archaeological evidence that compels us to believe Mnesicles in-

tended any such thing. Neither is there any reason to apologize for the Erechtheum as it stands. Everything in view is susceptible of explanation by reference to well-established principles of design.

As always, we must first consider the building in relation to its setting. It stands about fifty yards north of the Parthenon, and at a slight angle thereto. It is doubtful whether we would think so highly of the Parthenon were it not for its juxtaposition to the irregular and delicate Erechtheum. The two go together, the daintiness of the one setting off the strength of the other (Fig. 4.15). The modern observer, accustomed as he is to the mechanical planning that derives from Rome, might interpret the absence of parallelism as an indication no such relation was intended, but he would be mistaken. By pitching the two axes differently, the Greek designers made certain that the two buildings would take the light differently, thus avoiding the monotonous pattern of shadows which results from putting every surface in line with every other.

The matter becomes even more interesting if we consider the Erechtheum by itself. The south face, toward the Parthenon, is the one that best illustrates the principles in operation (Fig. 4.10). It is necessary, of course, to supply in imagination the missing parts of the entablature, and the vanished roof.

Seen from this point of view, the composition presents us with an extensive area of blank wall stretching off to the east and right. At the lower left-hand corner, we see the Porch of the Maidens which is small in scale, but an artistic tour de force: young ladies carrying an entablature on their heads. Empathy does not operate to make us feel fatigue even though they have stood there some 2,400 years; the architect gets away with it because his sculptor chose a very adequate canon of proportions and was supremely skilful in posing the figures, especially around the head and neck, so that they appear to do their work with complete ease, even with freedom.

The composition is in perfect balance. It is merely necessary to realize that for the purposes of a work of art, balance is not a mechanical matter but a question of the observer's psychology. We may balance mass off against mass, much as we balance weight against weight when using a simple set of scales. Up to this point, we have found it unnecessary to refer to any other kind of balance, but the Erechtheum demands an extension of our understanding. It confronts us with the phenomenon of the small item which is intensely interesting (the Porch of the Maidens) placed far off center, but establishing by the very fact of its interest an equilibrium as over against a large bulk of comparatively neutral material (the blank wall). In its present condition without either entablature or roof, the composition is out of order because the Porch of the Maidens exerts a disproportionate appeal to one's attention.

Were the Erechtheum the only instance of its kind, we might put it down as

an historical eccentricity, and pass on. The very same arrangement, however, appears to have been used in ancient painting, returned to popularity at Venice during the 16th Century (see below, pages 762-763), and has been used so many times since that we may recognize it as a standard artistic form. As indicated, the essential principle is to balance a bulk of inert material against a small item of intense interest. As seen in painting, the latter is almost invariably a vista into the distance. The vista, performing for the picture the same function as the Porch of the Maidens on the Erechtheum, will usually be found at the upper right-hand corner, or the upper left. It may be anywhere else so long as it does its work properly, and we need not be confused simply because the Porch of the Maidens comes at a lower corner rather than an upper.

If our present explanation be accepted — and it seems to give more satisfaction than any other — our admiration for the Greek genius is increased, and our comments about the limitations of the Greek mind are softened somewhat. Sadly enough, however, the principles illustrated by the Erechtheum never took hold during Antiquity, and the building remains the single instance of their employment by any classical architect.

THE INFLUENCE OF GREEK ARCHITECTURE UPON LATER STYLES

The influence of the Greek style upon the subsequent history of architecture is a matter of common knowledge. The beauty of the Greek orders has been as cogent, perhaps, as any other single factor in maintaining the cultural prestige of Antiquity. As decorative detail, the orders (or reminiscences of them) appear in wholesale quantities on Roman buildings, Byzantine buildings, Renaissance buildings, Baroque buildings, Rococo buildings, and indeed almost everywhere except in Romanesque and Gothic. This is the literal and mechanical aspect of the Greek influence.

Far more important are the tendencies which derive from the inward spirit of the Greek style. These have to do with the shape and the subtleties of shape given to individual members, and with the way parts combine into an orderly scheme conceived in terms of geometry. In the Greek temple, those impulses combined to produce a building which is, in the last analysis, a gigantic piece of geometric sculpture.

The basic psychology that derives from such a conception of architecture has had a far-reaching effect. It has been the dominant factor in architectural thought since the start of the Renaissance, and it was the dominant factor in the architectural thought of the Romans.

An architect who holds the Greek point of view experiences his first con-

ception of the building in a sculptor's terms. His initial effort to visualize the completed building creates in his mind's eye a picture of the *outside* of the building. He sees a set of masses. Each one will be a familiar geometric solid, pierced perhaps by doors and windows arranged at equal intervals, or according to some other scheme of easily-comprehended regularity. The more the mass of the building conforms to the simplicity and unity of the Greek temple, the more closely will it suit the taste of its architect.

Provision has to be made for the human activities that must go on inside the structure and round about it. In point of time, this consideration arrives in the mind of the architect only after he has already formed a preference for an exterior of a particular shape. The truth is that he packs in the practical details much as we pack a suitcase, and the volume of space originally chosen almost always is too much or too little. To use a bit of legitimate jargon, the architect who feels as the Greeks felt "designs from the outside inward."

The process almost invariably produces buildings that yearn for the condition of the Greek temple. Adjustments and additions are difficult to make, and the expense is usually higher than it otherwise might be. Neatness and order are almost sure to be arrived at, however; and no other procedure is so likely to produce formal beauty. As Alberti was so eloquently to point out during the Renaissance, formal beauty is no mere luxury. It has to do with the dignity of man, and is necessary if his soul is to be fed.



ALINARI



SANSAINI

Fig. 5.2 (above) Rome. Terme Museum. Red jasper gem signed by Aspasios. Early 1st Century A.D. Both are believed to reflect the appearance of the Athena Parthenos by Phidias.

Fig. 5.1 (left) Athens. National Museum. The "Varvakeion Statue" of Athena. Marble. 39 inches high.

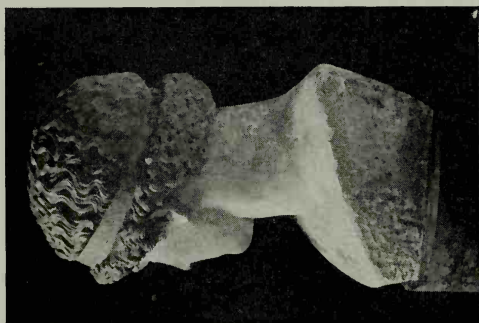


Fig. 5.3 Paris. Bibliothèque Nationale. Coin of Olympia. About 360 B.C.



Figs. 5.4-5 Coins of Elis. Period of Hadrian (117-138 A.D.).

Believed to reflect the appearance of the Olympian Zeus by Phidias. From casts in the Metropolitan Museum, New York.

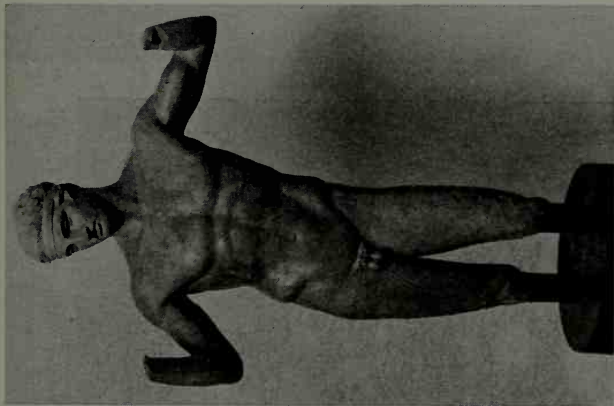


Figs. 56-8 Bologna, Museo Cirico. *The Athena Lemnia*. Believed to be a Roman copy of unusually fine quality after an original by Phidias, PHOTOGRAPHS BY CLARENCE KENNEDY.



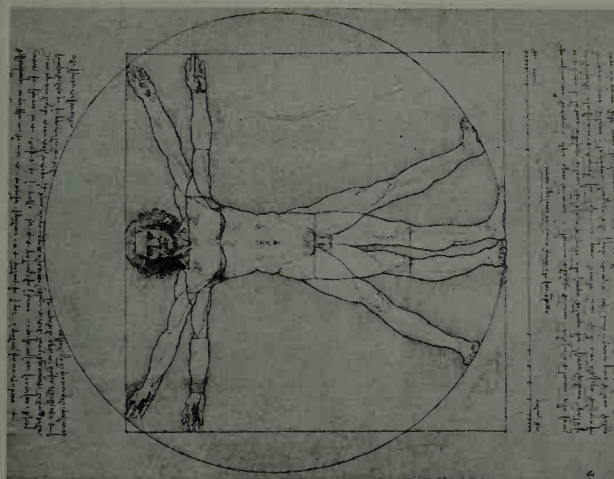
ALINARI

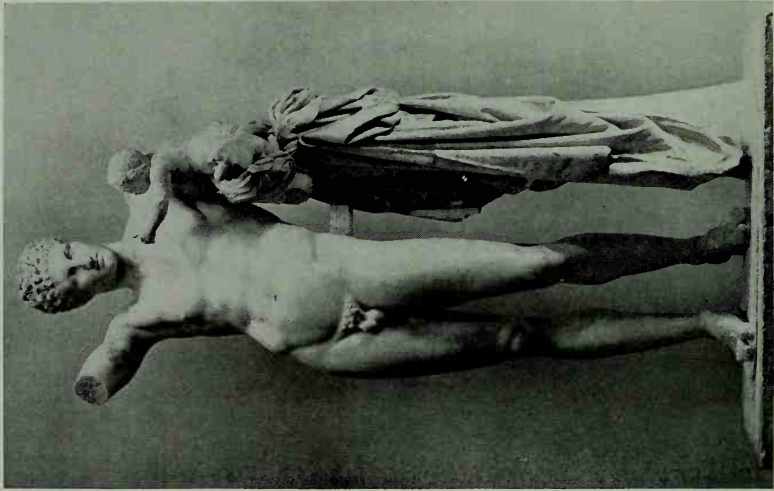
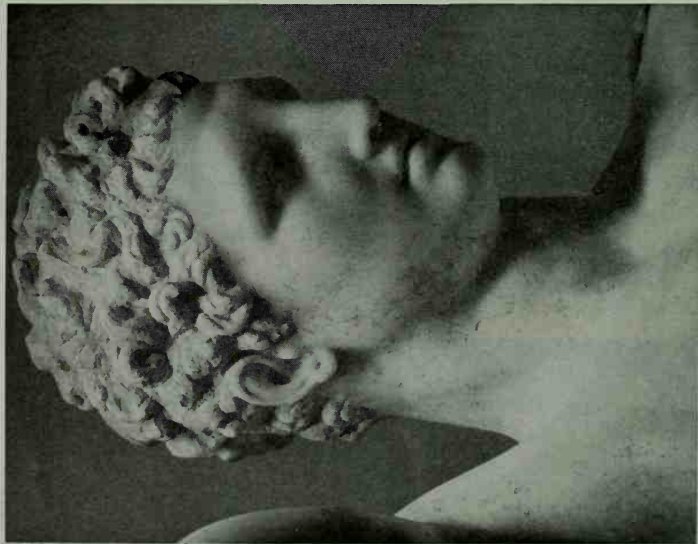
Fig. 59 (left) Naples, National Museum. Roman copy believed to reflect the appearance of the *Doryphoros* by Polycleitos. Marble. About 7 feet high. Fig. 5.10 (middle) New York, Metropolitan Museum. Terracotta statuette believed to reflect the appearance of the *Diadamenos* by



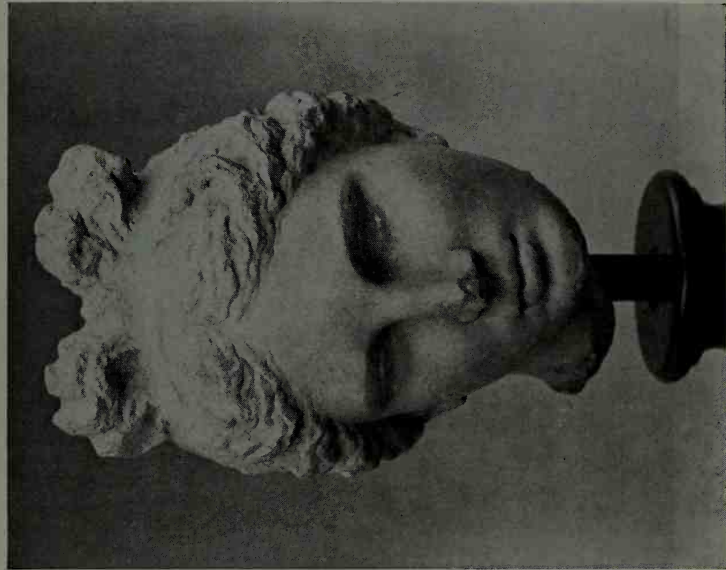
ALINARI

Fig. 5.11 (right) A page from one of Leonardo's notebooks; an attempt to visualize the Polycleitan scheme for human proportions. Venice, Academy.

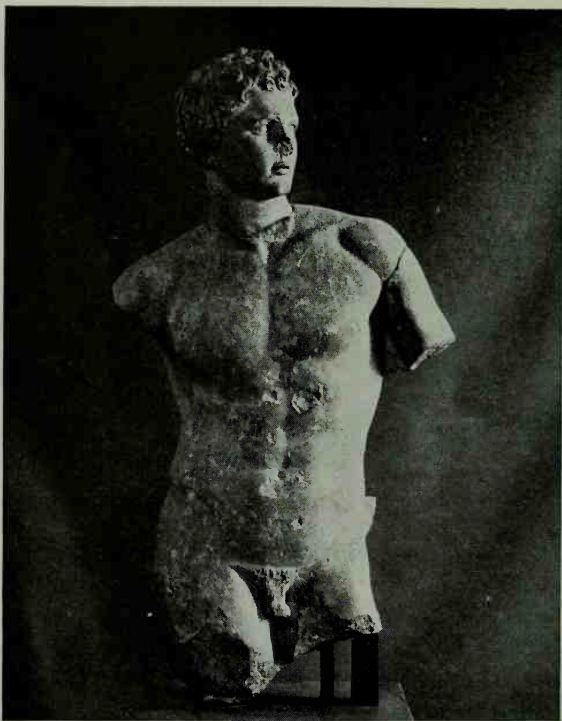




Figs. 5, 12-13 Praxiteles, *Hermes*, Olympia, Middle 4th Century B.C., Parian marble, 6 feet, 11 inches high, PHOTOGRAPHS BY WALTER HEGE.



Figs. 5.14-15 Boston. Museum of Fine Arts. The Bartlett Aphrodite. PHOTOGRAPHS BY CLARENCE KENNEDY.



Figs. 5.16 Cambridge, Massachusetts. Fogg Museum. *The Harvard Meleager*. Believed to reflect the appearance of a statue by Scopas.

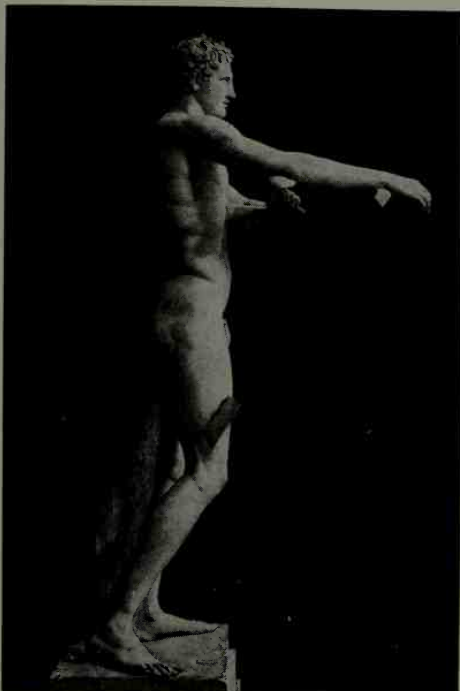


FROM A CAST IN THE METROPOLITAN MUSEUM.



ALINARI

Figs. 5.17-18 Heads from the pedimental sculptures of the Temple of Athena Alea at Tegea.



ALINARI

Fig. 5.19 Rome, Vatican. Roman copy believed to reflect the appearance of the *Apoxyomenos* by Lysippos.

Fig. 5.20 (below) Constantinople, Ottoman Museum. *The Alexander Sarcophagus*.

SABAH



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5

GREEK SCULPTORS
OF THE GREAT AGE

ABOUT 450 TO ABOUT 300 B.C.

PHIDIAS

The opinion of the ancients, as expressed in their literary records, gives the unmistakable impression that Phidias was the greatest artist of Greece. Because we possess so much of it in good condition we are likely to think of the building program on the Acropolis as his greatest achievement, but it would appear that we are mistaken. His fame during Antiquity derived from his authorship of the two greatest cult statues of the peninsula: the *Athena Parthenos* for which the Parthenon itself was built, and the seated *Zeus* in the Temple of Zeus at Olympia. For the Greeks these two statues had immense religious significance, and as objects of pilgrimage and devotion meant as much or more than the shrine of Santiago at Compostella was destined to mean in the days of medieval Christianity. Phidias's role, in short, was to furnish Greece with its visual imagery for the great Gods. The testimony of our literary records is practically unanimous in praising his supreme success in that profoundly difficult and immensely important enterprise.

Both the *Zeus* and the *Athena Parthenos* were of colossal size, standing about forty feet high. Because the *Zeus* was a seated figure, the scale was even larger.

Both were *chryselephantine*, which is to say made of gold and ivory. A complex wooden frame supported the statue; and over this, ivory plates were laid for the flesh surfaces, with gold for drapery and accessories. Precious stones were added to some extent. Because of the scale, various surfaces not ordinarily available for such use were employed as fields for subordinate decoration in narrative relief. The soles of Athena's sandals, for example, were deep enough to carry a *Battle of Lapiths and Centaurs*, and her shield had a *Battle of the Greeks and Amazons* into which Phidias is said to have introduced portraits

of himself and Pericles. There can be no doubt that these subordinate decorations added much to the interest of both statues, and made each, in effect, a museum of Phidias's art.

It is impossible to say with any certainty which statue was the earlier; and, as a matter of fact, our visual evidence is so slight as to make such a question utterly academic. The only fixed date in the sculptor's entire career is 438 B.C., when the *Athena Parthenos* was dedicated. Either before that or after it, he went to Olympia. There is a record that he got into trouble over an alleged theft of some of the gold used for the *Zeus*, and may even have died in prison. Greek politics being what they were, it looks as though his association with Pericles were the real reason behind the rumor; probably some of his enemies got him after Pericles died in 429. At any rate, we may make the guess Phidias was born about 490, and that his activity extended to 430 or a little longer.

Pausanias, that Baedeker of the Ancient World, was in Greece during the 2nd Century A.D., and saw the *Athena Parthenos*. In his *Description of Greece* (I.24.5), he says:

On the middle of the helmet rests a sphinx and on either side of the helmet griffins are represented. The statue of Athena stands erect and wears a tunic reaching to the feet. On its breast is represented in ivory the head of Medusa, and a *Victory* about four cubits in height stands on one of its hands, while in the other it holds a spear. At its feet rests a shield, and close to the shield is a serpent which no doubt represents Erichthonios. On the base of the statue, the *Birth of Pandora* is represented in relief.

It is from Pliny (*Natural History* XXXVI.18) that we get the further information that "on the shield was wrought in relief the *Battle of the Amazons* on the convex surface, and the *Combat of the Gods and Giants* on the concave side, while on the sandals was represented those of the *Lapiths and Centaurs*."

Plutarch (*Pericles* XXXI.4) completes such description as we have with the remark that on the shield Phidias included "a figure of himself as a bald old man lifting up a stone in both hands, and a very fine portrait of Pericles fighting an Amazon." Pericles, he further indicates, was shown with one arm across his face.

Suffering a certain amount of attrition, the original statue still stood in the cella as late as 375 A.D. After that time, accounts vary. There was a fire during the 5th Century A.D. in which the *Athena* may have perished; at any rate, it seems to have been gone by about 485. One bit of evidence suggests it was at Constantinople during the 10th Century, but we can by no means be certain what actually happened to it. As usual, we are left to do the best we can with what we have.

The *Strangford Shield* in the British Museum is probably a copy after the

shield of the *Athena Parthenos*, and seems to show Phidias and Pericles as we might expect to find them from Plutarch's citation. If so, this monument is the nearest thing we have to a self-portrait by any ancient artist, and is in itself evidence for the sculptor's age at the date of the statue.

Other monumental evidence is discouraging to a degree. The so-called *Varvakeion Copy* (Fig. 5.1) is the only complete statue that comes anywhere near fitting the stipulations of the literary evidence. One wishes it had never been found; it is lifeless, stupid, vulgar. About all that may properly be deduced from it is a summary notion of Phidias's figure-style as of that particular moment: a stocky canon of proportions and a head characterized by considerable breadth in the region of the mouth and chin. The *Lenormant Statuette* is a bit pleasanter than the *Varvakeion Copy*, but suffers from poor workmanship and bad condition.

A head in the Staatliche Museum of Berlin is of better quality, as are reflections appearing on Athenian coins. The only reflection of the great Athena which in and of itself has any finesse, however, is a carved gem by Aspasios, now in the Terme Museum at Rome (Fig. 5.2). But even that is florid, and we are forced to the conclusion that visual recovery of the *Athena Parthenos* is today impossible. Unless further evidence comes our way, we must abandon hope of having any adequate idea what it looked like.

For the *Olympian Zeus*, we are a little better off. The general appearance of the statue we know by following much the same method as before. It was seated on a throne. The upper half of the body was nude. The majesty of the expression was softened by kindness.

The ensemble is reflected on later coins of Elis, the district in which Olympia is situated, and in a rather empty fresco of Roman date discovered at Eleusis. A full-size marble head at Boston corresponds generally to the heads appearing on the coins, but its expression overdoes the element of kindness to the complete exclusion of the force for which the original was famous.

If this were all, we would once again have to abandon hope of spiritual or aesthetic satisfaction; but among the various coins which presumably reflect the appearance of the *Zeus*, there is one that rings true (Fig. 5.5). A mass-produced article in the first place, dulled by usage, preserved by the merest chance, reproduced in the form of a plaster cast, and reproduced again for our book plate, this tiny monument is enough to establish the calibre of its original and the authenticity of the reverence in which it was held.

"When you stand before this statue," says Dion Chrysostomos (*Orat.* XII.14), "you forget every misfortune of our earthly life, even though you have been broken by adversities and grief, and sleep shuns your eyes. . . ." In

other places, we hear that the fame of the *Zeus* went through all lands, that it was the unrivaled statue, and stood as the symbol and guardian of Hellas.

Like the *Athena Parthenos*, the *Zeus* remained in position for nearly a thousand years. In 426 A.D., the Emperor Theodosius the 2nd issued his decree calling for the destruction of all remaining pagan temples. That order seems actually to have been carried out at Olympia at least to the extent of putting the torch to the wooden roof and other inflammable parts of the building. It may be that the *Zeus* perished in the fire, but there is a rumor it was taken off to Constantinople, where it burned with the palace in which it stood about 475 A.D.

Left as we are with nothing but a coin and a gem to give us any adequate notion of Phidias's major works, it is tempting to make as much as we can of the architectural sculptures from the Parthenon. Opinions vary as to the extent they may be used as an indication of his personal style. They are certainly unusually fine for the purpose to which they were put, but the whole weight of probability warns us that Phidias can have had very little to do with them at first hand, and perhaps nothing. Any interpretation which connects them with himself must be put forward with the utmost reserve — and is thus useful only for the most general and superficial kind of analysis.

That being so, is there any hope of recovering one of the less celebrated monuments? The wish to do so amounts to strong pressure on every student of archaeology, and the hope for a positive result begets a tendency among the best of men to stretch every item of evidence to the limit. Such an instance is Adolf Furtwängler's reconstruction of the *Athena Lemnia*, conducted in 1891 and described in his *Masterpieces of Greek Sculpture* which appeared under the Scribner imprint in 1895.

The *Athena Lemnia*, we know from literature, was a bronze statue that stood on the Acropolis. It seems to have been dedicated between 451 and 448 by some Athenians who were leaving their native city to establish a colony on the Island of Lemnos. Pausanias (I.28.2) declares it to have been Phidias's most remarkable work. His statement might be discounted were it not for the fact that Lucian (*Images*, 4) once said he preferred it to all the other works of Phidias. Lucian was a good critic, and his opinion is repeated by every other critic. The *Lemnia* was preferred by some to Praxiteles's *Aphrodite of Knidos*, the most famous female nude in history, and there is good reason to believe that the *Lemnia* is the statue habitually referred to as "the Beautiful." If such opinions were entertained by competent men who knew the great chryselephantine cult statues, it is obvious there must have been something exquisite about the *Athena Lemnia*.

We need not take space for a detailed recapitulation of Furtwängler's argument. Suffice it to say that the head shown in our Figs. 5, 6-8 is of a type known in several marble copies, and on a gem. In several museums there existed some draped bodies recognizable as Athenas because they wore the *aegis*, but all these bodies either had been restored with heads that did not belong, or lacked heads altogether.

Two of the bodies were at Dresden. In 1891, it was decided to correct the erroneous modern repairs. In the course of that work, it occurred to Furtwängler to try the experiment of fitting a cast of the *Bologna Head* into one of the statues at Dresden. "The Bologna bust fitted into the hollowed torso," he says, "as exactly as if it had been made for it, hardly a millimetre of alteration being necessary." He later observed that head and body were carved from the same marble.

The *Bologna Head* had not previously been recognized as an Athena; but under the circumstances just set forth, no other conclusion seemed reasonable. The identification of the newly reconstructed statue as reflective of the *Athena Lemnia* depends upon the oddity that, of all the Athenas famous in Antiquity, the *Lemnia* was the only one without a helmet. "Phidias substituted beauty for the helmet" in this instance — or at least so runs one of the epigrams.

The *Bologna Head*, presuming it to be of Roman workmanship, is in a class by itself among marble copies. Nothing we possess so nicely fulfills our hope of Phidias in his gentler, more lyrical moments. Nothing so charming has ever been so chaste, nor anything so strong half so winsome. These circumstances lure us into sympathy with Furtwängler's hypothesis even while sober judgment tells us to hold back. The fact is that the identification rests on descriptive evidence of the very slightest kind, and the mechanical fit of the *Bologna Head* into the torso at Dresden may mean nothing more than the custom of a particular Roman shop. Many another head might, if we pursued the matter to the end, be found to drop quite as neatly into the same cavity.

Whatever else we may think of it, the *Bologna Head* of Furtwängler's *Athena Lemnia* (as we must call it if we are going to be cautious) is equal to Greek work in quality, and a splendid demonstration of the developed style of the Greek Fifth Century.

The delicacy of the subject and the taste of the workmanship tend to obscure our realization of the stylistic facts. The severity of the classical profile has, it is true, been softened somewhat by subtler contours and by the gentle texture of the lovely marble from which it is carved. The cylindrical forehead is still there, however, and the hard clean edge where the sinuses meet its contour. The hair, while more free than in earlier work, is in fact a sculptor's

abstraction intended merely to suggest softness rather than represent it. The contour of every surface, moreover, is made to take a smooth, true curve which necessarily eliminates the lines, convexities, hollows, and the innumerable other irregularities inevitably present on the body of any living model. The subdivisions of the head are very nearly in symmetrical balance as well, each curve having its equal and opposite with a precision of balance never seen in nature.

Because most educated adults have been accustomed to Greek sculpture since childhood, these peculiarities of style are usually accepted without comment, or not even noted as peculiarities. It is therefore necessary to give strong emphasis to the fact that the *Athena Lemnia* may not properly be described as realistic, or even by the more general term of *naturalism*. It retains enough resemblance to the human female to preclude our confusing it with anything else, but it is actually at several removes from representative art. Had the process of abstracting and idealizing been carried only a little further, Fifth Century sculpture would have arrived at something very close to modern Cubism.

In drawing conclusions from all that has gone before, it is evident that *as an artist* we know almost nothing about Phidias. As an idea, the reverse is true. The Phidian imagery for the Great Gods continued throughout Antiquity. It went on over into the Christian tradition almost without change. Michaelangelo's paintings of the Almighty differ only in detail from the *Olympian Zeus*; no one has ever suggested the conception was unwise or unworthy. In the whole tradition of Western art, we may, in fact, recognize the constant force of a Phidian ideal, for it is he rather than any other artist who best personifies Greece.

POLYCLEITOS

Polycleitos flourished at the same time as Phidias. He was a citizen of Argos, and did the great chryselephantine *Hera* for the Temple of Hera at Argos, to replace an earlier cult image destroyed by fire in 422 B.C. For the most part, however, he worked on athletic statues. A number of signed bases were found at Olympia, and we may guess that Polycleitos, true to his southern origin, carried forward into the Great Age the Dorian tradition noted during the Archaic Period.

Inadequate reflections of the *Hera* appear on coins. We can also recognize in several Roman copies a reflection of that very *Diadumenos* (Fig. 5.10) Lucian places in the collection of Eucrates the Magnificent. Neither of these monuments have anything like the interest and importance of another which

we find reflected in a full-size marble copy at Naples, a fine bronze bust in the same place, and on a grave relief in the National Museum at Athens.

We refer to the so-called *Doryphoros* (Fig. 5.9) which Pliny (*Natural History* XXXIV.55) describes as "a boy of manly form bearing a lance, called *The Canon* by artists who draw from it the rudiments of art as from a code, so that Polycleitos is held to be the only man who has embodied art itself in a work of art."

The last part of Pliny's statement gives us the key to Polycleitos's position in the history of art. In addition to being much respected as a sculptor, he was the chief aesthetic philosopher of Greece, and from his theories others were eager to learn. Lysippos himself declared that Polycleitos's work had been his "school," and there are others who say the same thing.

Polycleitos evidently made a specialty of Olympic victors (the *Doryphoros* almost certainly falls in that category) because such subject matter gave him an unparalleled opportunity for life-long study of superior human bodies. At the height of his career, he published a theory of proportion as applied to the body. It may or may not be true that the *Doryphoros* is the particular statue executed to demonstrate the rules; but if not, we have small cause for worry. Polycleitos, according to all accounts, worked for refinement along a single theme, and the less discriminating members of the ancient community sometimes complained that all his statues were very much alike.

Polycleitos's Canon of Proportions

A number of ancient writers refer more or less definitely to Polycleitos's theory of proportions. "Chrysippos holds beauty to consist in the proportions not of the elements but of the parts," says Galen (*De Plac. Hipp. et Plat.* 5). "That is to say, of finger to finger and of all the fingers to the palm and the wrist, and of all these to the forearm, and of the forearm to the upper arm, and of all parts to each other, as they are set forth in the canon of Polycleitos." Obviously, he is merely (and probably correctly) attaching Polycleitos's name to the sentiment expressed by Plato in the *Timaeus* (31): "And the fairest bond is that which makes the most complete fusion of itself and the things which it combines; and proportion is best adapted to effect such a union. For whenever in any three numbers, whether cube or square, there is a mean, which is to the last term what the first is to it; and again, when the mean is to the first term as the last term is to the mean — then the mean becoming first and last and the first and last both becoming means, they will all of them of necessity come to the same, and having become the same with one another will all be one."

While suggestive, those statements are difficult; and the reader may be for-

given if he fails to see how they might be applied to art. He will be happy to turn to Vitruvius, the only extant text that attempts to supply the data which might enable an artist to apply such ideas to the practical problems of the studio. In the first chapter of Book III, he tries to tell us what fraction of a man's total height ought to be allotted to the different parts of the body. The length of the foot should be $\frac{1}{6}$ of the height, he says; and $\frac{1}{10}$ the height should be the measure of the distance from the wrist to the tip of the middle finger. After mentioning some other proportions, he suggests a more general proposition; namely, that if we take the navel as a center and describe a circle, the extended arms and feet will fall on its circumference. This latter notion has been honored more than once by some of our greatest artists, who have drawn up figures to illustrate it. One may doubt whether such proved useful, for the truth is that Vitruvius was badly mixed up and did not understand the subject he purported to explain. He says just enough, in fact, to drive one crazy.

His garbled statements have nevertheless been sufficient to make the recovery of Polycleitos's system one of the major endeavors of modern scholarship. In 1416 or 1417, the Florentine humanist Poggio took a walking trip in quest of classical manuscripts. In the neglected library at the remote monastery of Saint Gall in Switzerland, he found a copy of Vitruvius, and thus set the whole research into motion. The first effort at recovery was attempted by no less a genius than Leon Battista Alberti. Piero della Francesca thought it worth his while to investigate proportion. The mathematician Luca Pacioli published a *Divina Proportione* in 1509. Similar studies were undertaken at about the same time by both Leonardo da Vinci (Fig. 5.11) and Albrecht Dürer. The quest still goes on. Mr. Jay Hambidge's *Dynamic Symmetry* and Miss Irma Richter's *Rhythmic Form* all derive from the Polycleitan tradition. Each author works with what he happens to fancy as *the golden section*, which is the magic-making name for Polycleitos's mathematics, whatever they were.

The several publications mentioned will prove interesting for every reader and fascinating for those adept with figures and diagrams. There is unmistakable merit in every point of view yet put forward, but we must recognize that we are not yet close to Polycleitos. Neither have we yet produced a practical formula for use by the artist. From the general welter of perplexity, a few helpful ideas nevertheless emerge and deserve to be stated.

All the authors seem to agree that beauty — at least as understood by Polycleitos — was no simple quality of an object. It had to do with the fact of relation and interrelation. "Nothing simple and devoid of parts can be beautiful," said Plotinus (*Enneads*, I.IV.i), "only a composite."

Another feature of the theory, and one upon which the ancients set great

store, appears to have been the idea of making all magnitudes commensurate. A fundamental unit, or *module*, was chosen. Every dimension of the body then had to be expressible in even multiples of the module. Polycleitos's module remains to be identified. There are those who think it was a unit of volume, not a unit of linear measure. The chief purpose of the module, it also ought to be mentioned, may have been utilitarian rather than aesthetic: uniform standards of linear measure were not established as they now are, and it was often necessary to establish a new unit for each job that came to hand.

It seems clear, also, that Polycleitos derived his theory by some sort of statistical procedure. Living models, it seems, were measured one after another for a very long period of time. The measurements were then combined somehow, and the result was set forth as a table. Because Vitruvius, Alberti, and many others have interpreted the process as a systematic effort to determine nature's true and sacred intention (she being visualized as the Goddess of Art), it is important to appreciate that Polycleitos probably realized as well as we do that nature is impartial as between the beautiful and ugly, producing both with an even hand. In this connection, we might remember the words of an Athenian who was very hard to fool. "When you want to represent beautiful figures," said Socrates to the painter Parrhasios (*Memorabilia*, III.8), "since it is not easy to find one person with every part perfect, do you not select out of many the most beautiful parts of each, and thus represent figures beautiful in every part?" "We do so," said the painter. Polycleitos's method, in short, aimed at no average result; he stacked the cards in favor of his own intuitive concept of the beautiful.

What started Polycleitos on his research? What keeps the research going? The answer is to be sought in the intellectual atmosphere of 5th-Century Greece; and if we look there, it is plain enough. However indirectly all such thinking derives from the theory of numbers which was the chief contribution of Pythagoras (latter half of the 6th Century B.C.). This theory asserts that numbers have a real and objective existence, and are fundamental in the universe. The idea sounds cold and narrow at first, but no utterance of the human mind has proven more profound. Every modern theory of matter and all theories of wave-motion relate to it. Even in Antiquity, it inspired some transcendent researches.

One of these, and doubtless the one that set Polycleitos on his way, was the Pythagorean theory of music. Pythagoras and his associates investigated the vibration of taut strings and demonstrated that such were lawful: the number of vibrations varies inversely according to the length of the string. With this information in hand, it was possible to define the intervals of the scale.

The concept of universal law is the inspiring part of the discovery — even more inspiring to the Greeks, perhaps, than to ourselves for we lack their complete faith in conceptual thinking. How wonderfully beautiful must be the supersensory laws by which we can explain music, the primeval art, the most natural and widely felt, the least definite but most connotative! If music be lawful, it ought to be possible for painters, sculptors, and architects to discover analogous laws, principles which have always existed and always have been true. The whole idea still fills the imagination with life, and doubtless was the vision that moved Polycleitos to his great effort.

Not knowing Polycleitos's theory, we cannot say whether he actually produced an analysis of art comparable to the precise definitions and distinctions long established within the field of music. In attempting to appreciate what he was about, it is of the essence to realize that the musical scale analyzed by Pythagoras, and the bodily proportions studied by Polycleitos, were both in general use and giving satisfaction before the researchers began their work. As to whether such matters may or may not be orderly, we do well to remind ourselves of a sage remark once set down by Alberti: "It is a common error of ignorance," said he, "to maintain that what one does not know does not exist."

The proportions of the *Doryphoros* are naturally of special interest, but at first seem strange to the modern observer. The head compares to the height in the ratio of 1 to 6.84, a numeral that has more decimal places than significant figures. The general aspect of the body has often been characterized as "square"; and by all ordinary standards, it is indeed very stocky.

At least two reasons may be adduced to account for the popularity of so ponderous a figure-style. Hand-to-hand fighting with the short sword was the fundamental of Greek warfare; when such work was afoot, the *Doryphoros* would be a better man to follow than to face. Sculpture being an art of mass, moreover, weight is the chief means by which the artist can evoke an impression of force and power, and it is notable that heavy proportions have almost always been employed by those sculptors whom we think of as taking a special interest in the theory of sculpture as such.

Whether the modern reader finds Polycleitos's method congenial or not, all the ancient evidence says that the greatest Greek artists found his Canon useful. We must therefore take it seriously; and it is a pity that so important a theory should have its chief visual demonstration in the Naples copy of the *Doryphoros* (Fig. 5.9), which is admittedly the product of a Roman copy factory of the second or third rank. By making a strong effort of the imagination we can, however, gain some notion of the original.

The Naples copy suffers from being executed in marble. In the original bronze, one would not be annoyed by the adventitious value contrasts resulting from the dark shadows cast by the overhang of every muscular contour. In bronze, these abrupt and almost linear boundaries would be almost necessary as an aid for reading the modeling.

According to all ancient testimony, the work of Polycleitos was distinguished even in that great era for unusual subtlety of technique. His enigmatic remark to the effect that the labor was hardest when the surface came "under the nail" probably refers to the infinite pains he devoted to the modeling of the wax surface of the form from which he cast his bronzes. But beauty of surface, sadly enough, is distinguished largely by its absence in the Naples marble copy, and we can only do our best to imagine what that statue might look like had the copyist been Desiderio or Verrocchio. The bronze bust also in Naples and signed by Apollonius helps in that endeavor, but not much. Unless some new copy comes out of the earth, the celebrated refinement of Polycleitos has gone with the wind.

In the end we are as usual put into the position of having to be content with general conclusions of the kind we may legitimately draw from the inferior monumental evidence available. Nothing could be harder on Polycleitos. Both the literature and the Roman copies say the same thing; namely, that he was an artist incapable of ostentation. The excellence of his statues was the excellence of superb technique devoted not to superficial appeal, but to the service of profound convictions in the matter of design. With that in mind, we may perhaps open our eyes to greater beauty in the *Doryphoros* than at first seemed possible.

Knowing it as we must at an archaeological remove, the great remaining merit of the statue is in the pose. The *Doryphoros* is presented as walking slowly forward with the poise and rhythm of the athlete who is also a dancer. By comparison, the familiar stop-in-action pose used by Myron and others seems lacking in finesse. Movement is here actually represented, but the overall ease of attitude and the relaxation of the pace cancel out any worry that might be suggested by the inertia of the medium.

The statics of the *Doryphoros* are hardly less interesting. The body is given a slight twist to our left. The supporting leg is on the side of the arm that hangs slack, and the tensed arm above the leg that is eased. The arrangement gives the torso a delicate, sinuous curvature. It also makes it necessary that some muscles be slightly stretched while others are compressed, a situation that produces an infinitely varied modulation of contour.

It is evident the ancients were not mistaken in their estimate of Polycleitos. He had neither Myron's dash nor Phidias's majesty, but his grasp of formal re-

relationships was perhaps deeper and more subtle than theirs. His place in ancient art is comparable to the station later occupied by Verrocchio, the greatest teacher of great masters that the modern world has known.

THE FOURTH CENTURY

Differences of a fundamental nature separate the Greek Fourth Century from the era before it. The whole land had suffered terribly during the Peloponnesian War (431-404) and the plagues which accompanied it. The new century thus started with treasuries low and with the population decreased. The effects of the long drawn out war were accentuated by prolonged instability in political life. The Spartan hegemony, the Athenian League against Sparta, the period of Theban control, and finally the rise of Macedon complete the century.

For art history, the most conspicuous result of these conditions is the abandonment of large public buildings. In Ionia, it is true, several big temples went up — notably that of Artemis at Ephesus (after 356) and the *Didyma* near Miletus (about 330); but on the Greek peninsula, the absence of important buildings seems to reflect a general loss of confidence in civic enterprise.

The Greek genius was by no means asleep, however. With Plato (429-347) and Aristotle (384-321), philosophy attained a new and nobler eminence. The century also produced its great artists, as already listed above, but their art was of a new and more introspective kind.

Because there were no important temples to call great cult statues into being, certain changes took place in the general run of subject matter. The Great Gods had been the typical subject of the Fifth Century; the Fourth turned appropriately away from these toward material of a more intimate nature. Gods, when they appear in Fourth Century art, are the lesser divinities. Even these divinities are softened, humanized, and presented not at moments from the heroic past, but in activities evocative of charm, grace, and elegance. Epic glory is the business of the Fifth Century; lyrical loveliness belongs to the Fourth.

Personal portraits, hitherto conceived and executed as public monuments when done at all, became for the first time an important part of the artist's business. All too few originals have survived, but it is obvious that considerable realism must have been wanted. Lysippos, for example, is said to have used casts taken from the model as an aid in the studio, but a statement of Aristotle's (*Poetics* 15) shows that idealism was far from being out of fashion. The "good portrait painters," he takes it for granted, "reproduce the distinctive features of a man, and without losing the likeness, make him hand-

somer than he is." Doubtless those who followed that advice prospered then as now.

Allegory also became a very popular category of subject matter. The mythological narratives used for pedimental sculpture had always been allegorically understood, to be sure; but the pediments, if properly interpreted, had a plain purpose of a social and ethical nature. The new allegories were of another kind.

Lysippos did a famous and typical one, his statue of *Opportunity*. It carried a razor to encourage keenness. It flew on the wings of the wind. The back of the head was kept shaven as smooth as a billiard ball to prevent any grabbing by those who saw it only as it went by. Assuming that our notices are correct, any statue capable of giving so complex an impression was a clever piece of work, but the allegory comes close to existing by and for itself. We may infer that the patrons of the Fourth Century were sometimes more interested in refining the process of thought than in drawing important conclusions.

The general tendency of Greek life to change from a heroic to a more humane experience is also well illustrated by the growth of the sanctuary of Asklepios at Epidauros (near Mycenae). Asklepios was the god of healing. Although his shrine was an old one, it had never been in big business before the Fourth Century, but by 350 or thereabout, the traffic of patients and visitors justified the construction of a temple to the God, a large gymnasium, a 180-room hotel built around four courtyards, and the finest of all Greek theatres. So far as we can tell, every kind of Greek medicine from the worst to the best was available there; and the place remained a popular resort throughout Antiquity.

Such was the atmosphere in which Fourth Century art flourished. Its definitive master was Praxiteles.

PRAXITELES

Pausanias was at Olympia some time during the latter half of the 2nd Century A.D. In addition to what he had to say about the important things to be noted there by future visitors, he set down a passing note (V.17.3) which recounts without comment, "In later times other offerings were dedicated in the Heraion. Among these was a *Hermes* of marble, bearing the infant Dionysos, the work of Praxiteles."

On May 8, 1877, a marble statue came to light as the earth was cleared from the floor of the temple (Figs. 5.12-13). It was obviously a *Hermes* carrying an infant, and the style was in perfect correspondence with everything hitherto known or inferred about the work of Praxiteles. The piece was immediately attributed to him, and remains the only statue which can possibly be an origi-

nal from the hand of any artist whom the Greeks themselves recognized as a great master.

The remarkable condition of the monument is accountable, paradoxically enough, to the unusually poor construction of the Temple of Hera in which it stood. The Heraion was a very old temple, perhaps the oldest we have, and its cella walls were made from sun-dried brick. After the roof was gone, the rain gradually converted the bricks back into clay. When the statue was overthrown, presumably by the earthquakes of the 6th Century A.D., there seems already to have been a deep, soft bed of mud ready to receive it. Thus we have it intact except for the two legs below the knee, the right forearm, and both arms of the child.

Hermes is presented as in the act of taking the baby Dionysos to the Nymphs of Mount Nysa, by which ladies he was brought up. The god is apparently in no hurry and perhaps even a bit bored with his assignment. He stops for a moment to ease the muscles of the left side by resting his elbow on a convenient tree stump, and he whiles away the time by amusing the youngster with something held high in the right hand, possibly a bunch of grapes.

While very weighty by modern standards, the canon of proportions is more slender than that used by Phidias or Polycleitos. The greater length of the body invites experiment with curvature, and the action taken throws the whole form into a pronounced S-curve. The pose is no different in principle from that of the *Doryphoros*, but the desire for elegance is more obvious and certainly far more overt. Curvature of this order of magnitude, it should be noted, was not peculiar to Praxiteles but is characteristic of all Fourth Century masters. The personal factor is the cultivation of grace for its own sake, and the winsome but nostalgic mood.

Aside from the more slender canon of proportions and the pronounced curve of the pose, the most conspicuous element of style has to do with the textures. These are differentiated with a new and almost incredible subtlety. The story is told that the statue was set upright and photographed as soon as found, and copies of the prints went posthaste to Berlin. One of the experts called in to see them complained, it is said, at the stupidity of photographing the *Hermes* in such haste. Someone, said he, should have taken the trouble to remove the cloth from the tree stump.

Unimportant in itself, the anecdote suggests much about Praxiteles. The bold summary modeling of the Fifth Century has been replaced by discrimination carried to its ultimate conclusion. Whereas Fifth Century sculptors aimed to make a clear, unmistakable, and heroic statement, Praxiteles wants to miss no least nuance of beauty. The contours of the body are lovingly rendered in modulations so subtle as to defy resolution by the eye alone; the

hands must feel the surface if we are to comprehend in any adequate fashion the full measure of the author's skill.

The more detailed modeling and the greater variation between textures has an effect rather startling by comparison to Fifth Century sculpture. One feels a vivid impression of actuality and human warmth. At first this may be mistaken for realism, but it is such only in a limited and comparative sense. *Hermes'* hair is modeled freely, for example; and its surface is very different from the areas of flesh. At the same time the hair is abstracted into bunches or locks, as we may care to call them. From a little distance, these take the light rather as hair does, but closely inspected each will be seen to be a small mass defined by orderly contours and twisted in a spiral fashion. The eyes, the lips, and the nostrils show a similar tendency to regularize every curve and make it graceful. The fact is that the *Hermes* is a humanization of an ideal type, not an idealization from the living model.

While the general opinion accepts the *Hermes* almost without question as a Praxitelean original, it is all too seldom stated that the attribution rests upon what is believed to be the probability, not upon what can objectively be shown as a certainty. Although the majority view is probably correct, it is important to furnish the reader with some of the outstanding reservations which make it possible to entertain reasonable doubts of the statue's authenticity.

The only external evidence for Praxiteles's authorship is Pausanias's passing statement; the value of that may be impeached. In the first place Pausanias was not a contemporary critic; he visited Olympia some six centuries after Praxiteles. He was a visitor, moreover, and not a citizen of the place. Like all tourists, he may have got his information about the authorship from some ignorant and irresponsible guide of the sort all too familiar today. Unlike Lucian, Pausanias was hardly enough of a connoisseur to make or to suspect attributions on the basis of his own observation.

The style of the *Hermes* fits perfectly with everything we believe to be typical of Praxiteles, but this internal evidence is a bit deceptive also. In the absence of any other original, "what we believe to be typical of Praxiteles" is a very general idea indeed. As compared to the visual data available for the study of most modern masters, we have next to nothing to go on. Connoisseurship in the ordinary sense of minute comparison is impossible.

It means rather little, in any case, to find a statue of Praxitelean style. The great Fourth Century Praxiteles was the most popular artist of the ancient world. His style was imitated everywhere and anywhere for a very long time, as Raphael's style was to be later. Conceivably, the *Hermes* might have been executed by some Hellenistic artist trained to imitate Praxiteles.

The circumstances just cited are made the more cogent by the fact that Praxiteles, while not now a common name, was more or less frequent in Greece. We know of other artists called Praxiteles. Some of them seem to have been descendants. Doubtless these would feel a strong temptation to capitalize upon the genius of the founder of their house by perpetuating his style as long as possible.

Loopholes in the evidence must be conceded to exist. It has even been suggested that the marble *Hermes* Pausanius says he saw was a marble replica put there by way of consolation and penance by the collector lucky enough to acquire an original *Hermes* of bronze; if so, Pausanius cannot be relied upon to know the difference.

Against such a view, the chief argument is the superior workmanship of the *Hermes*, which all concede to have set a new and higher standard. The statue is superior in that respect to anything of comparable date, though not better than a number of Hellenistic items which, while equal from the standpoint of technique, hardly measure up in content and spirit.

Having done our duty by telling the reader both sides, we may conclude by saying that the attribution is still accepted in most quarters.

Praxiteles' most famous statue was the *Aphrodite of Knidos*. The goddess was represented as nude, with one hand in front of her. There are reflections on Knidian coins of Roman date, and these show her standing beside a large urn over which she has dropped her drapery — and with the folded surface thereof, her smooth body must have made a vivid contrast.

All the ancient authors unite in celebrating her charm. Pliny (*Natural History* XXXVI.20) flatly says she was the finest statue in the world. Lucian (*Images* 6) speaks specifically of the "finely penciled eyebrows" and the "melting gaze of the eyes with their bright and joyous expression."

A good many other pieces of sculpture were accumulated by the citizens of Knidos, but the *Aphrodite* outshone them all. In 84 B.C., Sulla laid heavy levies upon Knidos; and King Nikomedes of Bythnia offered to defray the entire public debt, enormous as it was, in return for the statue. But, says Pliny, the Knidians preferred "to undergo the worst"; and presumably their *Aphrodite* continued to stand there in her open shrine lending fame and loveliness to the island.

No replicas of acceptable quality have been found. The best known is a Roman copy in the Vatican, which reproduces the pose as shown on the coins. After knowing the *Hermes*, it is very hard to reconcile oneself to that coarse statue. The *Von Kaufmann Head* in Berlin is a little better, and casts are sometimes made with this head upon the Vatican body. The resulting statue is still

a great disappointment. We must unhappily admit that the wonderful original is still very far off.

The *Bartlett Aphrodite* in the Boston Museum (Figs. 5.14-15) goes far, however, to ameliorate the situation just outlined. It may one day be established as a Praxitelean original. The chief argument against it is the fact that the skull structure is less massive than most Fourth Century work. The chief arguments for it are the workmanship, which is as good as the *Hermes*, and the inexpressible charm which almost spells out the name Praxiteles.

Because the mood is more pensive than joyous, it seems likely that we have here another *Aphrodite*, and not the one from Knidos. The dreamy loveliness of the gentle face is intensely feminine, not in itself emotional but extending the strongest appeal to emotion.

In producing such an effect, the sculptor must necessarily allow his hand to be guided largely by feeling and intuition, but calculation enters into the method to a very great extent nevertheless. For the general understanding of the Fourth Century style, and its differences from that of Phidias and Polykleitos, the *Bartlett Aphrodite* must be compared in some detail with the *Athena Lemnia*.

The expressive power of the *Lemnia* (Figs. 5.6-8) is produced almost exclusively by plastic means. We may define *plastic* as referring to tangible masses, and to the shape thereof. Sculpture is often called "the plastic art" because the sculptor either carves stone or wood into the desired shape, builds the shape up with clay, or casts the shape in bronze. In the end, he depends upon the shape of his statue for whatever merit it may have.

From the standpoint of the observer, sculpture of a perfectly plastic kind is susceptible of inspection by the sense of touch. A blind man in a completely darkened room would not, for instance, find it overly difficult to form a very good notion of the *Lemnia* merely by feeling it with his fingers. It follows that in the complicated psychological process by which we make ourselves familiar with works of art, those which depend upon plastic means necessarily excite the sense of touch. If we feel stimulation of that sense, we say that the work has *tactile value*. It should be understood, also, that while tactile values are primarily the province of the sculptor, it is possible for painters (Giotto, for example) to define mass vigorously and explicitly, thus getting much the same effect.

A detailed look at the *Bartlett Aphrodite* will show that while subtly plastic over some fields, the Fourth Century sculptor was using quite another method for certain passages.

If we look at the flesh surfaces alone, the Bartlett head is for the most part quite as plastic as the *Athena Lemnia*. The obvious difference can be explained without referring to any other mode of expression. The contours of *Lemnia* are simplified in summary fashion, and the transitions are bold and abrupt. The contours of the *Aphrodite* are a study in the nuances of modulation, and the various surfaces flow into each other.

It is in the hair that we see the most obvious departure from means that may be interpreted as plastic. The hair of the *Lemnia*, as we were at pains to point out at the time, communicates the idea of texture by an actual modeling of the marble; we could understand it by feeling it. The hair of the Bartlett head extends deeper into the third dimension and seems much less of a mere surface treatment, but the very qualities which at first may be thought to depend upon modeling actually depend upon the play of light and dark. It is not the marble surface of the hair which gives the impression of soft bulk and texture, but the shadows produced by undercutting the larger locks and roughening the surface in general. The effect depends, in short, upon the existence of normal light conditions rather than upon the manipulation of mass.

What is true of the hair is also true of the facial expression. The sculptor has broadened the bridge of the nose near the forehead, and has sunk eyes abnormally deep into the skull. The eyeballs do not protrude as anatomy says they must, and the eyelids are reduced in thickness. The result is to lose the eye, as it were, in a dark shadow, and we read the result as facial expression of a certain kind. It is doubtful whether the fingertips of a blind man would, by going over the surface, impart anything like the same impression, if indeed he could make sense of the Bartlett head at all.

Some critics have used the word *coloristic* whenever sculpture depends upon light and dark rather than modeling. Others would apply the adjective *pictorial* to situations like the one just reviewed, their reason being that pictures demand the use of the eye and that the eye is also needed to pick up any effect in sculpture which depends upon light and dark as distinct from shape. It seems unwise to use either term in such a way. *Coloristic* has always been a tricky word, and *pictorial* is better reserved for reliefs that attempt spatial representation, like those of the Romans and like those of Ghiberti. For a manipulation of light and dark of the sort seen on the Bartlett head, no accepted name exists, and it is merely necessary to explain in each instance that shadows do the work.

It is obvious from all that has gone before that Praxiteles was at his best when doing statues of women, and that his finely-drawn style was actually inappropriate for subject matter that demanded heroics. His special gift was to

open the eyes of Greece to daintiness, grace, and charm; he is, in fact, the very first artist in the history of the world who made charm a primary aim. The possible weakness of such an art is obvious, but if we may judge by the *Bartlett Aphrodite*, no artist has ever offered us a more perfect appreciation of the peculiar loveliness that belongs only to lovely women.

Although we have lost the *Aphrodite of Knidos*, that statue in itself was enough to give Praxiteles an unchallenged place in the history of European art. Knowing very little about the original, it is impossible to say precisely what the sculptor's intention may have been. Did he have it in mind to celebrate the goddess Aphrodite in her aspect as a religious figure? Was he merely indulging his great endowments in the matter of texture and modeling to produce something of surpassing physical beauty? Or was the statue popular because of erotic overtones?

At one time or another, each and every possibility of the female nude, including those just listed, has since been exploited to the full by countless painters and sculptors. No other figure has been so popular in art, but before Praxiteles, the subject hardly occurred. It is he, therefore, who introduced it to the history of art and made it part of our cultural idiom.

SCOPAS

The art of Scopas is still unknown unless we take the liberty of drawing conclusions from sparse evidence of an admittedly shaky kind. Literary sources make the man out to have been a wanderer. He worked in the Peloponnesus, and in Ionia. He seems to have been an architect as well as a sculptor, and from the date of the buildings with which the authors associate him, he must have been at the height of his career about the middle of the 4th Century B.C.

The only line of inquiry that has led directly to sculpture in what may be the Scopasian manner stems from Pausanias. When noting down his impressions of a visit to the Temple of Athena Alea at Tegea, about 25 miles north of Sparta, Pausanias (VIII.45.4 & 46.1) says, "I was told the architect was Scopas of Paros, who was the sculptor of many statues in different parts of Greece proper and also in Ionia and Karia." It will be noted that Pausanias assumes no responsibility for the fact; he merely says he was told.

The temple at Tegea was a Doric edifice of peculiar beauty, or at least so it is said. It replaced an older temple that burned in 395 B.C., but the style of the architecture, with columns six diameters high and an echinus profile so tense as to approach a straight line, suggests a dating of about 360 to 350 — which would be consistent with Scopas's presence there.

The temple stood for about 700 years, and was destroyed by Alaric the

Goth during the 4th Century A.D. The vandalism must have been unusually savage. Four separate efforts at excavation, beginning in 1879 and extending to 1913, have yielded only fragmentary remains. From the pediments in particular, we have only a few battered heads. The rest of the statuary must have been broken up at considerable effort, possibly for reduction to lime.

Battered as they are, these poor fragments nevertheless exhibit a figure-style that is markedly different from the general run of Greek sculpture. It is necessary to assume the work, or at least the direction, of some powerful personality with ideas of his own. If he was eminent both as sculptor and architect, we may fairly hazard a guess that Scopas would be inclined to exert a more detailed supervision over the sculpture for one of his temples than might be the case with the ordinary run of architects. And if that is so, then probably the original and individual style of these heads is his.

Seen either in full face or in profile, the heads from Tegea (Figs. 5.17-18) make a strangely "square" impression, and would in fact fit neatly into a cubical box. The vertical dimension is relatively less than any other Greek heads, and the nose is shorter. The Tegean fragments retain enough of the neck to show that the head had a strong twist on the body, and that the gaze was directed slightly upward. The eye is put back into shadow by sinking it deep into the skull, but the method is applied vigorously rather than with finesse: the sinuses overhang the eye-sockets in great rolls of muscle. The nostrils are slightly dilated, and the mouth is opened a little — both latter features suggesting a stronger breathing appropriate to action or excitement.

The subject matter of the eastern pediment had been the *Calydonian Boar Hunt*. The hero of that event was Meleager, who had been one of the Argonauts. When Artemis became angry at his father, the King of Calydon, and sent an immense wild boar to ravage the land, Meleager assembled a band of heroes and killed the beast. He gave its head to the virgin huntress Atalanta, whom he loved, and thus set into motion the series of jealous events which resulted in his death.

Now boar hunting always has been and remains the sport of kings. The wild boar is native in Europe and North Africa, and the domestic pig will, if permitted to run wild, revert to type in a few generations. No other European animal is half so dangerous to the hunter, and yet boars may be killed in comparative safety by men who have the nerve and skill. Traditionally, they are run with dogs, brought to bay, and dispatched with a heavy spear. The risk comes when a ferocious boar charges, for the hunter then will have no second chance if he fails to drive the spear home.

We have several marble statues of a youth who appears to carry a boar spear; sometimes there is a dog beside him. Meleager was, of course, the heroic proto-

type of all boar hunters, and the Meleager-subject suggests Scopas. Most of these statues show enough resemblance to the Tegean heads to make an association plausible.

The several statues in European collections have the usual coarseness of the routine Roman copy, but the *Harvard Meleager* (Fig. 5.16) is noticeably better. The modeling is sensitive, the anatomy full of vigor, and the pose dignified. If we are correct in associating the heads from Tegea with Scopas, this statue brings us closer to knowing him than any other we now possess.

The writers say that Scopas went off to Ionia, where he worked on the *Mausoleum* at Halicarnassos and on the Temple of Diana at Ephesos. Both buildings fall approximately in the middle of the 4th Century, and both included much sculpture. It is difficult to associate Scopas with the material preserved from these two places, but his influence may be felt in a very general way. Insofar as we have any right to particularize, a train of thought is suggested by the tradition that one of his famous statues was a *Raving Maenad*, possibly reflected in a very battered statue in Dresden. The Maenads were the mad women who accompanied Dionysos, and something can be made of the fact that Scopas was willing to undertake such a work.

The essence of the Maenad-subject is loss of control: the Maenads were traditionally supposed not only to be possessed, but were habitually in a violent state of intoxication. They flung themselves about in the wildest manner, half in ecstasy and half in torment. Obviously such material could not be handled within the limitations of conventional Greek sculpture. The statics hitherto thought appropriate for major statuary necessarily were tossed aside, and the direct representation of fast movement was accepted.

Even more important are the emotional and spiritual implications. Phidias had presented man as a creature of lofty calm for whom environment was a mere abstraction. Praxiteles made man conscious of his surroundings, but easy in his mind about them. Scopas admits conflict between humanity and the universe; his people feel and struggle.

Whether Scopasian or not, the reliefs from the frieze of the *Mausoleum*, now preserved in London, are surely in line with the general tendency just suggested. The narrative subject is the *Battle Between the Greeks and the Amazons*, and that combat is described in a manner well along the road toward realistic representation. Formal considerations (as, for example, the desirability of putting all heads on one level to maintain unbroken the architectural lines, as on the Parthenon frieze) are forgotten. The figures stand or fall, thrust and parry much as they might in actual hand-to-hand combat. The effect is spirited to a degree, but Greek dignity has gone by the board.

It was the mission of Scopas, if we have made him out correctly, to extend the subject matter of Greek art to include passion and action. By the same act, he destroyed the foundation of restraint which had hitherto kept sculpture moving straight down a predetermined road to greater and greater achievement.

LYSIPPOS

The career of Lysippos parallels that of Alexander the Great. Lysippos must have been born about 370 or earlier, because he began making portraits of the conqueror when the latter was a small boy. No other sculptor, it is said, could satisfy Alexander, who in the end forbade portraits by anyone else. The others capitalized the celebrated and almost effeminate beauty of his person; Lysippos alone was able to combine this with an impression of courage, intelligence, and power.

Of Lysippos's famous allegory *Opportunity*, we have already spoken. Among his other celebrated works was a *Heracles Epitrapezios*, so called because it was designed as a table decoration — it was a bronze statuette about a foot high, the hero being seated on a rock with a wine cup in one hand and his club in the other. By all accounts this tiny object conveyed an extraordinary sense of monumentality. "In how small a space," says Statius (*Silvae*, IV.6), "what illusion of great size!" The *Heracles* was a much sought-after collectors' item; it is said to have been owned successively by Alexander himself, by Hannibal, and by Sulla. Although we have more than one statuette of Heracles sitting on a rock, both style and details of the composition differ from the descriptions, and it is only on worn coins that we see anything suggestive of the original.

Lysippos apparently made his greatest reputation by doing monumental groups of figures in violent action. In this line, he appears to have anticipated an art form often cited as an innovation of the Hellenistic Period. One group showed about 25 Macedonians of the king's guard sacrificing themselves in a gallant defensive action. Another showed a troop of Alexander's horse, and still another included several four-horse chariots. Hunting scenes sometimes furnished a pretext for these elaborate works of art. Lysippos did a *Lion Hunt* for King Krateros, which was set up at Delphi, and he did at least one hunting scene which included a portrait of Alexander.

It is impossible to say whether Lysippos arranged his grandiose compositions in the form of a frieze, or as free-standing sculpture in omnifacial composition. The latter is more probable, judging by the *Laocöon*, the *Farnese Bull*, and other Hellenistic groups.

A fascinating possibility was opened up, however, when some seventeen marble sarcophagi were discovered in an underground tomb at Sidon in the year 1887. They are now preserved in the Ottoman Museum at Constantinople. One of them, the so-called *Alexander Sarcophagus* (Fig. 5.20), is of peculiar interest in the present connection. No one doubts that it is Greek work, and there is general agreement that it comes from the last quarter of the 4th Century — or within the possible lifetime of Lysippos. The practical limitations of sarcophagus-design preclude free-standing sculpture; friezes are the only arrangement possible. In shape, the *Alexander Sarcophagus* is like a miniature temple. On one long side and one short side, it shows Alexander hunting the lion and the leopard respectively. The other two sides show Alexander in battle with the Persians.

While no evidence now in our possession would permit a direct attribution to Lysippos, an association with him is almost unavoidable. The reliefs have dash and spirit of the sort required. The rendering of details is very finely executed, another thing the authors describe as characteristic, and more than one of the heads is unmistakably a portrait. If not specifically Lysippic, surely these reliefs are illustrative of the trend of style to which Lysippos himself belonged.

The trend itself is important, regardless of personalities. At this point in their history, it is evident that the Greek artists had made an end of the conventions with which the Great Age began. Their art had not ceased to be heroic, but abstraction of every kind was all but abandoned, and epic events were about to be represented as physical occurrences. Obviously, artistic taste was feeling an ever-stronger impulse toward actuality, one aspect of which is vividly illustrated by the sarcophagus under review.

The violent motion represented continues to be directed to the right and left only, in parallel with the background. The separate figures often overlap each other, however; and one feels that the sculptor is yearning for an art which permits the representation of space-in-depth. Such an impression is strongly enhanced by the fact that most of the figures were in color, and still retain their color. Faded as they are, the scenes look from a slight distance very much like painting. Under these circumstances, we find ourselves tending to read the blank marble of the background not as a neutral and impenetrable denial of space (which it had been in the pedimental compositions of the Fifth Century), but as the sky. From here, it will take only another move or two to arrive at an art which directly undertakes to represent space, to depict scenery, and to show the figure within a natural setting. That result was actually attained during the Hellenistic age, and a similar rendering has of course been habitual in European art since the Renaissance.

For Lysippos's figure-style, the evidence is discouraging. By the usual methods, but with something less than the usual weight of probability, two male statues can be associated with his name. They are the *Apoxyomenos* in the Vatican (Fig. 5.19) and the portrait of an athlete named *Agias*, apparently a Greek original of inferior quality, found at Delphi and now in the museum there.

It is hard to accept both statues as originating with the same sculptor. The differences have been rationalized in various ways: that both are portraits and reflect the personal appearance of two men who did not look alike; that the *Agias* is a contemporary derivative (a most unlikely assumption at this date) and differs from the other simply because the *Apoxyomenos* is a later Roman copy; or that the differences exist because one statue was an early Lysippos and the other done late in his career.

On the whole, it seems most likely that neither is within reaching distance of the master's personal work, but that both — to whatever extent they are alike — are "Lysippic" in the sense of reflecting his very great influence upon his sculptural successors for the remainder of Antiquity. Standing thus on thin ice, we may be forgiven for attempting to recognize in these two dull statues the elements of a new style.

The first thing to be noted is a new canon of proportions. Pliny (*Natural History*, XXXIV.65) attempts to give an account of Lysippos's theory, but his words betray a mixture of fact and hearsay. It is probably a waste of time to attempt making anything of them except in a very approximate way. If we do that, it appears that Lysippos used a more slender figure with a smaller head. It also appears that he was much concerned to give the onlooker a strong impression of the actuality of his figures: ". . . he represented them as they appeared to the eye," says Pliny in an otherwise confusing sentence.

The head of the *Apoxyomenos* measures about one-eighth the total height of the figure, a substantial difference from the Polycleitan proportion of one to seven or a little less. These measurements, moreover, are inseparably related to certain features of the pose. The longer legs invite more expressive movement of the entire body; and while not active, the figure gives the impression of muscles that have not yet relaxed after exercise. One has a feeling of tense nerves which express their condition in occasional shifts of the body, and the transfer of weight from one leg to the other.

Unquestionably these expedients result in making us feel that the sculptor intended to represent something alive, but much has been sacrificed to gain that end. Lysippos's athletes are neither gods nor heroes. They are simply young men, and tired young men at that. In the face of the *Apoxyomenos* there is a peculiar vulgarity hitherto utterly foreign to Greek art; it seems

evident that the statue reflects the appearance of a particular man whose face was no better than it should be.

It is important to realize, in addition to all of this, that Lysippos is giving us an individual person as he appeared at a single instant of time — in contrast to the things we might remember as significant aspects of the sitter's personality or his character. The position taken by the artist is, in effect, a negation of both generalization and idealism. In scenes of action like those on the *Alexander Sarcophagus* (Fig. 5.20), the instantaneous view (probably what Pliny meant by "as they appeared to the eye") is almost necessary and may pass unnoticed; in static figures like these, it thrusts itself forward as an artistic philosophy.

As such, it amounts to the artist's accepting visual experience as equivalent to artistic law. The work of art — within the practical limits of the medium in use — is required to maintain a one-to-one relationship with something the artist saw in nature. This, of course, is the position of the objective realist, and it would appear that Lysippos had gone very far in that direction. Because realism of all kinds, objective and otherwise, was destined to flourish during the Hellenistic Period, it is evident that the thinking of this last of the great masters had a far-reaching effect.



ANDERSON

Fig. 6.1 Rome. Capitoline Museum. *The Dying Gaul*.



Fig. 6.2 New York. Metropolitan Museum. *Old Woman going to Market*.



GAB. FOT. NAZ.

Fig. 6.3 Rome. Lateran Museum. *Rose Pillar*.

Fig. 6.4 DEUTSCHEN ARCHÄOLOGISCHEN INSTITUT, Rome. Torlonia Museum. King Euthydemus of Bactria.

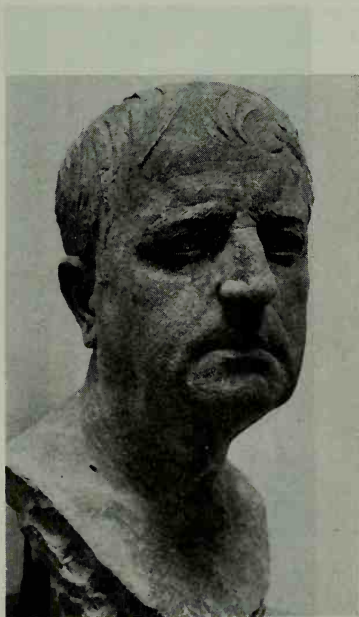
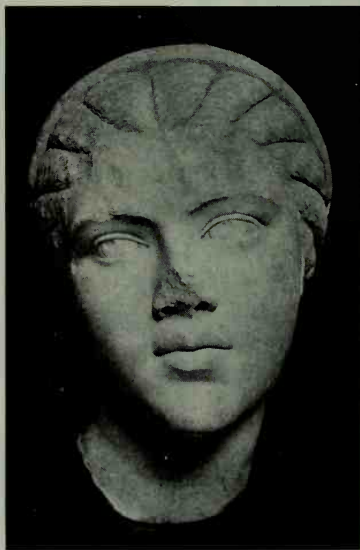


Fig. 6.5 Boston, Museum of Fine Arts. Portrait of a Roman, 1st Century B.C.



CLARENCE KENNEDY

Fig. 6.6 Athens, National Museum. Portrait of a Roman girl.



KAUFMAN

Fig. 6.7 Munich. Glyptothek. Peasant taking a bull to market. Marble. 11 inches high.



ANDERSON

Fig. 6.8 Florence. Uffizi. *Earth, Air, and Water*. From the *Ara Pacis Augustae* (13-9 B.C.).



ARCHIVES PHOTOGRAPHIQUES

Fig. 6.9 Paris. Louvre. *The Judgment of Paris*. Mosaic. Found at Antioch.



Fig. 6.10 Rome. Vatican Library. Pal. Grec. 431-IV. *The Joshua Roll*. Illustration for *Joshua* 5: 13-15.



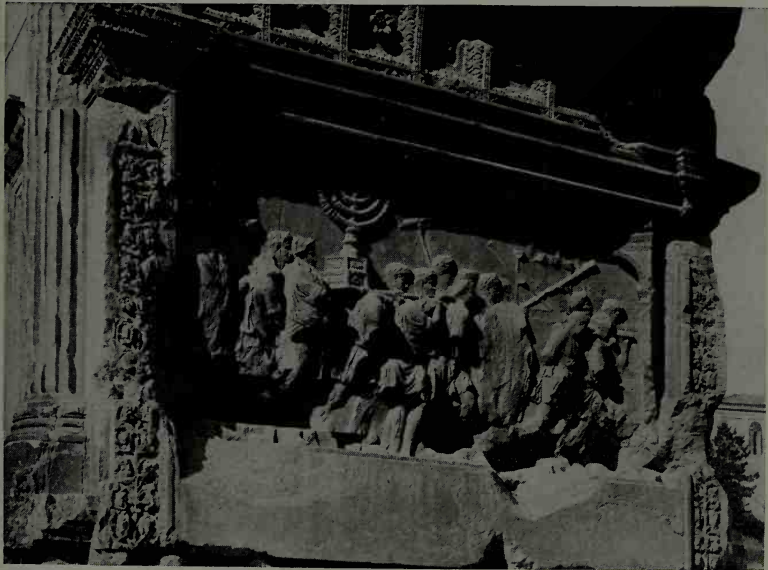
GIRAUDON

Fig. 6.11 Paris. Bibliothèque Nationale. Grec. 139. Folio 1 verso. *David Playing the Harp*.



GAB. FOT. NAZ.

Fig. 6.13 Rome. Terme Museum. Putto on a ladder. Fresco. 1st Century A.D.



ANDERSON

Fig. 6.12 Rome. Arch of Titus. 81 A.D. The spoils of Jerusalem carried in triumphal procession.



Figs. 6.14-15 Rome, Vatican. Two scenes from Book 10 of the *Odyssey*. The Laistrygonians rushing to attack (above); and destroying the Greek flotilla (below). PHOTOGRAPHS BY ALINARI.



ARCHIVES PHOTOGRAPHIQUES

Fig. 6.16 Paris. Louvre. *The Nike from Samothrace.*



Fig. 6.17 Paris. Bibliothèque Nationale. Coin of Demetrios Poliorketes, showing a Nike something like the *Nike from Samothrace*. Shortly after 306 B.C.



DEUTSCHER KUNSTVERLAG

Fig. 6.18 Berlin. Pergamon Museum. Detail from the frieze of *The Great Altar of Pergamon*: Athena killing a giant.



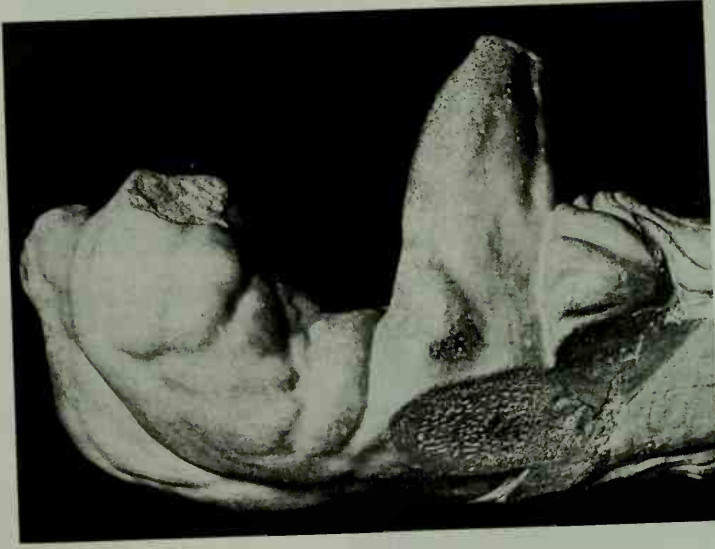
STOEDTNER

Fig. 6.19 Berlin. Pergamon Museum. Detail from the frieze of *The Great Altar of Pergamon*.



ANDERSON

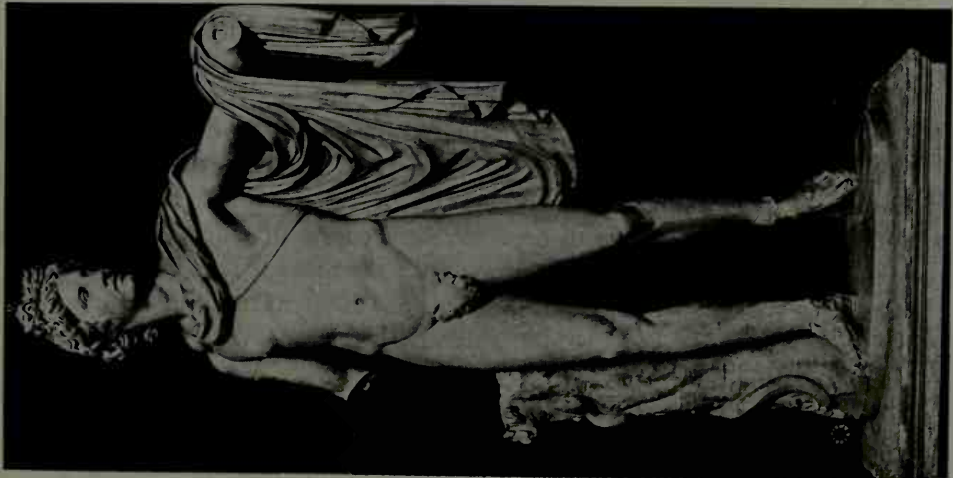
Fig. 6.20 Rome. Vatican.
The Laocöon Group. About
50 B.C.



Figs. 6.21-22 Rome, Vatican. *The Belvedere Torso* (ANDERSON).

Fig. 6.23 (right) Paris, Louvre. *The Aphrodite from Melos* (ARCHIVES PHOTOGRAPHIQUES).

Figs. 6.24-25
Rome, Vatican, *The
Apollo Belvedere*
(ANDERSON).



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HELLENISTIC
AND ROMAN
SCULPTURE

WITH SOME MENTION OF PAINTING

INTRODUCTORY

In dealing with the history of art from the death of Alexander until the end of Antiquity, we must set aside our habit of outlining by reference to political changes and military events. It has long been customary to recognize a Hellenistic Period (323-146 B.C.), a Graeco-Roman era (146 B.C. to about 1 A.D.), and a Roman Period (about 1 A.D. to 476 A.D.). These divisions correspond approximately to the heyday of the kingdoms governed by Alexander's heirs, to the period when the Romans were absorbing Greek culture, and to the era of the Roman Empire.

On the whole, the evidence of the monuments argues against so elaborate a subdivision. It is true that Mummius took Corinth in 146 B.C., and it is fair enough for the historian of politics to use that date as signaling the end of Greek independence and the beginning of Roman dominion. It is also legitimate to point out that Roman art as such did not start until the reign of Augustus (27 B.C.-14 A.D.); but it is contrary to fact to suppose that these happenings altered the direct and predetermined course of cultural history. We should begin our new study, therefore, with the concept that Hellenistic and Roman art are part of the Greek tradition; not different in kind, but a normal evolution from what went before, a natural extension over a wider area of a familiar artistic philosophy.

Except for Alexander, Greece would be remembered as an historical curiosity. Because of him, Greek modes of thought and Greek values run Western

civilization. The effect of his conquests was to spread Greek ideas; so many people were favorably impressed that it became virtually a certainty that the Greek spirit would somehow survive. Culturally speaking, Rome is but another Alexander. Without a strong art or literature of their own, the Romans attempted to adopt what they found in Greece. In so doing, they themselves became captured by the tradition they attempted to possess, and they transmitted it to the medieval world and even more directly to the Renaissance.

The latter-day ancients had no feeling that the world had crossed a great divide with the death of Alexander (323 B.C.); the recorded achievements of the following 500 years give the lie to any such notion. In fact, from the outlook of the men then alive, it must have appeared that civilization was constantly and rapidly improving until the Roman polity began to work badly during the 3rd Century A.D.

Immediately after the death of Alexander, new cities began to be important. Alexandria, Antioch, Pergamon, and Rhodes were in their heyday larger, richer, and busier than anything ever known before. They totally eclipsed the familiar centers of Greece proper. Commerce became more ramified and sophisticated. Trade went forward over longer routes and in greater bulk, involving practices of credit and banking thought to be very modern indeed. Immense wealth accumulated, permitting those who held it to live more easily, more comfortably, and more beautifully. By comparison, the customs of the 4th and 5th Centuries B.C. must have seemed crude and cheerless.

As Mr. Benjamin Farrington has so ably set forth in his *Greek Science*, the Hellenistic age saw accomplishments in research on a par with anything that happened in modern Europe prior to the Industrial Revolution. Pure mathematics embraced a usable trigonometry which enabled astronomers to observe such refinements of celestial motion as the precession of the equinoxes. Knowing the earth to be a globe, they measured its diameter within 14 percent of the truth; some say much less. The coordinates of latitude and longitude were established, and the latitude of particular points was measured almost as accurately as we can do it today: the recorded figures put the Pharos (lighthouse) in the harbor of Alexandria out by only 16 minutes of arc, a figure the modern navigator will instantly recognize as the semidiameter of the sun's disc. All sorts of mechanical principles were known, and numerous pieces of machinery were actually built: clocks, water organs, engines for siege and defense. Medicine was within an ace of Harvey's theory of the circulation of the blood. All of this learning, moreover, was organized on a system very much like the system of modern scholarship. Libraries and museums first became important public institutions during the Hellenistic age, and the duty of

scholarly publication was widely observed with the intention of making findings accessible to later generations.

To the modern student, it seems almost incredible that the Industrial Revolution did not start during the Hellenistic Period. About the middle of the 3rd Century B.C., Ctesbius of Alexandria had already invented a force pump and a pneumatic gun. He knew, that is to say, the principle of the piston and was in approximately the same position of intellectual advantage as James Watt when the latter undertook to invent a practical steam engine. What deterred the sophisticated businessmen of the time from embracing an opportunity to acquire fabulous wealth? The answer is necessarily a matter for speculation, but opinion centers upon two factors, each functioning as a mental block in the psychology of those who controlled society.

The first suggestion is that slaves were altogether too cheap and plentiful, and even at times and in places where this was not true, the ancient imagination was chained to the indispensability of slave labor. In a larger sense, we may say that the absence of modern notions of humanity closed the ancient mind to the desirability of seeking a substitute for the pain and degradation of those persons who were born to bondage. We must not be hasty in our judgment of that narrowness. Saint Augustine (354-430 A.D.) accepted slavery as God's penalty for original sin, and the whole social structure of the medieval world was hampered by the stultifying notion that theory was honorable, but that its application in the form of labor was to be despised even if the laborer happened to be a free man. The artists of the Renaissance, as we shall see, had to fight a battle to prove themselves gentlemen even though they worked with their hands.

Ancient religion also operated to restrain the practical application of science. Heraclides of Pontus knew that the universe was heliocentric as early as 300 B.C., and various astronomers noted the eccentricities of motion which prove that the orbits are not circular. The general adoption of such ideas was foreclosed by the fixed notion that the heavens were sacred, that circles were the only perfect curves, and that the earth was the center of things. It is not surprising that a society committed to such thoughts would, when descending to the lower realms of science, view the whole field of mechanics simply as an opportunity to manufacture artificial miracles for the greater conviction of the ignorant. In fact, except for war machines and a fire engine built by Ctesbius, it is hard to name many useful applications of the data compiled. Ancient research was pure to the extent of being sterile.

The controlling members of society, innocent though they were of concepts which to us seem fundamental, had reason to congratulate themselves. Anywhere one looked, there was evidence that the human mind continued to be

fertile and productive. In one important area of life, however, there was cause for gloom: in the art of government, the later Greeks have left a ghastly record. Many of their rulers were men of capacity; brilliance, even genius, occurred about as often as it did during the Italian Renaissance. But from the society as a whole, teeming as it was with thought and possessed of unprecedented potential, there emerged no constitutional scheme capable of producing a decent sort of political order. The polity of the Hellenistic kingdoms defies analysis or description. Each consisted of a hundred different relationships between government and the governed, involving every degree of absolutism and independence. It was truly a world of catch as catch can, and the happiest men of all were mercenary generals, who enjoyed to the limit the luxury of having no loyalties.

But even the political troubles of the ancient world were solved with the advent of Rome. The *Pax Romanum* was harsh in its original application, but it was the only protracted period of unbroken peace ever enjoyed by the European peoples. It may be said to have lasted approximately from the start of the Christian era to the end of the 2nd Century A.D., at which time both economic and governmental regularity began to fail.

Before we are ready to consider Hellenistic and Roman art, we must mention the two new systems of thought which were called into being during the Hellenistic Period: that of the Stoics, and that of Epicurus.

The latter advises us to forget the riddle of existence — the implication being that if an answer to the same exists, the human mind lacks the capacity to comprehend it. Such being the case, we had best make the most of the only life we are sure of. Often vulgarized into "the pleasure principle," the recommendations of Epicurus actually make an identity between personal satisfaction and a way of life which, by any standard, is both prudent and praiseworthy. If followed literally and honestly, his philosophy would make a good citizen out of any man.

The Stoics likewise defaulted from wrestling with the ultimates. Our problem, according to them, is to adjust to the world as it is. The chances, moreover, greatly favor our finding the world a bad place to be. Every man's daily routine puts him through toil and often through pain. Whatever plans we make, it is more than likely our hopes will finish in frustration and disappointment. No one can or will help another man much. Each person's resource is within himself alone, but by resolute action of the will, the self can be strengthened sufficiently to withstand the worst. No matter what happens, one need not play the part of the coward. A man can learn to face his fate with dignity.

Men capable of these ideas obviously were not the Greeks as they were dur-

ing the age of Pericles. Both the Epicureans and the Stoics were engaged in finding some way to face a situation too confusing to be understood and circumstances too difficult to be controlled. The relationship between humanity and the environment has, if we believe what these men said, been changed. Man's weakness is to be accepted as a fact. The power of events is to be accepted as irresistible. Only blind luck can avert inevitable defeat. Fortitude and virtue remain intelligible as concepts; but their practical application can accomplish only a little: in the case of the Epicureans, grace; in the case of the Stoics, dignity. The history of art seems to show that both grace and dignity endured as long as the ancient world, and when we encounter monuments that lack both, we shall know we are in the Middle Ages.

Until very recently, it was customary to present Hellenistic art as an art of display, indulgence, and decline. Roman art fared even worse at the hands of the historian; it is still difficult for the student to find an adequate and clear-headed summary of the subject. Admittedly neither Hellenistic Greece nor Rome produced a single artist of the same order of creative originality as Phidias, Polykleitos, or Praxiteles. We may therefore summarize, speaking of general tendencies where before a considerable effort of analysis was obligatory. But we may not perpetuate the notion that everything that departs from the conventions of the Greek Fifth and Fourth Centuries is an offense against the artistic right.

The obvious differences between the art of later Antiquity and that of the Great Age are to be explained in quite another way. The expansion of every other horizon had its counterpart in a great broadening of the artist's horizon. In the following chapters, we shall have occasion to see that the simple Greek temple no longer contained the imagination of architects; new structural methods were explored and perfected, new decorative themes were tried, and a great variety of types — religious, civil, and domestic — emerged. In sculpture, the most conspicuous development is an immense expansion of the catalogue of subject matter. The Hellenistic and Roman sculptors refused to limit themselves to figures of idealized young adults. Like artists of our own day, they used any subject that pleased or interested them. With respect to style, all artists of this later era depend rather obviously upon Greece, but there is no Hellenistic or Roman style as such. Separate schools and even individual artists determined style to suit themselves, and radically different methods were used in the same place at the same time in accordance with individual preference.

In sum, all of this means that Hellenistic and Roman art present an historical picture more complex and difficult than anything we have yet encoun-

tered. At the same time, Hellenistic and Roman archaeology are today in far worse case than the archaeology of earlier sections of the classical era. We are by no means certain about the location of important centers of production. By chance, we know a few artists by name, but we can make very little from it. Chronology has yet to be worked out; some of the most important monuments are still dated more by opinion than by evidence — and competent men often want to place the same statue a couple of hundred years apart. Except for passing mention of dates, we shall therefore abandon any attempt at chronological arrangement of the text. Instead, we shall endeavor to explain things by reference to the several major artistic tendencies which first make their appearance in history after the death of Alexander.

THE TASTE FOR COLOSSI

The vigor of Hellenistic life expressed itself in many an overt gesture. Nothing is more typical of the time than the arrival of a taste for colossal statues, a taste most unrestrainedly asserted by the inhabitants of Rhodes. It is said no less than a hundred immense figures were once on view there, of which the most famous was the celebrated *Colossus of Rhodes*, put up about 280 B.C. by Chares of Lindus, thought to have been a pupil of Lysippos. Antipater of Sidon (2nd Century B.C.), who compiled the earliest known list of "the seven wonders of the world," included the *Colossus* among them. It is a great pity we have no substantial evidence which might help us to visualize so conspicuous a monument, but it is worth making an effort with what we possess. The subject was said to have been *Helios*, the god of the sun. The statue was of bronze purchased with the money realized from the war machines left behind by Demetrios Poliorketes when he abandoned his unsuccessful siege of the island. It stood about 105 feet high, or 45 feet less than the *Statue of Liberty*. There was a winding staircase inside, and "glasses" for looking at distant shores and ships. Contrary to popular legend, the figure did not stand astride the channel leading into the harbor, and the idea that ships sailed between its legs is out of the question except in the case of small boats. As a matter of fact, the exact site is unknown; we merely know it was adjacent to the harbor. The *Colossus* endured only a short while. An earthquake occurred in 224 B.C., apparently breaking the figure in two. The ruin remained in plain sight until 672 A.D., when the incumbent Saracen governor sold it to a merchant of Edessa. Nine hundred camel loads of scrap were taken away, it is said; and its value, according to an 18th-Century authority, came to the then equivalent of 36,000 pounds sterling.

Another famous colossus was the one Nero set up in the courtyard of his Golden House at Rome, an extravagantly gorgeous palace built after the city burned in 64 A.D. That was also a sun-god, but Nero himself had posed as the model. The statue stood about 118 feet high, and showed the emperor with rays around his head. It was still standing as late as 354 A.D., and was the subject of the baleful prophecy: "While stands the *Colossus*, stands Rome. When falls the *Colossus*, Rome falls; and when Rome falls, with it shall fall the whole world." It is thought the prophecy originated with pilgrims to the Eternal City, and there are versions of it datable back to the 7th Century of our era. Because it was near the *Colossus*, everyone has always called the Flavian Amphitheatre the *Colosseum*.

Big statues retained their popularity until the very end. The Conservatori Museum at Rome has a bronze head of good workmanship and about six feet high; it is usually labelled *Constantius* — one of Constantine's sons. A seated statue of Constantine himself (regnal dates 306–337 A.D.) was placed in the central apse of the immense Basilica of Constantine at Rome. Some fragments of the arms and lower legs survive in the courtyard of the Conservatori, together with the head (Fig. 9.5), the latter being no less than eight feet high.

THE REALISTIC TENDENCY

In our study of Lysippos, we had occasion to observe that idealism was already on the wane at the end of the 4th Century B.C., and that an increasing consciousness of actuality seemed to be taking its place in the mind of the Greek artist. The process appears to have gone rapidly toward its logical conclusion, and presently the unparalleled resources of Hellenistic technique were devoted to reproducing the appearance of nature — or at least giving a vivid impression thereof. Within the general scope of the realistic movement, we will find it convenient to recognize two divisions. The first has to do with realism as applied to the single figure or to any other object that is best presented in close-up by plastic methods. The second has to do with realism as applied to the representation not of figures and objects, but of entire scenes in broader view, with figures and stage properties placed within the represented space.

The *Dying Gaul*, now in the Capitoline Museum at Rome (Fig. 6.1), marks the final abandonment of idealistic pretensions, and the complete acceptance of objective realism. The figure is a marble replica from a bronze original, one of a set believed to have been dedicated to commemorate the victory in 230 B.C. of King Attalus the 1st of Pergamon in Asia Minor. Attalus gained the gratitude of all Greece by soundly defeating the army of these folk who were already forcing their way into the Mediterranean world. It seems extraordinary

that an ancient victor should do his enemy so much honor, but Attalus is said to have admired the way the Gauls fought and the way they died.

As evidence of the contemporary orientation between man and the world, the statue is shocking in view of the conceptions entertained at an earlier date. The outright expression of terrible pain would have been unthinkable during the Great Age. So would the very idea of making a defeated man, even an enemy, the subject of a public monument. Some vestige of former outlook survives in the dignity with which the man dies, and the *Dying Gaul* may be remembered as an excellent illustration of the then popular retreat into Stoicism.

Realism is not always severe. Its gentler, more homely applications are known as *genre*: subjects from everyday life, neither beautiful nor inspiring, but presented because they recall familiar experience. The *Boy Struggling with a Goose* of the Munich Museum is an example, and the *Old Market Woman* in the Metropolitan Museum (Fig. 6.2) is another. The latter is of special interest as an instance of the expansion of subject matter. Most of the human beings heretofore seen in Greek art have been handsome, healthy, intelligent, and even noble. Even the evildoers (centaurs, for example) have at least been vigorous. But here we have the study of humble humanity at a time of life when the body becomes increasingly frail and unlovely with every passing year. Such a theme might well have invited the sculptor's sense of tragedy; in such a case, the statue would have been made the vehicle for expressions of sadness, futility, resentment, and despair. One of the things that makes it *genre* is the complete absence of connotative overtones; the realism is straightforward, but the feeling is gentle.

Whenever and wherever art tends to be realistic, there is big business in the portrait trade, and personal portraits begin to be an important art form with the start of the Hellenistic Period. We must distinguish between two types of portrait, both of which we have inherited in quantity. Public men naturally ordered monuments; and this created a demand for such ceremonial portraits as the *Augustus from Prima Porta*, now in the Vatican — a standing figure in the tradition of Polycleitos, with attributes recalling the mythical generation of the Julian line from Venus herself, and surmounted by a flattering rendering of the imperial countenance. Much more interesting are the portraits ostensibly ordered for private consumption; in these latter, objective realism seems to have reached its logical fulfilment. Portraits of this less pretentious class are usually busts of an abbreviated type, showing head and neck only.

Because so many of them — and their number is legion — stand in plain sight in the museums of Italy, we are all too often told that the realistic portrait is strictly an Italian phenomenon invented by the Romans for their own

use, but that is hardly true. Realism of the most uncompromising kind is to be found in later Greek work, long before the Roman market opened up. A particularly striking instance, probably dating from about 230 B.C., is the head of *King Euthydemus of Bactria*, in the Torlonia Museum of Rome (Fig. 6.4). No Roman face is more incisively and unsparingly rendered; few are so severe. It is true, however, that realism suited the Roman respect for facts; and for that reason, the market for realistic portraits was greatly stimulated as soon as the Romans started to order.

The range of Roman work is well illustrated by the contrast between the Boston terra-cotta head of an unknown Roman (Fig. 6.5) and the head of an equally unknown girl (Fig. 6.6) in the National Museum at Athens. Both show that objective realism at times has the awful finality of an accounting. Nature makes most young girls pretty, but gives them little else. Moderately successful men are bound to think overly well of themselves at sixty. The facts are frozen for all time; and the realistic artist, by the logic of his own philosophy, must take them as they come.

The same cast of mind, when turned to the study of flowers and shrubs, produced some of the finest floral sculpture the world has ever seen. From this class of work, a typical and favorite example is the relief known as the *Rose Pillar from the Tomb of the Haterii*, preserved in the Lateran Museum at Rome (Fig. 6.3). Monuments like this give us a new point of view toward realism; one aspect of that philosophy involves a communion between man and nature, a response of the senses to the grandeur of the world and also to the great wonder of nature in her more delicate manifestations.

Indeed, if we compare the *Rose Pillar* with the *Honeysuckle Band* of the Erectheum (Fig. 4.11), we have before us the difference between sense perception and conceptual thinking. The Greek feels compelled to make nature conform to axioms which, to him, seem luminously true. He therefore idealizes his floral ornament, reduces its forms to the plastic shapes he likes to use, and arranges the successive items according to the rules of a rhythm selected for the occasion. The Roman believes his eyes. Not denying the existence of general principles (in terms of which nature may have some ultimate order), he nevertheless declines to discredit the testimony of appearance — and the appearance of nature is very far from orderly. The Roman sculptor therefore gives his rose vine no more regularity than we might expect to see in any well-tended garden, and he includes innumerable accidental irregularities.

Love of nature is commonplace in the modern world, and the expression of it in Roman floral sculpture is unlikely to impress the reader as historically notable unless we warn him. The history of art contains no evidence that anyone ever loved nature before the Romans did, with the single exception of

the Minoan Greeks who had passed out of history with precious little legacy behind them. The beauty and kindness of nature left European culture, moreover, with the death of Antiquity; such feelings were utterly absent from the medieval temperament until the High Gothic of the 13th Century A.D. At that moment, nature in its original unspoiled disorder once again rather timidly entered the vocabulary of art as a modest prelude to the modern passion for natural beauty, the latter dating not earlier than the 15th Century.

THE PICTORIAL RELIEFS

The realistic enterprise did not stop with the study of the plastic facts of the human figure and other objects in nature. The research extended into every aspect of actuality including the representation of space and the placement of things forward and back within the setting called into being by the techniques of the artist. The enterprise is often referred to as *illusionism*, a word with somewhat unfortunate connotations but one which may apply if a work of art is, in fact or in fancy, momentarily mistaken for a view into the real vista. If used at all, *illusionism* should be reserved for spatial representation; its inventor, Professor Wickhoff, often extended the meaning to include anything whatever that might evoke a vivid impression of existence.

The representation of space depends upon a knowledge of perspective, a subject which seems first to have been investigated at Alexandria during the 3rd Century B.C., apparently with about the same results that were once again arrived at in Florence during the 15th Century A.D. Painters and sculptors share two principal methods for representing space: *linear perspective* and *atmospheric perspective*.

Linear perspective is the studio term for descriptive geometry, or the science of projection. It governs the outline of objects as they appear in drawing and painting, and is easiest to explain when architectural masses — or any other rectangular masses — are projected onto a flat surface like that of the canvas. When that is done, all lines which are parallel on the surface of the mass must, on the surface of the picture, be made to converge in systematic fashion toward one or more *vanishing points*. The same principles apply for the projection of irregular masses (the human body, for example), but the explanation is more tedious and the phenomenon less obvious to the layman's eye. *Foreshortening* is a word used as a near-synonym for linear perspective whenever one wishes to say that some mass (for example, an arm represented as being extended at right angles to the picture-plane, as though directly toward the eye of the observer) is presented in bold close-up. From the logic of linear perspective, it follows that more and more distant objects subtend increasingly

small arcs of the field of vision; thus small things in the foreground take up more room on the canvas than immense things far off.

If we may judge by the general run of preserved monuments, linear perspective was understood only fairly well by the ancient artists; they used it in a rule-of-thumb way and by no means so scientifically as the masters of the Renaissance. Atmospheric perspective, on the other hand, seems to have been very well handled indeed. It results from the curtain of dust and mist which almost always hangs in the air, softening the outlines of distant objects, obscuring details, and neutralizing their color. As a means of estimating distance in nature or representing it in art, atmospheric perspective is of greater psychological importance than the geometry of projection. Whenever conditions are abnormal or unfamiliar (as in some parts of the American west where there is little dust and mist), the ordinary man is prone to make gross errors when he tries to say how far off anything may be.

The painter is able to simulate all the conditions of both linear and atmospheric perspective. When carving a relief, the sculptor can of course make use of the principle of the vanishing point. He can also make his relief lower and his modeling less distinct in order to avail himself of atmospheric perspective, but he lacks the ability to "place" objects within the represented space by modulating the color relationships. Offhand, it would sound as though the sculptor had most of the available methods at his command, but the reverse is true. The one technique he lacks is the most important of all. It is by way of the color sensation that we habitually make most of our judgments about distance.

Within the broad category of spatial representation, we have recently come to recognize two classes of work which seem distinct in theory and separate in historical origin, although the two often merge together in particular monuments. One is the so-called *Alexandrian Style*, and the other is the Roman or *Latin Style*.

Typical of the Alexandrian Style is the tiny marble panel in Munich showing a peasant leading his bull to market (Fig. 6.7). It belongs to a class of small marble reliefs found in various places. Presumably they originated at some common center. The identification of Alexandria as that center is probable, but conjectural. It rests upon two lines of evidence, the first being the likelihood that pictorial reliefs would originate where the study of perspective started. The second reason has to do with subject matter.

With reasonable consistency, the Alexandrian reliefs deal with pastoral and bucolic themes. An analogy therefore suggests itself: there had been no pastoral poetry earlier than the Hellenistic Period; it was called into being by the

crowded life of the teeming Hellenistic cities, probably as a nostalgic remembrance of simpler days. Theocritus was the father of pastoral poetry. He spent most of his active career at Alexandria, arriving there about 276 B.C. Although there are critics who believe that not one of the reliefs now brought under review may be dated before the Roman era, the affinities with Theocritus and the generally Greek tone make the Alexandrian association far from irrational.

Regardless of their archaeological source, we can recognize a category of monuments alike in subject matter, and even more uniform in the method of presenting subject matter. In fact, the arrangement amounts to a formula; and the scheme was used so often and so long we may conveniently name it the *Alexandrian Formula*, thus dignifying it for what it is: a distinct and useful pictorial scheme adaptable to the purposes of any artist who wants to show a few figures out-of-doors.

One and all, these pictorial renderings are like Theocritus in calling up sentimentally lovely Greek figures who people with easy grace an outdoor setting that celebrates, in similarly sentimental mood, the softer and more generous aspects of nature. It is hardly true, however, to say that the figures are within their setting. On the contrary, they are brought forward as though to the edge of a stage. In that position, they loom large, fill a substantial proportion of the available area within the frame, and obscure the landscape behind them. It is evident that Greek art was not yet ready to abandon humanity as its chief vehicle of expression, and to the Greek hate for the indefinite, we may assign the peculiarity of the extreme caution with which artists of this school employ their space.

We tend, of course, to read the blank upper background as the sky; but almost without exception, compositions of the Alexandrian category seem deliberately arranged to prevent the eye from searching off into the unlimited distance. Nowhere is it possible to enter the scene, as it were, at the foreground and continue straight back into space without interruption. Rows of people, landscape details, and stage properties of every kind stand in the way. If it be desired to detain our attention within measurable bounds, nothing could be a stronger deterrent to an imagination likely to soar off into the infinite.

Although scholars are probably correct in assuming that any object fitting this general description belongs either directly or indirectly to the eastern part of the Mediterranean world, it is obvious from the monuments that pictures and reliefs of the Alexandrian type had a wide vogue and extended at least into Roman Italy. What we have said of the *Peasant and Bull* may also be said of the so-called "Tellus panel" from the *Ara Pacis Augustae* (Fig. 6.8), erected at Rome between 13 and 9 B.C., and in which we see a personified Lady Earth attended by Air and Water — all three celebrating the boost to agricul-

tural productivity alleged to have resulted when Augustus assumed the purple. Many of the mosaics uncovered recently at Antioch conform to the Alexandrian scheme, notably the splendid *Judgment of Paris* (Fig. 6.9) now in the Louvre; the same thing may be said of perhaps two thirds of the pictures recovered at Pompeii.

The popularity of the Alexandrian Formula decidedly did not cease with the decay of ancient civilization and the gradual dissolution of almost everything else that was classical. This scheme for the arrangement of a picture proved as useful for Christian subject matter as it had for pagan, and was carried over directly into the art of the early Middle Ages. Some of the mosaics in the churches and tombs at Ravenna are stylistically close to the Greek and Roman monuments just cited, particularly the *Christ as Good Shepherd* in the Mausoleum of Galla Placidia. Even purer examples of the formula were produced at a much later date by miniature painters employed in the important medieval industry of manuscript illumination. Because every classical or Christian text was necessarily a copy and because the very desire for a copy involves the sense of authenticity, only the most independent artists dared undertake any deliberate and significant departure from either the words or the illustrations set before them. There are, of course, numerous instances of technical incompetence resulting in the inability to execute adequate copies of older pictures, but whenever a skilful man was put to work, the ancient style enjoyed a momentary revival. To some such circumstance we must assign the miniatures of the so-called "Joshua Roll" of the Vatican; and in Fig. 6.10, we see the event described in Joshua 5:13-15, where Joshua encountered the angel sent as Captain of the Host of the Lord. According to the best guess we can now make, these pictures were done about 700 A.D., perhaps at Constantinople, and were either copied or closely adapted from an original of three or four hundred years earlier. An even earlier original probably accounts for the better miniatures among the fourteen that illustrate the so-called "Paris Psalter." The *David Playing the Harp* (Fig. 6.11) might easily and properly be mistaken for a classical picture. The manuscript is almost completely innocent, in fact, of anything that is necessarily Christian; and the purity of its classical imagery, obvious enough in a general way, is made unmistakable by some precise resemblances. Our picture shows David with Melody seated beside him, while Echo pops her head in from the upper right. The pretty Melody, as Mr. Morey has pointed out, is all but a duplicate of an Io in one of the Pompeian frescoes. The label "Bethlehem," moreover, hardly suffices as a Christian conversion for the lazy God at the lower right-hand corner who is present to localize the scene by the time-honored pagan method of personification. To complete the history, it should be pointed out

that the Alexandrian Formula was fastened upon and used again by the artists of the Renaissance. It was especially popular at Venice, and a general description of numerous easel paintings by Titian and others would serve equally well as a description of any of the ancient works of art covered in this section.

As the name implies, the Latin Style was almost certainly an Italian innovation of Roman date. It differs from the Alexandrian in the vital matter of spatial manipulation: there is no attempt to control or curtail the represented space; it is always unlimited and sometimes emphatically so. The Latin Style also embodies a relaxation of the emphasis traditionally given the human figure in all classical art to date. Even when figures are placed up in the foreground, we are given clearly to understand that they are *within* the represented space, not out in front of it. In the monuments which seem best to illustrate the intention of the Latin School, the human actors are made small in scale; they do not overshadow the setting, but have their being as details of a broader picture.

Two large and imposing panels of relief line the passageway through the Arch of Titus in the Forum Romanum (Fig. 6.12). Both are badly damaged. The heads of the figures in the front row were originally executed in the round, or near it, and these have been knocked off. In spite of the mutilation, the several subtle gradations from sculpture in the round toward sculpture in low relief are entirely adequate to convey a sense of atmospheric perspective. The effect is unmistakable, and we instinctively read the blank background as the blue sky.

For an adequate demonstration of the Latin Style in full force, we must turn to Roman painting — of which a great many examples have survived, almost all of them the work of hack artists in the employ of interior decorators. The subject matter of such painting is frequently idyllic and reminiscent of the Alexandrian, but the handling is significantly different. In radical contrast to the shallow stage used in the Alexandrian Formula, the Latin setting opens up from the very edge of the picture and continues out into the far distance. Nothing impedes the eye. Figures and other details are placed far apart, and there is room, as it were, to go between them. Within the represented space, we see human beings and animals, but they are tiny in relation to the picture as a whole.

There is also a substantial difference in the definition of detail. As a general rule, the persons who appear in pictures of the Alexandrian type seem to have been conceived as animated statues; contours are smooth and precisely defined. By contrast, practitioners of the Latin Style tend to be *impressionists*.

The word *impressionism* as applied to Roman painting may cause momen-

tary confusion. The very same word is today current as the name for a school of French painters (Manet, Monet, Degas, Renoir, et al.) who flourished during the last generation of the 19th Century. It would be better if we always referred to that school as the *French Impressionists*, never forgetting to apply the adjective. They were certainly impressionists in every sense of the term, but they were a great deal more than that, as we shall see in due time.

Impressionism as such is as old as Rome and probably as old as painting. It has no necessary or essential connection with spatial representation, or with any particular formula for the arrangement of a picture. As an artistic theory, impressionism has to do merely with the handling of the brush and the rendering of detail. The laboratory case of the impressionist painter would be a man with only one brush, and that brush a large one. He would find it impractical to work out in minute particularity the arrangement of lights and colors which might, in nature, be noted by the unaided eye on the surface of a single white button. The impressionist would merely slap down a spot of white, and let it stand as a suggestion for the button. In its purely technical aspect, impressionism is a kind of private conspiracy whereby the painter agrees with himself to describe detail only when it is comparatively large in scale. He has a lower limit of size beyond which he will not go. That lower limit, it must be emphasized, is not set by tools and materials. It is a matter of deliberate choice; the impressionist painter consciously refrains from using the more delicate methods which are available to him.

As compared with a more detailed and plastic rendering, impressionism is closer to the visual experience of the average man. Most of us go through life without ever having occasion to make a minute inspection of anything whatever. We do not examine the human figure, or anything else, with the intense vision of a Greek sculptor. Most of our seeing is hasty. Our visual images are vague and incomplete — in a word, impressions. The impressionist painter therefore has the considerable advantage of offering an artistic experience almost precisely parallel to the visual experience of daily life. The danger is that his art will be no more profound than daily life, but it must enthusiastically be conceded that the good examples of impressionism have a snap and reality more vivid than any other kind of painting.

The snap and reality to which we refer suffer not at all from the fact that impressionism is superior to any other mode of rendering with respect to the internal logic of a liquid or viscous vehicle applied with the brush. In the nature of the case, it invites strong, racy strokes and demands a certain measure of bold abstraction. When well done, the life of the painting is tremendously enhanced by a clear record of the muscular activity of the painter as he worked. Impressionism gives the observer a keen feeling for the pressure and

motion of the brush. There is, so to speak, a sense of participation denied by smoother and ostensibly more elegant methods.

To all of this we may add that there is some virtue in the very fact that the impressionist theory forecloses the artist from complete description of objects. The observer's imagination must supply the imagery that is lacking — an act sometimes referred to as "the re-creative function," and an experience the value of which is not to be denied. Would we feel inclined to change the little *Putto on a Ladder* (Fig. 6.13) for a more tightly modeled rendering of the same subject?

The originators of the Latin Style, whoever they were, deserve to be remembered as the men who conquered the traditional classical fear of the infinite, and opened ancient eyes to the emotional grandeur of vast distances. The pictures that seem most typical of the Latin Style are those where the represented space itself assumes the importance of subject matter. None are better than the so-called *Odyssey Landscapes* (Figs. 6.14-15), found about 1850 in a house on the Esquiline, apparently of the 1st Century A.D.

The series of pictures, today incomplete, was conceived as having a continuous landscape. The separate subjects were divided by painting in Ionic pilasters at regular intervals. The narrative comes from Books 10 and 11 of *The Odyssey*, covering the adventures of Odysseus among the Laestrygonians, with Circe, and his expedition to the lower world. We see his men meeting the stately but immense daughter of King Antiphates who, as all the world knows, promptly stirred up a peck of trouble. The savage, gigantic Laestrygonians went into a fury, gathered great rocks (Fig. 6.14), and, rushing to the harbor, dashed to pieces all the ships but one (Fig. 6.15) — also harpooning the men of the crew, whom they carried off for supper. But the wily Odysseus had moored his own vessel outside the cove; he cut the mooring line with his sword, ordered his crew to row for their lives, and got safely out to sea.

The *Odyssey Landscapes* are among the first pictures where the space itself attains anything that might be described as grandeur. Every vista opens straight out toward a remote horizon. Within such settings, the human actors assume something like the actual proportion of man in relation to the natural world. They move violently about, often darting in directions diagonal to the picture-plane, thus making it necessary for us to postulate the reality of the volume in which they move. But all their strength and action fails to dominate the greater drama of hills, ocean, and the air.

It remains to add a word about the further history and influence of the Latin Style. Like the Alexandrian Style, the Latin survived Antiquity because

pictures rendered in that formula were copied along with the classical and biblical texts they happened to illustrate. The best of the miniatures of the so-called *First Vatican Vergil* (4th Century A.D.) are rather slavish copies after originals executed according to this formula. Once in a while, however, the task of copying a manuscript happened to fall into the hands of a scribe who was himself a great master. Such was the case during the 9th Century A.D. when some now vanished Book of Psalms, illustrated with pictures in the Latin Style, was sent for copying to a man greatly accomplished in the linear technique which came into European art with the Barbarian invaders of the Roman world. (See Chapter 9.) The result was the *Utrecht Psalter* (Figs. 9.45-46), perhaps the greatest of medieval manuscripts, recently published in full-scale facsimile by Mr. Ernest De Wald. But we are not even yet through with the inspirational power of the Latin Style. It played its part during the Renaissance also. Where else are we to turn for the classical inspiration of Ghiberti (Figs. 15.27-28), the greatest pictorial sculptor of all time?

The advent of spatial representation raises one of the perennial questions of modern art criticism. The painter obviously has the requisite techniques ready at hand, but is the sculptor wise to undertake an enterprise in which he is bound to come off second best? Ancient critics, and those of the Renaissance, were less sensitive to the internal logic of medium than we are; but at the very least, it may be pointed out that sculptors who represent space abandon expression by means of the mass. They cast aside the unique asset of their own business. The effect of that act cannot be understood or assessed by studying photographs; reproductions of every kind are themselves pictures, and not trustworthy as evidence on this special point. Suffice it to say that pictorial relief, when seen in three dimensions and under light conditions that fall short of the best, is often unsuccessful. The gradations of height in the relief prove difficult to construe as an indication of atmospheric perspective, and the texture of the background makes it an implausible suggestion for the sky.

THE SECOND SCHOOL OF PERGAMON, AND ASSOCIATED MONUMENTS

At the very start of the Hellenistic Period, Greek sculptors — taking them as a class — were in possession of the most accomplished tradition of the human figure that the world has ever seen. They also lived in a society still committed to the human figure as its chief, indeed almost its exclusive vehicle for artistic expression. It might not at first be supposed that this combination of

circumstances created an artistic problem, but such seems to have been the situation. One of the very few generalizations that applies to every period and school in the history of art is the tendency of the creative mind to seek some enterprise offering the zest of discovery. But what (after Praxiteles, Scopas, and Lysippos) was there to discover about the human figure? Nothing of an essential nature, to be sure. But it was still possible to experiment with the pose, which could be made more complicated, elegant, and stirring than ever before. It was also possible to seek new effects by novel manipulations of the muscles and drapery, with the end result of arriving at more spectacular drama, if not more profound.

From some such ferment as this — and our guess is unlikely to be far from the truth — there emerged one of the distinctive new movements of Hellenistic and Roman art. The most famous single demonstration of the tendency now under review was the *Great Altar of Pergamon*, set up by King Eumenes the 2nd to commemorate his successful repulse (with Roman help) of an invasion threatened by Antiochus of Syria. The *Great Altar* now exists in fragments which were taken to Berlin and there arranged for exhibition in partial restoration. The work probably began shortly after 188 B.C., which is the only fixed point in the history we are now tracing. For that reason, it is fair to label all associated monuments as belonging to a Pergamene tradition, but some of the most important of them surely date before the 2nd Century B.C.

The *Nike from Samothrace* (Fig. 6.16) was discovered in 1863. Samothrace is an island situated about forty miles northwesterly from the entrance to the Dardanelles. From the very earliest times, the place was important as a religious center, and remained so throughout Greek history. The royal house of Macedon took a special interest in the cult that grew up on this remote, almost inaccessible spot. In the course of time, a number of memorials were set up there, of which this appears to be one.

Because her pedestal consists of the prow of a moving vessel, it is obvious the *Nike* commemorates a naval victory, but we are by no means certain what victory. Much can be made of the fact that a *Nike* similar in pose and drapery appears on a coin (Fig. 6.17) issued by Demetrios Poliorcetes, one of the most brilliant and dissolute figures of the period, who ruled for a time as tyrant at Athens, and, in 306 B.C., won a smashing naval victory over Ptolemy 1st off Cyprus.

The *Victory* on the coin is shown in profile view, riding the prow of a ship and blowing a big horn. The muscles of the statue in Paris seem to require a different position for the arms, but that may perhaps be explained away by

the suggestion that the designer of the coin was merely making small changes appropriate to the composition of a metallic disc. He therefore used the profile view to get the broadest aspect, whereas the statue itself composes best from in front or when seen on a moderate diagonal. He also arranged the arms differently in order to adapt the upper silhouette to the circular shape of the coin.

If we are correct in associating the statue with the coin, we have a date of around 300 B.C., but several critics have felt that the differences are sufficient to impeach the evidence offered by the coin. By various arguments, they have persuaded themselves that several other dates are more probable. The chief suggestions have been: the middle of the 3rd Century, the latter half of the 2nd, and both the beginning and the end of the 1st Century B.C. The reader may judge for himself the truth of our general dictum that Hellenistic archaeology is confused.

As to the statue itself, there can be no question that it is, and probably always will remain, the supreme example of personification. The ample and magnificent figure alights in perfect poise on the forepeak of the fast moving galley. Common sense simply fails to register against the inspiration of the imagery; it seems thrillingly true that Victory is a Goddess who brings fortune to her own.

The concept, in itself, is an index to Hellenistic taste. The master's success, whoever he may have been, is neither here nor there when it comes to recognizing his purpose for what it is; namely, outright theatricals of a kind hitherto not indulged in by Greek artists engaged in the production of public monuments. No one can quarrel with the effect when it is so fine as we see it here, but hell beckons for the artist, musician, or author who makes a business of providing thrills.

Although some of his methods are abstract, the sculptor gets his effect by evoking a strong sense of reality. The drapery, for example, is a superb instance of rhythmic line and contour, and utterly unlike the folds into which actual cloth might fall. It would even be impossible deliberately to arrange cloth in such a fashion unless the stuff is made into a sculptor's material by the addition of paste or glue. The impression created by the plastic manipulation of the drapery is an impression of the actual forward movement of the body through the resistant air. Or, in more general terms, we are compelled to postulate the physical materials of the environment in order to make sense of what we see.

It is interesting in this connection to recall that the statue was at first set up in the Louvre without the base. It enjoyed small popularity, but when the base was unearthed in 1875 and added to the ensemble, the *Nike* almost im-

mediately became celebrated as one of the chief treasures of that great museum. The setting, in short, is not an accessory but an indispensable element — a situation not to be complained of, but one that signifies a considerable alteration in the Greek philosophy of art.

The figure-style is typical of the entire Pergamene tradition. Vigorous monumentality is the aim. The canon of proportions approaches the gigantic. Youth, daintiness, even grace are sacrificed, and the compensation is an amplitude of adult beauty which in itself conveys a sense of adequacy and permanence. For public monuments of a patriotic sort, there have been worse conceptions.

The pose evolves directly from the tradition begun by Polycleitos and continued by Praxiteles and Scopas, but every tendency there to be discerned is here carried very far indeed. The legs are stretched wide apart, and the great torso twists at the waist with a compound rotary movement to throw the bust forward and bring one shoulder lower than the other. The muscular conformation becomes an indescribable complexity of surfaces, some flat, some tense, some soft and bulging. Nothing so complicated had been undertaken during the Great Age, and the technique required for such a performance, while superb, inevitably attracts attention to itself for that very reason. We may list parade of skill as another feature new with the times.

The *Great Altar of Pergamon* was a grandiose architectural rectangle surrounding the altar proper. A monumental staircase opened on one side. Around the other three sides, there ran a roofed colonnade raised high on a basement story, and around the entire outer surface of the basement story, there ran a continuous frieze in high relief almost eight feet high and no less than 400 feet long. The subject was the *Battle Between the Gods and the Giants* (Figs. 6.18-19).

No earlier display of sculpture could compare with this for sheer, dazzling extent, and the magnitude of the work was matched by an unequalled parade of technique. As though that were not enough, the enormous number of figures demanded that every ramification of the subject be explored. Giants appear in every known form, including some with legs like serpents. There are some monsters believed to be totally original, to say nothing of lesser deities who almost never appear in art because there is rarely room to work them in. As a display of erudition, the composition may be compared with Raphael's later frescoes (see Chapter 16), but, unlike Raphael, the Pergamene sculptors helped us by inscribing the name of every figure.

In point of style, the Second School of Pergamon falls in line with tendencies already recognized and established. The element of novelty consists in a vigorous exaggeration of almost everything. The figure-canon recalls the *Nike*

from *Samothrace*, but the bodies are not only big, they are bigger. The poses are more than complicated; they are bizarre. Realistic treatment of the muscles has passed far beyond the objective stage; the treatment signifies, in fact, the birth of a new and differently directed idealism. Where the sculptors of the Fifth Century had eliminated and simplified, those of Pergamon stress every detail. Every twisting torso seems to confine living tissue under intense compression; the muscles bulge out as though they would burst the skin. The precedent set here proved historically productive, and we may henceforth list a taste for overt musculature among the several separate departments of Hellenistic imagery.

Philosophically, the Pergamene frieze is a disturbing monument. What are we to make of the religion of an age capable of visualizing, for the purpose of a public monument, its major Gods as involved in combat and having a very bad time of it? The extravagant display seems, when considered in the light of these implications, to be in itself evidence of spiritual insecurity already well-nigh incurable.

The *Laocöon Group* (Fig. 6.20) was discovered at Rome in 1506 on the site of the Baths of Trajan. In 1531, a restoration was undertaken by a sculptor named Montorsoli, who in all likelihood restored Laocöon's right arm with insufficient curvature back toward the head. The unfortunate Laocöon was a Trojan priest who tried to warn his fellow citizens against the wooden horse. He met his death at some later time while walking on the beach with his sons; savage serpents appeared, attacked the three men, and strangled them.

Because of its early discovery and because the Roman Renaissance was at that very moment in full flower, the group attracted immediate attention and extravagant praise — a circumstance which may be assigned, in some degree at least, to the unusual size of the piece and to the contemporary habit of praising everything of classical origin. In much the same mood, Lessing wrote his famous essay called *The Laocöon* (1766), in which he compared the sculptor's handling of the Laocöon theme with the same subject matter as rendered by Vergil — attempting therefrom to deduce general principles about the nature and limitations of both poetry and the visual arts. Lessing's essay, taking it as a whole, is now out of date, but it still contains words of wisdom.

Not one modern critic would agree with the high estimates just cited. The *Laocöon*, today, is perhaps the most unpopular piece of sculpture in the history of Greek art. Undeniably a superb technical demonstration, it seems, by comparison with more sober statuary, to be somewhat offensive for that very reason: the sculptors (there were three of them) have tried to overwhelm us with a flow of skill. The fundamental trouble with the performance, however, has to do with an inadequate conception of tragedy. The death of Laocöon is

a trivial detail in history; it illustrates no important principle of character or conduct, was neither the cause of a significant result nor the result of a significant cause. A broader plane of reference being absent, the group remains a morbid thriller, a roller-coaster terror, about which one refuses to become distressed.

The monument nevertheless stands as a kind of historical milestone. It is the first instance among preserved statuary where a major work of art has been devoted to the subject of despair. Where is human dignity when such a thing can happen? And yet, if we are right in accepting the now-popular but by no means certain dating of about 50 B.C., Antiquity had a long course yet to run.

The *Belvedere Torso* (Figs. 6.21-22) is known to have belonged to the Colonna family at Rome as early as 1430 or thereabouts; and it came to the Vatican with Clement the 7th (regnal dates 1523-1534), who set it up in the court called the Belvedere — hence its name. If the paw attached to the skin on which the figure sits were that of a lion, we might call it a Hercules, but because the paw is almost surely that of a panther, we probably have the fragments of a faun. Considerably less spectacular than some other monuments of the Pergamene tradition, the torso has a special place in history: Michaelangelo derived his later figure-style from it, as any student of the ceiling of the Sistine Chapel can verify by inspection. That greatest of all modern sculptors even went so far as to refer to the battered figure as his "school."

The *Aphrodite from Melos*, or *Venus de Milo* (Fig. 6.23), was found by a peasant on that island in 1820, and sold to the French ambassador at Constantinople. The statue therefore went to Paris at a psychologically advantageous moment. The Greek War for Independence (1821-1830) was just under way; it stirred up an immense amount of sympathy in western Europe. The citizenry, especially the French, were also in precisely the right mood to rejoice over the acquisition of a notable antiquity — the Neo-Classicism of David and Ingres had recently established itself as the most enlightened form of aesthetics, and the Romantic Revolt had not yet begun to do its work. It is therefore no wonder that the statue soon became famous, and it has remained so ever since by virtue of its central placement in the principal museum of the greatest tourist center in the modern world.

Although the serious student is bound to feel some annoyance over extravagant praise in any form, the public has made no error in thinking highly of the *Aphrodite*; the only mistake is the supposition that it is better than some less-advertised pieces of Greek work which happen to be just as good. Any sober view of the thing itself is sure to give it a top rank among Hellenistic monuments.

There has been a great deal of debate over the dating, some of it motivated by a desire to enhance the prestige of the work by putting it in the Greek Fifth or Fourth Century. A pedestal found nearby carried an inscription which might settle the affair, but the pedestal cannot be firmly associated with the statue. Thus the date must rest upon one's deductions from the style, and on that basis, most of the recent authorities are agreed in putting the figure about 100 B.C. The chief arguments for that date have to do with the content and with the pose. The content seems to be an attempt to combine the sensual charm of Praxiteles with the cold serenity of the Fifth Century. On an opulent torso, we find a strangely Phidian head which is nevertheless modeled to give some sort of expression, one hardly knows what. The pose, while less overtly vigorous than some others in the general tradition of Pergamon, is extravagantly manipulated. Head and shoulders are given a strong lift up and to the statue's left. The right hip swings outward to the right so far that the word *contortion* may legitimately be applied, and the left thigh thrusts strongly out in front. The upsurge of the torso at the top is offset by the droop of the drapery below. The precarious hang of the drapery, moreover, is in itself a theatrical touch, combining with everything else to suggest a period of much sophistication and a rather academic inclination to sample every kind of taste at once.

THE CULT OF ELEGANCE

The coexistence during the Hellenistic age of every kind of taste is well pointed up by the contrast between the tradition that stemmed from Pergamon and the cult of elegance now to be discussed. Of the latter, the prime and central monument is the famous *Apollo Belvedere* (Figs. 6.24-25), so called because it has always stood in the Belvedere at the Vatican. Discovered at some early date, it has been viewed by visitors to Rome from the 15th Century onward. The notion persists that the marble statue now in Rome is a copy, itself from the 1st Century B.C., after a Greek bronze by Leochares, a sculptor of the late 4th Century. Because we have no adequate way to form any notion of Leochares's style and because the *Apollo* is an extreme demonstration by any standards, it seems wiser to accept it as predominantly an original creation from its own period.

The artistic philosophy of its author may be inferred from the incongruity between the subject and its style. A certain lady named Niobe had seven sons and seven daughters. She was careless enough to boast of her many children to Leto, a lady who had only two, and Leto's feelings were hurt. But Leto's two were Apollo and Artemis, who took immediate action to put Niobe in her

place. They took their hunting bows, sought out the prolific family, and shot all fourteen children full of arrows while their helpless mother looked on. The myth is one of the most brutal in the history of Greek literature; were it to be committed to sculpture at all, one would think it might have attracted the interest of some morbid realist capable of rendering the heartless brother and sister as the dangerous animals they had for the moment become.

Instead of that, we see Apollo in the very act of letting off an arrow, his pose as self-consciously graceful as a dancing master, his face vacant of expression, his hair and drapery a definition of the careful carelessness that has ever been the special province of the dandy. The rendering of the nude anatomy is even more important. The stylistic intention appears to be almost opposite to the musculature cultivated by the Pergamene tradition. Instead of emphasizing and exaggerating the bulge and number of the muscles, a systematic effort has been made to simplify the surface into the smallest feasible number of contours. Each contour was then polished to a smooth, gentle curvature. That elegance and even grace result, no one can deny; but a certain weakness — especially inappropriate for so robustly callous an action — is all too apparent.

Like the *Belvedere Torso*, the *Apollo Belvedere* had historical influence thrust upon it. When, during the period of the French Revolution and the days that followed, it fell to the painter David (see Chapter 18) to bring Neo-Classical art into being, he and other members of the movement fastened upon the figure-style represented by the Apollo, and made it their own. They believed they were working from Greek sculpture at its purest and best, an archaeological error made possible only by the lack of better examples from the classical period — most of the good ones, as set forth above, having become accessible only after it was already too late to change the temper of Neo-Classicism.



STRUCTURAL PRINCIPLES

In most architecture prior to that of the Romans, the structural principles employed are so simple and straightforward as to require little explanation and small effort of understanding. The historical role of the Romans was to appreciate the possibilities of the arch and vault — long known in principle, but never applied on a significant scale. By exploiting, developing, and refining the arch and the vault, the Romans brought engineering forward as far as it ever advanced before the Industrial Revolution of the 19th Century A.D. They made structure an integral part of the aesthetic transaction; without an adequate knowledge of the forces at work and the members designed to withstand and sustain them, it becomes quite impossible to make any rational estimate of the merit of a Roman building. Because the same principles the Romans used were also employed in later styles, we shall find it convenient to review the entire problem of structure as such without restricting ourselves to Roman applications.

The primary purpose of architecture is to enclose useful space, thus permitting human beings to keep themselves warm, dry, and nourished. Without buildings of some kind, life could not be maintained on this planet except in the most favored climates. In most places where people live, rather elaborate and expensive buildings are necessary because of the severity of the weather. Until the time of the Romans, appreciation of useful space was for the most part limited to the provision of physical necessities. The aesthetic possibilities of interior architecture were explored only in the most elementary way. It is to the eternal credit of the Romans that they opened up this fundamental realm of art, and, in their best buildings, produced great masterpieces of interior design. Without intimate knowledge of the arch and vault, nothing of the sort would have been possible.



ANDERSON

Fig. 7.1 Rome. The Pantheon. From an engraving.



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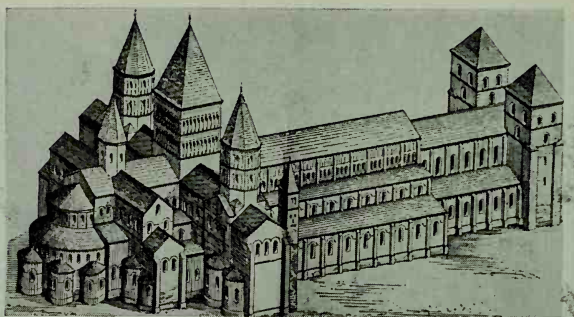
Fig. 7.2 The abutment of a tunnel vault by means of two continuous half-tunnel vaults. From a model of Notre Dame du Port at Clermont-Ferrand.



ARCHIVES PHOTOGRAPHIQUES

Fig. 7.3 Toulouse. Saint Sernin. View in the nave.

Fig. 7.4 Salient pier buttresses arranged to take the thrust of a ribbed tunnel vault. From a restoration of the Abbey Church at Cluny.



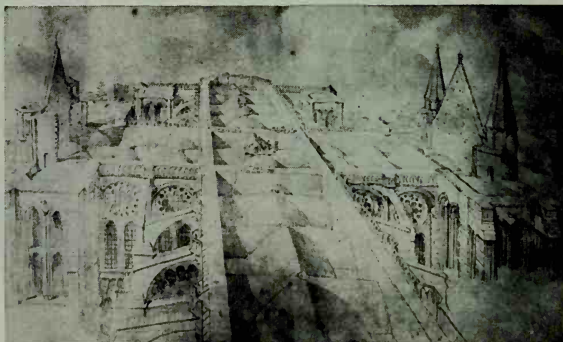
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Fig. 7.5 A view underneath the wooden roof superimposed to keep the weather from the tunnel vaulting of a French church of the Romanesque Period.

Fig. 7.6 The cross vaults of the Cathedral at Chartres as they appeared after the burning of the wooden roof in 1836.



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For the sake of completeness, we must mention that all building begins with the foundation. Because the foundations are out of sight below the ground, we may omit detailed consideration here; it is one of the few instances where engineering may legitimately be separated from art, and relegated to another department of study. Even so, it is worth remarking that very few of the world's great buildings stand on firm rock. The ledge comes close to the surface at Athens, providing an ideal substructure for the Parthenon and other temples, but the entire city of London, probably the most densely populated area in the world, rests on wet mud. It is a considerable problem to build any large building there. Skyscrapers are nonexistent in spite of the high land values in the city and elsewhere. It is probable that the foundations of some of the great buildings in the British capital actually represent more intelligence and judgment than the superstructure which interests the art critic. Recording that truth, let us pass on.

Foundations having been provided and vertical supports having been set up in the form of columns, piers, or parallel walls, the problem of enclosing space resolves itself into spanning the opening between supports. The methods for doing so are few in number and involve physical principles of an elementary kind; it is their application which is tricky, expensive, and dangerous. In application, moreover, the several methods for spanning a gap are severely limited by the materials available.

Until structural steel and glass became available in large sizes and at low cost, construction was limited to wood and masonry. Metal and glass were known, of course, but came only in little pieces — enough for a window or a hinge. The architect had to think of them as accessory rather than fundamental. Limited to wood and stone, he could span an opening by (a) using a *beam* or *truss*, both of which fall under the generic term of *lintel*; or by (b) using the *true arch*. A third method, the *corbelled arch* (Fig. 7.7), might be listed for the sake of completeness; it has seldom been used except in Mycenaean Greece and for some of the buildings put up in Central and South America before the arrival of the Europeans.

The word *arch* is ordinarily reserved for a door or window which happens to illustrate the arch principle. When precisely the same theory is extended to the construction of a masonry roof, we speak of a *vault*. Vaulting was the only

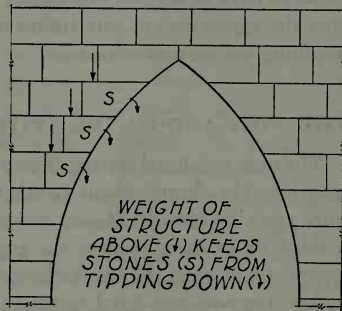


Fig. 7.7 The corbelled arch.

fireproof roofing available until very recent times. There are several kinds, none perfect. We shall describe presently the three types of vault which have gained an important place in architectural history, either because they were mechanically convenient or especially good-looking.

When steel became available in large pieces at low cost, and could also be fabricated in other ways, two further principles opened up for the architect. Both had been known since time immemorial, but neither had ever before been practical in the requisite size and strength. The new principles are: (c) the *cantilever*, and (d) *suspension*. Neither has yet been sufficiently seasoned to have its mature effect upon design; it is nevertheless a safe prediction that the appearance of our future buildings will be radically different from anything we are now used to.

THE POST-AND-LINTEL SYSTEM

The post-and-lintel system of construction has already been covered at some length in the chapter about Greek architecture. Every child has invented it once again for himself. He sets two of his blocks endwise on the floor, and lays a third across them to span the gap. The vertical blocks are *posts*, and the horizontal block is the *lintel*. However simple in theory and elegant in application, the post-and-lintel method presents some serious practical difficulties (or did until steel became available) whenever applied to a building any larger than a shed.

Because stone is brittle, lintels of that material will crack of their own weight unless the span between posts is kept very narrow; and even then, no stone lintel may safely be loaded with any great amount of weight — as, for example, the upper stories of a high building. Large blocks of stone present serious problems, moreover, in the matter of procurement. Few quarries furnish sound material in big sizes, and even where available, great lintels of stone demand either an excellent system of roads, conveniently located rivers and harbors, or a system of canals — before the railroad, they could not otherwise be transported from the quarry to the site of the building. It is only in Roman times and our own that the necessary transport has been feasible; in other periods, some other method had to be used if big buildings were to be constructed at all.

Whenever columns or piers are placed close together, the floor space is inconveniently curtailed and the vista of the interior crowded. For that reason alone, the Romans had a strong motive for developing the vaulted roof; but whenever and wherever it was necessary to span a gap that amounted to anything without resort to the principle of the arch, the wooden lintel was the

only member that could serve. Simple wooden lintels of large size demand primeval forests; they are unknown in most of Europe. Instead, wide spans were bridged by some form of *truss* (Fig. 9.56). We may define the truss as an open-work lintel made from a number of short lengths of material bolted together. The object is to arrange the pieces so that they cooperate in stiffening the member as a whole. The truss is known in a variety of patterns. All look complicated, but the system behind the arrangement can always be resolved by reference to the triangle — a form that cannot be made to change its shape unless one or more of its legs be broken. The most intricate truss usually amounts to a number of small triangles, each defying distortion. Because it can be made from small parts, the truss offers no special problem of transport. It is also an exceedingly efficient device mechanically, but very rarely is it good-looking. In first-class buildings, therefore, the trusses of the roof are usually concealed by a ceiling, a custom to which the only notable exception is the English *hammer beam* truss of the late medieval period (Fig. 12.27).

Like every other wooden member, the wooden truss is subject to rot, fire, and destruction by insects. One might jump to the plausible notion that all these faults were corrected when steel trusses became available, but unhappily such is only half the truth. Steel is fireproof only in the sense that it will not feed the flames. The material loses strength rapidly at elevated temperatures, and buildings framed in steel do not enjoy a high rating with the underwriters. Most steels so far put into use, moreover, are subject to rust. They are subject also to the phenomenon known as the fatigue of metals, a gradual and unpredictable loss of strength culminating in sudden failure. For all these reasons, structural steel — in spite of its great strength and the easy solution it offers for many a vexing structural problem — is no panacea even though it is the greatest boon of modern architecture.

PRINCIPLES OF THE ARCH

The practical application of the arch principle is of great antiquity, but to this day there exist no reliable formulas for predicting within close limits the carrying capacity of a particular arch or the various forces it will generate. The statements made below may be taken as a summary of the time-honored assumptions to which engineers refer when they design arches and vaults, but the reader has a right to know that a certain school of thought has lately developed in France — exemplified principally by the writings of Pol Abraham — which challenges our standard theory as overly intellectual and entirely too cautious. As yet, these new suggestions have gained more currency among art historians than among the men who have to take the responsibility for ac-

tual construction. Allusions will nevertheless be made from time to time, pointing out where the conventional analysis may in fact need revision.

The principles of the so-called *true arch* can best be explained by reference to Fig. 7.8, which shows, in several views, a semicircular arch built of cut stone. Arches of any other shape may be constructed at the option of the builder

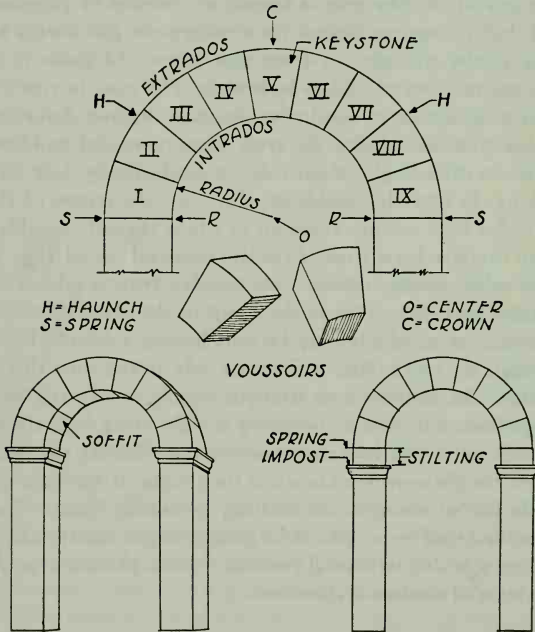
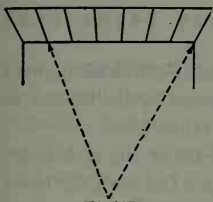


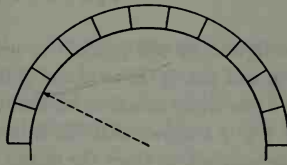
Fig. 7.8 Elements of the true arch.

without any change in the fundamental procedure, and with little more difficulty than it takes to produce this simple shape. Fig. 7.9 shows some of the shapes that have gained currency at one time or another.

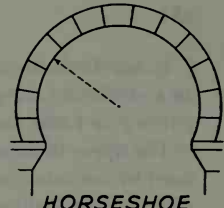
A great many arches are not built of cut stone like the one shown in Fig. 7.8. Concrete, either pure or reinforced, is often used, in which case the arch becomes virtually monolithic as soon as the cement has set. It is nevertheless assumed in practice that the action of a concrete arch will duplicate that of an arch built from cut stone. The same provision is therefore made for the safety of the structure; and for purposes of explanation, we may assume that all arches are similar in principle to the one shown in the figure.



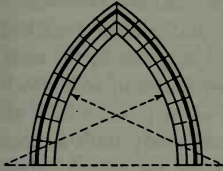
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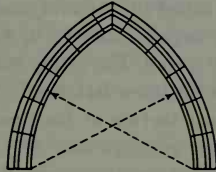
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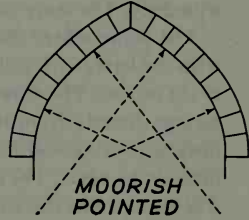
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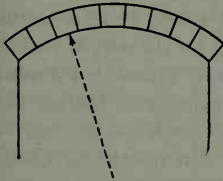
LANCET POINTED



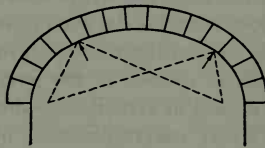
EQUILATERAL POINTED



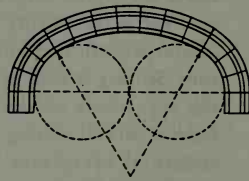
MOORISH POINTED



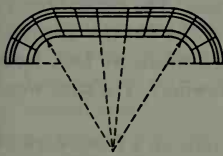
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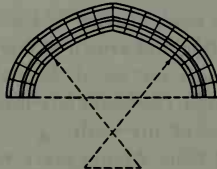
ELLIPTICAL



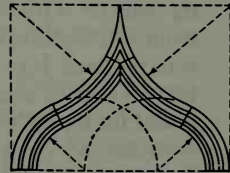
THREE CENTERED



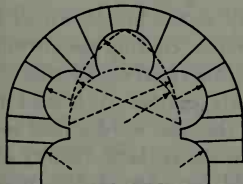
PSEUDO THREE CENTERED



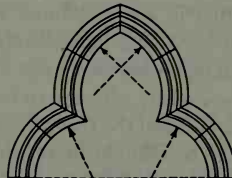
FOUR CENTERED (TUDOR)



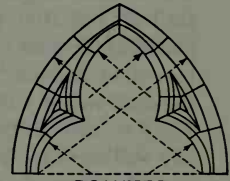
OGEE



ROUND LOBED OR CUSPED



TREFOIL



POINTED TRIFOLIATED

Fig. 7.9 Drawing to illustrate the great variety of openings to which the principle of the true arch lends itself.

In our discussion of the figure, we will proceed as one might in looking over an arch already completed, and not in the sequence followed by the builder in putting up a new arch. To the latter concern, we shall return later.

The upper drawing of Fig. 7.8 shows that the silhouette of the arch is defined by two concentric arcs struck in from the center marked with the letter O. It is frequently necessary to refer to the inner curve and the outer curve separately. The inner curve is called the *intrados*, and the outer the *extrados*.

The point where the arch begins to curve upward and inward (marked with the letter S) is called the *spring*. The spring may or may not be the same as the *impost*. The drawing in the lower left-hand corner shows an arch which springs directly from the upper surface of the capital of its pier; in such an instance, spring and impost are synonymous. Arches are rarely built in that manner, however. The drawing to the lower right illustrates the normal design. The masonry of the arch, it will be noted, rises vertically for a slight distance above the capital before actual curvature commences. The amount of the vertical rise is the *stilting* of the arch, and where stilting exists, we refer to the capital beneath as the *impost*, reserving the word *spring* for the start of curvature. Stilting is used in the great majority of cases simply because it enhances the appearance of the arch in relation to the piers beneath it. During the Gothic period, stilting was used in extreme amounts in order to get certain structural advantages. We may reserve discussion of that matter for Chapter 12.

Certain further terms are essential. The *crown* of the arch (marked with the letter C) is the topmost point reached by the extrados. The general region about halfway between spring and crown is known as the *haunch* (marked with the letter H). The under surface of the arch into which we look from below is referred to as the *soffit* (see lower left-hand drawing). The same word is used for the under surface of any vault.

Arches very rarely stand alone. Almost every vault rests on a framework of arches, as we shall see presently. The simplest use of arches in combination, and the most frequent, is the arcade (Fig. 7.16). In an arcade, similar arches are built one after another in a row. Almost every arcade has a cornice, a moulding, or some other horizontal immediately over it, clearing the crowns by a short distance, a juxtaposition that gives a certain visual significance to the small area of wall space where adjacent arches melt together. As labeled in Fig. 7.16, such wall space is called the *spandrel*; and the same word is used for any wall surface that may be thought of as being in the aesthetic vicinity of an arch. Obviously the spandrels offer an ideal field for a bit of decorative sculpture, and are often so used.

The arch drawn at the top of Fig. 7.8 is made up of nine separate pieces of

stone, each labeled with a Roman numeral. Each piece is in the shape of a wedge, and the technical term for any one of these wedges is a *vousoir*. Two voussoirs are drawn in perspective at the middle of Fig. 7.8. There is of course nothing sacred about the number nine. Most arches actually have more than nine voussoirs, but there is no use in complicating our drawing and making it hard to read. Whatever the number chosen, it is usual to make it an odd number, for reasons that will appear in a moment. As drawn, each of the nine voussoirs subtends an angle of twenty degrees measured at the center of the arch. The central and highest voussoir is known as the *keystone* (No. V on our drawing), a distinction that has a certain practical reason behind it, as we shall see.

Consideration of the data so far presented will show why the arch is usually preferable to the post-and-lintel system. A very large arch can be built from small stones; indeed some of the greatest medieval cathedrals contain hardly a stone that could not be lifted into place by a gang of twenty or thirty men aided by the block and tackle, the inclined plane, and other simple devices. In Roman work, spans of forty or fifty feet pass unnoticed, and the dome of the Pantheon (in effect an arch; see Fig. 7.18) swings no less than 142 feet between supports. Such heroic dimensions are impossible in masonry by any other known method of building. It is worth noting in this connection that a wooden truss can be built with a wide span. The hammer-beam roof of Westminster Hall in London (about 92 feet between walls) long had the reputation of being the greatest span ever achieved in wood; but during World War II, improved methods of fastening timbers together were developed in response to the shortage of steel — resulting in some tremendous trusses bridging even wider gaps.

A well-constructed arch can be loaded with an almost unbelievable amount of weight, which is a vital consideration in a large building or a high building where several thousand tons of masonry may have to be carried by a spanning member. Inspection of Fig. 7.8 will show, however, that any increase of weight above the crown will result in squeezing the voussoirs more and more tightly together. No matter how intense, the strain on each voussoir is compression, a force that good stone is well able to endure. Twisting and bending strains, which stone cannot sustain, are altogether avoided.

We must now turn our attention to the faults of the arch, which are two in number and both serious. For assembly, every arch requires *centering*; and when built, every arch requires *abutment* or it is unsafe.

Centering is the technical name for the wooden form over which the arch must be constructed. As indicated by Fig. 7.10, the form must remain in

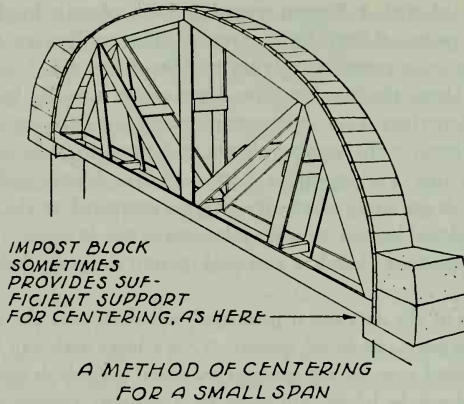


Fig. 7.10 An arch under construction, illustrating the use of wooden centering.

place until the keystone is dropped into position; otherwise there would be nothing to prevent the voussoirs from falling to the ground. The essential feature of any piece of centering is that its upper surface correspond precisely with the true shape of the soffit of the arch, and obviously it must be strong enough to hold this shape without any distortion whatever against the very considerable weight of all the voussoirs. It is no easy matter to build such a form. Excellent design and much sound timber are requisite. Timber being

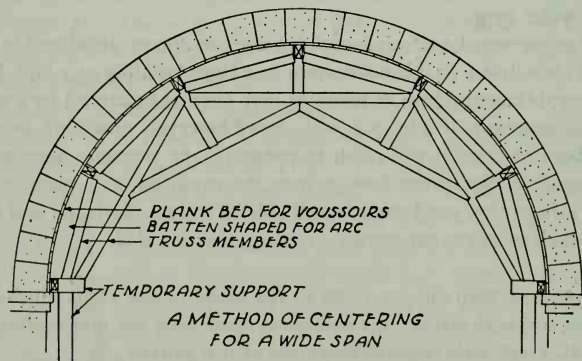


Fig. 7.11 An arch completed, with centering yet to be removed, illustrating an economy of material as compared to Fig. 7.10.

scarce and expensive, all sorts of stratagems have been employed from time to time to reduce the cost of centering. Fig. 7.11 shows one method of building the form with slightly less timber than Fig. 7.10 would require.

Abutment is made necessary by the *thrust* of the arch. Thrust results from the fact that every voussoir is a wedge, and acts like any other wedge. For purposes of understanding the principles involved, we may concentrate our attention upon the keystone only, and postulate extreme conditions. Let us assume that a giant with an immense hammer strikes a blow vertically downward, hitting the keystone plumb in the middle. Fig. 7.12 is an attempt to visualize what would happen if the keystone was driven downward, the other voussoirs failing to slide over each other: the arch would expand beyond its original boundaries as represented by the dotted lines. The slow force of weight tends constantly and inexorably to accomplish the same results as the giant's hammer.

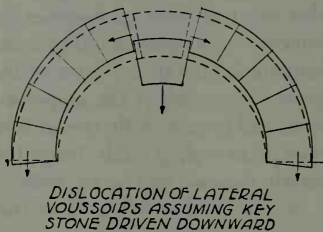


Fig. 7.12 Schematic drawing to illustrate the phenomenon of thrust.

Any arch bearing a considerable burden is constantly trying to bulge outward along the extrados. This is the force we call *thrust*. Fig. 7.12 was drawn merely to introduce the conception of thrust; it oversimplifies the action of that force in actual cases. Fig. 7.13 comes nearer to illustrating what happens when an arch fails. Assuming that the spring is held in place, the first breaks will occur in the region of the haunch. In practice, abutment of one kind or another is usually brought to bear against both spring and haunch; in which case, the arch is assumed to be safe.

It will be noted that both Fig. 7.12 and Fig. 7.13 make sense only if we assume that the voussoirs can slide over each other, and such has been the as-

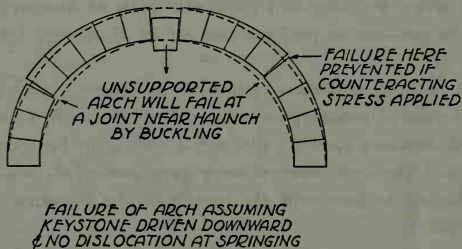


Fig. 7.13 Diagram illustrating the points of first failure when an arch is overloaded.

sumption upon which we have been proceeding in our entire discussion of thrust. Everything that we have said would be literally true if, in the laboratory, we made some voussoirs of polished steel, oiled them, and put them together to form an arch. But no one builds that way, and it is here that the recent critics of our conventional theory of thrust get their ammunition. They point out that stones under compression can scarcely be made to slide at all, that stones joined with mortar tend to stick together as though glued, and that concrete, once set, becomes virtually monolithic. They bring forward instances where keystones have been removed, leaving the two sides of an arch hanging in mid-air by virtue of the adhesive quality of the mortar. They also point to cases where the supporting piers have sunk, departed from the vertical, and have actually spread further apart at the top — thus stretching the span of an arch or vault. Instead of falling in, the much abused arch or vault merely shows cracks on the soffit.

As indicated earlier, none of these arguments have as yet impressed the engineer. All of them depend upon the assertion, direct or tacit, that masonry may safely be subjected to twisting and bending strains, any and all of which produce tension somewhere or other. Masonry will sometimes endure a moderate amount of tension for a very long time; there are instances where masonry has endured it for centuries. It is nevertheless a fundamental principle of structural design that no brittle material shall ever be deliberately subjected to tension. There is no way to tell when it may crack and collapse.

Methods of Abutment

There is no way to keep an arch from changing shape and collapsing except to provide a compression force opposite in direction to the thrust and equal to it. The act of doing this is denoted by the verb *to abut*, from which we derive the generic noun *abutment*. The noun *buttress* and the verb *to buttress* are near-synonyms. If there is any difference in meaning, usage seems to prefer *buttress* when we refer to a particular mass of masonry of specialized design, placed in position to perform the act of abutment for an individual arch.

The simplest form of abutment (simplest in theory, that is; often hardest to provide) is a mass of masonry to either side of the arch, a familiar instance being an arched doorway opening through a wall as in Fig. 7.14A. In such a case, the thrust of the arch, even though very powerful, would almost certainly be insufficient to overcome the inertia of the masonry, and no movement can take place.

The arrangement shown in Fig. 7.14A is not very subtle. It demands only the vaguest knowledge of how thrust really acts. But quite apart from its ra-

tionale, abutment by a mass of masonry to the right and left of an arch, opposing the thrust by sheer weight, is altogether impractical if not downright impossible in the majority of buildings. If, for instance, an arch springs from a point a hundred feet above the ground (and that is not uncommon), an extravagantly ponderous substructure would be required to support the neces-

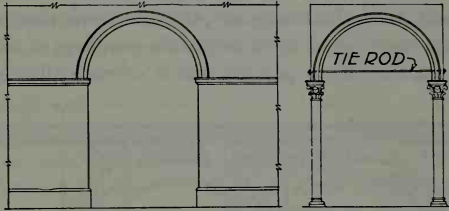


Fig. 7.14A-B A. Arch opening through the thickness of a wall. B. Arch buttressed by a tie rod.

sary material. The cost would be prohibitive, the cubic measure of masonry being a rough indication of expense. The appearance and utility of the lower parts of the building would be ruined.

In order to escape this necessity, architects have resorted to all sorts of arrangements, all intended to reduce the amount of buttressing. Individual applications vary in appearance, but the most important principles to be borne in mind are the following:

To reduce the thrust of the arch: This can be accomplished in two different ways: (a) by reducing the weight of all parts of the building, thus reducing the pressure upon the arch and hence its capacity to generate thrust; (b) by

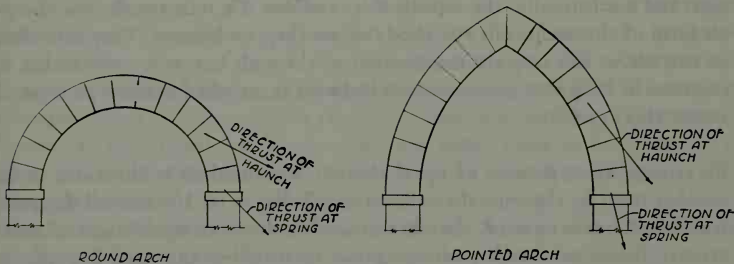


Fig. 7.15A-B A. Direction of thrust at spring and haunch as predicted for a round arch. B. Direction of thrust at spring and haunch as predicted for a pointed arch.

changing the shape of the arch until a form is found that thrusts less for a given load over a given span. In general, the flatter the arch the more it thrusts. Steeply pointed arches thrust least of all. To understand the last statement, refer to Fig. 7.15A which shows the familiar semicircular or "round" arch in contrast to a pointed arch approximately like those used in the French Gothic cathedrals. In each case, arrows indicate the predicted direction of the thrust at spring and haunch; and in both instances, the direction is along a downward diagonal. There is probably small difference in the poundage of the thrust exerted by either arch, but that of the pointed arch is substantially closer to the ver-

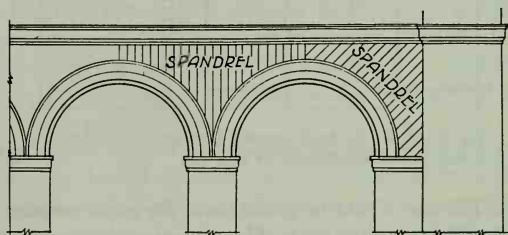


Fig. 7.16 An arcade.

tical — or as the physicist would put it, its horizontal component is less. Less masonry is therefore demanded to prevent it from spreading sidewise.

To introduce a tension member in the fabric of the arch: The so-called "tie rods" familiar in Italian work of the Gothic and Renaissance periods illustrate this method (Fig. 7.14B). The tie rod binds the arch together across the spring, thrust to the right pulling against thrust to the left with equilibrium resulting. Made of wood or iron, the tie rods are quite able to sustain the tension; and mechanically, the expedient is excellent. Tie rods are also the cheapest form of abutment, but everybody agrees they are hideous. They introduce an extraneous line into the composition of the arch but were nevertheless so common in Italy that painters often included them when making pictures of arches (Fig. 15.31).

To arrange an opposition of equal thrusts: This method is illustrated in its simplest form by the normal arcade, as seen in Fig. 7.16. Used by all designers from the Romans onward, the arrangement results in an equilibrium of compressive forces, each arch pushing against its neighbor and canceling out its thrust. Buttressing is not needed except at the extreme ends of the line, where only enough is required to stabilize the last arch in the row. Precisely the same

principle, but in more complex application, was employed to contain the thrust of the largest Roman and medieval vaults. See below, pages 201 ff.

To group arches of comparable size together in such a way that thrusts are concentrated at a few predetermined points: Similar in principle to the method just cited, this technique is primarily a solution to the problems of vaulting where many arches may be thrusting in several directions. We shall postpone further explanation until we discuss the cross vault. See pages 203 ff.

To refine the shape and placement of the buttress, thus making it possible to reduce its size: The flying buttresses of the French Gothic are the best example. See Figs. 12.18,46. These delicate members contain the thrust of some very large vaults. Nothing of the sort could have been possible except for the supreme knowledge of the amount and direction of thrust available to the French master builder during the 13th Century. No other abutment has been equally daring. It is important to emphasize that the knowledge to which we have just referred was not arrived at by mathematical calculation; in fact, mathematical analysis of the arch remained completely impossible until the development of the Calculus during the 17th Century. Practical builders learned by trial and failure, and passed their knowledge on to favorite apprentices by word of mouth. Often they were very close-mouthed indeed; hence the frequency with which the "mysteries" of one craft or another are mentioned. In the absence of anything resembling our modern formulas and building codes, hideous accidents were common.

PRINCIPLES OF THE VAULT

The Motive for Vaulting

The construction of any sizeable vault is obviously an immensely expensive, laborious, and dangerous operation, but there is still no better way to enclose a reasonable volume of space beneath a fireproof roof. The modern reader cannot possibly feel the fear of fire as the ancient and medieval builders felt it. Fire protection is now so efficient that every insurance company, as a matter of conservative financial practice, assumes risks many times its total assets. The only serious conflagrations within recent memory are those which resulted from bombing during World War II. Conditions were bad enough during Antiquity, and much worse during the Middle Ages. A few examples will perhaps suffice to show that the risk of fire is enough to account for the tremendous energies expended in the development of vaulting; we need seek no other motive.

In 1120, an inflammable church at Vézelay, the predecessor of the present Madeleine, burned up with a loss of 1,127 lives. In 1134, the basilican cathedral at Chartres was totally destroyed, an event that accounts for the start of the present church on the same site. During the single year 1188, the cities of Rouen, Troyes, Beauvais, Provins, and Moissac were all laid waste by fire. In 1194, a second blaze swept the cathedral at Chartres; the loss of life is not accurately known, but all records say it was terrific. During the first 25 years of the 13th Century, Rouen burned six times.

All of these fires are believed to have been accidental. To see the risk as the medieval builders saw it, we must add to this partial citation from the awful total all of the burning deliberately set during wars, disorders, and punitive measures. An inspection of the pictures by Hieronymus Bosch and Peter Brueghel will furnish visual evidence enough; the backgrounds contain many a burning farm and village, the work of Margaret of Parma or the Duke of Alba as the case may be.

Those who have read descriptions of the great fire of London in 1666 can form for themselves an impression of the fire risk in a medieval city. What could be done when inflammable buildings were conglomerated along miles of narrow, crooked alleyways? In the complete absence of adequate organization and equipment, such a place, once well alight, would burn until there was no more fuel for the flames.

The designer of a building was thus compelled, at any period prior to our own, to assume that the town around his church, cathedral, or temple would be entirely consumed by fire not once or twice during the life of his edifice, but many times.

By use of the vault, however, it was possible to make almost certain that the major buildings would endure. They are in plain sight to this day all over Europe. The grand old Pantheon at Rome has lasted for more than eighteen centuries without significant repair. Churches more than 500 years old are in daily use in almost every city. Indeed we may say that well-designed vaulted buildings will, with any reasonable care, resist the attrition of nature indefinitely. Their chief enemy is man — either the peasants coming to purloin ready-cut building stone, or the government deliberately removing a monument as the French did with the old abbey at Cluny toward the end of the 18th Century.

It is necessary, of course, to surmount almost every vault with a peaked roof of wood, the function of which is merely to protect the masonry from rain and snow (Fig. 7.5). These wooden rain-sheds are inflammable, but they can burn with surprisingly little effect upon the masonry below. The wooden roof over the vaults of Chartres burned in 1836. A drawing made after clear-

ing the debris shows the fabric of the church almost undamaged (Fig. 7.6). In 1914, the cathedral at Reims was subjected to shelling; and its wooden superstructure burned with the same comparatively innocuous result — the damage done to the church at that time was almost entirely the work of explosion, not fire.

The Dome

The *dome* can best be described as a vault whose shape is generated by rotating a simple arch around its vertical axis, much as we generate an ellipsoid by rotating an ellipse around its long axis.

Fig. 7.17 shows a dome, about half finished, being built of cut stone. It will be noted that each *vousoir* is beveled in two planes, vertically and horizontally. As a result, the dome consists of a series of rings, or *courses*, of masonry. Each course is self-sustaining as soon as its last *vousoir* is dropped into place. There is no necessity for a keystone at the top; and, more than half the time, this space is left open to help solve the difficult problem of lighting the interior. If completely open, as it is in the Pantheon (Figs. 7.1, 18) at Rome, we call the hole an *oculus*. If covered with an open-work tower as it is in most Renaissance and Baroque examples (Fig. 17.9) the word *lantern* is used — for opening, for tower, or for both as convenient.

Very few large domes have been constructed of beveled *vousoirs* as shown in Fig. 7.17. The dome of the Pantheon at Rome seems to have been built by pouring concrete around a framework of brick arches. That of Hagia Sophia in Constantinople (Figs. 10.1-4) is believed to depend upon a similar skeleton, special care having been taken to make the work as light as possible. During the Middle Ages, only a few domes were built in Western Europe. The best, and one of the finest compositions in the history of architecture, is the dome over the Old Cathedral at Salamanca (Fig. 11.32). It is supported by a system of ribs, salient ribs being the usual thing for all medieval vaulting. When Brunelleschi designed the dome over the crossing of the Cathedral at Florence, he also used ribs to do the work, but in accordance with Renaissance

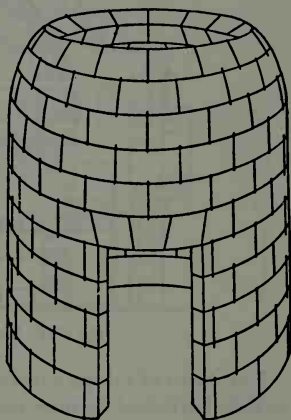


Fig. 7.17 A dome constructed from cut stone.

feeling for form as contrasted to function, he tried to smooth up the surface by concealing the working members. The same thing applied to the great domes of Saint Peter's in Rome (Fig. 17.9) and Saint Paul's in London. Regardless of the chosen method of construction, it is assumed in practice, and rightly so, that all domes will act like the one shown in Fig. 7.17: there will be a continuous pressure of thrust all the way around the circle, extending upward as high as the haunch.

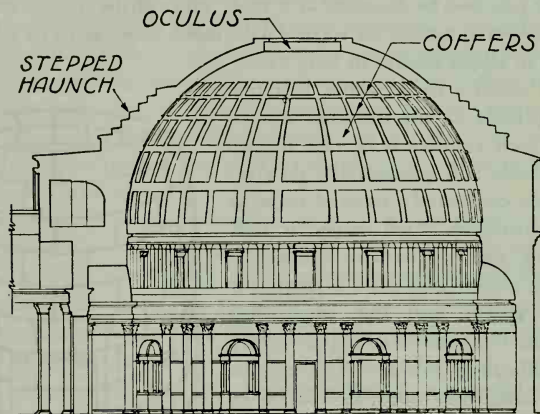


Fig. 7.18 Rome. The Pantheon. Cross section.

The thrust of a dome puts the architect upon the horns of a dilemma. If adequately buttressed by inert masonry as in Fig. 7.18, the exterior silhouette is almost entirely concealed. If lifted into the air where its majestic form can show up, chances must be taken with the abutment — a fact attested by more than one disastrous collapse. The dome of Hagia Sophia (about 107 feet in diameter) has collapsed either in whole or in part at least three times: in 558 A.D., 567, and 987.

Accepting the risk, the designers of the largest domes built during the past 500 years have deliberately raised their domes high in the air, setting them up on a circular ring of masonry technically known as a *drum* (Fig. 17.9). In such a situation, abutment must be provided by tension. Several great wooden rings, or *chains*, hold in these domes as a belt holds in the belly. Thus the handsome appearance of the exterior is bought at a steep price: when they fail, tension members fail suddenly; and there is no way to ascertain their future endurance within reasonable limits. Because no one can give utter assurance that such a dome may not one day fall down, the use of tension for abutment has

never gained absolute approval. It is possible that wire rope woven from some superior and noncorrosive material may one day nullify these reservations.

The Dome over a Rectangular Ground Plan: Squinches and Pendentives

Another consideration militating against the frequent use of the dome is the fact that its shape does not make an easy fit with any ground plan convenient for ordinary use. The Pantheon has a circular ground plan (Fig. 7.1). Its substructure may properly be described as an immense drum, artistically harmonious with the dome above. But a circular room lends itself only to a few purposes; for most functions, a worse shape cannot be found. Most furniture and most human work fit better into a rectangular room.

It is also necessary to point out that almost every service and ceremony entails a focus of attention by an audience or congregation, which is the same thing as saying that many eyes should be directed along a horizontal line of sight toward a speaker, an altar, or whatever. But the dome, by its very shape, insists that we give attention to the vertical axis around which it is generated, the effect being to emphasize a spot on the floor. Excellent for tombs, baptistries, and other small and specialized buildings, the centralizing effect is often undesirable, as any picture taken inside Saint Peter's or Saint Paul's will show. The drum of the dome opens up a hole in the ceiling; one wonders what in the world can be up there — an innocent reverie in itself, but not identical to reverent attention upon the altar. In spite of all this, the exterior beauty of the dome has dictated its choice in many instances. In almost every case, the dome has been raised over a rectangular room for the reasons stated; and in almost all cases, also, the dome is supported by four piers describing the corners of a square.

Figs. 7.19 and 7.20 are intended as an aid in visualizing the situation. A dome raised over a square ground plan may have a diameter shorter than the length of one side of the square. Many domes do. But, plainly, no dome may have a diameter longer than the length of a single side of the square, and geometry tells us that the diagonal of any square must be longer than one of its

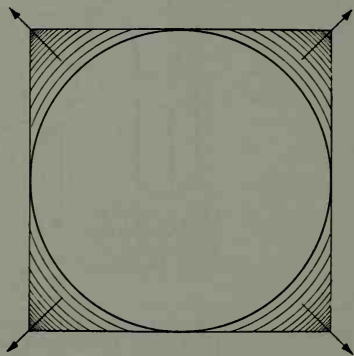


Fig. 7.19 Schematic drawing in plan view to illustrate the necessity for transitional members whenever a dome is placed over a rectangular ground plan.

sides. A square amounts to two right triangles, each being subject to the law that the square on the hypotenuse is equal to the sum of the squares on the other two sides — hence if the square shown in our figures is 50 feet on a side, its diagonals must measure 70.71 feet. No matter how we try to get out of it, the circular dome above will not cover all the floor space described by

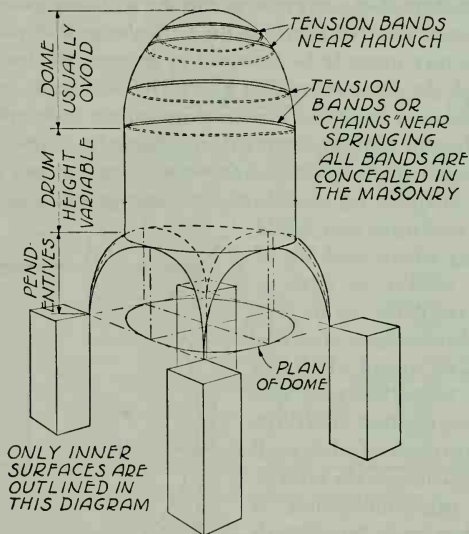


Fig. 7.20 Schematic drawing illustrating the component parts of an architectural fabric involving a dome raised on a drum above pendentives.

the square beneath. We are left with four vacant spaces at the corners as shown in Fig. 7.19; and we must fill them up with transitional members as shown in Fig. 7.20. The problem, of course, is to design a transitional member which will modulate the shape of the square into the circular shape from which the dome can spring, and which will be, at the same time, both structurally sound and aesthetically acceptable. Various devices have been tried; two, the *pendentive* and the *squinch*, have excelled all others in popularity.

The Pendentive

Generally considered the more elegant of the two popular solutions to the problem just outlined, the pendentive was selected to support the dome at Hagia Sophia in Constantinople, for Saint Peter's at Rome, and for Saint

Paul's in London — to say nothing of almost every other domed building where prestige was a special desideratum.

The early history of the pendentive is obscure. The Romans evidently did not know it, but they surely came close to it in some of their buildings. The complete mastery of the pendentive evident at Hagia Sophia (532-537 A.D.) has never been adequately explained. It must have been reasonably familiar to the architects; otherwise they would hardly have dared use it for the support of one of the largest domes ever built, about 107 feet in diameter. Among art historians, the general belief is that the pendentive was invented and developed in the Near East, perhaps as far away as Armenia. The date of the invention seems to be somewhere between 300 A.D. and the beginning of the 6th Century.

A *pendentive* (Fig. 7.21) is a spherical triangle. Four are needed. One must spring from each pier, spreading upward and inward to meet the others. A circular base is thus provided from which the dome can spring. In most cases, the radius used for each pendentive is approximately equal to one-half the length of the diagonal of the square below. But this is by no means necessary. By using a longer radius, the pendentives can be made to sweep further inward over the floor, meeting in a smaller circle, and providing a base for a smaller dome.

The shape of a pendentive is handsome. By using it in connection with the dome, the architect opens up for himself the whole realm of curvature, an area scarcely entered as yet except for the brief period of the Byzantine 6th Century. Because our modern ferro-concrete lends itself to curves more conveniently than any earlier building material, we may perhaps look forward, when modernism becomes mature, to seeing parabolic and hyperbolic contours where we now see angles and unrelieved straight lines.

But like everything else, the pendentive is not without its drawbacks. Because it partakes of the nature of an arch, a pendentive exerts thrust, and the pressure of the thrust will be distributed, more or less, over its entire outer

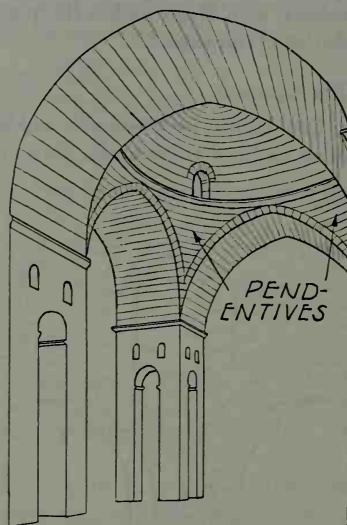


Fig. 7.21 Pendentives as seen from below.

surface. The direction of the thrust will, moreover, be along the diagonals of the square beneath the dome. Logical abutment can be provided by a substantial mass of masonry with its own axis along the same diagonal; or, on the principal of vector diagrams, the diagonal force may be subdivided into its components and buttresses built to suit. A neat and perfect solution to this special problem of abutment has not to date appeared in the history of architecture; even Hagia Sophia, the queen of domed buildings, leaves much to be desired in this respect.

The Squinch

Used mostly for the smaller and less famous monuments of Byzantine and other medieval architecture, the squinch has more to recommend it than one

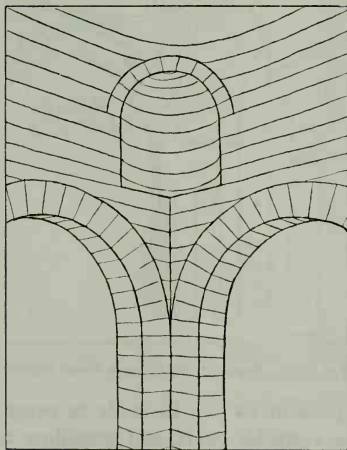


Fig. 7.22 An arched squinch.

might at first suppose. Various shapes have been used. In principle, they all boil down to the typical form shown in Fig. 7.22. Arches are thrown across the gap between the four piers as before, giving support to a square wall surface. Across each corner of the square thus established, smaller arches are thrown, converting the square into an octagon. Because the octagon approaches the shape of a circle, the dome may be allowed to spring from it if care is taken to adjust each course of masonry in or out a bit as the case may be. The fit is not perfect, but it is good enough.

Most writers seem to suggest that the squinch is something to be pitied — a makeshift to be tolerated when the pendentive cannot be had. They base their feeling upon the obvious disharmony of shape between the curved contour of the dome and the rather abrupt transition of the squinch. The squinch does give a bump to the eye: the act of seeing it is not a smooth, flowing motion as it is with the pendentive, but a series of starts and stops. There is more to design than harmony, however. Contrast is just as useful: for example, the juxtaposition of dissimilar shapes which squinches provide. While pendentives are admittedly more suave, squinches are rugged and direct. Incontestably, one can take solid satisfaction in the looks of them.

The Tunnel Vault

Considerably more adaptable to general utility, the *tunnel vault* (often called the *barrel vault*) has a shape as simple and lucid as the dome. The shape can be described as that of a simple arch indefinitely extended in the horizontal direction (Fig. 7.23). The tunnel vault has the very great advantage of making a natural fit with a rectangular ground plan. Its shape also tends to produce a strong emphasis on the longer horizontal axis of an interior, an em-

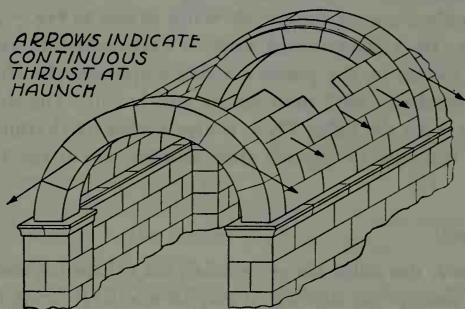


Fig. 7.23 A ribbed tunnel vault.

phasis corresponding with the ceremonial requirements of churches, law courts, and other public buildings.

But in spite of its pleasant form, the tunnel vault shares certain faults with the dome. Abutment is required along every foot of its length, as shown in Fig. 7.23. Such abutment is automatically supplied in the New York subway system, but is difficult and expensive to provide whenever a tunnel vault is raised high in the air. Unless lighted by electricity, the tunnel vault is also almost certain to be gloomy because it is unwise to place windows higher than the spring. Windows often appear there, but it is impossible to guarantee the stability of any vault if pierced above the spring.

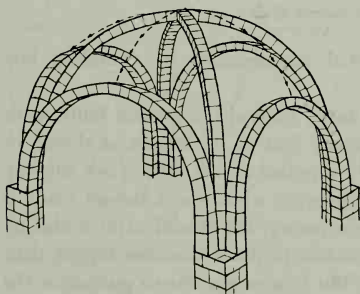
Like the dome, many tunnel vaults are finished smooth or have the soffit decorated with some surface pattern. In a number of excellent examples, however, the problem of continuous thrust was ameliorated by the use of ribs. The Romans did this when vaulting the so-called Baths of Diana at Nimes, and the ribbed system was popular in the Romanesque architecture of the 12th Century (Fig. 7.3). A series of duplicate arches were first swung transversely across the rectangular chamber below. A single piece of centering doubtless sufficed for all, being moved on to the next station as each arch was completed. The vault was then in frame, and the primary ribs divided the whole

into compartments, or cells. Each cell was then filled in with much lighter masonry as suggested in Fig. 7.23. Every cell of masonry between a pair of rib-arches became, in effect, a short section of tunnel vaulting, but because of its light weight, logic could be cast aside and its thrust neglected. For all practical purposes, the stability of a ribbed tunnel vault can be insured by placing buttresses against each of the main ribs. In effect, a division of the total thrust had been brought about, with pressures localized at a series of points along the sides of the building. Usually such buttresses take the form of salient piers standing against the outside walls, as seen in Fig. 7.4.

Aesthetically, the ribbed tunnel vault is extraordinarily satisfactory. By repetition, the curves of the primary arches emphasize the character of the shape. Line is combined with mass simply and lucidly. The shadows cast by the ribs change with the light. There is also a sense of rhythmic progression established by the view of one rib after another, off to the far end of the building.

The Cross Vault

The *cross vault*, also called the *groin vault*, has a shape too complex for convenient verbal description, although it may be worth repeating the loose statement



DOMICAL RIBBED VAULT

Fig. 7.24 Framework of a single bay of ribbed cross vaulting. The dotted lines suggest the contour of the lightweight masonry which will later be constructed to close the interstices between the ribs.

that the form would result if two tunnel vaults were built intersecting each other at right angles. Such vaults may be constructed from beveled voussoirs, but most of those in existence depend upon a framework of six arches with the cells between closed in by light material. Fig. 7.24 shows the framework of a single ensemble, or *bay*, of cross vaulting, and Fig. 12.12 gives a good idea of the appearance of a number of bays joined together to cover the oblong nave of a great church. In medieval vaulting, the ribs of the frame are almost invariably left in plain sight.

Roman and Renaissance architects almost always used a frame similar to that shown, but concealed it in some way or other in order to produce a smooth soffit.

The two special advantages of the cross vault are these: For covering a long, narrow interior like the nave of a church, no other vault can be buttressed so

easily or so cheaply, and the shape of the vault automatically provides spaces for large windows at a very high level. It is natural that such considerations would appeal to the engineer. We have, however, been subjected to a plethora of quasi-aesthetic praise based on the untenable notion that anything that is efficient must also be lovely. The truth of it is that unless very well designed indeed, the cross vault produces a chaos of line and contour. On purely formal grounds, the best of them are none too good.

Fig. 7.25 shows Fig. 7.24 in plan view, the six arches of the frame being symbolized by straight lines on the paper. Each of the six arches will be exerting thrust both ways in the normal manner, as indicated by the three arrows drawn at each corner.

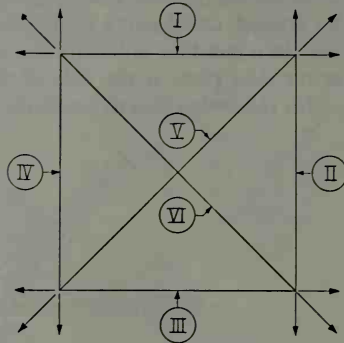


Fig. 7.25 Thrust pattern of a single bay of cross vaulting as seen in the plan view.

Obviously, the thrust pattern is so complex that it would be a great nuisance to provide abutment for a single bay of cross vaulting. A single bay, in fact, is no good at all, and is never used. The real merit of the system begins to appear only when several bays of such vaulting are

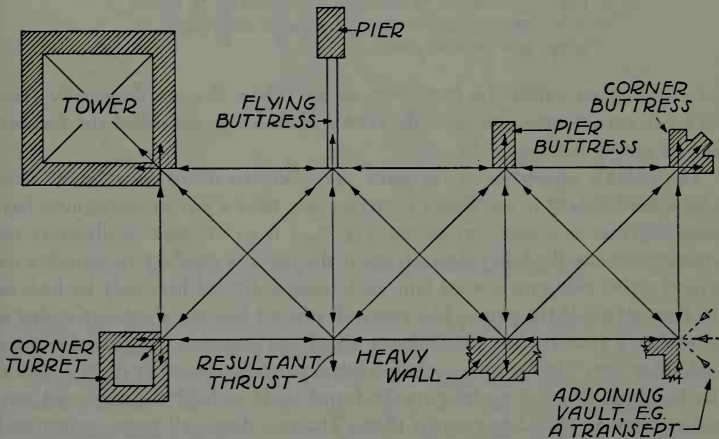


Fig. 7.26 Schematic drawing of several bays of cross vaulting arranged as they would be to cover the nave of a church, with indications of various methods for abutment.

grouped together in sequence as in Fig. 12.12 and as indicated in the schematic plan presented in Fig. 7.26.

Rather complicated at first glance, Fig. 7.26 will gradually make sense as we proceed. Overlooking its details for the moment, let us give the separate ribs the names they ordinarily bear in such an ensemble. The arches which lie in the same plane as the walls of the building are called the *wall ribs*. The arches that swing directly across the interior at right angles to the long axis of

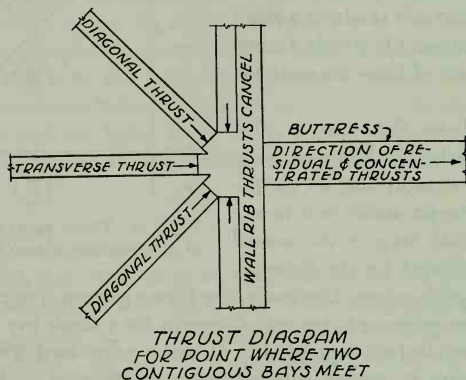


Fig. 7.27 Diagram to illustrate the interaction of thrusts where two contiguous bays of cross vaulting come together at a common corner.

the building are called the *transverse arches*. Those that go diagonally from corner to corner, intersecting at the crown of each bay, are called the *diagonal ribs*, or simply the *diagonals*.

The notable properties of the cross vault become manifest when we consider what happens to the thrust pattern every time a pair of contiguous bays come together at a common corner. Fig. 7.27 is an attempt to illustrate the situation; its intelligibility depends upon the reader's capacity to visualize the several arches rising up toward him, each being indicated here only by lines on the flat surface of the paper. The two wall ribs act like any duplicate arches in an ordinary arcade; their thrust being equal and opposite, they merely cancel each other out. The transverse ribs necessarily press outward at right angles to the building. There is nothing in the frame itself to hold them in, and buttresses must be placed to contain them. The two diagonals press against each other, and combine to produce a resultant thrust also at right angles to the wall of the building. We might prove this by vector diagrams, but the princi-

ple will be plain if the reader will merely put his palms together with the fore-arms diagonally behind them. By exerting an equal pressure on each palm, he will force his hands directly forward in the manner of the diagonal ribs of the vault. It follows that the thrust of the diagonals simply has the effect of in-

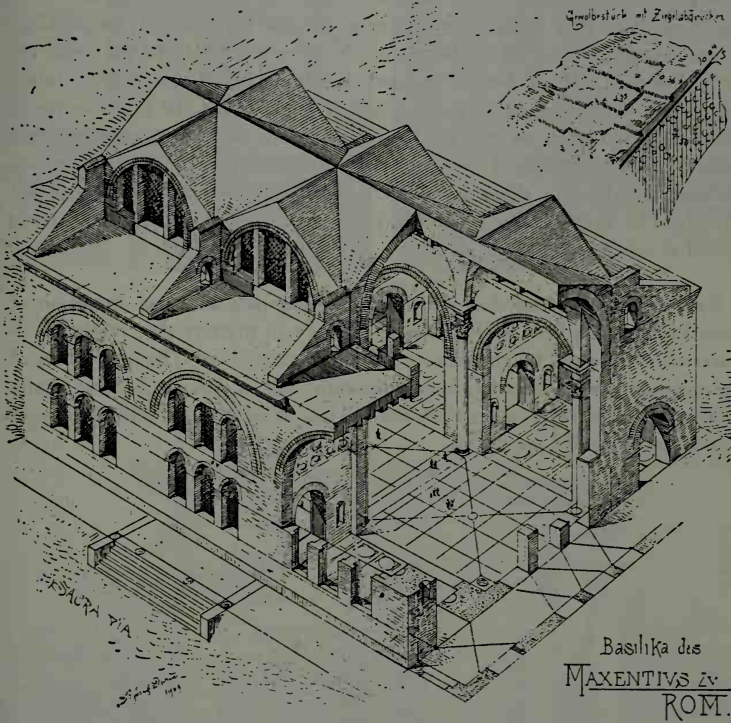


Fig. 7.28 Rome. Basilica of Constantine. Reconstruction.

creasing the thrust already exerted by the transverse ribs. Both may be stabilized by the same buttress made a little heavier.

Various shapes and kinds of buttresses have been used from time to time to provide abutment for cross vaulting. Fig. 7.28 shows a reconstruction of a great Roman building with cross vaults. In its original condition, the interior looked very much like the main concourse of the Pennsylvania Station in New York, that building being a self-conscious derivative. The immense windows

and small buttresses are impressive testimony to the efficiency of the mechanics of the cross vault. The dainty flying buttresses of the French Gothic cathedrals (Fig. 12.18) stand as the ultimate refinement in the art and science of abutment.

Another detail needs to be mentioned for the sake of completeness. In Fig. 7.26 we see that a mixed-up pattern of residual thrusts is left outstanding at each extreme corner of the building. This is inevitable in the nature of the form, but the fault has done more good than harm in the history of architecture. The twin western towers that originally appeared in the Romanesque of Normandy and went on into the Gothic of the Ile de France, in appearance superb (Figs. 11.16; 12.7), perform the simple function of weighting down the corners. The same thing may be said of the transepts and apse of many a church. The drawing also attempts to suggest various types of buttresses placed at other points.

By way of a final word, it is necessary to stipulate that our discussion of cross vaulting has been limited almost entirely to matters that might be illustrated or inferred by reference to the plan view alone. The interaction of the arches as seen in elevation is also important, but it does not become vitally so in any architecture earlier than the Gothic. We therefore defer treatment of the matter until Chapter 12.



JULIAN HUXLEY

Fig. 8.1 Petra. The Khazna.



ALINARI

Fig. 8.2 Cori. The Doric Temple.

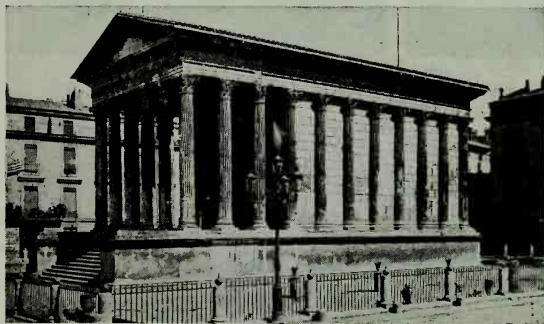


Fig. 8.3 Baalbek. The Round Temple. After an engraving.

Fig. 8.4 Nîmes. Pont du Gard. 175 feet high.



RICHARD W. DWIGHT



ARCHIVES PHOTOGRAPHIQUES

Fig. 8.5 Nîmes. Maison Carée. Early 1st Century A.D. 87 by 45 feet. Columns 29 feet high.

Fig. 8.6 Rome. The Arch of Constantine. 312 A.D.



ALINARI



HELLENISTIC AND ROMAN ARCHITECTURE

The history of architecture during the Hellenistic age and under the Roman Empire bears a striking resemblance to developments during the latter part of the Gothic era, and also to what happened as the Renaissance moved on into its Baroque and Rococo phase. In all three instances, even the ordinary architect was erudite in the manipulation of the current style. Professional opportunities, moreover, were many and generous, but nothing had happened to change the world enough to create a demand for the discard of the style to which people were then accustomed, and the invention of a new one. Every problem presented by the inner logic of the incumbent style had been solved long ago; there was no great or fundamental challenge to the imagination. In its absence, designers tried to get to what satisfaction they might from sophisticated variations on familiar themes. It is all too easy for the historian to dismiss such work with a passing word; some of it is very fine indeed, and all of it is entertaining. It is true, however, that the reader is already well equipped to understand the architecture of late Antiquity, and we may legitimately save space by confining ourselves to a few broad generalizations.

The first of these is the existence of an obvious parallel between the architecture of late Antiquity and its contemporary sculpture, the latter already reviewed in Chapter 6. Amid the confusion of many separate tendencies of style, we may discern at least three distinct trends of architectural thought. Most conspicuous and most fertile of monuments was the tendency to complicate design and proliferate ornament, as exemplified by the round temple at Baalbek (Fig. 8.3) and by the rock-cut tomb façades of Petra (Fig. 8.1). Keeping always within the classical idiom and yet contorting it, such archi-

ture arrives at compositions so spectacular as to be hardly classical at all — the natural counterpart of sculpture in the Pergamene tradition. Over against this strident urge for display, we may note a certain lesser number of designs which, like sculpture in the class of the *Apollo Belvedere*, are distinguished by overt chastity. Among them the small Doric temple at Cori (Fig. 8.2), about 35 miles southeast of Rome, is a conspicuous example. Its shafts are no less than $8\frac{2}{3}$ diameters in height, its abaci virtually straight-sided, and its total effect so neat and sanitary that the Parthenon seems by comparison somewhat immodest. In addition to the two trends of taste just cited, the realistic point of view, so productive in the field of sculpture, made itself felt in architecture also. Its operation is manifest in the appearance of a great variety of specialized buildings, some frankly and completely utilitarian: markets, law courts, theatres and amphitheatres, race courses and grandstands, fora, aqueducts, libraries, lighthouses, sidewalks protected by roofs and colonnades, gateways, bathing establishments, and so on. We are dealing, in short, with the architecture of an increasingly refined civilization, with complexities disturbingly like our own.

The fondness for colossal dimensions, which to ancient eyes must have seemed the most conspicuous feature of Hellenistic statuary, was far exceeded in the field of architecture. It commenced almost before the Hellenistic Period began. The two greatest temples of the 4th Century B.C. — that of Artemis at Ephesos (begun in 356) and that of Apollo Didymaeus at Miletus (335–320) — have linear measurements approximately twice those of the Parthenon, and on the basis of cubic measurement (a better criterion for comparison of size) work out to be about eight times as big.

But even the Hellenistic Greeks must take a place far behind the Romans whenever scale enters our calculations. The Colosseum is an oval some 620 feet long, 500 feet wide, and a little more than 157 feet high; it seated about 40,000 persons. The Pont du Gard at Nîmes (Fig. 8.4) rises 157 feet above the stream it spans. The rotunda of the Pantheon at Rome (Fig. 7.1) is 142 feet in diameter and 142 feet high. The main hall of the Basilica of Constantine was 226 feet long by 82 feet wide, and its cross vaults swung 114 feet above the floor. These measurements were approximately duplicated in the so-called *tepidaria*, or central concourse, of the Baths of Caracalla and those of Diocletian. Those immense rooms, very much the same as the main concourse of the Pennsylvania Station in New York, are all but lost in the ground plan of the entire establishment (Fig. 8.10) which, as a whole, amounted to a veritable district set up on a platform 1,080 feet on a side.

In assessing the cumulative effect of the architecture of later Antiquity, it is not enough to emphasize its geographical extent or the large number of

buildings put up. We must also take account of size; and in so doing, must prod ourselves with the realization that our own sensitivity to scale has become somewhat jaded by the performances of the 20th Century. To the medieval man, even the Gothic man, the size of Roman buildings represented something quite out of the question by reference to any techniques he knew or could imagine as practical. His topography was marked with Roman ruins, and he could explain their colossal dimensions only by assuming that Roman times were grander than his own. To the man of the Renaissance, Roman scale stood as a challenge, a test of whether he was worthy to recapture the power and scope of the ancient world. It is significant the test was met only two or three times: the Cathedral of Florence, Saint Peter's at Rome, and Saint Paul's in London. Otherwise, for scale like the Roman the world had to wait for the Industrial Revolution, and it is no wonder the uniquely beautiful buildings at Athens tended to become forgotten amid a wealth of larger and more assertively gorgeous monuments.

In a world teeming with builders hard at work, it was inevitable that a certain amount of progress should take place even though no fundamental change of view came to the architectural philosophy established during the Great Age of Greece. A few important experiments were tried. Some of these proved successful; and in the ensuing discussion, we shall confine ourselves to Hellenistic and Roman developments important enough to have exerted a substantial influence on the future.

Standards of Construction During Late Antiquity

It is possible to read in a hundred books that standards of construction became inferior as soon as the Great Age of Greek art passed into memory. The comparison is hardly fair. It rests upon the presumption that the marble of Periclean Athens may be taken as typical of "Greek work," in comparison to which we may in the same breath express our scorn for the masonry of the average workaday Roman contractors. The buildings on the Acropolis are of course a special case, uniquely fine and typical of nothing; the Greeks did a great deal of work that is worse, some of it even worse than the dead average of later Antiquity.

However inevitable, such comparisons furnish a poor start toward an appreciation of Hellenistic and Roman construction. We should commence, rather, by attempting to visualize the problems that opened up for the architect as the Greek horizon expanded after the death of Alexander and again as Rome organized the civilization of the whole European world. The assignment, if we may call it that, was bigger than the task of lending beauty and

dignity to a single part of a single city. It amounted to nothing less than the construction of entire cities in all kinds of places, some with building materials in good supply near at hand and others remote from essential resources. The explanation for the Hellenistic and Roman outlook lies waiting for the reader if he will turn to one of the several translations of Vitruvius.

A mere perusal of the headings will suffice to indicate what is meant. Vitruvius felt under the necessity of writing a section giving people advice about the selection of a site for a city. Throughout his text, he returns again and again to consequences of the choice, and ramifications thereof. Streets, he warned, ought to have their direction determined by that of the prevailing winds. He wrote at some length about finding water, storing water, and distributing water around the town. He pointed out that domestic architecture must vary in style with the climate, and had something to say about the exposure desirable for rooms of one kind and another. He also put forward suggestions for adapting one's house to the site available, and he cited considerations to be kept in mind when selecting a place to build the various public buildings considered necessary in that age of ramified economy and government.

His statement of general desiderata is accompanied throughout with rather specific instructions for the handling of materials. Brick, sand, lime, stone, stucco, timber, and paints found their place in his book at one point or another. Before he let himself go with respect to architecture as a cultural manifestation, he took time, moreover, to write down a few home-truths about foundations and substructures. Indeed, it is only when he forsakes the practical and ventures into the history, philosophy, and psychology of art that he gets beyond his depth and ceases to carry conviction.

Space prevents our trespassing further upon what the reader may find for himself in Vitruvius, but it is important to give special emphasis to the great single development in the materials of architecture, a development that first became important in Hellenistic days and emerged in Roman times as supremely important. We refer to concrete.

Even the best cement is less attractive than good cut stone; less attractive, even, than the best of bricks. At the same time, no rational person can overlook the tremendous advantages offered by the material. Because concrete can be mixed by unskilled workmen from ingredients obtainable almost everywhere, and poured by them, it is possible for a few educated architects to direct the labor of an immense number of men — and thus construct buildings more cheaply than would otherwise be possible. Concrete may be used clear, adulterated with nondescript rubble, or reinforced. In good Roman work, the latter was usually the case. As in the dome of the Pantheon, the cement

would fill the interstices of a logical lace-work of brick arches. The strength and endurance of a wall or vault so constructed is beyond calculation; suffice it to say that if permanence is all we have in mind, Roman concrete is the best building material the world has yet seen. The Roman dominion made its excellence a matter of common knowledge, with the result that concrete remained the builder's chief reliance throughout the Middle Ages and Renaissance. Today when machinery has replaced the unskilled labor of earlier centuries and iron is available for reinforcement, concrete has more than ever come into its own. Its introduction during late Antiquity must be classed as a major event in the history of architecture.

The Roman Temple

There is no important Roman architecture from the Republican period. Augustus himself is quoted as saying, "I found Rome a city of bricks, and I shall leave it a city of marble." He got the idea from contact with the architecture of Hellenistic Greece, and his policy is but an illustration of the extraordinary capacity of Rome to assimilate good things wherever they might be found. At that time, the Greek architectural tradition was the most accomplished the world had yet seen, and the Romans felt no impulse to invent another. Their temples, therefore, conform to the Greek type with certain historically significant changes.

One of the very best is the so-called *Maison Carée* at Nîmes (Fig. 8.5), originally dedicated to two grandsons of Augustus and dating from the very first years of the Christian era. As compared to the Greek temple, the most important difference is the introduction of a pedestal, or *podium*, which raises the entire building half a story above the ground. The podium provides useful space below the floor of the cella, and by increasing the total height, tends to increase the temple's value as a landmark. The use of a podium makes it necessary to provide a staircase by which one may climb up to the cella level, and we see such a staircase attached to one short end of the building, which thus attains a certain emphasis as the principal front or façade. It is important to note that the capacity of the stairway is far greater than that of the door to which it leads; it can accommodate more people than we can imagine wanting to enter or leave the building at any one moment. The purposes of such a stairway is not functional, but aesthetic: it is a grandiose piece of geometric sculpture, worthwhile for its varied mass, for the play of line it provides, and for the way it takes the light at different times of day. If of practical dimensions, it would have no such merit of appearance.

The Romans rarely used the free-standing peristyle of the Greek temple because they disliked the waste of interior space inevitable whenever an ambula-

tory is included on the plan. They therefore brought the cella walls out to the edge of the podium, and ran a peristyle of *engaged columns* (i.e., columns in contact with the wall) around. As a further means of dignifying the main front, it was customary to keep the cella fairly short, leaving several columns free-standing to form an entrance porch at the top of the stairway.

It is the Roman adaptation of the Greek temple, and not the Greek temple itself, which has dictated the design of so much modern building in the several classicizing styles. The deep portico at the entrance end is the "temple front" we find attached to innumerable blocks of utilitarian construction. The elevation of the Roman temple has also proven historically important. It established a sequence of elements: podium, order, entablature, roof — which we may find repeated in all proportions on thousands of exteriors all over the world.

The Maison Carée, like most other Roman columnar buildings, was built in the Corinthian Order. The entablature is much the same as the Greek Ionic except for the addition of small scroll-like brackets under the cornice. These are called *modillions*. They have an historical importance because they were borrowed in later times by Renaissance and Baroque designers, who used them (often in exaggerated sizes) to soften the linear transition presented to the eye when two parts of a building must come together at a right angle. It will also be observed that the Roman pediment is commonly built with an angle slightly more acute than the Greek. The change may be good to whatever extent it tends to balance the podium, but most critics dislike the proportions it dictates for the pedimental triangle.

The Question of Etruscan Influence on Roman Art

A great many scholars feel dissatisfied with any historical treatment of Roman art that does not include some allusion to Etruscan influence. The Etruscans, it will be remembered, were the strongest contenders against Rome in the early days when Rome was still attempting to establish her rule over the peninsula. They lived in the district we now call Tuscany, and in the end they were so thoroughly chastened and absorbed by the Romans as to render Etruscan archaeology a most difficult subject.

According to Vitruvius, the standard Roman temple, as described in the last section, conforms in the details of its arrangement to Etruscan temples. Having got the general idea of the temple shape from the Greeks, the Etruscans supposedly modified the type to the extent of making the cella wider, as just described, and adding the entrance porch. As drawn by Vitruvius, a typical Etruscan temple is almost square in plan (Fig. 8.7). Undoubtedly, Vitruvius correctly reflects the current belief among Roman architects that these

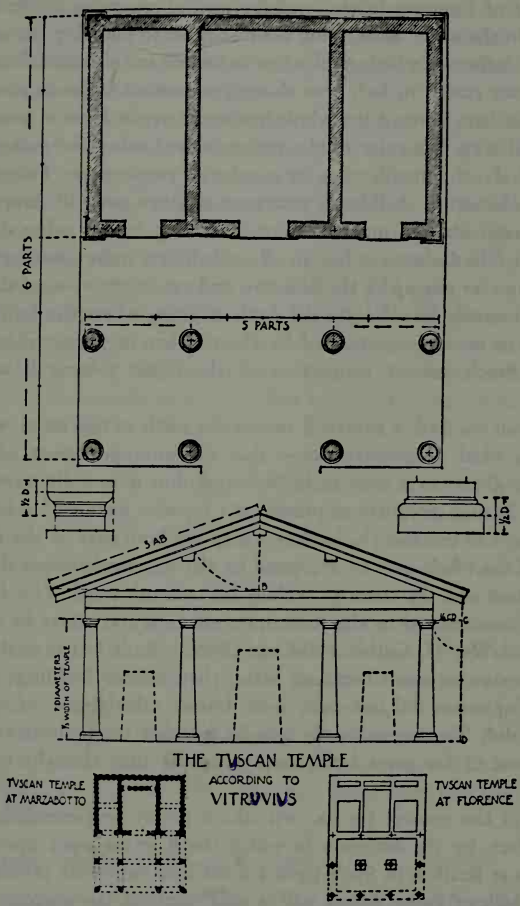


Fig. 8.7 Plans of a typical Etruscan temple. Drawn according to the description given by Vitruvius.

features were of Etruscan origin, and there is no reason to challenge his archaeology. On the other hand, there is small cause to magnify the importance of an artistic influence which resulted in so simple and superficial an effect.

There is some reason to feel, even though we cannot begin to prove it, that Etruscan precedent affected the whole history of art in Italy in a more subtle and profound way. We refer to the perennial and otherwise inexplicable recurrence in Italy of a predilection for ponderous proportions. This is first seen in Roman architecture. A Roman structure of given over-all dimensions will contain a greater bulk of masonry than a building in any other style except the Egyptian. The Colosseum has, in all probability, more openings than any other building ever put up by the Romans; and yet in any view of the exterior, the eye is met mostly by solids. In the Arch of Titus, where the designer's sense of form was in no way constrained by the problem of permitting crowds to circulate, a much greater proportion of the cubic volume is assigned to masonry.

It is difficult to find a practical reason for such exaggerated weight and solidity. The ideal of permanence — that common possession of all great builders — might at first seem to be indicated, but it is really very doubtful whether the Roman proportions produced a superior factor of safety. To increase weight is to increase the load on every working part of the fabric, and the safety of the whole may be expressed by the relation between the strength of the members and the stress to which they are subjected. The very inertia of buildings constructed in the Roman manner may at times be dangerous: during World War II, Gothic buildings (lightly built but logically braced) sustained the concussion of bombing better than heavier buildings of the Roman type. Explosives did not enter into Roman calculations, of course; but earthquakes did. We may certainly wonder whether the sophisticated Roman engineers went in for great bulk simply because they thought it might be stronger.

The love of the massive for its own sake is pretty well established as their motive, in fact, by the extremes to which the Romans went upon occasion. The quarries at Baalbek in Syria yield a dense and somewhat crystalline stone notable for lack of flaws. About half a mile south of the modern town, one may still see the block that establishes an all-time world's record. Called "the trlithon," it lies tilted up as though ready for dragging to the building site. The measurements are 70 feet, by 14 and 13. The weight is over a thousand tons. Stones of the same order of magnitude were actually built into the walls of the great ensemble at Baalbek. Three of them, with a cross section 14 feet by 11, measure 64, 63, and 62½ feet long. Such blocks present an herculean problem for the builder, and there is no special good in them if we are merely

interested in sound construction. Split into smaller pieces, any one of them would furnish material for a house 60 feet by 60 on ground plan, 40 feet high, and with walls a foot thick. For such a performance, some reason other than the structural must be sought.

The heavy Roman proportions seem much more likely to have had their genesis in the plastic sense which so strongly dominated all classical taste. A strong tactile interest begets an interest in mass. An interest in mass breeds a desire for greater mass, which is to say for ponderous proportions. In view of the fact that the Romans carried this process much further than the Greeks and, unlike the Greeks, failed to work out an elegant system of proportional relations, we must call the tendency Roman or find some other source for it.

If a source exists, it is probably Etruscan. There are two main reasons for believing this. An Etruscan arch still stands in the ancient city walls of Perugia, known as the Arch of Augustus because part of the frieze above dates from that reign. It is a semicircular arch and terrifically, even inchoately heavy. The same may be said of other remains of Etruscan work, few though they are at this date. Some Etruscan paintings survive, and these tell the same story. The figure-style is bulky to a degree. There is reason, simply because the Romans lived in the same part of the world as the Etruscans, to believe that Etruscan precedent established the love of bulk. If so, the Etruscan temperament demonstrated an extraordinary power for survival. There are those who believe it lay dormant among Italians for an incredible number of centuries, coming sporadically out into the open to produce the ponderous figure-style of such artists as Giotto, Signorelli, and Michaelangelo. Were some other suggestion conveniently at hand to explain the phenomena just cited, the notion of recurrent Etruscan taste would be preposterous, but nothing else seems so satisfactory as a cause for otherwise capricious happenings. Pending findings of a very substantial kind, however, the whole question of Etruscan influence must be labeled a possibility, not a fact; and suggestions like these must be accepted as inferential.

Combinations of the Arch and the Orders

The Greek prejudice against the arch was strong enough to last a very long time, and seems to have relaxed only under the Roman Empire. As soon, however, as the arch became artistically acceptable, designers began to work with compositions in which it was combined with the orders. Arches were made to spring from columns in long arcades in the justly famous colonnaded streets of Palmyra, in certain parts of the small town known as Diocletian's Palace at Spalato, and elsewhere. Experiments of various sorts and kinds were tried, and two particular ensembles of arch and order achieved historical importance.

The first is well illustrated by the façade of the Temple at Termessus (Fig. 8.8), a place on the banks of the Catarrhactes River in southern Asia Minor and about 23 miles north from the coast. It is this very same arrangement that Brunelleschi adopted for the Pazzi Chapel façade (Fig. 15.23) when, as one of the leaders of the new Italian Renaissance, he conceived a re-

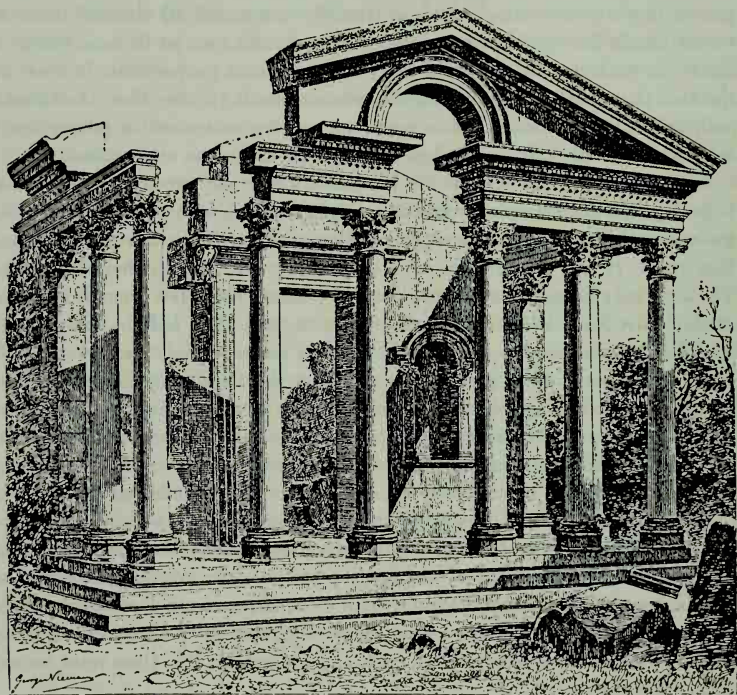


Fig. 8.8 Termessus. Façade of the temple.

vival of classical architecture. The point of the arrangement is to dignify the intercolumniation which leads to the cella door, and with that purpose in view, the entablature is broken in the middle and a handsome arch opens up the pediment above. Once the theme became established, variations on it were tried. Of these, the most significant is that illustrated by the entrance portico at Baalbek (Fig. 8.9). There the entablature is broken, to be sure, but less abruptly. Conceived as a great moulding, the ensemble of architrave, frieze, and cornice is carried clear around the curve of the arch, to continue in its

usual horizontal form on the far side. Much the same use was made of the curved entablature for the entranceway leading from the forecourt of Diocletian's Palace at Spalato, but in that application, the arched opening is central in an ensemble of only three intercolumniations. To either side of it, there is a square-headed opening of the usual Greek kind. Taken together, the three amount to the architectural motive which became famous during the High Renaissance under the name *Palladian Window*.

For the combinations of arch and order just cited, there is no generally accepted name, probably because each instance differs slightly from the last. The

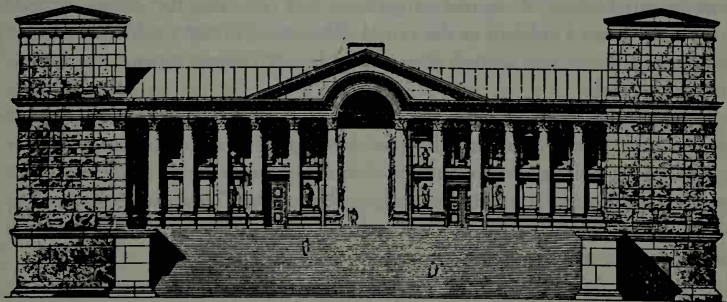


Fig. 8.9 Baalbek. The entrance portico.

so-called *Roman Arch Order* became sufficiently standardized to become a recognized item in the architectural vocabulary of Europe. The motive is seen in its simplest form on the numerous triumphal arches of Rome, each a memorial gateway put up in honor of some military conquest or equally important event in political history. The Arch of Titus is a good example. It was erected in 81 A.D. to commemorate the capture of Jerusalem, an event that had taken place a decade earlier. The structural parts consist of two substantial piers with an arch spanning the opening between them. Above the arch there rises a block of masonry half a story high, technically known as an *attic*, and offering a useful surface for inscriptions. The Greek orders are applied to the surface of the structure just described; they do no work and have no value except that they are handsome. As distinguished from other combinations of the same elements, the Roman Arch Order puts the columns to either side of the arch, and runs the entablature *above* its crown. Once established, this simple motive may be repeated any number of times. It is used three times on each face of the Arches of Constantine and Septimus Severus, and it is continuously repeated on each of the three lower stories of the Colosseum, all the way round the entire circumference of that immense pile.

As used on the Arches of Titus, Constantine, and Septimius Severus, the applied entablature shows a characteristic that has become a standard resource of the architect. We refer to the use of *ressaults* — a *ressault* being a block or chunk of entablature that rests directly on the capital of a column. As seen on the Arch of Constantine (Fig. 8.6), there is a *ressault* over each column, but between the columns, the entablature is made to recede almost to the surface of the wall. The columns and their separate *ressaults*, to put it another way, are in the round, while the rest of the entablature is in low relief. The purpose of the expedient is to eliminate the cast shadow which would fall from an entablature of normal projection, still retaining the strong vertical that results from a column in the round. The *ressaults* cast shadows, but they are small shadows, and located where they do not trespass against the curvature of the arch.

By combining the arch with the orders, the Romans were able to produce compositions that are undeniably good-looking. The combination of square and curved openings is the opposite of harmony as we have defined it, but contrast and variety are often equally to be sought. There are strong arguments, nevertheless, against this and other Roman habits of design; they are summarized in a later section.

The Roman Conception of Architectural Space

Space is part of the architectural medium. The painter can represent space, and thus make some use of it in his art. A few modern sculptors have attempted to make reference to space by devices calculated to direct the attention of the observer toward it, but for the most part, sculpture as we have known it must resist space. Only the architect has an actual volume of air at his disposal. It was the greatest single architectural achievement of the Romans to arrive at this conception, and to explore in a particular way its aesthetic possibilities. The Egyptian notion of interior design had approached absolute zero; the most sacred part of their temples was a cramped sanctuary notable for its absolute blackness. The Greek *cella* was better than that, but we may legitimately wonder whether it offered an amplitude in keeping with the dignity of the statues housed there. The majestic volume enclosed by the dome of the Pantheon (Fig. 7.1) may not be mentioned in the same breath.

The Roman interior, vast though it may be, represents a logical extension of the principles laid down for all classical art. It is, in its fundamental character, as plastic as any Greek statue — an apparent paradox we must make haste to explain. Taking the Pantheon as an example, it is fair to say we are dealing with a work of art where the solids are more important than the voids. The masonry of the dome dominates a large portion of our consciousness. It is the

act of less than an instant to recognize its shape as hemispherical, and we remain permanently impressed with the shape. The hollow squares of *coffering* sunk into its surface serve not only to enhance the texture, but to make more keen one's feeling for the thickness of the ceiling — and hence its tangible solidity. The interior of the Pantheon is, in short, as truly a piece of geometric sculpture as the exterior of a Greek temple. There is no difference in principle; we have merely exchanged the convex for the concave, and are inside the sculpture rather than outside.

The same interior demonstrates also that unity-through-separation which characterizes all classical art. No windows permit us to discern or recall anything outside the building; wherever the eye may look, so long as the line of sight is kept within normal limits, the vista is closed. To enter is to enter the world-that-is-the-Pantheon. No other extant interior separates the occupant from the rest of the universe in the same degree, and it is interesting to see that the oculus left open at the crown militates not at all against that impression. It opens at a remote and inaccessible spot upon a void foreign to our experience. It is doubtful whether the high-set windows of other Roman interiors functioned differently.

It would be incorrect to conclude from this that the Roman version of interior design constitutes a negation of space. The designers of the Pantheon were far from negligent with respect to the emotional implications of the magnificent cubic-footage enclosed by their building, but like all classical artists, they assigned to the tactile sense a reality more vital and essential than any other sense. This led them to feel that air itself was a sculptor's material, to be sequestered and moulded into a predetermined contour — in this instance, that of a cylinder surmounted by half a sphere. Their position on the matter was by no means untenable. Indeed, there is perhaps no better way to deal with the problem of interior design, and certainly none more appropriate to the disciplines of the Classical Style. As a matter of historical fact, moreover, the Roman and plastic conception of enclosed space remains one of the two (and only two) approaches to the matter yet to appear in the whole history of architecture — the other being most perfectly realized in the French Gothic of the 13th Century A.D. and in some of our most modern buildings of steel and glass.

Roman Symmetrical Planning

A great many Roman architectural designs involve more than one building. Artistic order, that is to say, was imposed upon an extensive area, with single buildings conceived as mere parts in a grander composition. The idea did not originate with the Romans; but while they undertook to organize the civilized

world, examples of such design multiplied and their scale became grander than ever before. It is the Roman system of composition rather than any other which has, for better or worse, set the pattern for the greater number of similar enterprises ever since.

Excellent examples of Roman practice in the layout of such group-design are the Forum of Trajan at Rome, the ensemble of temple and forum at Baalbek in Syria, and the gigantic Baths built at Rome by Caracalla and Diocle-

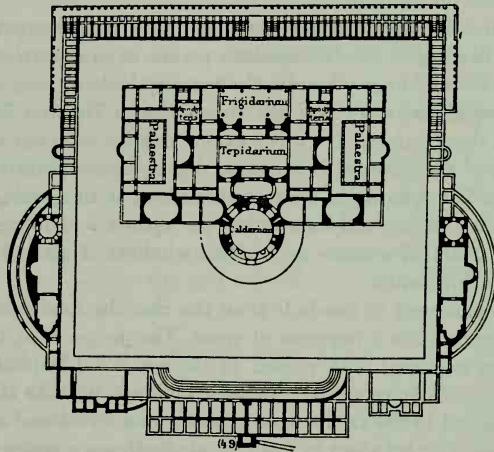


Fig. 8.10 Rome. The Baths of Caracalla. Plan. Restored.

tian (Fig. 8.10). In each of these instances, a certain amount of reconstruction is necessary in matters of detail, but the evidence is sufficient to make our generalizations reliable.

The Roman procedure in arranging such a composition was as follows: First, the surface of the site was leveled off to a plane. Second, through the center of the available area, or through some other convenient point, two axes were drawn at right angles to each other. At this juncture the governing conditions of the plan were set. All subsequent designing, whatever its apparent variety and complexity, proceeds with direct and simple reference to the plane and level surface, and to the axes drawn across it. The third step was to lay out in ground plan the various buildings to be included in the ensemble; and the fourth to arrange the subdivisions within the plan of each building. The plan of the Baths of Caracalla gives an instantaneous summary of the Roman mental machine and its functioning in work of this kind.

Everything is arranged symmetrically. It is often impractical to maintain absolute symmetry with both axes. One axis is therefore chosen as the *main axis*; and to this, symmetry is perfect. All possible symmetry with the subordinate axis is also maintained, it will be noted. The main axis may be either the long one or the short one; that is a mere detail.

Symmetrical planning, especially when the plan embraces an extended area, requires explanation. Its reason for existence is far from obvious. Symmetry has no relation whatever to practical considerations. Such plans demand the plane and level site beneath them; otherwise the symmetry is rendered less intelligible. The duplication of rooms at equal and opposite distances either side of an axis often makes it necessary to tolerate a substantial increase in the cubic bulk of the building. Both these features of the symmetrical system represent cost over and above provision for daily use — an oval room is often a pleasant change from the rectangular, but what conceivable human need can be adduced to suggest an economic justification for oval rooms in symmetrical pairs, as seen in the Baths of Caracalla? Neither economy nor efficiency entered into the account, and we must accept the fact that Roman symmetrical planning took place in response to some deeply felt psychological need.

The need was not for beauty. Most Roman plans make pretty drawings when seen in India ink on white paper. But the niceties of arrangement thus revealed were destined to be concealed by the roof; and, in the absence of airplanes, were never contemplated by anybody once the building was complete. We ordinarily see architecture in elevation, along a horizontal line of sight; and the materials of the draftsman differ from those of the builder. For the Romans, symmetry appears to have had an almost religious power, nevertheless. They served it with devotion worthy of a better cause. Their true reason? *Order!* We cannot repeat too often that symmetry is not a principle of beauty, but a way of imposing regularity. As such it appealed to a race of military men and administrators, but as compared to the disorder with which the buildings on the Acropolis are arranged, symmetry is a tedious business.

Outstanding Reservations About Roman Architecture

Every serious critic feels some sense of reservation with respect to Roman architecture; and in addition to the matters already covered, it is important to mention certain further and broader implications of Roman practice — because, on the whole, most modern builders have approached their problems with the same attitude as the Romans. Some of the time-honored objections to Roman work are cogent; some will not bear analysis — but in the end material for a negative critique exists.

Something is always said about the Roman habit of using the Greek orders

decoratively, applying them as surface embellishment to buildings engineered on the principle of the arch. The column, so this argument goes, had been invented as a structural member. In the average Greek temple, it was not otherwise used; every column actually carried considerable compression from the weight above it. As applied decoratively by the Romans, the orders carry no load, or so little it doesn't matter. At this point in the usual statement of the argument, a tacit appeal is made to the supposed dignity of labor as contrasted with idleness, the latter by plain implication being an evil. The upshot is to assign the structural act a value higher than the decorative act. Before the reader knows it, he finds himself entertaining the notion that diverting into decoration a member hitherto put to work is a form of prostitution. Without entering the difficult question of the respective influence of labor and idleness upon human character, it is possible for us to see that structure is not work in the human sense. Even more emphatically, it is plain that decoration bears no resemblance to idleness. Its artistic value is of the highest; those who insist upon disapproving of it must sternly turn their back upon the *Elgin Marbles* and all the statuary of Reims and Amiens. It may also be pointed out that the Greek column, while used structurally by the Greeks, is in effect a piece of abstract sculpture; as a mechanical device, it leaves much to be desired.

The real complaint against the Roman use of the orders has nothing to do with their alleged structural chastity or violation thereof. It has to do with the confusion of the Roman mind with respect to architecture and engineering. They evidently separated the two arts as we moderns have so often and so disastrously done. After the engineers left, the decorators arrived to conceal Roman concrete with a surface overlay (i.e., a *vener*) of marble, and to apply the orders, statues, or whatever. The separation of the two arts naturally resulted in a failure to integrate structural parts and decorative parts, and it may be said that Roman work in this respect is inferior both to the Greek and to the best we have from the Middle Ages.

The point is strongly brought home by the contrast between the more elaborate examples of the triumphal arch and the several great aqueducts which still survive: the Claudian, that at Segovia in Spain, and the famous Pont du Gard near Nîmes (Fig. 8.4). Because the aqueducts were considered purely utilitarian, they were left altogether without decoration. But while decoration may enhance beauty, it never makes it. The unadorned structure must depend upon its fundamental shape and line. The Roman aqueducts are universally admired for their scale, and for the powerful rhythmic swing of their great arches. It would appear, however, that these virtues were arrived at almost by chance. What did the Romans do to find handsome curves for the arches, to adjust proportions nicely, to arrive at a good surface texture? Let

the reader compare the Pont du Gard with the nave arcade of Amiens (Fig. 12.13), with arcades designed by Brunelleschi (Fig. 15.22), with the Ponte Santa Trinità at Florence; the difference is hardly one of more or less decoration, but of greater sensitivity in design. As Roebling was to demonstrate so conclusively at the end of the 19th Century, the elementary mechanical parts of an utterly plain bridge can have the highest elegance. In the work of a master, the borderline between architecture and engineering does not exist.

We have no right to complain, however, because the Roman builders failed to exploit the aesthetic pattern existing in the interplay of structural forces in the fabric of a great building — a realization which forms an essential part of the Gothic genius. All classical art, Roman architecture included, was an art of form, and the genius of Roman engineers was devoted to the production of handsome shapes and pleasing surfaces. If well done, there can be no objection to architecture of that kind, but the false separation of structure from beauty seems often to have lured the Romans into shoddy applications of their own philosophy. Decoration is detestable unless very fine indeed, and the general run of Roman decoration is poor stuff. Roman mouldings resolve themselves into dull circular arcs, as contrasted with the tense curves typical of good Greek work (Fig. 4.11); Roman capitals are often poorly shaped and coarsely carved, with the Corinthian the predominant choice. Luxuriance and display are the result, rather than beauty, and it was not for nothing that the poet Poe wrote *glory* when he thought of Greece, and *grandeur* for Rome.



THE ART OF THE EARLY MIDDLE AGES IN WESTERN EUROPE

FROM THE DECLINE OF THE ROMAN EMPIRE
TO ABOUT 1000 A.D.

INTRODUCTORY: A STATEMENT OF COVERAGE

No period in European history is more confusing than the span of years that starts with Rome's decline; and no part of that history is more confused than the history of art. We deal with the physical legacy of a world in flux. Military operations, large and small, succeeded and failed. Races corroded each other by contact, or merged imperceptibly. A major religious change was in progress; and other cultural and social changes succeeded each other rapidly, or existed side by side, leaving the historian baffled to know what is cause and what effect. Political and economic conditions were bad, as everyone knows; and that fact contributes heavily to the burdens of the art historian — for in bad times the artist is usually forced to confine himself to small enterprises. A small enterprise ordinarily means a portable work of art; and thus, a manuscript found today in the library of a castle in Carinthia may have originated at Reims or in Syria — and no one knows when, for meticulous accession records were unheard-of before the 19th Century.

No other period challenges the art historian as this one does; but the very difficulty of the problems, many of them permanently insoluble, has served to attract the vigorous interest of some of the best scholars in Europe and America. Their findings are still largely hypothetical, and depend upon archaeological argument of the most abstruse kind. Insofar as such can be reduced to an



Fig. 9.1 Buffalo, Albricht Art Gallery, Roman sarcophagus with putti personifying the Four Seasons. About 200 A.D.



STOEDTNER

Fig. 9.2 Rome, Arch of Constantine. Panel from the contemporary frieze. 312 A.D. For the entire arch, see Fig. 8.6.



ALINARI

Fig. 9.3 Naples, National Museum, Caracalla (Regnal dates: 211-217 A.D.).



ALINARI

Fig. 9.4 Rome, Capitoline Museum, Maximin (Regnal dates: 235-238 A.D.).



ANDERSON

Fig. 9.5 Rome, Conservatori Museum, Constantine (Regnal dates: 306-337 A.D.), 8 feet high.



ANDERSON

Fig. 9.6 Barletta. An unidentified emperor. Early 5th Century? Bronze. 14 feet high.



SANSAINI

Figs. 9.7-8 Rome, Lateran Museum. Christ as Good Shepherd. 3rd Century? Marble 37½ inches high.

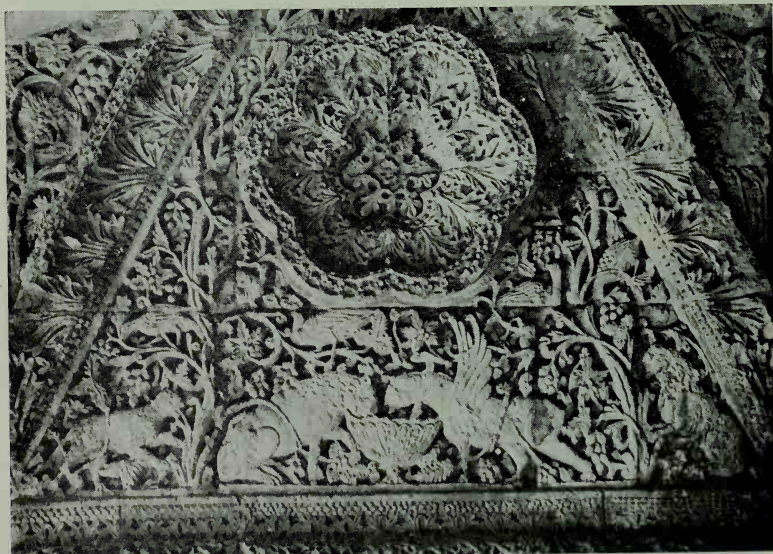


SANSAINI



SABAH

Fig. 9.9 Constantinople. Ottoman Museum. *The Sarcophagus from Sidamara*. About 150 A.D.



MARBURG

Fig. 9.10 Berlin. Staatliche Museum. *The Frieze from Mschatta*. Detail.



Fig. 9.11 London. British Museum.
The Archangel Michael. 4th Century.
Ivory. About 16 inches high.



ALINARI

Fig. 9.12 Rome. Santa Maria Maggiore. Mosaic in the triforium. Not later than 400 A.D. *Abraham Parting from Lot.*



Fig. 9.13 Berlin. Kaiser Friedrich Museum. Fragment of a sarcophagus from Sulu Monastir in Constantinople, showing Christ with two Apostles. About 400 A.D.

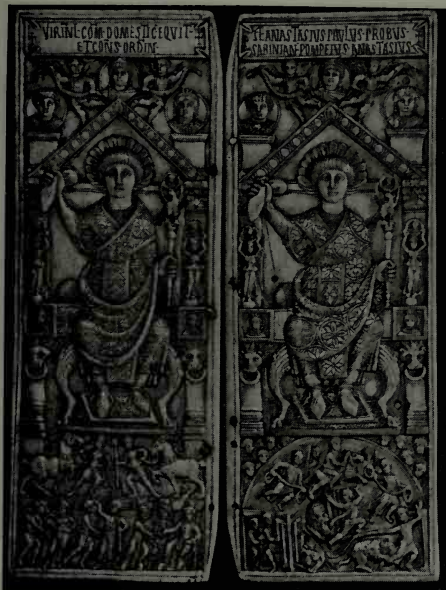


Fig. 9.14 Paris. Bibliothèque Nationale. Diptych of the Consul Anastasius. 517 A.D.

Fig. 9.15 (below) Ravenna. Palace of the Archbishop. Detail from the so-called "Throne of Maximianus," showing four Apostles. About 500 A.D. Ivory panels on a wooden frame.

ANDERSON





ANDERSON



ALINARI

Figs. 9.16-17 Ravenna, San Vitale. Mosaic of the Emperor Justinian and his Courtiers. About 547 A.D.

Fig. 9.18 Ravenna. Sant' Apollinare in Classe. Sarcophagus of the Archbishop Theodore. 5th Century A.D.



ALINARI



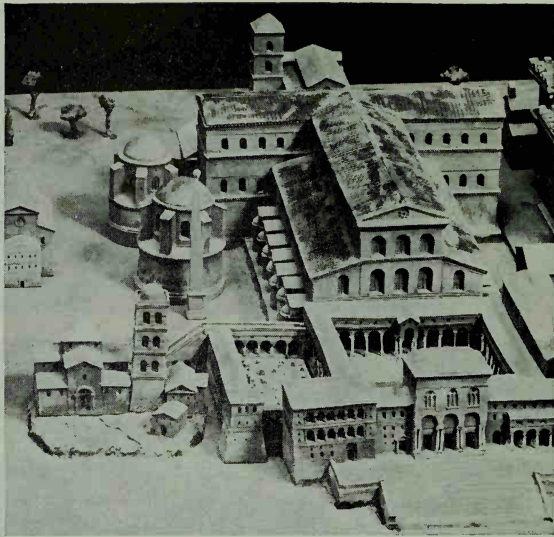
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Fig. 9.19 Rome. Santa Sabina. Cypress wood doors. 432 A.D. or shortly after. Detail: *The Crucifixion*.



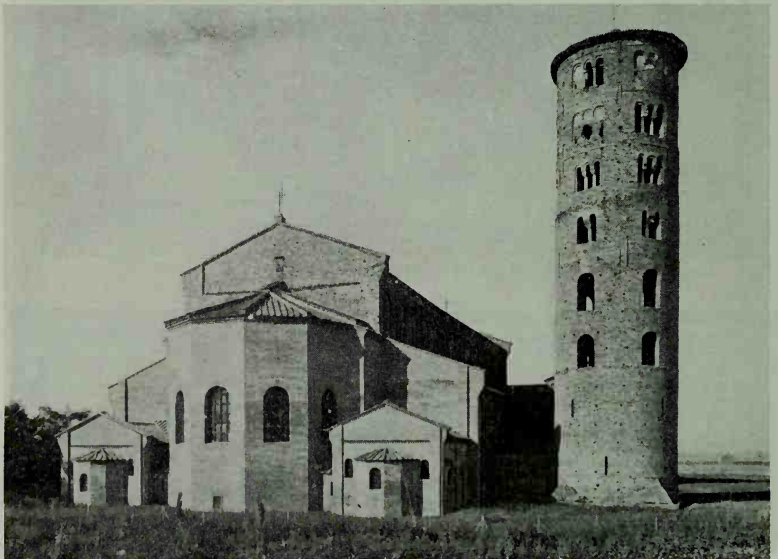
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Fig. 9.20 Rome. Lateran Museum. The Jonah Sarcophagus.



ANDERSON

Fig. 9.21 Rome. Vatican. Museo Petriano. Model of Old Saint Peter's. Destroyed at the end of the 15th Century to make way for the present edifice.



ALINARI Fig. 9.22 Ravenna. Sant' Appolinare in Classe. View from the East.



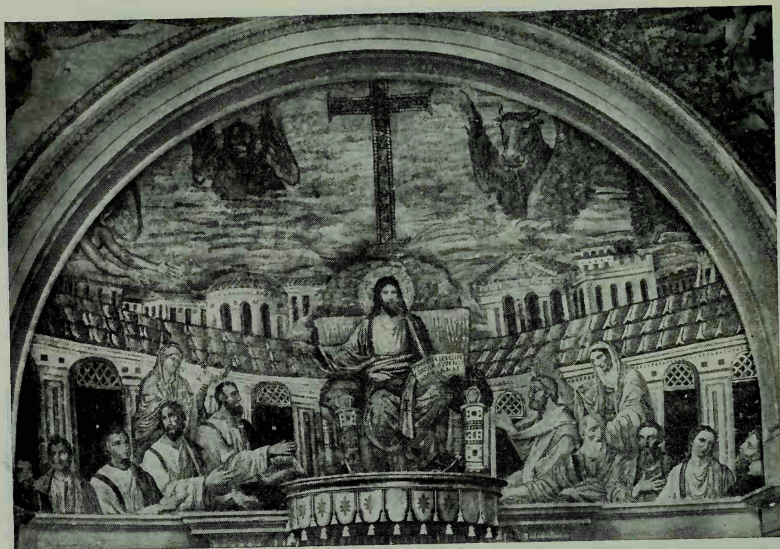
ALINARI

Fig. 9.23 Ravenna. Sant' Apollinare Nuovo. Diagonal view from aisle, showing mosaics in the triforium.



ANDERSON

Fig. 9.24 Ravenna. Sant' Apollinare in Classe. Mosaics of the apse and arch. On the arch: Christ with the Signs of the Evangelists, and the twelve Apostles in the guise of lambs. In the apse: the Transfiguration on Mount Tabor (above) and Saint Apollinaris in Paradise (below).



ANDERSON Fig. 9.25 Rome. Santa Pudenziana. Mosaic in the apse. Christ enthroned with the twelve Apostles. About 400 A.D.



ALINARI Fig. 9.26 Rome. San Paolo fuori le Mura. Founded 386 A.D. Rebuilt during the 19th Century. Diagonal view across the nave.



Fig. 9.27 (left above) Oxford. Ashmolean Museum. Graeco-Persian Gem. 5th Century B.C.
 Fig. 9.28 (right above) Chicago. Oriental Institute. Detail from a Persian plaque. Probably used as a trial piece for making jewelry. 5th-4th Centuries B.C.



Fig. 9.29 Leningrad. Hermitage Museum. Gold buckle found in Siberia. About 5¼ inches long.



Fig. 9.30 Line drawing after an animal in *The Book of Lindisfarne*. Irish. Early 8th Century A.D. FRANÇOISE HENRY.

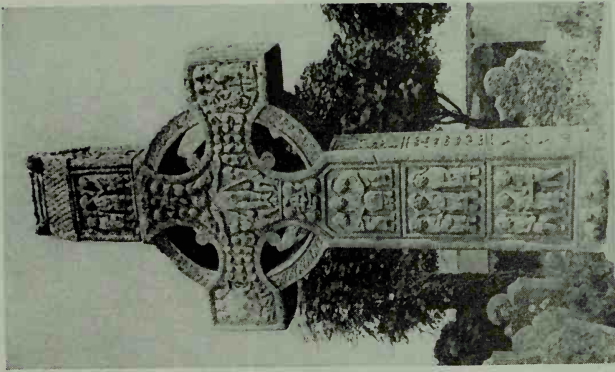
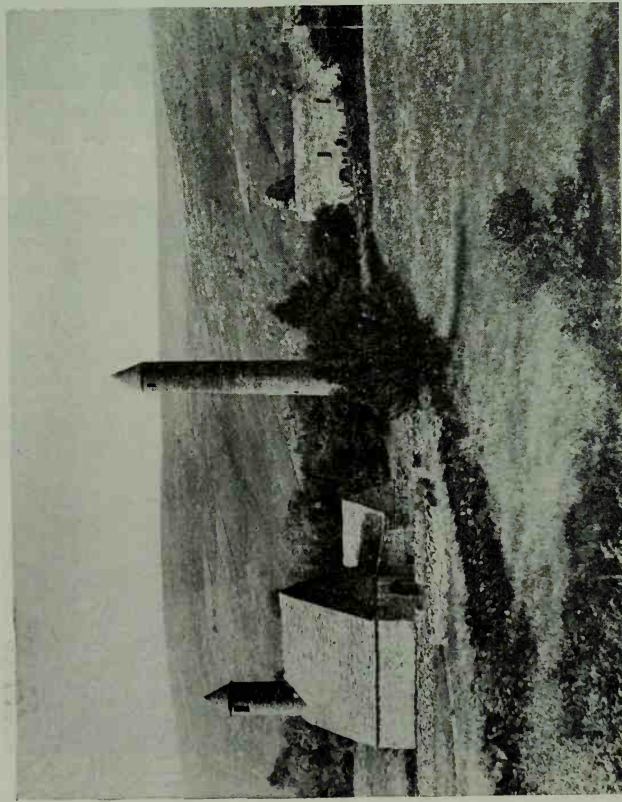
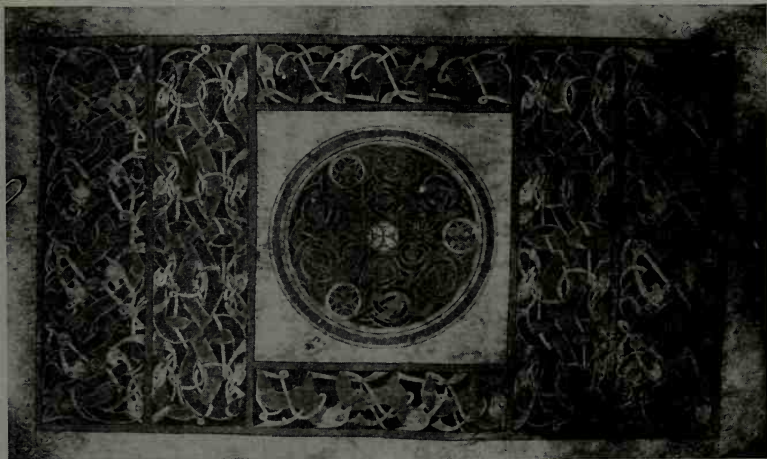
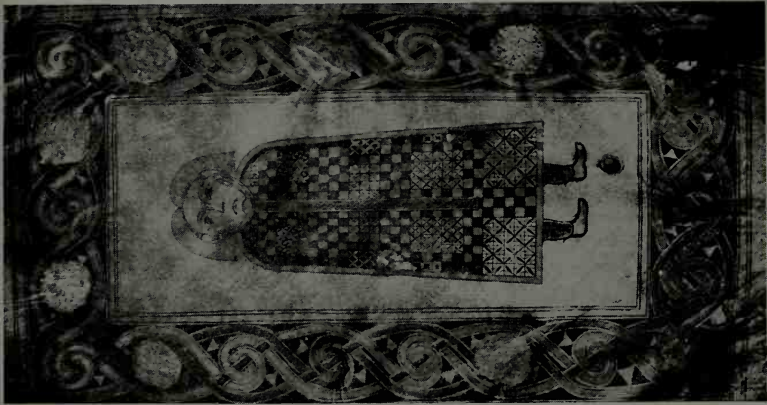
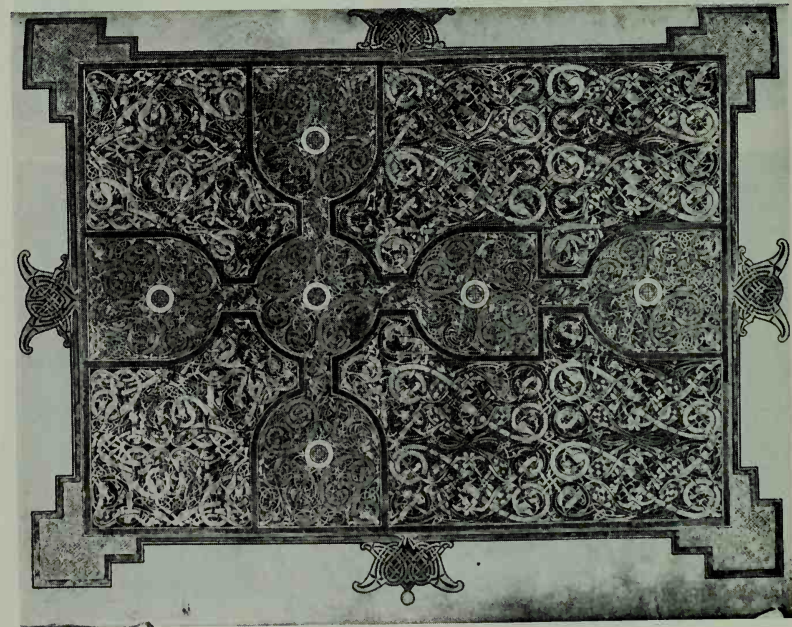


Fig. 9.31 (left) Glendalough, County Wicklow, Round Tower (110 feet high) and "Saint Kevin's Kitchen" (25 by 15 feet). Fig. 9.32 (right) Monasterboice, County Louth, Cross of Muiredach, South side, 19 feet high. PHOTOGRAPHS BY T. H. MASON.

Figs. 9, 33-34 Dublin, Trinity College, *The Book of Durrow*, Late 7th Century A.D., Page of interlace at the beginning of Saint John's Gospel (left), and Portrait of Saint Matthew (right).



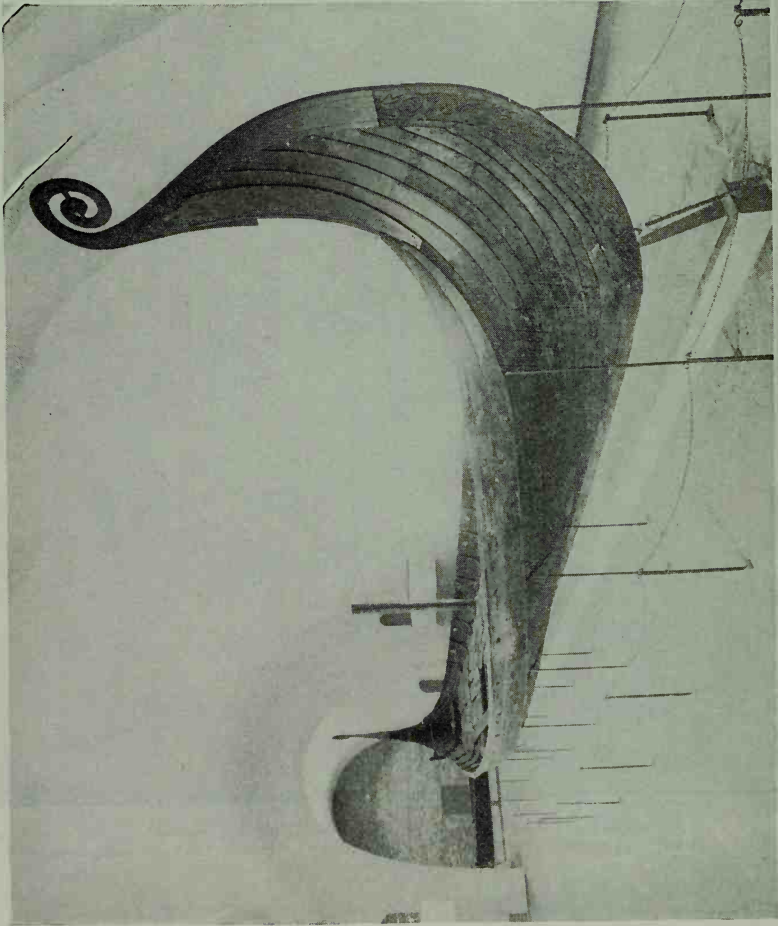


Figs. 9, 35-36 London, British Museum. *The Book of Lindisfarne*. (Left) Folio 26 verso. "The Cross Page." (Right) Folio 25 verso. Portrait of Saint Matthew.



Fig. 9.37 Dublin, Trinity College. *The Book of Kells*. Folio 34 recto. "The Monogram Page." Shortly after 800 A.D.

Fig. 9.38 Oslo, University Museum. *The Oseberg Ship*, 64 feet long, 10½ feet extreme beam.



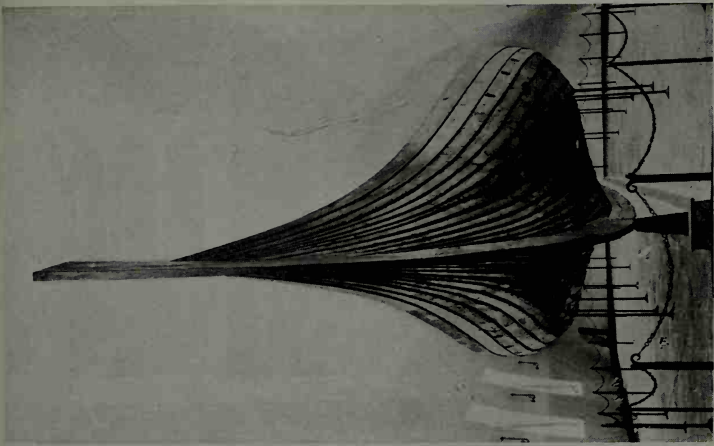


Fig. 9.40 Oslo, University Museum. *The Gokstad Ship.*

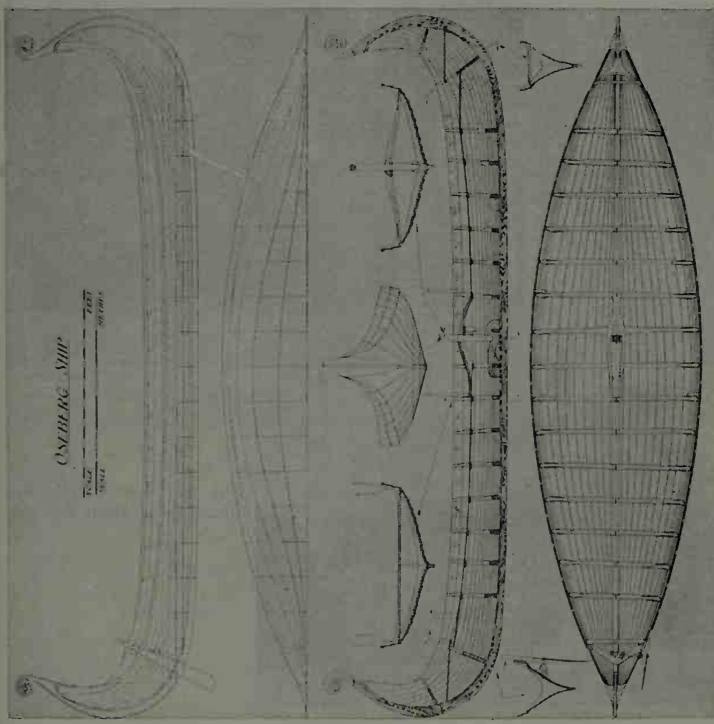
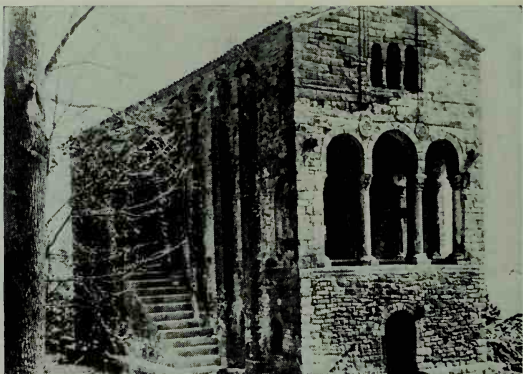


Fig. 9.39 *The Oseberg Ship.* Profile, water lines, and cross sections as drawn by Ulf Fox.

Figs. 9.41-42 Naranco.
Santa Maria. 848 A.D. 40 feet
long, 12 feet wide. PHOTO-
GRAPHS BY STOEDTNER.



MARBURG

Fig. 9.43 Lorsch. The Ba-
silican Gate. About 800 A.D.



STOEDTNER

Fig. 9.44 Munich. Staatsbibliothek. *Codex Aureus* from Saint Emmeram at Regensburg. *The Four and Twenty Elders before the Throne.*



C. B. VAN WEELDEREN

Fig. 9.45 Utrecht. University Library. *The Utrecht Psalter*. Folio 1 verso. Illustration for the 1st Psalm.

The upper register shows the righteous man opposite the ungodly man, who appears to the right as a prince accompanied by soldiers. An angel stands behind the righteous man, who has the law book of the Lord on the lectern before him; he meditates thereon day and night, as indicated by the sun and moon in the sky above. In the middle, two persons are seen discussing these men. The lower register shows, at the left, the tree planted beside the river of waters, with the river emerging from an urn held by a reclining demigod. In the middle, the face of the wind appears, blowing at a group of the ungodly. At the right, demons are casting more of the ungodly into the pit of hell.

LAUDINOMINISIN
 CHORO INTYMPANO
 HESALTERIOSILLATEL
 QUIA BENEFACIUMEST
 EXULTATIONESDINGUT
 TUREORUM FIGLADII
 ANCIPTESINMANIBIFOR
 AD FACIENDAMVICINDIA
 UT FACIANTIN EIS IUDICIUM
 CONSCRIPTUM GLORIA
 HAECESIONMIBUS SCS
 EIVS

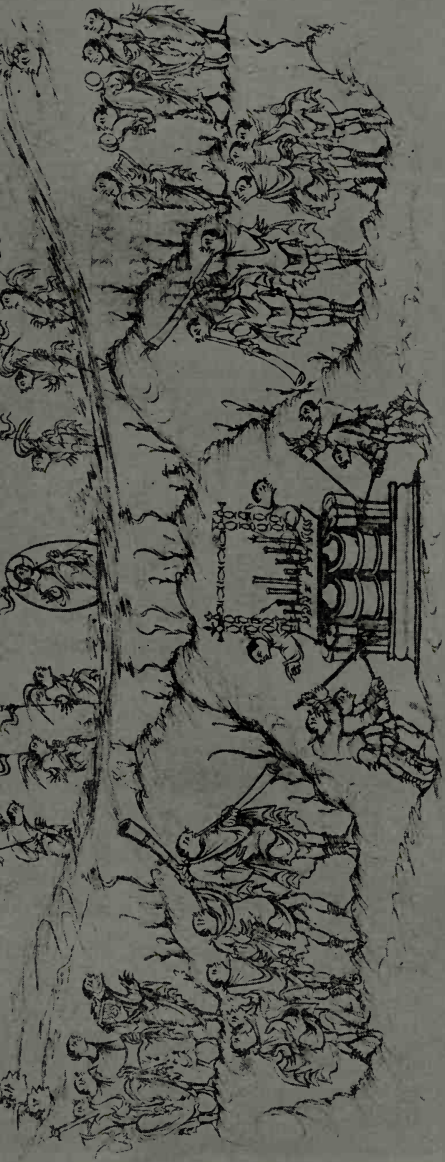
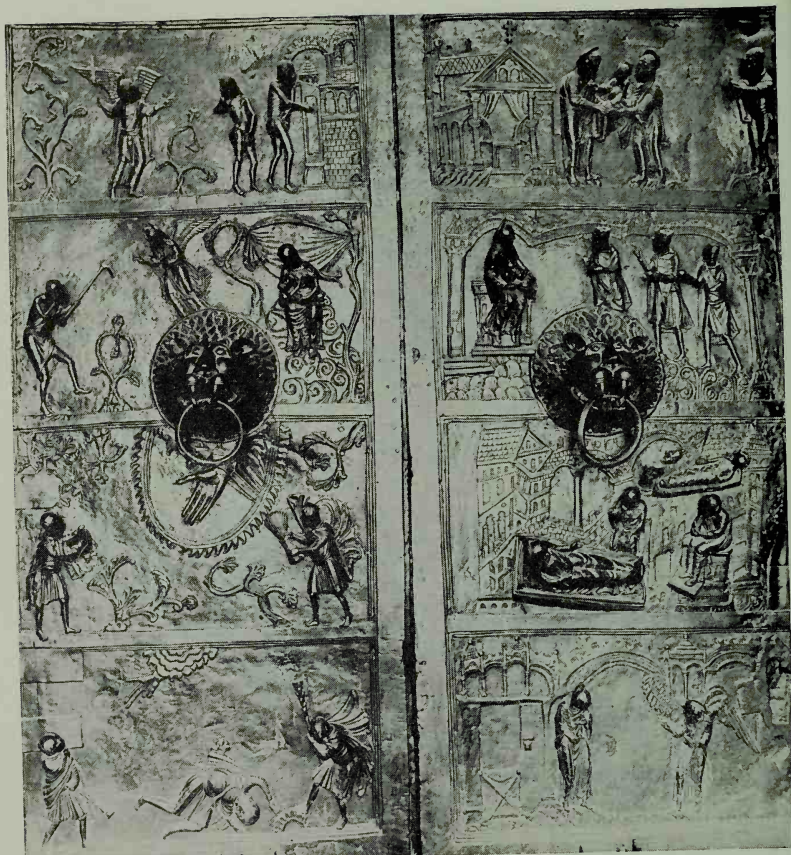


Fig. 9.46 The Utrecht Psalter. Folio 83 recto. Illustration for the 150th Psalm.

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Fig. 9-47 Hildesheim. Cathedral. Bronze Doors, lower half. 1007-1015 A.D.

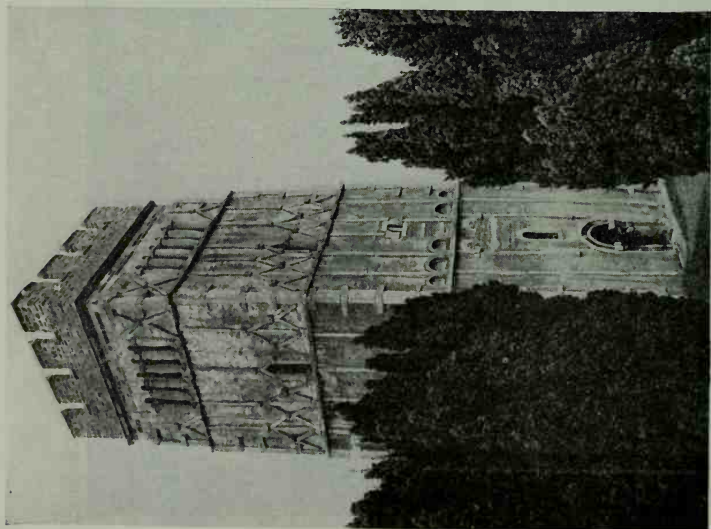
Left side, reading down: Expulsion from the Garden of Eden, Labors of Adam and Eve, Offerings of Cain and Abel, Murder of Abel.

Right side, reading up: The Annunciation, The Nativity, Adoration of the Magi, Presentation in the Temple.



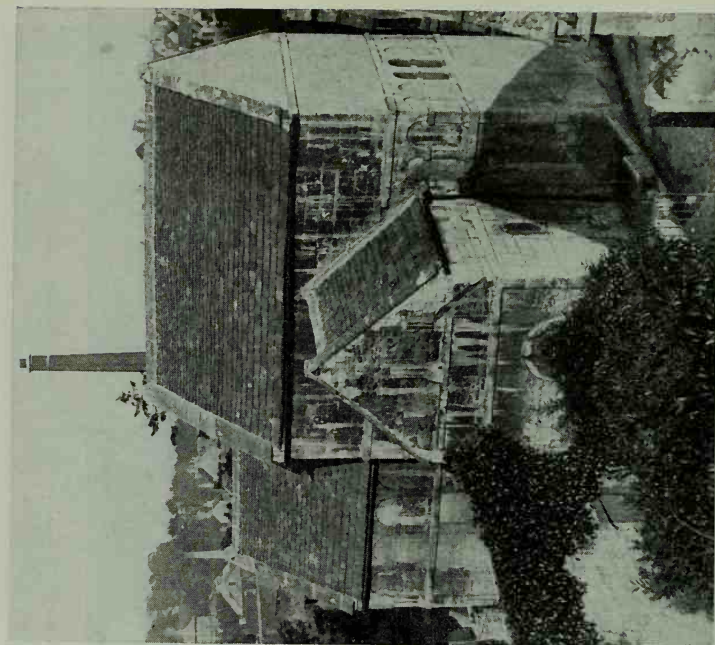
MARBURG

Fig. 9.48 Hildesheim, Cathedral. Bronze Doors. Detail. God passing judgment on Adam and Eve.



F. REECE WINSTONE

Fig. 9-49 Earl's Barton. The Saxon Tower. Early 11th Century. 68 feet, 8 inches tall, 24 feet wide.



NATIONAL BUILDINGS RECORD

Fig. 9-50 Bradford-on-Avon. Saint Laurence's. About 700 A.D.



GIRAUDON

Figs. 951-52 Bayeux. Cathedral Museum. The Bayeux Tapestry. (Above) The Norman fleet crossing the Channel. (Below) The Battle of Hastings.

over-all statement, the attempt will be made herewith; but at best, our chapter cannot be more orderly than the data it tries to set forth. Let us begin by making a statement of the coverage at which we shall aim.

In point of time, we begin at an indefinite moment: with the decline of Rome and the advent of Christianity. We terminate with the start of the Romanesque Period, in round numbers about 1000 A.D.; and we shall use the term *Early Middle Ages* to denote the whole of this era and to make a distinction between this period and the *High Middle Age* (1000-1400) which produced the Romanesque and the Gothic.

Geographically, we have several areas to consider. The Roman world was artistically more or less of a unit until the 6th Century A.D., which is the approximate time when the separation between Rome and Constantinople became artistically apparent with the maturing of the so-called *Byzantine Style*. After the 6th Century, we deal — in regions that were formerly classical — with Italy alone. We shall use the name *Early Christian* to denote the art of the entire Mediterranean world prior to the 6th Century, and that of Italy until the year 1000.

We must then proceed to consider certain artistic movements widely separated from each other and connected to Italy only by the common tie of Christianity. First and most important is the art of the barbarian peoples who destroyed the Roman Empire. The *Barbarian Style* is the third of the fundamental styles recognized by Mr. Morey (see above, pages 24-26); and it flourished only where the Romans had never been: in Ireland and in Scandinavia. We next must deal with certain small but important churches in Spain, especially those in the Asturias, the only part of the land that never came under the Moorish dominion. The art of the so-called "Carolingian Renaissance," the period of the empire established by Charles the Great, requires attention even though space prohibits any substantial consideration of its archaeological problems. Finally, the pre-Norman monuments of England, obscure though they are, may not be omitted if the later art of England is to be understood. And last of all, there must be a word or two about the incomparable *Bayeux Tapestry*, the greatest secular monument of the earlier Middle Ages. For reasons already made plain, the reader must not expect a smooth or even a connected narrative, but he may look forward to making the acquaintance of some very great works of art.

THE END OF ANTIQUITY

Most of us learn in school that the Roman Empire ended in 476 A.D. That date is significant only in the barest legal sense. It was the year in which Romu-

lus Augustulus, the last man holding a *pro forma* claim to the imperium by right of succession from the Caesars, resigned. He did so at the request of Odoacer, a Goth, who thereupon established a kingdom in Italy.

Everyone knows that things did not happen so suddenly. The event of 476 merely symbolizes the reality of a disintegration that had long been in the making. The *Pax Romana* had lasted for about 200 years, or from the reign of Augustus to the end of the first generation of the 3rd Century A.D. By that time, barbarian pressure (always a fact of Roman life) had ceased to be geographically remote. Actual invasions of Italy were in prospect, and began to take place on a substantial scale by the middle of the century. The state, in short, proved unable to perform the first office of government; namely, the physical protection of its citizens.

Under such conditions, no arm of society has anything like the importance of the army. No individual compares in prestige with the man who controls the soldiers. It was only natural to find that the office of emperor became synonymous with military authority, and eventually one of its perquisites. It is conceivable, of course, that a great personality might have saved the situation by combining in himself soldierly skill, statesmanship, and a magnanimous philosophy. No such personality appeared at the time of the emergency; and there were, between 235 and 285, twenty-six so-called "soldier emperors," none of them able to hold office for long, and each of them gaining it in the first place by intrigue. It has been suggested that such a situation was inevitable because the Roman army had become almost entirely professional (e.g., mercenary), and was largely recruited from border populations with no special loyalty to Italy. Other hypotheses have been put forward: as, for example, the suggestion that Christianity, with its emphasis on the spirit rather than the world, and upon gentleness rather than power, proved corrosive to the imperial ideal of military dictatorship. Whatever the reason (and no one is satisfied that he knows it), this fact is evident: by the close of the 3rd Century A.D., Roman civilization was in an advanced stage of decay.

Toward the end of the 3rd Century, two leaders emerged who, however unsuccessful their efforts may have been, had sufficient courage and imagination to take steps of a nature as radical as the situation itself. In 286, the Emperor Diocletian relinquished the theory that central government could be maintained. He partitioned the Empire, and divided the imperial authority with colleagues. In 330, his successor Constantine made an even more pessimistic decision. He defaulted from the attempt to maintain physical control over the entire Roman territory, abandoned the western half of the empire, and moved his capital to the city of Byzantium, since known as Constantinople.

This expedient resulted in a political and cultural separation between East

and West which has lasted 1,600 years, and may well be permanent. It was successful from Constantine's point of view, because it enabled him to retain the eastern empire intact. Popularly known as the *Byzantine Empire*, the government established by him in 330 endured until the Turkish conquest of 1453. Its history and art, largely separate from the western tradition, do not concern us here. We deal with them at length in Chapter 10 below.

Political events of the first magnitude, stated so briefly, seem as abstract as the planetary motions. Nor do we help ourselves greatly by remarking that "ruinous" taxation was required to keep up the military machine, with resulting disaster to "agriculture" and "commerce." Suicide, we hear, was on the increase, but the idea has a certain sanitary distance from our own sensibilities. It is necessary, indeed, to make a special effort to comprehend the devastation that took place. In 410, the Visigoths under Alaric sacked Rome itself; and in 452, Attila the Hun came to the gates of Rome and then retired — traditionally because rebuked by Pope Leo the 1st, but probably because well paid. In 455, Gaiseric and his Vandals sacked the city; the wanton thoroughness of their destruction accounts for the stigma ever since attached to the name *vandal*. These events were no more than significant instances in a general process. According to one estimate, the population of metropolitan Rome amounted to about 1,500,000 at the start of the 2nd Century A.D. By about 400, the population was somewhere around 500,000 people, and after the events just described, not more than 5,000. On several occasions and for various short periods, it is believed the entire population fled, leaving the Eternal City totally vacant. A spiritual pall descended, it would seem; and the Campagna, that vast and fertile plain which surrounds Rome and originally gave it prosperity, remained almost uninhabited and little cultivated until the end of the 19th Century. Even today, the city is less extensive than it was, and truck gardening goes on amid the ruins in areas once densely populated. It must be emphasized, moreover, that outrages decidedly did not cease with the 5th Century. They continued throughout the earlier Middle Age and later. Rome was sacked again by Totila the Ostrogoth in 546; and once again by the Saracens in 846 — they by that time having made the Mediterranean into a Moslem lake.

While this colossal decay went inexorably on, what of the population? Unable to find a solution in fact, they sought surcease in games and celebrations, a condition commemorated by a class of ivory carvings known as the *Consular Diptychs* (Fig. 9.14), of which a great many are preserved from the end of the 5th Century and later. Upon assuming the somewhat hollow title of consul, the politicians of this distressing period were accustomed to order a number of ivories, each with the donor's portrait, and hand them around as

gifts to important friends. Almost invariably the newly appointed public figure was shown in the act of tossing out a money bag as the signal for the start of a horse race. As Karl Federn quotes a certain Roman of the time, "It is as though the Roman people had eaten the herbs of Sardinia and were forced to break out in a disease of laughter. *Moritur et ridet* — it laughs and dies!"

No chapter in history is better illustrated by art than the disastrous and fateful decline of the only world-order the genius of mankind has yet produced. It takes no technical knowledge to read the course of events in any series of dated monuments; one has only to look, and he sees Antiquity fade before his eyes.

The most obvious sign of decadence is in technique. Signs of weakness are apparent at the end of the 2nd Century; and by the middle of the 3rd, most monuments are conspicuously poor by comparison to earlier standards. Many are manifestly incompetent, but we must always remember that something produced at the very same moment by an artist more fortunately situated may, upon occasion, be excellently well done. The good work is sporadic, however; and the passage of time generally spelled out a further loss of skill. The trend is well illustrated by the following comparison.

A marble sarcophagus now in Buffalo (Fig. 9.1) is thought to have been produced at Rome about 200 A.D. The four nude *putti* personify the seasons. Reading from the left, we see Winter, Spring, Summer, and Autumn — each with a vase filled with appropriate fruits and flowers. In the middle beneath the portrait medallion, there is a figure of Mother Earth; originally, she probably held a cornucopia. As so often happened, this sarcophagus was used more than once, and some subsequent lady-owner had the portrait bust done over in a later style. Because marble sarcophagi were popular at the time, the idea suggests itself that we have here an example of commercial rather than fine art; but in estimating the technical standards of the day, we may remind ourselves that the best Greek vase paintings were the commercial art of an earlier period. The sculptor of these figures appears, on the whole, to have been as competent as contemporary portrait artists; and it is patent he knew his business none too well. His carving of fruit and flowers lacks the snap and life characteristic of Augustan floral ornament, and his handling of anatomy and drapery is somewhat less than knowledgeable. But a strange haunting loveliness still emanates from the monument; one is reminded of the fragrance of a dying flower. In such marble tombs, as Mr. Morey once remarked, the latter-day Romans buried the last of Greek beauty along with themselves.

If we pass on to the beginning of the 4th Century, it becomes impossible any longer to maintain that the classical spirit was still alive. The Arch of

Constantine (Fig. 8.6) was erected to commemorate his victory over Maxentius in 312 A.D. It is generously decorated with sculpture, and would appear at first glance to testify that good artists were still working at Rome. Scholarly inspection of the various reliefs has proven that the reverse was true. Almost all the sculpture was secondhand. The only work surely of Constantinian date is found in the two narrow friezes at a level just above the crowns of the smaller archways (Fig. 9.2). Of considerable interest to historians because they furnish us with an early instance of the impingement of Orientalism upon classical art (see below, pages 261-268), there can be no question that the sculptor of these panels was grievously short on skill. The dumpy little figures are inarticulate, almost dead. Workmanship is perfunctory in general, and occasionally the work is scamped. Because an observer looking up from the ground level would find his view partially obscured by the moulding below, the man did not bother to carve feet on a great many of his figures. Other examples might be cited, but this one is enough evidence for the conclusion we must necessarily draw. Conditions were bad indeed if Constantine, with all the facilities of imperial authority at his command, felt compelled to borrow sculpture, and for new work could find no one better than the author of this mean and niggardly frieze.

More poignant than the decadence of technique is the course of the decline as we see it reflected in the faces of individual Romans whom we know through their portraits. Had we no other source on Roman history, its general outline might be surmised from this evidence alone. Until the end of the 2nd Century, Roman portraiture depicts a vigorous and competent population. Vespasian, who ruled from 69 to 79 A.D., has the countenance of a man who might today be at the head of a great and prosperous industry — an appearance entirely consistent with his magnificent capacity and substantial success in the business of government. Marcus Aurelius (161-180 A.D.) had a face so confident that it is completely composed, as though pressure and hurry had been civilized out of existence — which is remarkable in view of the facts of his reign: earthquakes, pestilence, military campaigns of the most tedious and uninspiring kind. It is no wonder his *Meditations* betray a great weariness, and it is natural that Stoicism (a philosophy calculated to make patient endurance tolerable, as contrasted with the production of positive good) should have appealed to him with religious power. The important thing is to realize that (for the ostensible purposes of portraiture, at any rate) Marcus Aurelius felt able to maintain the theory that man still had within himself the capacity to rise above the confusion and mischance of environment.

The downward trend commenced, perhaps, with Caracalla (regnal dates 211-217). That monarch, as we know him in the familiar bust portrait now

in Naples, seems almost the type of the man who succeeds by expending energy faster than he can ever take it in. His face has power and intelligence, but his nervous pose betrays him. As the 3rd Century went on, outright neurosis becomes evident even to the casual observer (Figs. 9.3-4).

To illustrate the end of the appalling story, we have two imperial portraits, both of great size. One is the immense head of Constantine, already mentioned in another connection (page 160). Its eight feet of height, and its grim exposure to the weather in the courtyard of the Conservatori, make it all the more devastating as a document of bad times — for the face is the face of a man who has seen a ghost (Fig. 9.5).

In Barletta, a town on the Adriatic coast of South Italy, there exists a baleful standing figure fourteen feet high (Fig. 9.6). People say that it came from the wreck of a Venetian ship which met disaster there in 1204, presumably on the way home from Constantinople. After lying neglected on the shore for 250 years, it was set up in its present position with slight restorations to the legs and hands. Sometimes it is called a portrait of Valentinian the 1st (late 4th Century), but the truth is no one knows just who may be represented. The costume is that of a Roman general; and the exhausted eyes look out at us from features that show a certain strength of character, but betoken even more clearly coarseness and vulgarity — a devastating revelation of an insensitive personality broken by circumstances more brutal than itself.

Horrible as must have been the state of mind of those who watched the end approaching, there is tragedy also in the popular viewpoint. The man in the street saw much to indicate that civilization was strong. Diocletian, the very monarch who provided himself with a personal fort, also dedicated a bathing establishment as big and as elaborate as Caracalla's. Maxentius, the man who competed with Constantine and lost, raised the great basilica (Fig. 7.28) which his rival took over and renamed for himself just as he was about to abandon Rome to its fate. These are among the largest and most grandiose of Roman buildings, demanding for their construction the highest order of engineering and organization. Such things illustrate the paradoxical nature of human affairs. Like a floating ice cake in the spring, the Roman polity retained much of its outward form and much of its strength, but it was ready to melt away faster than seems possible.

CHRISTIANITY AND ITS EFFECT UPON CLASSICAL SCULPTURE AND PAINTING

Amid the tragic decadence of late Antiquity, Christianity gained momentum because it offered hope — making sense out of a world in confusion by

stating that the world itself was temporary, nonessential, and possessed of meaning only by reference to the higher reality of heaven.

Such a view of life is in substantial contrast to the imperial ideal. As a result, Christianity was unpopular with the Roman government — never more so, in fact, than during the reign of Marcus Aurelius. Noted as a humanitarian, this man is also remembered as a philosopher. It was therefore plain to him that the Christian allegiance to a God beyond and above the empire could not, either in theory or in practice, be reconciled with what he considered the political necessities. He therefore undertook to suppress the new religion by methods today considered inhuman. Few Roman emperors had the same grasp of philosophical implications, however; and for the most part, Christianity was tolerated if the Christians themselves eschewed any action calculated to attract attention or to acquire power for themselves.

By the end of the 3rd Century, the new faith had become so important in the Roman polity that it was no longer feasible to restrict it. In the year 313, Constantine therefore promulgated the Edict of Milan, which removed the legal restraints hitherto curtailing Christian activity. Subsequently, he embraced the new faith himself, and it presently emerged as the official religion of the entire empire.

There is ample evidence to prove that Christian art was produced prior to the Edict of Milan. Certain paintings in the catacombs at Rome almost certainly were executed earlier than 313; but for all practical purposes, it may be assumed that any important or conspicuous monument of Christian art necessarily comes later. It seems equally certain that the Edict of Milan was the signal for a prolific output of Christian art of all kinds. Much of this was probably the direct result of Constantine's personal interest. He himself caused many a church to be founded, of which few survive except in name.

The acceptance of Christianity had almost no immediate effect upon artistic style. Just as Christian authors wrote in the classical languages, the first Christian artists used the idiom of late classical art. The earliest depictions of Christ, to cite the most conspicuous subject of all, show him in the guise of a young and rather handsome Greek youth; and thus we see him in the justly famous statue of the *Good Shepherd* (Figs. 9.7–8) in the Lateran collection at Rome. The latter is very nearly a duplicate of numerous pagan statues of Hermes carrying a ram or some other sacrificial animal, the most famous being the *Calf-Bearer*, one of the Archaic monuments recovered from the Persian debris on the Acropolis at Athens. As contrasted with the Roman statues from which it derives, the Lateran *Good Shepherd* seems pathetically to aim at spiritual content far beyond the technical skill of its sculptor; there is perhaps no nobler example of profound meaning that seeks expression through crass material.

Substantial changes in style were destined to come, but the process was gradual rather than sudden. With respect to the Early Christian art of the Mediterranean basin, the most important changes of style reflect the fact that Christianity is a religion that came from the Near East. It not only started there, but flourished there to an extent unknown in the West until much later. A church building at Edessa in northern Syria was referred to as "old" in the year 202. One at Arbela in Mesopotamia is said to have been built in 123. Of the church polities still surviving, the oldest of all is the Armenian. It will be recalled, moreover, that the Epistles of Paul were addressed to Christian communities in the Near East. The most splendid churches of the early centuries stand in parts of Syria which today are inaccessible. They were abandoned as a result of the Arab conquest of the 7th Century; but even in ruins, they are architecturally superior to any pre-Romanesque church in Italy or Western Europe. The importance of the Near East is still further emphasized by the choice Constantine made: unable to keep all, he chose the more valuable half of his empire and moved his government eastward. It must still further be remembered that Christianity was not the only Eastern religion in vogue during late Antiquity; the Olympian Gods were competing also with Mithras, with Atys and Cybele, and with Osiris. As religions, the others suffer by comparison with Christianity and were destined to drop out of sight; but at the time, all channels were effective in converting the Roman mind to Eastern culture. The general absorption of Eastern points of view had its effect upon art, and, as time went on, made an end of the Classical Style.

*The Influence of Oriental Art upon the Classical Style:
Flattening, and Loss of Plasticity*

It is difficult to imagine two styles more different than the Greek and the Oriental (see above, pages 24-26). A crossbreed between the two was and is irrational, but that is precisely what happened. We can review the evolution by considering a series of monuments which, if not dated exactly, are dated well enough to fall into sequence. The general effect, as we shall see, was to "flatten" classical art until, ultimately, its plastic character was destroyed and all but forgotten. The end product was the *Byzantine Style*, which arrived at its permanent peculiarities about the middle of the 6th Century A.D.

Let us start with the *Sarcophagus from Sidamara* (Fig. 9.9). It was found at the place of that name in western Asia Minor; and because of its great weight, may be presumed to have been made there. At first glance, one might assume it to be something from the Greek Fourth Century, and the mistake would be a natural one. The figures, considered individually, are not unlike those of Praxiteles and Lysippos. They are worked in the full round, and it should

specially be noted that they bend gracefully toward us and away — the pose thus being used to emphasize the existence of the third dimension and the spatial displacement required for the statue. Better on the whole than most of the Roman copies which so greatly influence our visualization of Greek work, the actual date of these figures is probably about 150 A.D.; and they constitute a vivid demonstration of the extraordinary power of Greek art to survive in places where survival was favored by tradition and circumstance.

The setting is also reminiscent of the Greek. The statues stand on a shallow platform. The background is immediately behind them. It is embellished with architectural detail, but it shares with the Greek pediment the quality of being solid and impenetrable. Every suggestion of movement is necessarily to the right or left, and never to any significant extent in or out. The arrangement amounts, as we have been at pains to note in other instances, to an artistic formula; and because it was used often over a long period of time, we shall find it convenient to give the formula a name. The name *Neo-Attic* has gained some currency among American scholars. We shall use it here, but a cautionary word is necessary because the very same term is often applied to a group of Greek sculptors who worked in Italy during the 1st Century B.C. — they signed "Athenaios." The important thing to remember about the Neo-Attic Formula, as here designated, is its impenetrable background. Almost anything may be substituted for the architecture seen on the *Sidamara Sarcophagus* providing it carries the conviction of impenetrability: the purple vellum of a manuscript page will do, and a blank background of pure gold proves perhaps most effective of all.

The Oriental influence which hardly affected the figure-style of the Sidamara statues made itself more than manifest in the architectural detail. A comparison with any typical piece of Greek or Roman ornament will show that a change has taken place. Greek and Roman detail tends to be plastic, but the Sidamara designer is working toward expression on a flat surface. Every smallest item of floral ornament tends to be brought forward into the same plane as all the others, and every detail is silhouetted sharply by deep undercutting of its edges. Such work takes the light very differently from its classical counterpart. Graded shadows are almost absent, and the total effect resolves itself into a pattern of bright whites sharply juxtaposed to black darks. A rhythmic alternation of light and dark results, and it is the rhythm which attracts and hold one's attention. Shapes, outlines, and other visual facts which, under other circumstances, might exert an appeal tend here to be overlooked altogether.

Architectural detail of the sort just described constitutes the closest approach that can be made in marble, and with sculptor's tools, to the color

rhythms so characteristic of Oriental textiles. In good examples, the effect is rich and excellent, something new under the sun. It was destined to become extremely popular in Early Christian, Byzantine, and Moslem decoration.

Because of their ability to annoy, the desert tribes who lived in the Arabian desert east of the district of Moab, which itself is the land east of the Dead Sea, were able to extract subsidies and other concessions from the Romans, the Persians, and everyone else who ever wished to live quietly in Syria proper. Where the grazing was good, the leaders of these tribes were accustomed to spend a great part of the year at the edge of the desert; and when they became wealthy from the sources just cited, some of them built elaborate stone palaces there. Mschatta was such a palace, and its ruins are still in view. One feature was a gorgeous enclosing wall about fifteen feet high decorated with a lace-like frieze of ornament. Parts of the frieze are now in Berlin, and our Fig. 9.10 illustrates a detail thereof but fails to demonstrate the strong rhythm established by repeats in chevron-pattern of the great V's, and fails also to bring out in proper emphasis the large rosettes which also recur as strong accents.

It would be hard to name a monument which more perfectly demonstrates the merging of classical and Oriental taste during the period when Antiquity was on the wane and the Middle Ages were beginning. There is enough plasticity in the mouldings, and even in the representative forms, to make us remember Greece, and yet the subject matter itself and the dominant glitter of black and white are plainly from the Near East. The date has never been settled. Some authorities want to put it earlier, but most are noncommittal and set limits at the 4th and 7th Centuries A.D.

With respect to architectural ornament, the end result of the Orientalizing process may be illustrated by the decorative carving of capitals and other surfaces in Hagia Sophia (Fig. 10.1-4). Classical forms as seen there amount to a faint memory. Insofar as possible, the carving has achieved the state of surface decoration on the flat, with two dimensions only — an effect obviously beyond the reach of architecture, but one closely approached in this instance. When we have arrived at this point in the evolution, we have the mature Byzantine Style before us.

We return now to the flattening process as applied to the human figure — which, as stated, was more resistant than ornament to the Oriental influence. Among preserved monuments, the one which illustrates the next step after the figures on the *Sidamara Sarcophagus* is a splendid ivory of the *Archangel Michael*, now in the British Museum (Fig. 9.11). Its extraordinary size (about 16 inches high) would make it notable in any case, but the great dignity of

the figure lends truth to the often repeated comment that no other ivory carving compares with this — it is rare that we may call small things noble. Probably executed somewhere in the Christian East, probably in some region where Greek art remained unusually vital, and probably not later than the 4th Century of our era, it gives a first impression of roundness and plasticity. Closer inspection reveals that the expression takes place only in part through the manipulation of contours. The pose approaches the frontal, with both legs brought almost into the same plane as the torso. Only the head retains any vigorous suggestion of roundness, and it will be noted that the feet hang down over the steps as though the sculptor no longer cared about foreshortening and even less about giving expression to the mechanical action of carrying weight. The format is a typical instance of the Neo-Attic, and it has been suggested that the archway with steps derives from the proscenium of the Roman theatre which had similar doorways for the entrance of actors onto the stage.

With respect to plastic qualities, monuments rendered according to the Alexandrian Formula fared much the same. The mosaic pictures which decorate the triforium space to either side of the nave of Santa Maria Maggiore at Rome are illustrative in this respect. Of uncertain date, they can hardly come later than 400 A.D., and in the *Abraham Parting from Lot* (Fig. 9.12), we may see how Orientalism has dealt with spatial representation. The two old gentlemen in the foreground still seem to have weight and volume, but it is only by habit that we read distance into the setting beyond them. By the logic of the situation, we are required to suppose that six or eight persons stand behind each of the principal actors, which would require a stage about ten feet deep. Nothing of the sort is made clear either by the drawing or by the color relationships, however; and the truth is that the latter reach out, as it were, toward the ideal of Oriental flat pattern.

In Berlin, there is a fragment from a fine sarcophagus of the Sidamara type, also probably of about 400 A.D., with an interesting figure of Christ, represented, as usual in early monuments, without the beard (Fig. 9.13). The statue is carved very nearly in the round, but in no sense was the sculptor sympathetic to statues in the round. The figure faces square front; and, as compared to the *Angel* of the British Museum, a peculiar importance has been given to what we may call its front face, or façade. The operative carving of both anatomy and drapery is confined to a near-plane surface roughly parallel to the background. We feel no impulse to investigate how the figure might appear from one side or the other; it is perfectly certain there is nothing interesting around the corner. All of this is antithetical to the nature of true classical art, and the effect arrived at here is approximately what we might

expect to see were a Greek statue compressed from behind against a sheet of plate glass.

The next and very nearly the last step in the evolution toward flatness is to be seen in the *Consular Diptychs* (Fig. 9.14), a class of ivory carving already cited in another connection (see above, page 256). Some of the earlier diptychs have truly plastic qualities, but those that come after 500 impart small sense of contour — an effect, it must be pointed out, that has nothing to do with the fact the relief is low. An accomplished sculptor can use perspective and foreshortening, and thus make the lowest relief give a forceful expression of mass and space. At this point in the general evolution, the desire to do so was absent. It is characteristic in the *Consular Diptychs* to see feet that collapse downward like the flappers of a duck, and even the floor beneath them begins to be tipped upward for its better functioning as an item of flat pattern. The Roman toga, moreover, has given way to vestments heavy with Oriental embroidery, vestments that are necessarily stiff and hang flat, thus contributing to the general impression.

In point of date, the *Consular Diptychs* have brought us into the 6th Century. Well along the road toward the Byzantine Style, they nevertheless lack some of its essential features. More had to happen before that style emerged in its own name and right. It is reasonably clear that the critical changes took place at Constantinople during the first half of the 6th Century, but it is difficult and perhaps impossible to trace the development in detail. An immense destruction of art took place all over the Byzantine Empire during the period of Iconoclasm (726–843). A number of frescoes and mosaics are still obscured by Turkish whitewash. Because almost nothing remains at the capital, we are forced to depend upon examples in the provinces. Supposedly, such examples are inferior to those that once existed at Constantinople.

Insofar as we may safely describe what happened, the following narrative, inferential though it is, probably does not distort history much. In the first place, both the Alexandrian Formula and its derivative the Latin Style passed virtually out of use except for occasional copies in manuscript illustration. In view of the instinct of the Oriental artist to seek expression on the flat surface, spatial representation of any kind had a very doubtful chance for survival in the art of a society increasingly Near Eastern in its culture and outlook. But since Christian narrative demanded human actors, an altogether abstract art was out of the question. The Neo-Attic Formula was the only thing in sight which offered an acceptable compromise. Its indefinite settings were especially attractive, we may assume, to a population given over to a mystic and non-material religion, and it is noteworthy that most Byzantine artists tried to

make the setting more abstract than ever before. The architectural backgrounds common in earlier works executed according to the Neo-Attic scheme were generally discontinued in favor of blank areas of gold. Even the ground line at the bottom of a scene was commonly omitted, probably with deliberate intent to deny or forget the physical truth of gravitation. To these statements a few exceptions must necessarily be made. Certain subjects — the *Nativity*, for example — would be unintelligible without a few stage properties. Although such were of course included in the pictures, their number was reduced to a minimum; and the rendering was brought so close to line and flat tone as to deny the observer any significant suggestion of spatial displacement beyond and behind the plane of the picture-surface.

The process just described produced works of art like the mosaic picture of *Justinian and His Courtiers* in the choir of San Vitale at Ravenna (Figs. 9.16–17). The church was dedicated in 547. Presumably the mosaic dates from about the same time. It is one of a pair, the other showing *Theodora and Her Ladies*. For all practical purposes, we may remember these pictures as the first major-scale monuments which illustrate Byzantine art in the sense of a new style centering at Constantinople and radiating into Italy and Sicily.

As a derivative from the Neo-Attic Formula (and ultimately from Greek pedimental compositions), the general format of the picture has already been sufficiently discussed: we look up at a single row of figures silhouetted against a blank ground of gold. Important changes in the figure-style and rendering now need to be described. Let us begin with the distortion of the human figure. Because important political personages were represented — people who wished to be recognized by name whenever anyone looked at the picture — the heads remain in normal proportion, except for a considerable enlargement of the eye (Fig. 9.17). Legs and torso, however, have been elongated, and the effect of their abnormal length has been enhanced by the repetition of verticals in the drapery. By actual measurement, the average Byzantine head comes out at $\frac{1}{9}$, $\frac{1}{10}$, or an even smaller fraction of the total height; it is often impossible to be definite, because, as here, we commonly lack a firm ground line to take as a base. It seems likely that the vertical distortion had to do with ideas of dignity; it is merely an exaggeration of the erect posture considered appropriate for important persons on ceremonial occasions. If our memories of classical art and our modern habits of thought make it difficult to accept the distortion, we must sharply remind ourselves that we are dealing with the Middle Ages and with the work of men who had no such reverence for the body as we do. As a matter of fact, the extra length of the Byzantine figure is moderate by comparison to the very slender ladies who appear in fashion magazines.

The emperor and his men are clad in rich vestments which stretch from neck to ankle and totally conceal the mechanism of the body. These clothes are so stiff and heavy that only one pose is possible: the static figure standing erect. Movement, if attempted at all, must be very moderate indeed. As a vehicle for artistic communication the human body — that essential of all classical art — was necessarily made almost useless; and it is important to appreciate that Byzantine artists rarely relied upon the body to carry any substantial part of their content.

Instead, they relied on the broad flat areas of color made possible by applying the Near Eastern temperament to what once had been the undulating folds of Greek drapery. The robes seen here are modeled, to be sure, in light, half light, and dark, but that old and familiar sequence of tones is no longer gradual. Instead, the eye is confronted by abrupt shifts (white, gray, black) which amount almost to stripes. The representative function of the stripes is easy enough to understand in the present example; in many later Byzantine pictures, drapery is in fact reduced to completely flat pattern.

We may sum up by saying that the Byzantine Style is a hybrid. Its Greek heritage remains in the form of human actors in a narrative, and in the formula according to which the picture is composed. But insofar as such a thing is physically possible, Greek art has been converted into Oriental pattern: Justinian and his companions tell as a near-approach to color-accent on the flat surface, arranged in a simple rhythm.

The virtues of the new style may at first escape the reader. Its aim was hieratic solemnity, an atmosphere perhaps uncongenial to the modern American. It is nevertheless a pictorial record of a very considerable era in our history. From the 6th Century to the 15th, Constantinople was the center of the Western world. Its court and its church presented a spectacle of opulence almost impossible to believe. Contemporary descriptions of its stately ceremonies seem to be hyperbole, but are probably factual. No city in history has left a more resplendent memory.

We must also remember the placement for which such mosaic pictures were designed, and the circumstances under which people looked at them. As a relief from the overabundant sunlight, most churches in the Mediterranean area have small windows. Some are dark enough to make candles appropriate at noon. In dim light, the reflective quality of mosaic makes it the best of all media. Mosaic pictures have the power to carry with undiminished clarity over distances impossible for paintings in any other medium.

With the arrival of the Byzantine Style we have something new, and an art capable of effects which, if no better than those possible in either of the

styles from which it had derived, were certainly different. The long and further history of this style concerns us no more in the present chapter; we shall summarize it in Chapter 10 below. Enough has been said, however, to inform the reader about the evolution that was going on during the Early Christian centuries, and to prepare him for monuments in any stage of transition.

Early Christian Asceticism and the Negation of Classical Beauty

An idealized and excellent anatomy had since the Greek Fifth Century retained its standing as an artistic desideratum. Beauty of that particular kind had a value, it would seem, as self-evident as one of Euclid's luminous axioms. It continued to have the same value in certain parts of the empire. These regions are geographically vague, but are presumed to be localities in the Greek area more or less insulated from the general course of change, thus permitting the Greek formulas for physical loveliness to survive as Elizabethan English survives in the mountain communities of Tennessee and Kentucky. The British Museum's ivory carving of the Archangel Michael (Fig. 9.11) may be presumed to have come from some such place.

But in other places and probably most, physical beauty in general and the Greek formula for it in particular got themselves into bad company. It was inevitable, perhaps, that Greek art would be associated with paganism in much the same way that the Rococo was associated with the decapitated French aristocracy in 1789 and later. It was natural that there would be a tendency to discard and dislike any art tending to remind people of distasteful things.

There was, however, a much more positive reason for the negation of Greek beauty. It was much more common in the earlier centuries than it is now to translate into extreme action those aspects of the Christian theory which have to do with a contempt for the world, for material things, and for the flesh. Christianity is in part a religion of renunciation, and one way to renounce the world was to become a hermit. Hermitage of one sort or another was common enough in the early centuries to be described as popular. It was often indulged in with spectacular austerity. Saint Simeon Stylites, who died about 460 after spending 35 years on top of a tall column, is no isolated example of religious athleticism. He had many colleagues. The modern reader must thoroughly understand that such men were not considered eccentric. They were considered holy, and their holiness received tribute in the most tangible and expensive fashion. One of the noblest Syrian ruins is the monastery of Saint Simeon Stylites at Kalat Seman, about halfway between Antioch and Aleppo. An octagonal enclosure was erected around the base of his column, and four large churches stretched out from that octagon like the arms of a Greek cross.

People who treat their bodies as Saint Simeon treated his rarely conform in

their appearance to the norm of Greek statuary, but Simeon and others like him constituted the closest possible approach to the Christian ideal. It is no wonder, therefore, that people began to read spiritual significance into the ravagement characteristic of their bodies. Some such feeling must account for the advent of what amounts to a cult of emaciation. A good instance would be the five male figures (Fig. 9.15) across the front of the elaborate ivory cathedra traditionally, but probably not correctly, known as the *Throne of Maximianus*. The throne has been at Ravenna from a very early date, but probably originated somewhere in the Christian East before the end of the 5th Century. Emaciation, it is important to understand, is not realism in the direct and simple sense of the word. There is nothing objective about monuments like the one now under review; they came into being because a deliberate choice was made with the purpose of getting a certain reaction from the observer. Extreme physical types were sought out in the hope that their unusual appearance would evoke an equally unusual strength of feeling in the heart of the Christian onlooker. Such an attempt partakes of the philosophy often called *expressionism* (see below, pages 624; 933 ff). It should be noticed that part of the method is to direct the eye of the figure in such a way that it seems to search one's soul and make a demand. When enlarged, as they so often are in Byzantine art, such eyes assert the dogma in inescapable fashion.

THE SUBJECT MATTER OF EARLY CHRISTIAN ART

In handling the Christian themes, the early artists used two different methods: allegory and symbol, and historical narrative represented in the usual way. The use of symbolism suggests secrecy, but it is hard to know what the motive for secrecy may have been. We must not be too ready to accept the usual suggestion that the Christians communicated with each other in cryptic ways because they dared not be open during the three centuries when their religion existed under the ban of the law. The Roman police were entirely too competent to have been fooled by so simple a ruse. As a criterion for date, symbolism in itself indicates little; we cannot say there were no historical subjects before 313 A.D.; and there were innumerable symbolic subjects later than that.

A good example of allegory is the subject of the sheep. Whenever we see a sheep in Early Christian art, we must depend upon the context to tell us whether we are to read it as a symbol for Christ himself, or one of the Christians. "Behold the Lamb of God," said Saint John (I:29), and the word has ever since been a synonym for Jesus. But there are also a great many passages in the Bible which refer to members of the Christian community as sheep (Matthew 15:24; Luke 15:4-5; John 10:1-27 & 21:15-17).

If Christians are sheep, Christ is their shepherd — as so beautifully set forth in the 23rd Psalm and in the *Good Shepherd* statue of the Lateran (Figs. 9.7–8). The name *Good Shepherd* must be of very early origin; at any rate, Mr. Walter Lowrie (*Monuments of the Early Church*, page 218) found it in an early prayer for the dead: "Let us pray God that the deceased carried on the shoulders of the Good Shepherd, may enjoy the fellowship of the Saints." The prayer comes from the Sacramentary associated with Saint Gelasius, who was Pope from 492 to 496. It is interesting that the iconography for this subject, so perfect an instance of Christian sentiment, should have been taken over bodily from pagan precedent, as already described (see above, page 260).

The prime case of outright symbolism is furnished by the frequent appearance of a fish more or less realistically depicted. If juxtaposed to loaves of bread, the fish may merely refer to the miracle of the loaves and fishes; and by extension, that event may be construed as a prefigurement in cryptic form of the Last Supper. More often, however, the fish appears all alone. If so, we are to read *Christ*. The association depends upon an acrostic pun. The Greek word for fish is *ἰχθύς* (ICHTHUS); and the five letters of *ἰχθύς* may be arranged as the initials of an expression as follows:

Ἰησοῦς	Χριστός	Θεοῦ	ἑνός	Σώτηρ
Jesus	Christ	of God	the Son	Savior

The vine was another popular symbol for Christ, being derived from the expression "I am the vine and you are the branches" (John 15:5). If associated directly with wine-making, as it is in some of the mosaics of Santa Costanza at Rome, a reference to the Last Supper may be assumed. Very frequently several symbolic subjects appear together in a single composition. That is true of the well-known *Sarcophagus of Theodore*, preserved at Ravenna, where we find the vine and the grapes intimately juxtaposed to a medallion and two peacocks (Fig. 9.18).

The peacocks symbolize immortality. Apparently they had carried some such connotation even in pagan art. The association seems to have been three-fold. In the first place, the peacock was confused with the phoenix bird, which was reborn every 500 years after consuming itself in a bonfire. Secondly, the periodic renewal of the peacock's splendid feathers came to be associated with the idea of resurrection; but even more convincing than these notions was the belief, shared by so great an authority as Saint Augustine himself, that the flesh of this bird would never putrefy no matter how long it might be kept.

But lest the reader imagine that early symbolism was governed by strict rules, it would be well to mention some other meanings at times attached to the peacock. Mr. G. G. Coulton (in Chapter 14 and Appendix 18 of his *Art and the Reformation*) cites a 14th-Century compilation which would appear

to be an attempt to catalogue every symbolic reference to the peacock up to that time — some of the meanings undoubtedly very old. Because the hideous voice of the bird was supposed to frighten snakes and because the cock sometimes protects the peahen, the few actual virtues of this gaudy fowl were at times exaggerated to make him symbolize goodness, justice, and perfect religion. And on the other side of the balance, the well-known vices of the peacock made him now and then the symbol for pride, vanity, envy, avarice, secretive methods, persecution, and the shame that follows transitory beauty. In addition, his serpentine neck and fiendish call made him occasionally stand for the devil, while his polygamy epitomized lust — but since polygamy must contain some measure of gallantry, the very same vice was at times associated with charity.

The medallions which occur on the main face of the *Sarcophagus of Theodore* and three times on the cover are the medallions of Jesus Christ. The Greek letters X (chi) and P (rho) for the *Chr* of *Christos* are combined with the initial and terminal letters of the Greek alphabet, the A (alpha) and ω (omega) of Revelations 1:8, "I am Alpha and Omega, the beginning and the ending, saith the Lord. . . ." The circular shield upon which the letters are inscribed may be a mere carry-over from the art of coinage. Or it may reflect the religious confusion of Constantine, who is said to have confounded Christianity in some way with the worship of the Sun. It is also likely that the monogram was thought of as a sign of triumph; for that reason, it has been suggested, it was rarely used after the Gothic invasions of Italy during the 5th Century.

The monogram of Christ seems to have been construed as a near-symbol for the cross, to which it bears a farfetched resemblance. However that may be, it is notable that the very earliest Christian art contains no reference to the Crucifixion. Even as a symbol, the subject seems to have been quarantined from the visual arts until the time of Constantine; and if we may be guided by the examples coming down to us, representations of the event — even in restrained form — are considerably later. The reason for this may not be immediately clear to the modern reader, within whose experience no other symbol has anything like the prestige and nobility of the cross. But that was decidedly not so in the earliest period of the Church.

In late Antiquity, crucifixion was a very familiar thing. It was the punishment meted out to criminals of a loathsome and contemptible kind, who were thus put slowly to death in a manner excruciating enough to reduce the fortitude of the most stoical victim, leaving him at the last an example of complete degradation. As Cicero indicates in the *Verres*, the penalty was not suitable for Roman citizens. Hence we hear that Paul was beheaded, while Peter

and the others were crucified. In Jewish custom, moreover, a curse attached to men whose bodies were hung from trees. Crucifixion amounted to the same thing.

All of these ideas combined to make the manner of Jesus' death anything but an advantage to the missionary effort of the new religion. In First Corinthians 1:23, Paul says so in plain words: ". . . we preach Christ Crucified — unto the Jews a stumbling block, and unto the Greeks foolishness." Even though Christ had upon several occasions, as in Matthew 10:38, spoken of "taking up the Cross," we may wonder whether he intended any more than to emphasize by an extreme figure of speech the great difficulty facing himself and his followers, and the degree of loyalty demanded. In any event, we may be sure that everyone within hearing was familiar with the sight of the condemned carrying the cross-bar (not the entire cross, as so often represented) while being marched to the spot where sentence would be inflicted.

It took time to bring about a reversal in the significance of the Crucifixion, but it is plain that the process was well under way during the lifetime of Paul. At a number of places in his Epistles, we find him giving emphasis to the spiritual meaning of the event. Thus, in Galatians 6:14, he declares, "But far be it from me to glory, save in the Cross of our Lord Jesus Christ." And in the sixth Chapter of Romans, he goes on to explain what he means in a discourse that makes the cross an instrument whereby man, through mortal death, is freed from sin and finds the way open to resurrection and heavenly immortality.

Paul's ideas seem to have been generally accepted within the Christian brotherhood — not promptly, perhaps, but within a space of time. Tertulian of Carthage (about 160–230) speaks of the gesture still known as "making the sign of the Cross." He described it as habitual, and obviously assumes that the procedure will be perfectly familiar to his readers.

Nevertheless, we must remember that it was still illegal to be a Christian, and the going opinion of the Roman world can be gauged from the character of what seems to be our earliest representation of the *Crucifixion*, dating from the end of the 2nd Century. This is a *graffito* (drawing scratched on a wall with a stylus) now preserved in the Terme Museum at Rome (Fig. 9.53). It originally came from the so-called *paedagogium*, supposedly the page-boys' room, in one of the palace ruins on the Palatine Hill. The picture shows a figure with an ass's head, attached to the cross. Underneath, a Greek inscription reads, "Alexaminos adores his God" — probably a cruel dig at the feelings of some young Christian.

We may make a shrewd guess that it required Constantine's famous vision of the Cross in the Sky to give the symbol any honor with the Roman world

at large. He used the cross, mostly in monogram form, on coins and on military standards. But coins and standards hardly engage the attention of important artists. It is impossible to tell how quickly the imperial endorsement may have been able to bring the cross or the Crucifixion into use as a standard subject in the fine arts. The earliest preserved examples of any significant size date long after Constantine.

For the cross as a symbol in its present meaning, the first monument is believed to be the mosaic picture filling the apse of Santa Pudenziana at Rome

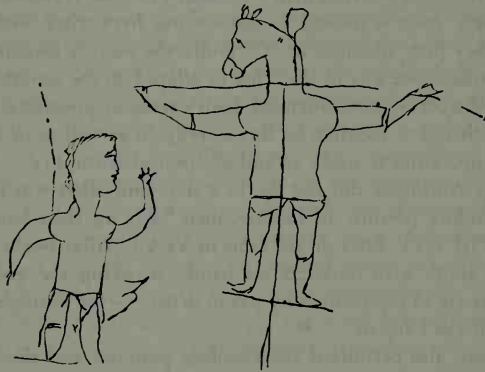


Fig. 9.53 Rome. Terme Museum. Satirical Crucifixion. Originally in a palace on the Palatine Hill.

(Fig. 9.25), where we find a jeweled cross rising grandly against the background sky. We shall return at some length to this important picture presently. Its date probably falls shortly before the year 400.

At about the same time, it seems that actual pictures of the Crucifixion became common — representations, that is, describing the event itself in some detail. Of these, the earliest we have was carved on one of the 18 extant panels (from an original 28) of the cypress-wood doors of Santa Sabina at Rome (Fig. 9.19). The church was dedicated in 432; and the doors must come from the same time, and are little affected by repair and restoration. In the panel of the *Crucifixion*, the three crosses are shown against the background of a city wall, apparently to tell us that the execution took place outside Jerusalem. The posture of the figures is hardly as we are now accustomed to see it. They do not hang from the arms as usually represented, but are crucified with the arms held sidewise. The attitude corresponds with the position then customary for prayer, a matter to which we must now turn our attention.

A figure who stands erect and prays with arms upraised is technically known as an *orant*, or *orans*. The imagery derives from the classical attitude for prayer which was still in use during the early centuries, but was going out of vogue to be replaced by the postures of Near Eastern derivation familiar today.

In Mark 14:35, we are told that Jesus went forward a little, and *fell on the ground* to pray. His action closely resembles the etiquette of a subject abasing himself before an Eastern potentate, and reflects a similarly Eastern concept of the proper relations between man and God. This idea is reinforced by Matthew 6:5, where Jesus is quoted as denouncing hypocrites. He mentions in passing that they pray standing up. Certainly the posture assumed for prayer makes no difference one way or the other in relation to the un-ethics of hypocrisy; unless the erect position offended Jesus's sense of propriety, it is hard to see why he bothered to mention it. But in religion as well as in art, an intuitive taste was operating to make an end of classical Antiquity.

But classical Antiquity did not die in a day, and what was left of it endorsed the standing posture. In Homer, men "lift up their hands and pray aloud" (*Iliad* III.275). They do the same in Vergil (III.263-4): old Anchises stands on the shore with outstretched hands, invoking the great divinities. Praying figures are so represented by pagan artists — for example, the bronze *Praying Boy* of the Lateran.

Jewish custom also permitted the standing position, and there is evidence to prove that some Early Christians prayed sitting or kneeling. Christ's resort to the prostrate position — presumably as a gesture of special urgency and sincerity — must reflect a very doctrinaire Orientalism, not yet accepted by everyone. This is certainly what one would gather from the frequent appearance of the *orant* in catacomb painting and in the relief sculpture on sarcophagi.

But it is one thing to suggest a derivation for the *orant*, and another to tell its precise meaning as understood by the Early Christians. It seems likely that several significations were current, none of them necessarily excluding the others.

The simplest explanation is that the *orant* represents the soul of the deceased who, having arrived in the realm of blessedness, prays for his loved ones left on earth. By playing up the connotations of this spirit-portrait, it is possible to contend that the *orant* might upon occasion mean much more. Prayer postulates *faith*, a virtue upon which Christianity hinges. In the absence of any other specific symbol for faith, the *orant* may have that meaning. And since faith, when construed generically, is the amalgam giving unity to the Church, we often find ourselves referring almost interchangeably to "the Faith" and

"the Church." By the same token, the *orant* may stand for "the Church." On some of the Catacomb ceilings, this is very probably the true interpretation, because the *orant* appears there in complete separation from the idea of individual portraiture — often in compositional relationship to the Good Shepherd. The likelihood of this meaning is enhanced by the fact that such *orants* are female, a custom in grammatical agreement with *ecclesia*, a feminine noun.

For an example of narrative subject matter, we may turn to the well-known *Jonah Sarcophagus*, now in the Lateran Museum, and so-called not from its occupant but from the subject that takes up most of the space (Fig. 9.20). We see Jonah thrown overboard into the mouth of the whale, spewed up on shore, and finally taking his ease under a tree. Other scenes are there also: the raising of Lazarus, Moses striking water from the rock, and a jack-in-the-box who stands for Noah in his ark. It will be noted that a single train of thought is dominant in the choice of these subjects. Each one amounts to an instance in which the faithful escape destruction through the direct and physical intervention of God himself. In Early Christian days preoccupation with deliverance was not confined to art; it is reflected also in many early prayers, a parallel noted by several scholars. One prayer quoted by Mr. Walter Lowrie (*Monuments of the Early Church*, pages 198–199) is sometimes still used to commend the soul to God in the hour of death. It reads:

Receive, O Lord, thy servant into the place of salvation which he may hope of thy mercy. Deliver, O Lord, thy servant from the pains of Hell. . . . Deliver, O Lord, his soul as thou didst deliver Enoch and Elijah from the common death of the world. Deliver, O Lord, his soul as thou didst deliver Noah from the deluge. Deliver, O Lord, his soul as thou didst deliver Isaac from sacrifice at the hand of his father Abraham.

And in this and other prayers, we find much the same formula repeated to cite the precedents established by the delivery of Daniel from the lions, the three children from the fiery furnace, Abraham from Ur of the Chaldees, Job from his sufferings, Moses from Pharaoh, Susanna from false accusation, David from Saul and from Goliath, Peter and Paul from prison, Thecla from torture, and Jonah from the belly of the whale.

The intent behind such a prayer is pathetically clear. Helpless in the disaster of Roman disintegration, these people could not, in any worldly terms, imagine a solution for their troubles. God alone might help them. Indeed the hope of his help was the only hope available, and the citation of precedent the only reassurance.

Such, then, were the themes of Early Christian sculpture and painting. It is remarkable how, at this remote date, we can feel their meaning. As communicators of content, no artists have ever been more successful — a fact that emerges with ever greater clarity as we pursue the history of religious art from century to century. Some of the best technicians in the world, working under conditions infinitely more propitious to success, have aimed at the sublime and have arrived at bombast. But in these early monuments, often badly executed, where do we find a real failure?

“*The Bible of the Poor*”

The value of visual aids to education is appreciated today as never before, and the reader will naturally be curious to know to what extent sacred statues and pictures were used in teaching the early doctrine. In any number of places, one can read that every bit of carved stone told a story, that the medieval ideal was to present a complete religious program by way of the visual arts, and that the fully developed cathedral was in fact “the Bible of the Poor.” Such notions have not become diminished by repetition, and more than one writer has found in them sufficient inspiration for language that is undeniably graceful. The entire matter, however, requires examination.

There can be no doubt whatever that the officials of the church repeatedly entertained the idea of a system of visual education. Pope Gregory the Great (regnal dates 590–604) in a letter primarily concerned with idolatry disposed of that danger by remarking that “. . . for what writing is to them that can read, a picture is to them that cannot read but only look, since in it even the ignorant can see what they should follow.” Upon returning to England from one of his several journeys to Rome, Benedict Biscop (628–690) brought back with him a series of pictures painted on boards, and it is a matter of record that he intended to use them for teaching. Fear of idols was not easily overcome, however; and the entire Iconoclastic Controversy (726–843), which shook the Byzantine Empire to its foundations and resulted in wholesale destruction of religious art, had its genesis in suspicion of representative art as such, and prejudice against its use for religious purposes. Even a finding in favor of pictures and images by the Second Council of Nicaea (787) failed to end the trouble. The immense production of sacred art during the Romanesque and Gothic periods, and throughout the entire Renaissance, seems on the face of it to betoken a purpose more serious than the mere embellishment of churches; and it is a fact that the churchmen who met at the Council of Trent (1545–63) regarded art as one of the best weapons of the Counter Reformation.

In spite of all this, the weight of the evidence is strongly against the con-

cept that religious art functioned as an educational system, and there is scarcely a possibility that it ever served as a substitute for literacy. Statues and pictures doubtless helped to recall, for those who knew them already, favorite stories from the Bible and the lore of the Saints; but in the pages above and often in those to come, the reader cannot fail to be impressed with the recondite nature of most medieval art. Nothing so complicated and erudite could be any use at all for the instruction of ignorant persons. To think otherwise is to imagine the medieval serf as being edified by imagery so subtle in its mysticism as often to escape the grasp of the most astute intellects of the present day. Medieval religion had great power, to be sure, but we can hardly believe it provided an unlettered population with supernatural penetration and incredible acumen. The proof of the matter is to be found in the routine utterances of the churchmen themselves. A good preacher might make a very telling point by referring to a storied capital in the nave arcade, or to a mosaic on the triforium; but after reading an immense number of medieval sermons, Mr. G. G. Coulton (*Art and the Reformation*, page 317) testifies that such things almost never happened. He reached the over-all conclusion that a large part of the imagery was never generally understood, and that much of it was rapidly forgotten even by the clergy. The late Mr. Kingsley Porter was of practically the same opinion. This is not to assert that art was never so used. Occasionally, the artist himself has left a record of didactic intention — that was done by Giselbertus, the author of the *Last Judgment* of Autun (see below, pages 422-423), who inscribed the words "Let this horror appall those bound by earthly sin!" But such instances of direct appeal to the public were the exceptions which have all too often been construed as the rule. The truth seems to be that most religious art was commissioned by the learned and remained the affair of the learned.

THE EARLY CHRISTIAN BASILICA

The great architectural achievement of the Early Christian Period was the invention of the *basilican church*.

This set the type for all subsequent church architecture. A great many changes of style have since taken place, but their effect upon design has been restricted to construction and surface appearance. With the exception of odd and experimental buildings, the standard Christian church has retained the plan, the orientation, the parts and the arrangement of parts much as they were first established in the basilicas built in the days of Constantine.

Basilican churches existed at one time all over the Roman world. Fragmentary ruins may be seen to this day as far afield as England and Armenia.

For basilicas in good repair, the modern student must turn the focus of his attention to Rome and Ravenna. In these two cities numerous very early churches are still in daily use.

But even those are unfortunately not in anything like their original condition. Renaissance and Baroque additions in the form of altars, ceilings, and decorative pictures mar the interiors. Out-of-doors, pretentious portals, if not entire façades, belie the character of the buildings. It is not so much that these later embellishments are gorgeous; the disharmony has to do with a gross incongruence of style. For, as we shall see, Early Christian architecture is distinguished by an unusual directness and simplicity, particularly in its structural methods. The High Renaissance and the Baroque have their own virtues, but not these.

It is nevertheless important to understand — since the contrary impression is widely entertained — that the early churches were not necessarily of a dull, ascetic appearance.

This is well demonstrated in the writings of Sollius Apollinaris Sidonius, a set of documents that guide us in a remarkably vivid way over the bridge between Antiquity and the Middle Ages. Sidonius was a Gallo-Roman of an old and honorable family, long resident in the region we now know as Auvergne. He was born at Lyons about 431, and died at Clermont in 489.

In or about the year 470, this man wrote a letter to his friend Hesperius, including a poetical description of the basilica recently built at Lyons by Bishop Patiens. He speaks of the impression made by the external scale of the building, and of its excellent site between the highway and the river Saône. He compares the numerous columns to the forest trees, and praises the dignity of the porticoes that gave access to atrium and narthex. Of the interior, he says that it shone with light, the ceiling being of gilded coffer, the floor and walls brilliant with colored marbles and mosaic pictures. The church he describes was destroyed by the Huguenots in 1562. The description is enough, however, to correct any false impressions about the effect considered appropriate by the Early Christians themselves: far from a negation of architectural beauty, it was as gorgeous and expensive as circumstances might permit.

No one knows why the early Christian churches are called *basilicas*. The same word is familiar, of course, in Latin usage, where it meant a courthouse. A similar mystery surrounds the derivation of the building. Transitional and experimental monuments are usually at hand to explain the evolution of a new and original type, but these are lacking in the case of the basilican church. The ruins of some pagan basilicas (notably the Basilica Julia in the Roman Forum) demonstrate a certain analogy to the basilican churches. But

the parallel features are features that do not count. The things that make the Christian basilicas worthwhile seem absent from the Roman ruins.

No other great architects ever worked under handicaps comparable with those which impeded the Early Christian builders. The modern reader can only marvel at the momentum of a civilization which enabled them, in such a situation, to construct not only numerous churches but some of the largest and noblest ever built. For the atmosphere in which they worked, we may perhaps turn again to Sidonius. He was fully aware of the political and mili-

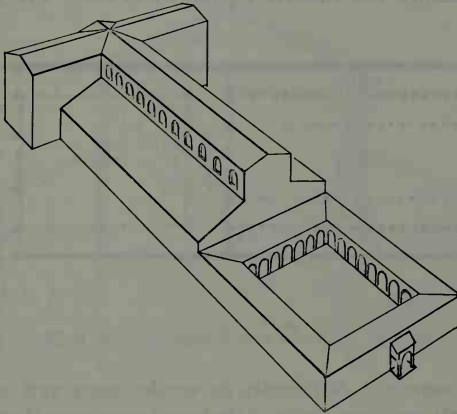


Fig. 9.54 Schematic drawing of an Early Christian Basilica.

tary exigencies, and distinguished himself in combat against the barbarian invaders. But the most impressive fact emerging from his letters is the expectation that he would continue, allowing for interruptions, to lead the elaborately pleasant life of a Roman country gentleman, cultivating and improving his estate near Clermont.

One aspect of the decline must be listed as a substantial asset to Early Christian architecture. The subsidence of paganism proved more than a spiritual blessing. Pagan temples were on the market, and fine building materials could be had secondhand and ready-made. Almost every range of columns built into an Early Christian church once decorated some heathen shrine, now dismantled. Indeed, cases exist where columns, lintels, and other parts must have originated at several different Roman temples — and we find them all put together in more or less informal fashion to make one Christian church.

It is hard to know what the Early Christian builders might have done had

this classical material not been at hand. Inevitably, Roman columns and capitals (usually tending to err on the side of display) seem incongruous and flamboyant in buildings distinguished chiefly by virtues of a more transcendental kind. The reader must attempt to discount this mischance of history as he discounts the adventitious alterations to which we have already referred.

A large and notable basilica was the original church of Saint Peter at Rome, commonly referred to as "Old Saint Peter's." Founded by Constantine, that venerable building lasted for twelve centuries, and was torn down at the end of the 15th Century (see Chapter 16, below) to make way for the present

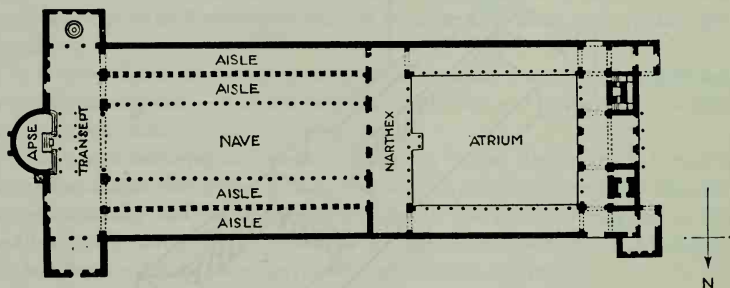


Fig. 9.55 Plan of a typical Early Christian Basilica.

church on the same site. Apparently its wooden parts were rotten, and the difficulty of replacing them (some of the beams were more than 75 feet long) doubtless contributed to the decision to rebuild on a different design. Our records are sufficiently accurate, however, to enable us to make drawings of the church. No existing example will serve quite so well to illustrate the features of the type. Fig. 9.21, taken from the model in the Museo Petriano at the Vatican, shows the fine old building much as it probably looked in the 15th Century. Fig. 9.22 gives a view of another typical basilica as seen from the other end, and Fig. 9.54 is intended to illustrate the essential scheme of the type without any of the details which confuse the appearance of actual monuments.

As seen in ground plan (Fig. 9.55) the Early Christian basilica has the general shape of an oblong. By convention, the long axis is oriented east and west. The altar is placed at the eastern end, and the entrance doors and façade at the west end. Local conditions occasionally make the usual orientation undesirable (as they happen to do at Saint Peter's itself), but in speaking of any church it is common to say "west end" when we mean the entrance front, and "east end" when we mean the rear of the building, regardless of what the actual directions may be.

Proceeding from west to east, and using the bird's-eye view of the church as a supplement to the ground plan, we find that the structure is divided into the following parts:

An open courtyard (called the *atrium*) precedes the church building, or *basilica proper*. This is surrounded by an arcaded walk. The effect is precisely similar to that of the cloister, so familiar in the later Middle Ages, and the Early Christian atrium is undoubtedly the architectural ancestor of the cloister. Most extant basilicas have lost their atria — an unfortunate deletion, es-

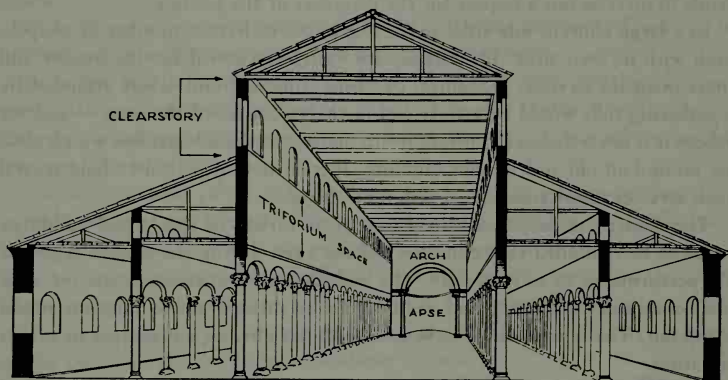


Fig. 9.56 Perspective cross section of an Early Christian Basilica, with component parts labeled.

pecially in a teeming city like Rome, for the atrium provided a most desirable transition from the activity of the street to the quiet of the church. The baptismal font was usually placed in the middle of the atrium. There is some reason to believe that noncommunicants were excluded from the church itself, but were permitted to enter the atrium. However that may be, it is certainly plain that the designers conceived the building as becoming progressively more sanctified as one goes from west to east. (See below, pages 284-289.)

At the east end of the atrium is the *narthex*. The arrangement of the *narthex* differs in different buildings. For our purposes, it is enough to say that the *narthex* is the vestibule of the church, and usually consists of an aisle or corridor running in the north-and-south direction.

The main body of the basilica — and here the reader should use the vertical cross section (Fig. 9.56) in conjunction with the other drawings — is divided into five *aisles*. The middle aisle, known as the *nave*, is the widest. In smaller churches we will usually find only one aisle to either side of the nave,

but the division of the plan into nave-and-side-aisles is an almost inflexible convention of church design.

We will do well to concentrate our attention for a moment upon the fact just stated. Other arrangements have been tried. Some of them are admittedly successful. They have not, however, become popular. The Early Christian decision to use this particular arrangement is, therefore, one of the crucial decisions in the history of architecture. We cannot help asking ourselves whether any good, either practical or aesthetic, was realized as a result. The answer tends to increase one's respect for the designers of the basilica.

In a large church, side aisles make it possible to have a number of chapels, each with its own altar. The chapels are extremely useful for the smaller and more intimate services: weddings, baptisms, funerals, and others attended by a gathering that would be utterly lost in the vast space of the nave — and for whom it is nevertheless a comfort to participate in the associations which cluster around an old and famous building. It is entirely practical to hold several such services simultaneously in different chapels.

The modern reader, accustomed to a great variety of specialized buildings, needs to be reminded that churches did not exist during the Middle Ages for the performance of services only. The buildings were in constant use for various community purposes, and even served as shelters where pilgrims might camp out. The separation of nave and aisles has obvious advantages in such a situation.

In addition to these practical reasons the division into nave and aisles had aesthetic value as well. To that matter we shall turn presently; but at the moment we must, in all fairness, point out that the basilican arrangement confronts the designers with structural difficulties of a very serious kind. The structural history of medieval architecture can be summed up, in fact, by saying that it is an attempt to reach a satisfactory solution to the problem imposed by nave and aisles; and to that problem, we shall find ourselves coming back a great many times.

Returning to the plan, we find that nave and aisles open, at their eastern end, into the *transept*. In effect, the transept is still another aisle, running north and south, and extending outward from the east-to-west walls of the building. In height, the transept often rises, as it did at Old Saint Peter's, to the full elevation of the nave, and maintains that level for its entire length north and south. As a result, it becomes a conspicuous feature of the exterior, as seen in the bird's-eye view of Saint Peter's. The word *transept* is often used in the plural (*transepts*) if the context suggests it. If small and inconspicuous, as it sometimes is in Early Christian churches, the transept is occasionally called a *bema*.

At the extreme eastern end of the basilica, and centered on its long axis, is the *apse*. This is a recess, semicircular in plan, and usually covered with a semi-dome. The high altar was ordinarily placed just in front of it, and the bishop, in cathedral churches, has his *catbedra* (throne) centered against the eastern wall of the apse.

Turning now with greater particularity to the vertical cross section of the basilica (Fig. 9.56) we find:

The roofing is divided into three parts, each of which may be considered as a unit.

Over the columns of the nave arcade, vertical walls are built. These rise to a considerable height, and are topped off by a gabled roof.

Each side aisle is covered by a roof of the lean-to type. At their highest, these aisle roofs reach a level that is: (a) considerably higher than the top of the nave arcade, and (b) considerably lower than the spring of the gabled roof over the nave.

The vertical wall rising over the nave arcade is thus subdivided into two parts. These are: (1) the *triforium area*, extending from the top of the nave arcade to the level at which the aisle roof abuts the side of the building; and (2) the *clearstory* (sometimes spelled *clerestory*), which rises from this point to the spring of the gabled roof over the nave. The effect of this arrangement of the roofing is to give the impression that the middle part, or nave portion, of the building lifts bodily upward above the rest.

Almost every clearstory in history, and the device is as old as Egypt, has been pierced by windows. Excellent lighting results. So much light is admitted, in fact, that clear glass is undesirable. Stained glass was the natural answer; and various other expedients, all tending to reduce the glare, have been used.

Clearstory lighting is one of the great merits in the design of the Early Christian basilica. It comes, unhappily enough, at a price. The designer, if he is to use it, has his choice between (a) a wooden roof, which is subject to the risk of fire; and (b) a vaulted roof, which is much more expensive to build because abutment is necessary. The second choice was one from which the Early Christians were foreclosed by economic conditions; but in the long-term view of the church, the fire risk loomed large indeed. As a result, architects wrestled with the problem for centuries, until they were able, by Gothic methods, to produce at reasonable cost a fireproof building with clearstory lighting, and the traditional basilican arrangement of the plan.

Such, in bald fact, are the physical features of the Early Christian basilica. It would be a great mistake to round-off the discussion at this point, leaving

the reader with the impression that those early monuments are of interest only for historical and sentimental reasons, and represent, as works of art, the mere best that might be expected under bad conditions. The reverse is true. No excuse is needed. Properly interpreted, the Early Christian basilica is a radical advance over any previous building. It symbolizes, in fact, the advent of a broader concept of architecture. For sheer originality, it is unexcelled.

In the design of the basilica, the Early Christian architect focused his attention upon the interior. In this, he continued what had become almost standard practice among the Romans. But in his treatment of the interior the Early Christian designer worked toward new ends. These are: (*a*) progression and focus; and (*b*) an architecture conceived in terms of voids rather than solids. It is possible, even though delicate argument is involved, to read into each of these ideas a peculiarly Christian meaning.

The idea of progression and focus is best appreciated as one enters the church from the west end, and faces the altar. The effect of progression derives from the sequence of the columns. One sees a column beyond a column beyond a column. Ultimately, the eye arrives at the altar. There is no impulse to think of the columns as individual objects; one does not count them. The thing comprehended is the process of moving step-by-step toward a destination.

The effect of focus is a function of the architectural horizontals. It is most easily explained by reference to a drawing or photograph, but operates as plainly in the actual building. If in a photograph of any basilican interior, a straight edge is placed along any horizontal (for example, the line formed by the bases of the nave colonnade, or the line formed where the clearstory meets the ceiling), it will be found that these lines intersect at a vanishing point which is very close to the position of the altar.

These two arrangements acting in unison make it almost impossible for one to avoid a concentration of attention toward the east end of the church in general and the altar in particular. The effect of such concentration, naturally, is to suggest that the east end of the church symbolizes a goal, result, or condition of peculiar sanctity, toward which it behooves one to move. No earlier architecture provided so meaningful an interior.

It is interesting to see that the pictorial decoration of the church was arranged in general consistency with this idea. The available monuments show considerable variety, making it difficult to suggest that any fixed scheme of arrangement was ever arrived at in Early Christian times. It nevertheless appears that the subject matter ordinarily chosen for the triforium and clear-story space was historical in character, and that the subject matter chosen for the apse was transcendental. For the *arch* (i.e., the wall space between the walls and ceiling of the nave, and the actual arch of the apse-opening), it

seems to have been customary to choose scenes midway between the two — historical and yet divine.

Thus, in Santa Maria Maggiore at Rome, we find the available wall spaces of the nave decorated with mosaic pictures depicting events in the careers of Abraham, Jacob, Moses, and Joshua. Fig. 9.12, already mentioned in another connection, is one of the series.

Even better known, perhaps, are the nave mosaics of Sant' Apollinare Nuovo at Ravenna (Fig. 9.23). There are three series of pictures, each at a different level: (*a*) at the very top, above the clearstory windows, there are scenes from the life and passion of Our Lord; (*b*) between the windows there appear single male figures, probably representing prophets and apostles; (*c*) below these, on the walls of the triforium proper, there are two long processions of crown-bearing martyrs. The female martyrs are represented as proceeding from the town of Classis toward an enthroned Madonna and Child. The male martyrs proceed from Ravenna toward an enthroned figure of Christ. There is an interesting fusion here of history and symbolism. Another noteworthy detail is the fact that Christ, as he appears in various places throughout the ensemble of decoration, sometimes wears the beard, and sometimes does not. It is questionable whether that has any chronological significance, even though there is some reason to suppose that the mosaics were started about 510 A.D., and were not complete until about 560.

A good example of an elaborately decorated arch is that of Santa Maria Maggiore at Rome. Unfortunately, the pictures do not show up at all well in the best available photographs, but a list of the subjects will perhaps suffice to illustrate our point.

Across the crown of the arch is the Throne of the Apocalypse; to either side of it are Peter and Paul and the Symbols of the Evangelists (see below, page 286); below it, is the signature of Pope Sixtus the 3rd, who had to do with a remodeling of the basilica about the middle of the 5th Century.

On the left side of the arch, reading downward, we may see: *The Annunciation*, including an angel who reassures Joseph with respect to the miraculous pregnancy of Mary; *The Adoration of the Magi*; *the Massacre of the Innocents*; and *Jerusalem*.

On the right hand side of the arch, also reading down, there are: *The Presentation of Christ in the Temple*; a scene sometimes identified as Christ disputing with the doctors, and again as the arrival of the Holy Family at the court of King Aphrodisius of Egypt — whose idols fell down when they approached; *The Magi before Herod*; and *Bethlehem*.

Most of the material, it will be observed, involves the operation of divine forces in events which are historical in the sense that they happened on earth,

thus fulfilling the stipulation that the arch suggests a transition from worldly to heavenly things.

The arch of Sant' Apollinare in Classe (Fig. 9.24) is far less pretentious and much more quaint. In the lower register, around the extrados of the apse, are the twelve apostles symbolized as sheep. Above, we see a bust portrait of Christ; and to either side of him, four strange creatures rise in half length from the clouds. These are the *Symbols of the Evangelists*, destined to have a long history in the art of Europe. They also appear in the apse of Santa Pudenziana (Fig. 9.25), and we must do our best to explain them without further delay — merely noting, as we pass on, that by symbolic means, this arch also conforms to the general principle of subject matter from the lifetime of Jesus.

The man stands for Matthew, the lion for Mark, the ox for Luke, and the eagle for John. It is not at all certain how or why these monsters came to be associated with the Evangelists, but the symbolism is generally thought to derive from Ezekiel's vision as set forth in his first chapter. In their present meaning, the symbols appear to date from Jerome's commentary on Ezekiel (end of the 4th Century), but other interpretations were current in the early days.

The story usually told to account for the individual assignment of the symbols is this one: The man goes to Matthew because he dwells on the human generation of Jesus Christ, and sets considerable store upon the fact of his incarnation. The lion goes to Mark for several reasons. The lion is the king of beasts, and Mark is held to stress the royal dignity of Christ. Baby lions, according to a myth, were born dead. After three days, they came to life when the sire roared — a procedure construed as an allegory for the Resurrection, of which Mark is the principal historian. Mark's Gospel, moreover, begins with "the voice of one crying in the wilderness" and ends with "he that believeth not shall be damned." Roaring and cursing, it was said, tend to be habitual with the lion.

Luke has the ox because he dwelt upon the priesthood and sacrifice of the Savior, the ox having for centuries been the typical sacrificial animal. The eagle belongs to John, we are told, because his imagination soared upward like the vertical flight of the eagle to arrive at an actual contemplation of the divinity of Christ.

For the apse, it was apparently considered appropriate to select a scene that demanded a setting beyond and above the time and circumstance that curtail all earthly activity. It is probable that some such intention dominated the thought of the now unknown architect of the noblest apse of all, that of Santa Pudenziana at Rome (Fig. 9.25). Various suggestions have been put forward

with regard to the date, ranging from the 2nd to the 8th Century, and the question remains vexed. The majority opinion would put the picture at about 400 A.D.

The theme is probably that of Christ and the Apostolic College, but there has been considerable argument over the identification of the setting, and to find some reason for the presence in the picture of two ladies.

If we are correct in believing that a heavenly setting was usually wanted for the apse mosaic of a basilican church, we would be required to read this as the Heavenly City. In that case, the two ladies conveniently become the *Ecclesia ex Circumcisione* and the *Ecclesia ex Gentibus*, an interpretation suggested by the identity of the male figures over whose heads they hold wreaths. Peter, who was conceived as head of the Jewish element in the church, is always depicted as wearing a square-cut white beard. Paul, the Apostle of the Gentiles, always as a lanky, bald-headed man with a long, pointed brown beard. The uniformity of the iconography makes it likely that this is how the men actually looked in life.

A much less lofty but no less imaginative idea of the matter denies all holy content whatever. The setting, we are told, is Rome, and the district the part of Rome where Pudens, the donor of the church, lived. The persons represented become, in this interpretation, nothing but Pudens and his family engaged in the ceremony of foundation; and the two ladies are his daughters Praxed and Pudenziana.

A third suggestion, spiritually midway between the other two, says that the city is Jerusalem. Thus the mound on which the cross is set becomes Golgotha. The small domed building to left of center becomes the Holy Sepulchre, and the immediate foreground would be the atrium of the Constantinian basilica of the same name where, on Good Fridays, the bishop was accustomed to set his throne before a cross, reading passages from the Gospel while surrounded by his Presbyters. Unfortunately, the buildings needed to make this identification positive have long since vanished; they went, so far as we know, during the Arab invasion of the 7th Century.

Various other things about the picture are notable. As pointed out above (page 273), this is probably the first monument of major importance where the cross appears in its modern connotation as a symbol for sacrifice and glory. If we are correct in calling the central figure Christ, we have also the earliest instance of the now-familiar Syrian and bearded Jesus of modern imagery. In addition, we must remember this mosaic when the time comes to study the great ceremonial pictures of the High Renaissance (Chapter 16). Lacking the historical perspective which we of today so conveniently acquire, the men of the 15th and 16th Centuries often made the mistake of thinking that the

Early Christian basilicas were classical temples converted to Christian use, or at least were "Roman churches." Mosaics like the one now under discussion were therefore construed as examples of classical art, and played a formative role in the great effort of that period to make the world over again on ancient models.

It is rare that so many associations cluster around a single work of art; and it is a tragedy that the apse of Santa Pudenziana has been badly handled in the course of history. There is reason to believe it was modified somewhat during the 8th Century. We know it was cut down at the sides in the 16th Century, and at the bottom during the Baroque era. Finally, in 1831-32, considerable restoration took place on the right-hand side. The monument is nevertheless archaeologically reliable for conclusions of the sort mentioned above.

The apse mosaic of Sant' Apollinare in Classe (Fig. 9.24) lacks the same grandeur, but is infinitely more quaint and charming. Two subjects merge together in the picture, and an explanation is required before it can be understood.

At the crown of the arch, the hand of the Almighty is seen to issue from the clouds. The central and upper field beneath is filled by a jewelled cross enclosed in a circular glory studded with stars. A small bust portrait of Christ may be seen at the center of the cross. To either side, there are half-length male figures rising from the clouds.

The lower part of the picture seems to be the ground beneath the very same sky in which the cross is seen. It is a garden setting, and a bearded saint stands in the center foreground, his arms uplifted in the position of the *orans*. A dozen sheep stand on the same level as the saint, and there are three more sheep in the middle distance. These latter seem to be giving their attention to the cross in the sky.

The probable explanation of this obscure composition is as follows:

The upper section is to be understood as a symbolic rendering of the Transfiguration on Mount Tabor (Matthew 17; Mark 9; Luke 9). We are to read the cross as *Christ*, an interpretation driven home by the juxtaposition of the cross to the words ΙΧΘΥΣ and *Salus Mundi*, and to the letters Alpha and Omega. The half-length male figures to either side are Moses and Elias, who came into view upon that occasion. The three lambs immediately below stand for Peter, James, and John, the witnesses to the event.

It is doubtful whether the lower part of the picture has any narrative content whatever. The saint is labeled as Apollinaris himself. The twelve lambs are the apostles. The setting is probably paradise — the word being construed in its original Gracco-Persian sense: a park, or a garden.

The total effect of the two-part composition comes closer to unity, in the emotional sense, than one might at first suppose. The Transfiguration amounts to an occasion when persons resident on earth were given, in physical fact, a glimpse of heaven; while in the lower scene, we find heaven actually represented. It was visualized, apparently, as a permanent state of salubrious climate where Apollinaris, the apostle of Ravenna, enjoys an appropriate reward.

The date of the mosaic is fixed with fair assurance in the second quarter of the 6th Century, and the style is a good instance of a halfway station between classical and Byzantine art. The author was of two minds. He still loved the bucolic charm of the outdoor setting as it was habitually made to appear in Hellenistic and Roman painting. On the other hand, he felt impelled toward the consideration of objects for their value as flat areas of color, adaptable to rhythmic arrangements like those seen in Oriental textiles. Unable to do one thing or the other, he handles the figures of Moses and Elias in plastic fashion, and he preserves to a moderate degree the conventions of spatial relationship: it is at least clear that we are supposed to understand that the lower edge of the picture is nearer than the upper edge, but it is notable that there is no overlapping of silhouettes, every object standing clear from every other. Each item, moreover, is taken in broadest aspect and laid flat, as it were, against a comparatively blank and neutral ground.

The meaning of *an architecture conceived in terms of voids rather than solids* can best be comprehended if one takes up a station in the outer aisle of any large basilica, and looks diagonally across the building (Fig. 9.26). From this point of view, the basilica confronts us with an arch beyond an arch beyond an arch. The area of the openings is greater out of all proportion than the area of the solids. The thing that counts is the existence of the openings. The columns and arches signify only because they outline the openings, defining them, as it were, for our visual apprehension. In such architecture, any comment is almost necessarily directed to the character of the opening, and rarely to the solid members performing the act of enframement.

The psychological effect of the basilican interior is, as a result of the preponderance of voids, almost opposite to the effect produced by a Roman interior like that of the Pantheon, where, as set forth above (pages 220-221), the solids mean much and the voids little.

Openings have a certain suggestive power. It is possible in physical fact to walk through an opening. This possibility is noted and felt even though we have no immediate intention of doing it. The result may be described as a *sense of exit*, or of potential exit. Roman interiors, and the innumerable modern interiors deriving more or less directly from Rome, achieve their unity and

completeness by denying the sense of exit. They exist, as it were, each as a small universe unto itself.

In a building like the basilica, however, there is unity of an entirely different kind. The sense of exit is unintelligible unless we understand that there is somewhere for us to go; e.g., that the universe is not contained by the building in which one happens to be. Thus, as we look through the nearest archway, we see another beyond it, and another still beyond that — until, whether it happens to be in view or not, we are bound to arrive at an opening which will reveal the world. There is, in a word, a chain of suggestion connecting the interior to the out-of-doors. The train of thought thus set into motion is likely to lead one on toward consideration of the world as a whole, and finally of the infinite. The artistic "unity" of the Early Christian church results, in short, from its integration with all else. This is in radical contrast to the unity of classical buildings, which, excellent though they are, depend for artistic oneness upon separation from all else.

Our interpretation of the basilican church is one that invites direct association with Christianity. Such an association makes of the church building an analogue for the world as conceived by the Christian.

A casual inspection of either the world or the basilica is likely to result in a sense of confusion. Details make sense only when construed as steps in a progress that leads to where we would be. Motivation is lacking unless one focuses his attention and directs his movement toward an ideal — of which the altar is the visible and earthly symbol.

The unity of the immediate and particular with the general and infinite has always been a central concept in Christian teaching, which in this respect appears to go somewhat beyond Plato in asserting not only that the fact and the principle are connected, but that the two are at one. The basilican designers, in their use of openings, appear to have acted in correspondence with that principle.

Such suggestions are derived from a reading of the buildings themselves. Documentary proof is lacking. In its absence, it is possible to construe the intentions of the designers differently. It is difficult to believe, however, that those men were not conversant with the implications of Christian thought, or that they did not desire to design buildings which (within the inevitable limitations of the architectural medium) would correspond with Christian ideas. More than one modern architect has, by his own say-so, been motivated by considerations equally abstract and perhaps less worthy, and we probably take no liberty in assuming that the earliest Christian churches were meant to have meaning as well as utility.

The exterior appearance of the basilica — as illustrated by the few examples we are lucky enough to have on view today — was nondescript. This fact has long been a puzzle to critics. In the absence of definitive evidence, several interpretations are equally attractive.

There may be symbolic meaning in the radical contrast between the glowing interior and the ascetically chaste exterior view. Is this an architectural parallel for the character of the ideal Christian? Have we here an abstract but eloquent statement that what counts is inner and spiritual beauty, and that alone? Such an explanation is anything but farfetched, and it has satisfied some very learned scholars.

Another contention, based upon the subsequent history of architecture and upon compositional facts, must also be entertained. The nondescript character of the basilican exterior results to some extent from the absence of decorative detail, but it could not be corrected by supplying that lack. The buildings look like great sheds because the shape of the building-mass is that of a shed. The ridge-pole of the nave roof lies gaunt against the sky. Its axial power has the same force out of doors as inside, but it does not make the same sense: there is no altar to which the eye is guided. Similarly, on purely artistic grounds, it may be said that the length of the church has no rational beginning, middle, or end.

It is entirely possible that the Early Christian builders, either through necessity or by a conscious rejection of classical formalism, adopted a theory of architecture almost identical to 20th Century Functionalism. They surely focused their attention almost exclusively upon the interior arrangements which, in a purely functional sense, remain unexcelled for the performance of Christian services. They conceived the walls and roof to be no more than an envelope enclosing the desired facilities, and let them assume whatever shape they might.

If so, the parallel to modern times is enlightening, especially in view of what happened in the centuries to follow. It seems obvious that people were dissatisfied with the basilican exterior, and that neither the symbolic argument nor the functional argument sufficed to explain away the evidence of the eyes. Byzantine architecture is, among other things, an attempt to combine the basilican nave and aisles with a good external composition. Similarly, the many towers of the Romanesque and Gothic, integrated by a great variety of stratagems with the basilican mass, were hardly undertaken merely to ring bells.

Imperfect though it is, the Early Christian basilica is nevertheless a mighty landmark in the cultural history of Europe. No other type of building has had anything like the same influence upon the history of architecture. No other

building advances, with reference to its immediate past, further ahead into realms as yet unexplored by the architect. And yet no architects ever received less from the economy and polity within which they found themselves. Thus, in terms of absolute achievement, it is difficult indeed to cite a parallel.

The Central Church

The Early Christians did possess a type of building not subject to the particular criticism just leveled against the basilica. This is the *central type*, a term

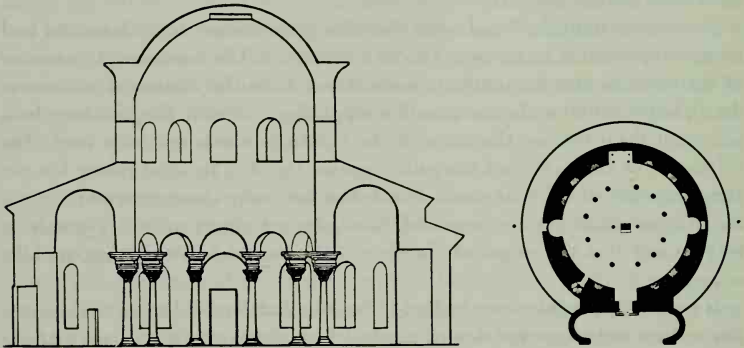


Fig. 9.57 Plan and cross section of a typical Early Christian church of the central type.

deriving from the symmetry of the structure to its central vertical axis. Such buildings were built with a Greek Cross (arms of equal length) for the ground plan, like the Mausoleum of Galla Placidia at Ravenna. More commonly, however, they were either circular or octagonal, as respectively illustrated by Santa Costanza at Rome (Fig. 9.57) and San Vitale at Ravenna.

In all central buildings, the symmetrical emphasis upon the vertical axis produces a powerful focus upon a point in the middle of the floor. Appropriate for a tomb or baptistry (where font or sarcophagus, as the case may be, can be put at that precise point), such a focus is ill adapted to the great majority of Christian ceremonies. In a word, the interior of a central church is impractical.

But the clearstory of a central building, whether covered by a dome or not, rises like a squat tower in the middle of the mass. It gives unity to the exterior design much as the hub of a wheel provides a point of common reference for the spokes and rim. The exterior composition of a central church is *omnifacial*—that is, it looks equally well from any point of view. Such buildings are

naturally better landmarks than the basilicas, with more artistic interest and dignity. Nevertheless, the fundamental fault just cited foreclosed the central type from any great popularity. It was used for a few rather small, rather specialized buildings.

THE BARBARIANS AND THEIR ART

The Sources of the Barbarian Style

For the early history of the barbarians, we have nothing like the comparatively systematic sources that enable us to make a reasonably connected narrative of Greek and Roman history. Thus the origin of the Barbarian Style in art is a matter for debate and falls within the province of the anthropologist rather than the historian. Insofar as a definite statement can be made, the evidence seems to permit the following.

At the time when the Romans penetrated into the regions north and west of Italy, those areas were populated by tribes who had come from somewhere else, presumably from an easterly direction and for reasons at present unknown. The general tendency to migrate from east to west continued well into the classical period, a notable instance thereof being the Gallic pressure upon Pergamon during the 3rd Century B.C. — which resulted, as we have seen (pages 160–161) in the erection by Attalus the 1st of a commemorative monument to which the *Dying Gaul* (Fig. 6.1) belonged. It is surprising how little the Gaul resembles typical members of the modern Latin races, and how very like he is to many an Irishman or Scandinavian.

In their effort to trace the Barbarian Style in art, scholars tend to reason in this way: A conspicuous feature of all art that is barbarian or derives therefrom is the frequent and habitual use of animal subject matter, usually grotesque and more often than not demonstrating a fondness for the invention of plausible but highly imaginary monsters. Now animals had been very common in the art of ancient Mesopotamia, and the Persian empire had, in due course, fallen heir to the artistic tradition originally centered in the region of the Tigris and Euphrates. From Persia, the same tradition was transmitted to the region north and east of the Black Sea. It seems to have been brought there by some people called the Scyths, and the whole region, indefinite in area, has ever since been referred to as Scythia. As to whether the Scyths were wandering barbarians who merely came in contact with Persia or were related to the Persians, no one cares to state in any arbitrary fashion. There is merely a tradition that they had been there and left, presumably because driven out, and probably about the 7th Century B.C. As so many other barbarian nations did, the Scythians gradually lost their ethnic identity; at the start of

the Christian era, their name no longer meant anything. But the art they once practiced had spread far to the west and far to the east as well.

The narrative as given above appears to be corroborated by the history of language, and the monumental evidence for it is a great collection of small objects found in barbarian burials. There is an unmistakable resemblance between objects found at widely separated points. Two examples may be cited, merely as an illustration of the method.

A Greek gem, now in the Ashmolean Museum at Oxford (Fig. 9.27) shows the figure of a prancing hybrid monster best described as a lion-griffin. He belongs to the genealogy of the fantastic five-legged beasts that once frowned down from either side of certain Mesopotamian gateways (compare Fig. 2.111), but the workmanship is probably Greek. The object belongs to a class of gem known as the Graeco-Persian, and it is supposed that such things were made by Greek artists resident in Persia, or made in Greece for export to markets in Persia. This particular piece was found near Pantacapaëum, a Greek city on the Crimean peninsula not far from the so-called Cimmerian Bosphorus, the straits which lead into the Sea of Azov. As to how it got there, or why, one cannot say; it may or may not be significant that lion-griffins of a similar kind were sometimes struck on the coins of Pantacapaëum.

A belt buckle found in Siberia also has a lion-griffin on it (Fig. 9.29). The beast is not a duplicate of the other, but the resemblance is so close that a connection must be assumed. The object belongs to a recognizable category of Siberian finds, of which it is an unusually definitive example. As compared with the beast on the gem at Oxford, this one illustrates even more convincingly the survival of the cult of savagery which formed so important an aspect of ancient Mesopotamian art. Some very important stylistic innovations are also to be noted. The Siberian buckles reflect a self-conscious cultivation of the asymmetrical: most of them are substantially higher and heavier on one side than the other. There is no suggestion of a governing enframing; the animals themselves form the silhouette, which is substantially irregular and much complicated. In handling the bodies of beasts, the author of this design, whoever he may have been, is like all other barbarian artists in caring nothing whatever for anatomical fact. He twists and contorts things in a strange way, as though driven by an inward force to seek an elusive pattern that remains forever beyond him. At this stage, the animals retain much plastic quality; but if their bodies were elongated, made thin, and abstracted into a linear interlace, this very subject might appear in one of the Irish manuscripts, where it would pass unnoticed. (Compare Figs. 9.28, 29, 30.)

If we knew more about the objects found in Siberian burials, the genealogy just set forth would be more dependable, or would be corrected, as the case

may be. But almost nothing is certainly known about that class of material beyond the fact that its style must derive from Scythia and its date must fall within the period covered by the present chapter. We may rest the matter by saying that such art was widely dispersed in Northern and Western Europe by the time the Roman empire began to expand into those regions. It was temporarily submerged wherever the Roman role was imposed, but it remained latent in the population as an artistic instinct nevertheless — ultimately to spring to life once more at the start of the Gothic period. Only two parts of Europe escaped the Roman and classical culture: Ireland and Scandinavia. In both of those regions, the Barbarian Style flourished in the period between the fall of Rome and the start of the Romanesque.

Essential Features of the Barbarian Style

The dominating characteristic of the Barbarian Style is the fact it is dynamic. Because dynamism can take many forms, it is hard to find one or two examples which sum up in themselves all the important qualities of barbarian art. There can be no more typical monuments, however, than the *Cross Page* from the *Book of Lindesfarne* (Fig. 9.35) and the *Monogram Page* from the *Book of Kells* (Fig. 9.37).

The observer's first impression of either is one of complexity, and he is right. Unlike classical art which finds expression through compositions involving only a few large parts, the northern and barbarian instinct is to use a myriad of tiny details. The sense of infinite number is never absent from our feeling about its monuments.

Because humanity lacks the power to comprehend infinite number in any sudden or rapid fashion, it is impossible for barbarian work to take effect upon the sensibilities except by the passage of time. Comprehension is gained by repeated acts of partial inspection, each added to each, until we begin to assimilate what we see. Complete familiarity, even with the single composition, arrives only after a series of separate visual experiences until in the end we possess ourselves of the whole.

Northern art follows a procedure of visual communication fundamentally different from the classical. Classical compositions, as we have seen (see above, pages 59-61), tend for the most part to have their effect as a single, instantaneous vision of the whole. We therefore found it convenient to name the classical system *the instantaneous, or simultaneous, mode of presentation*. We shall refer to the northern method — in which time and memory play so large a part — as *the cumulative mode of presentation*.

The force of what has just been said is much enhanced by the northern habit of defining every detail, however minute, with a precision so intense as to be

passionate. The component parts of any full page of Irish illumination are as the sands of the sea. It is nevertheless self-evident that every minute element received in its turn the fierce focus of the master's complete concentration — which lives forever in the surpassing clarity of every line and boundary. We often hear it suggested that too much attention to detail is dangerous; it may militate against unity of the whole — and in other artistic styles, details may legitimately be suppressed or slurred over for that very purpose. Northern art neither seeks nor wants unity of that particular kind, as we shall see when we get further on.

Imaginary monsters were the only subject matter natural to barbarian art; nothing else is ever represented except through necessity or under outside influence — the human anatomy and plant forms are specially foreign to the instinct of the style. Even the monsters are abstracted in an extreme degree (Figs. 9.29,30,33); otherwise they are not typical.

The nature of the abstraction is plain enough from our illustrations: regardless of what he started with, the northern artist invariably reduced it to pure line. Pure line was his chief aesthetic reliance, and so far as possible the only system of expression he used. The line served him in two different ways.

The *Cross Page* of the *Book of Lindesfarne* (Fig. 9.35) shows us the first of the two. Whenever the barbarian artist wanted to fill up a space, he resorted to patterns of linear interlace. Confronted for the first time with an example, one is likely to dismiss it as nothing but another case of the braid, but that is an error. Frequently, the interlacing conforms to a geometric system or something like it; but just as we make up our minds that we understand the rhythm of over-and-under, the line will suddenly take a twist or curve that could not possibly have been predicted by all the logic of what has gone before. In small matters, we may describe the habit as capricious; in important affairs, the qualities indicated are invention and a certain fundamental flexibility and adaptability of which both classical and Near Eastern art are completely incapable.

The three large letters on the *Monogram Page* of the *Book of Kells* (Fig. 9.37) are the Greek *chi*, *rho*, and *iota* which transliterate as the *Cbri* of Christ. If from the rest of the decoration we take out the great *chi* and let it stand alone as in Fig. 9.58, we have a good illustration of the other way in which the northern artists put line to use. The letter starts from a point of origin at the intersection of its several legs. Thence, the four legs sweep away in powerful, moving curves to dissolve in sharp points at the end. Except for using a center from which to start, the arrangement contains not a single element that can be understood, described, or discussed in the vocabulary of geometry. The four parts of the letter are uneven in length and weight. They are unlike in

curvature. Symmetry is not only absent; it evidently was disliked and eschewed. There is no balance whatever; in fact, the Barbarian Style feels no need for the "repose" so often praised in classical art.

The life that is in the line itself is what gives compositional validity to barbarian art, and makes it intelligible. As we look at this magnificent monogram, the eye moves fast with an urgent force. Gathering momentum as it goes, it

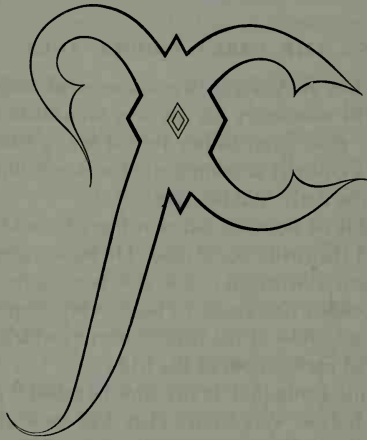


Fig. 9.58 The letter *Chi* from the Monogram Page of the Book of Kells.

sweeps through the curves and is cast off into space at the end — to move still further along a path predicated by the character of the curvature. Presently, one recovers, and returns to the composition. So vital is the experience that we begin to read the movement into the work of art, thus endowing it with life. That is true even of static things like manuscript pages. For the full measure of the living quality of barbarian line, we must turn our attention presently to works of art designed to move. We have some in the several Viking ships preserved by the lucky chance of local burial customs and the occasional existence of clay peculiarly favorable for the preservation of wood (Figs. 9.38-40).

As distinguished from the organic compositions of the Greeks and the rhythmic compositions of the Near East, we may call the barbarian organization *eccentric*. It will be observed that the eccentric theory begets asymmetry, as already pointed out. It also brings about the silhouette characteristic of and

peculiar to northern art. Instead of the plainly defined boundaries and compact unity of the Greek temple, any northern design will have what we may call the *dissolving silhouette*, characterized in initial letters and otherwise by a multiplication of small projections pointing outward in all directions, and in the architecture which presently came from the barbarian tradition by towers and spires pointing up into the air to produce the broken skyline typical of most medieval buildings.

IRISH ART DURING THE EARLY MIDDLE AGES

In 431, Patrick, then at Auxerre, was consecrated bishop and at once set forth for Ireland. His missionary success was immediate and extraordinary. When he died thirty years later, he left behind him a Christian land, and he had set into motion a cultural development that stands out like a light in the general rudeness of the Early Middle Ages.

We need not quibble by pointing out that Patrick could not personally and alone have converted the entire population. He built, rather, upon a foundation of already-present Christianity, but this fact means almost nothing in understanding the Golden Age about to begin. Our deeper insight must find its terms in the imponderables of the Irish character, which depends, to a great extent, upon the racial background of the Irish.

Insofar as any ethnic group may at any time be called "pure," the 5th Century inhabitants of Ireland were Celts. They had come there from the continent perhaps as early as the 6th Century B.C., and probably more or less continuously for some time thereafter. Because of their position on a remote island — and one not particularly alluring to the Romans — the Irish Celts were permitted to maintain their native habits free from the opposite if excellent genius by which classicism had been imposed upon continental Europe.

The same remoteness operated to insulate Ireland from the Roman disintegration. The full effect of that disaster landed elsewhere. Thus, while France, Spain, and Italy were backward-looking and at times in despair, the atmosphere of Ireland was vital and creative. In the interval permitted by history, the Irish produced an immense body of Gaelic literature and the most celebrated early monuments of the Barbarian Style.

As to the nature of the Celts and of Celtic art, we can find food for thought in the comments of Julius Caesar. That most rational of the rational Romans came into contact with Celtic populations during his campaigns in Gaul. He was principally impressed with their instability, restlessness, and the comparative ease with which they could be incited to undertake important enterprises upon which no Roman would embark without elaborate survey of the ramifi-

cations and consequences. Nevertheless, he found much to praise. He admired the depth of feeling of which the Celts were capable, especially when put in the service of liberty and against the servile. He also conceded a native ingenuity.

In appreciating Caesar's remarks, we must of course allow for the incapacity of the Roman mind to evaluate a nature so opposite to itself. For the same reason but to a lesser degree, we must not take literally the remarks of modern scholars about Gaelic poetry. Where is the linguist who did not learn Latin and Greek as a schoolboy? Nevertheless, like Caesar, these gentlemen can help us to understand Irish art.

In Irish poetry, the decorum of the Ancients is replaced by vanity and truculence, often by outright ferocity. Men act like beasts. Irish heroes, moreover, seem incapable of steady, calculating purpose. Starting out to do one thing, they arrive doing something else or nothing at all. They do not present their accounts and wind up their business in orderly fashion. Compositionally speaking, narratives of which this is true lack the sacred beginning, middle, and end essential to every classical and classicizing expression.

Even more bothersome to the classical taste, and indeed to the scientific spirit, is the Irish indifference to credulity. The Greeks, the Romans, and all European masters from the Renaissance on — painters and authors alike — have felt an obligation to fact, even to probability. Physical possibility stood as a boundary line beyond which no man might go. Artistic prudence (as distinct from the law) set likelihood as a limit. Mere plausibility has never been acceptable to the classical taste unless advertised in the title by such words as farce, fantasy, extravaganza, burlesque.

We must thoroughly understand that the Irish poets and artists neither knew that code nor subscribed to it. For them, natural fact was a restriction pertaining to the physical world alone. Surges of feeling, audacity of imagination, or both together could easily carry art and poetry completely beyond such limits. The position has much in common with that of the 20th-Century Surrealists, from whom the medieval Irish differ not so much in philosophy as in immediate background.

The Surrealists derive from the intellectual sophistication of modern times; their art deals with the fearful unknown of the mind. The poets and artists with whom we now concern ourselves were likewise confronted with a fearful unknown in the shape of a confusing and apparently capricious world. Or perhaps it might be more accurate to say that by the time of Saint Patrick, the population was in a nether world between fear and understanding.

There is good reason to believe that the abstract patterns common in Irish art derive from representations and symbols originally invented to propitiate

and placate the forces of nature. The interlace, for instance, may mean flowing water; as such, it can be connected with fertility and purification. Snakes mean earth, the key-pattern fire, and birds signify the air.

Christianity undoubtedly softened the relationship between man and the environment. When these symbols appear, for instance, in the *Book of Kells*, we are probably justified in assuming that most of the dark magic had gone out of them, but also that they were still understood as declarative statements. In minor passages of the same set of illuminations, the prevailing abstraction is tempered by a friendly study direct from nature.

Similarly, in *The Deer's Cry*, a poem traditionally said to be the work of Saint Patrick himself, we hear God praised for the sensuous beauty of the sun, the moonlight, and the firmness of the earth. But in the very same breath, the good Saint asks protection from snares laid by devils, and spells set against him by women, smiths, and wizards. For the naturalism, one looks ahead to Saint Francis, for the magic, back into the shades of the forest.

It will be seen that the Irish were somewhat short of thorough civilization in the 5th Century, but they had the audacity to embrace a new religion at once and with great depth of feeling. One indication of their sincerity is the notable tendency to combine both political and religious authority in the person of the same man. The Irish establishments were primarily monastic. The monasteries seem often to have derived from the pattern of the clans, and in some cases to have taken over the social function and significance of the clan. The abbot-bishop commonly felt like a chief or even a king, and acted like one — perpetuating old feuds as vigorously as he pursued the religious life. Irish culture of this period presents us with many a paradox; infinite refinement of mind and taste and the strongest moral impulses are seen to coexist with barbarity, sometimes in the character of the same person.

If one great figure may be allowed to stand for all the rest, we may profitably cite the name of Saint Columba (about 520–597), better known as Colum Kille. According to reliable tradition, this man early dedicated himself to the religious life. He was nevertheless found guilty in the matter known as the Judgment of Tara, perhaps the earliest copyright suit on record. By stealth, Colum Kille had made himself a copy of a Gospel book belonging to a friend. The owner registered a complaint with King Dermot at Tara. The King ruled with simple logic: To every cow her calf, and to every book its son-book. Whether subsequent events represent the Saint's revenge for this humiliation, we cannot possibly find out at this date. But at any rate, it seems that Colum Kille belonged to a clan with a long-standing grievance against Dermot, and that Colum Kille was at the bottom of the plot which resulted in a bloody battle and Dermot's death. One story has it that his fellow churchmen drove him

out of Ireland for his part in the affair; but, whatever the reason, Colum Kille left Ireland in 563, and went to Hy (now Iona), one of the Western Isles of Scotland. He there founded a monastery from which he made excursions all the rest of his life, establishing other foundations and undertaking the general conversion of Scotland. He thus began a great tradition.

Other Irish churchmen followed in his footsteps, and for a brief period Celtic Christianity bade fair to wrest primacy from Rome. Saint Columban (543-615), also called Columbanus, went to the Vosges region to found the monastery of Luxeuil and to draw up a monastic rule widely used elsewhere. From Luxeuil, he went on to found Bobbio in the Apennines. Another Irishman who penetrated into Italy was Saint Cathaldus, a 7th-Century Bishop of Tarentum. It was from Iona, moreover, that Saint Aidan went in 635 to found Lindesfarne, long one of the most important religious centers of Northumbria.

It remains to mention one more feature of Irish culture: its direct connection with the Near East. Sufficient evidence survives to prove that such interchange took place in significant measure — if, indeed, it was not actually lively. Various things contributed to bring it about.

In the first place, the Irish foundations were primarily teaching institutions. Most of the instruction seems to have been oral and fewer books were written than we could wish; opinions therefore legitimately vary with regard to the temper and quality of Irish intellectual life. It was certainly as good as anything else available to the student during the Early Middle Ages, probably better. Young men therefore made their way to Ireland from all parts of the Christian world.

It will be observed, also, that the period of Irish ascendancy coincides with the period when Arab pressure was driving Christianity out of the eastern Mediterranean. In the nature of the case, a proportion of the emigrants would find their way to Ireland. Indeed there may have been an attraction in the fact that by going there one got as far as possible from the Moslems. In various literary records, therefore, we naturally find mention of monks who came from Egypt and of a bishop who came from Armenia.

The Near Easterners carried their artistic traditions with them either in feeling and memory, or in the form of portable artifacts like manuscript books. The Irish monuments were thereby affected, and illustrate vividly how little right we have to be surprised at anything that may happen in the history of art. The Eastern influence may be noted in certain architectural details, and in manuscript painting.

Some of the Irish churches (and some of the earliest churches in England also) have two projecting chambers, usually flanking the apse and usually of

rectangular plan, technically known as the *Prothesis* and the *Diaconicon*. At first glance, one might mistake the feature for a transept; but there is a distinction: Transepts open into nave as widely and with as little architectural impediment as structural necessity permits. The Prothesis and the Diaconicon, on the contrary, are shut off by walls and entered through narrow doors. The weight of the evidence seems to say that this particular feature of the plan remained popular in Syria, Asia Minor, and North Africa after having been abandoned in Italy and continental Europe as early as 400 A.D.

In manuscript painting, the Eastern affinities were invited, as it were, by the complete lack of any barbarian method for representing the human figure. When called upon to produce Gospel books, the Irish artist inevitably had certain challenges thrown up to him. By time-honored custom, each Evangelist was entitled to a portrait as frontispiece for his Gospel. Pictures of the Madonna and Child were desirable, also narrative events from sacred history. The best the Irish could do was to follow the models that happened to be available. It is obvious what those would be: when they migrated westward, the Eastern Christian refugees must have carried some of their best books with them, and they probably took pains to advertise in Ireland the excellence of what they brought. For that reason, the figure-style of the great Irish manuscripts is a naïve adaptation of Mediterranean types only half understood and rather incongruously surrounded by abstract decoration of incredible refinement.

A few of the most important instances of such adaptation are as follows:

The *Portrait of Matthew* in the *Book of Lindesfarne* (Fig. 9.36) has long been recognized as following an Eastern model. The general scheme is in the ancient Greek tradition: large figures presented in comparative close-up, a shallow stage-like setting, a blank background. The Saint himself is a bearded philosopher reminiscent of the dignified gentleman who sits in the central position on the *Sidamara Sarcophagus* (Fig. 9.9). An entertaining detail is the second old gentleman who pokes his head out from behind the curtain. Because Matthew, according to one tradition, was more immediately inspired by God than the other Evangelists, the suggestion has been made that we have here an early attempt to visualize the Deity. The artistic genealogy is plain enough whatever the content may be; it seems probable the Irish artist worked from a model that included a Muse put there to maintain the inspiration of the writer. (Compare Fig. 6.11.)

The *Book of Kells*, on Folio 7 verso, has a picture of the Madonna and Child, rendered in a coarse but powerful style that seems to look ahead to the monumental frescoes of the Romanesque period. Among the sources that might have been available to Irish artists at the time, one stands out from all the rest: Coptic Egypt. In general terms, the resemblance has been understood

for some time. Miss Françoise Henry has recently made it specific; she found a very similar Madonna in one of the Coptic manuscripts now in the Morgan Library.

While it lasted, the monastic culture of Ireland could boast with good reason that Armagh was the capital of the world and "multitudinous Glendalough" the Western Rome. For six or seven generations, subtle minds could flourish there, threatened only by such personal violence as we can imagine to be reflected in the law that made killing a scribe equal to killing a bishop. The top of the curve was approached about 650 A.D., and maintained throughout the entire 8th Century.

Disaster then struck. The Vikings came. Their first recorded raid dates from 795. For about thirty years, occasional but destructive incursions were frequent. These, however, were a mere probing of the field. A crescendo may then be noted. A veritable tempest of destruction ensued, lasting until approximately 880, by which time Ireland was permanently ruined as an artistically important center. Its further history is a record of battles between the remaining Irish patriots and the Norse monarchs established at Dublin, Limerick, Waterford, and elsewhere, or between the monarchs themselves. Indeed there is little more to be said except that Ireland was ultimately annexed to the British Crown by Henry the 2nd in 1171.

The Viking destruction was unbelievably thorough. In most places where monasteries once stood, there is literally nothing left to see. We are compelled to identify the site itself by searching the literary records for indications of locality. In one place or another, fortunately, fragments survive. There are enough of them so that we can visualize fairly well what an Irish establishment must have looked like.

Irish Architecture

The general nature of all northern architecture, including the Irish, is suggested by a puzzled statement in the sixteenth chapter of Tacitus's *Germania*. "There is in German towns," he says, "neither contiguity nor contact with one another of the houses which make up their settlements. Each lives apart wherever a spring, a meadow, or the forest attracts him. There he sets his dwelling, which is made of clay, either to avoid fire or because of his little knowledge of architecture. . . ."

Tacitus was certainly right in thinking that Roman masonry was a superior material; but with respect to our immediate interest, his remarks are valuable because of his instinctive recognition of a difference in style which reflected a different scheme of values. He could not accommodate himself to an architec-

ture not arranged in accordance with some geometric plan; and knowing what he was used to, we may assume that the contiguity and contact of which he speaks referred to Roman regularity — the level site, the axes, and the symmetry. By contrast, the Irish and most other medieval builders used the site as they found it, fitting their buildings to the existing irregularities, and often to good advantage.

The Irish had no interest in monumental architecture. Perhaps because they believed small buildings were artistically effective, they simply added extra churches as their establishments enlarged. There were at least seven at Glendalough, an instance which appears to be typical.

The little buildings themselves had racy lines. In plan, most of them were a simple oblong; and in elevation, the average proportions dictated about five feet of height against every four feet of width. The distinctive feature was an extremely high peaked roof. The gable-angle usually measures about sixty degrees, and the sloping surfaces of the roof account for approximately three fifths of the total height. Like the walls, the roofing is entirely of stone laid in horizontal courses. Each successive course extends slightly inward beyond the one below. This process is continued as the roof rises upward until the two sides meet near the ridge. Taken as a unit, the roof may be described as an eccentric type of corbelled vault.

These simple conventions produced an architecture at once quaint and saucy, retaining its daintiness and life through all the centuries of attrition. In Ireland an important example is Saint Kevin's Kitchen at Glendalough (Fig. 9.31). For a slightly more elaborate building of similar shape, the reader is referred ahead to Saint Laurence's, Bradford-on-Avon (Fig. 9.50).

The members of the monastery lived in huts grouped in casual fashion in the general vicinity of the more important buildings. Few of the huts were constructed of permanent materials; in fact, the half dozen beehive dwellings of stone that still survive on the island of Skellig Michael, off the Kerry coast, probably represent something more elaborate than the ordinary.

Both churches and huts were innocent of decoration, but the lack was made up by a number of *High Crosses* (Fig. 9.32) almost completely invested with sculpture carved in strong relief. As the name implies, the Irish High Cross was raised well into the air by a tapered rectangular shaft. The cross proper is similar in shape to the Maltese type, and is ordinarily superimposed upon a circle of stone. Apparently each cross was dedicated to a saint, or at least named for one. The form provided ample area for sculpture, both abstract and narrative. The iconography is peculiar; apparently much of it has to do with now-forgotten events in Ireland. A conspicuous exception to the general rule that sculpture is rare before the year 1000, the Irish Crosses remain a subject for

scholarly debate. As yet, the most fundamental questions of date and subject matter are undecided. The medieval popularity of this kind of monument may be inferred, however, from the legend which assigns to Iona the amazing total of 360 crosses — doubtless an exaggeration, but still descriptive of the spirit of the times.

The *Round Tower* (Fig. 9.31), many of them still standing, was another striking feature of the Irish monasteries. No one fully understands what they were for. If used for bells, the bell must have been struck because there is no room for it to swing. It is possible the towers were built as places of refuge for the duration of the more temporary Viking raids. The placement of the doorways at a great height above the ground suggests a defensive use, but if so, the exaggerated slenderness of the shaft most unreasonably reduced the space of the interior. A suggestion rarely made is that the Irish built towers for the same reason we provide our churches with steeples: namely, they look fine against the sky.

The Irish Manuscripts

Manuscript illumination was the chief artistic specialty of Ireland. It must not be dismissed as a minor art merely because the scale is small. Irish calligraphy is one of the great traditions of art history, and its leading men take their place among our greatest artists.

In order to account for the quality of the examples we have, it is necessary to postulate something more than personal talent. We must imagine a system of art education with a discipline more thorough and refined than we have seen recently in Europe or America. In order to perform the manual feats demanded by the fastidious complexity of the style, gifted pupils must have spent years driving themselves through endless repetitions of practice until the muscles would respond and coordinate perfectly. Chinese artists are trained in such a way, as are musicians all over the world.

From the great corpus of manuscripts that once existed, we have inherited about forty examples of significant interest. Among these three books stand out as great monuments: *The Book of Durrow*, *The Book of Lindesfarne*, and *The Book of Kells*.

The *Book of Lindesfarne* can be dated with assurance in the first quarter of the 8th Century. Because the *Book of Durrow* is done in a coarser, stronger style, most scholars place it at least a generation earlier. By the same criterion, the more flamboyant calligraphy of the *Book of Kells* suggests a later date, perhaps slightly beyond 800.

While generally accepted, these dates involve a tacit assumption to which attention should be directed. Greek sculpture began with a direct and "prim-

itive" phase, and evolved toward a final and Hellenistic phase marked by superb technique and effete design. Gothic architecture similarly proceeded from the straightforward into the flamboyant. In like manner the Renaissance ended in the Baroque and Rococo. Do these three histories establish a principle applicable to all art history? Are we justified in assuming that conditions in early Ireland were similar, and that human nature governs the evolution of human expression always in the same way?

The *Book of Durrow* (Figs. 9.33-34) takes its name from the monastery of Durrow near Tullamore in County Offaly. It was there when the monasteries were dissolved, and passed into the hands of an owner named Mac-Geoghegan. It is said he used it for veterinary purposes, curing sick cattle with doses of water run over the manuscript. The book came to Trinity College in Dublin with the library of its 17th Century chancellor, Henry Jones. The text is the Four Gospels according to the rendering of Saint Jerome in the Vulgate. Because the Vulgate was unknown in the British Isles until Benedict Biscop introduced it into Northumbria about 650 (Saint Patrick having used the so-called "Old Latin" version) the work can hardly date before the end of the 7th Century.

The illuminations of the *Book of Durrow* have a massive power, a curious strength and finality. It is difficult to realize that the pages are only 9½ by 6½ inches, allowing about forty square inches of working space inside the necessary margins. The comparative sobriety of style may perhaps be explained by the suggestion that the layout for each page derives from the mosaic pavements common in Roman Britain, and by the likelihood that the Durrow artist had worked in one of the shops where enamels were produced. At any rate, he refused to be lured into the virtuosity which the pen invites. The easy sweeps, neat reversals, and clever crossings are absent. Instead, the curves are bold. Changes of direction come like bumps, and the eye is often brought to a dead stop.

The reader must not construe such things as indicating imperfections of technique, for the hand of this artist was utterly sure; a close study of the pages will show that he pursued his way with an almost musical accomplishment. Holding back from any tour de force which might challenge the resolving power of the eye, he made the intricate rhythm of the Celtic interlace plain and clear.

His immense artistic refinement stood, it would seem, in strange relation to a spirit without sentiment, untamed, even wild. This we may feel whenever he turns his essentially abstract art in the direction of representation. Compelled by the growing strength of Christian convention to consider including

portraits of the Evangelists, he appears to have paid small attention to the refinements of the East Christian models supposedly available to him. For Mark, he used a monster more savage than any lion, he gave John an eagle boldly abstracted into flat pattern, and Luke got a cow. Matthew alone was granted a portrait (Fig. 9.34). The history of art hardly contains a more unabashed abstraction from the human figure. We are reminded of the menhirs that stand gaunt and bold in many places in the lands that border the northern ocean. More like a Druid than a Saint, the outlandish face is decidedly not without intellectual subtlety.

The *Book of Lindesfarne* (Figs. 9.30, 35, 36) is a magnificent volume consisting of 258 leaves of vellum approximately $13\frac{1}{2}$ by $9\frac{7}{8}$ inches. The text is Latin, with an interlinear gloss in Anglo Saxon added during the 10th Century by a priest named Aldred. The same Aldred also wrote in a *colophon*, or terminal note, which gives us the date of the manuscript. It was done, he says, by Aedfrith and bound by his successor Ethilwald. The veracity of the statement has been challenged, but unsuccessfully. Aedfrith was otherwise an undistinguished figure about whom Aldred had no motive for boasting. He was bishop from 698 to 721; as to whether he was the artist or the patron, we cannot say. Tradition has it that the book was one of the objects carried about with the miracle-working remains of Saint Cuthbert. Like some other manuscripts, it had a reputation for being proof against the dangers of the sea. Lost overboard, it was recovered at low tide on the shores of the Solway Firth, and was thereafter carried on the Lindesfarne inventory as "Liber S. Cuthberti qui demersus erat in mare." With the dissolution of the monasteries, the book apparently passed into secular hands. Robert Bowyer had it during the reign of James the 1st. Bowyer sold it to Robert Cotton, and it came to the British Museum with the Cotton Library.

The date of the *Book of Lindesfarne* falls at a critical moment in religious history. It was just at this time that the Roman and Mediterranean church was beginning to absorb and submerge the Irish. Lindesfarne was an Irish monastery, founded in 635 by Saint Aidan who came from Iona in response to the invitation of King Oswald, but the Irish church was already juxtaposed to the Roman as represented by Saint Augustine, the first Archbishop of Canterbury, who arrived there in 597 with forty monks, having been sent direct from Rome by Gregory the Great. The two currents met in Northumbria. The official date for the victory of the Roman church over the Celtic is 664, when the outstanding liturgical arguments were settled at the Synod of Whitby. The Irishmen did not submit gracefully. Indeed, they did not submit at all. Saint Colman and a group of intransigents abandoned Lindesfarne for Iona,

and the Irish remained stubbornly independent; but by so doing, they abandoned the main course of development. Under Theodore of Tarsus, a Greek who served as Archbishop of Canterbury from 669 to 680, the ecclesiastical polity of England was organized on the Roman pattern.

Because it was produced during a period when the English imagination was turned toward Rome, more than one scholar has tried to interpret the *Book of Lindesfarne* as a monument of the English Roman church, as distinct from the Irish. A few features undoubtedly derive from Mediterranean models. The text is Latin, and includes a tabulation of feast days according to the usage of Naples. Similarly, the Evangelist portraits, as demonstrated a few pages back, were adapted from East Christian models. There is no denying, moreover, that the composition of many pages shows a feeling for Roman sobriety. The *Cross Page* (Fig. 9.35) is axial in pattern, for instance, and symmetrically arranged.

The artist's insistence upon equilibrium was by no means limited to balance between areas of ornament and the resolution of motive forces. It was applied, also, to the color relationships. The important hues are red, yellow, apple green, blue, and violet. Chemical analysis has shown that while some of the pigment materials were locally available, others came from the ends of the earth. The ultramarine blue, it is believed, found its way to Northumbria by some tedious route from farther Asia. It is evident that an effort was made to realize the highest possible intensity of each pigment material. Fading must have ensued to some extent, but it is difficult to imagine the colors as brighter and fresher than they now are. Because of its complete investiture with ornament, the *Cross Page* (Fig. 9.35) is the most gorgeous of all. Each of the hues mentioned recurs at more or less regular intervals. Although the spots of color are small, the precise outlines of the interlace prevent them from losing their identity; there is a complete absence of the blurring, blending, and mixing of tones as in French Impressionist painting. Neither does any single hue gain dominance to produce a tonality in the manner of Venetian painting. The principle at work is the idea of balance between contrasting colors. From any reasonable distance, every spot is easily resolved by the eye, and seems to attract to itself only its just proportion of attention.

None of these things, nor all of them together, make a Roman monument of the book. It remains obvious at a glance that the overwhelming interest of the artist was to find expression in the linear idiom of northern style. As such, the work is less powerful than the *Book of Durrow* and less gorgeous than the *Book of Kells*, but there is a special beauty not to be found in either of the others. The pages have a remarkable integration of design; one may not separate the ornament from the text, or either from the empty spaces. Without re-

sorting to geometry except as noted, the designer has arrived at organic composition by a method different from the classical. It simply seems that each item makes the next necessary, and there is a certain asymmetrical inevitability in the relation between part and whole.

The ornament is an impeccable demonstration of draftsmanship. For precision, it is the ultimate; in dexterity, stupendous but restrained. The pages are filled with an endless melody of graceful evolution, but in all the innumerable variations, there is never hesitation or experiment. The hand of the artist moved like the hand of a dancer. It swung with the curves, bore down to lend weight to the line, and lifted like a song.

In the illumination of the *Book of Kells* (Fig. 9.37), Irish art came to the full realization of its own genius. The volume is a Gospel book of thick vellum. There are now 339 leaves, but there must originally have been more. The book suffered mutilation on at least two occasions. In 1007, it was stolen for the value of the cover, and found buried under a sod. About 1800 or a little later, a new binding was put on, and the binder barbarously cropped the pages to their present size of about 13 by 9½ inches, spoiling the placement of the ornament on the pages and actually cutting into some of the compositions. The history of the manuscript is well known. When the monastery at Kells was surrendered to the Crown in 1539, the book was there and Richard Plunkett was abbot. We hear of it next in the hands of one Gerald Plunkett of Dublin, who wrote some notes in it; and from this later Plunkett, the book went to a man named Ussher. Ussher's entire library came to Trinity College in 1621.

We can hardly be so definite about the authorship and place where the work was done. Miss Françoise Henry has come to the conclusion that there were at least four responsible masters plus a number of assistants. Often a single page demonstrates the work of several different hands. In itself, the situation would suggest a long period of production and several interruptions.

Miss Henry has pointed out several circumstances which unmistakably suggest Scotland. Some of the animals are like those rendered by the Picts, and there is substantial identity between the ornament carved on one of the crosses at Iona and the passages enclosed within the right-hand upper fork of the letter *chi* on the *Monogram Page* (Fig. 9.37). Certainty being denied us, the most likely guess is that the work started at Iona about 760 or so, and dragged on until Iona was abandoned after the Viking sack of 801. The fleeing monks went to Kells. Presumably, they had the book with them, and the rest of the work ensued. This version of the probabilities is consistent with the text, which is a mixed Irish version differing substantially from the Vulgate — the

kind of thing one might expect to find at Iona, a center of Irish nonacceptance of Roman Christianity as represented by the findings of the Synod of Whitby.

We have alluded above to Miss Henry's demonstration that the monumental Madonna of Folio 7 verso derives from a Coptic model, and it is similarly worthy of remark that the *Book of Kells* contains a number of symmetrical compositions enclosed within firm borders. Anglo-Roman classicism was unmistakably in the air, but everything that counts about the manuscript is triumphantly Irish, Celtic, and barbarian.

Nowhere is this more dramatically true than on the famous *Monogram Page* (Fig. 9.37). It comes at the eighteenth verse of the first chapter of Matthew. After a statistical citation covering fourteen generations of forebears, the Evangelist finds himself ready for the great climactic announcement: "Now the birth of Jesus Christ was on this wise. . . ." — and in the *Book of Kells*, we find the Nativity celebrated by a burst of illumination more inspired than any other in history. The master pushed aside every provincial limitation. His line sweeps across space in magnificent open curves that cannot be contained by frames or borders. He left symmetry behind, and every other rule of static stability. The demonstration shoves all but one word of text onto the next page. We find ourselves in a new dimension like that of flight. The words that apply are *ahead*, *speed*, *transcendancy*, and the rules in force are those of dynamics. Northern line broke free at this point in history; and the instinct then set loose ultimately sent mighty spires towering into the sky.

Our interest in its finest page must not close our eyes to certain less conspicuous excellencies of the manuscript. No verbal description can possibly forewarn the reader of what awaits his eye in the original, in the magnificent facsimile edition published in 1950 by the Board of Trinity College, or in the more modest but very useful plates in Sir Edward Sullivan's monograph. The array of initial letters is beyond belief; every verse of every chapter in all four Gospels has its own initial, an original and unique work of art in itself. A statistical count claims to have isolated more than 800 variations of the Irish interlace. A more bewildering display of accomplishment would be hard to cite.

Another notable detail is the occasional appearance of naturalistic subject matter. The lower central part of the *Monogram Page* shows us two cats and four mice. A bit to the right, there is a black otter with a fish in his mouth. Obviously one of the men must have laughed off the formulas drilled into him as an apprentice; these animals are alive and studied direct from nature. Analogous items can be found on the sculptured crosses, but in the main the performance is exceptional. It would seem that the lyric love of nature, so conspicuous in Irish poetry, was rather thoroughly quarantined from the visual arts.

THE VIKING SHIPS

The Viking raids began immediately prior to the year 800 A.D. Until then the history of the north is nearly a blank. We cannot even be definite about the pressures and impulses which set events into motion. Some modern historians fancy that polygamy among the upper orders had produced in Norway a superfluity of persons accustomed to privilege. Finding it impossible to maintain their preferment at home, such men went adventuring over the western horizon.

For about fifty years, the Vikings contented themselves with plunder and the sport of piracy. After that they began to take over the land. Within the next two or three generations, we find them permanently established as the aristocracy at Novgorod in Russia, in Iceland, Greenland, Ireland, England, and Normandy. But the expansive drive was not satisfied even yet. The Russian Vikings extended their power southward to the Black Sea. Beginning with a raid of two hundred ships in the year 860, they continuously threatened Constantinople for the next two centuries. Sometimes they were fought off, more often bought off. Similarly, the Norman Conquests of England (1066) and of Sicily (1072-1091) must be regarded as mature instances of the policy that began when the first ship sailed out of the fiords. But even those great and far-reaching events lack the romance of the Viking expeditions to North America.

There is no longer the slightest doubt that Norse mariners reached America about the year 1000, and were familiar with the eastern shores of this continent. Half a dozen sections of the land are mentioned by name in the sagas and elsewhere, but most of them cannot be definitely located. An exception is *Vineland*, which must have been in the region of the Chesapeake Bay. We can make this assertion by reference to Liev Erikson's observations of the sun: he could not possibly have seen what he says he saw any further north than the 37th parallel.

Opinion varies as to whether the Vikings established substantial, permanent colonies here or whether they simply came and went on hunting and fishing expeditions. So far, the search for Viking monuments has proven disappointing. Nevertheless, there are two items worthy of mention.

The only building even alleged to be Norse is the *Old Stone Mill* in Touro Park at Newport, Rhode Island. Most recent writers have thought it safer to say that the structure was a windmill of 17th-Century construction, but the evidence for that is shaky. Certain peculiarities of the design are incongruous and even dangerous in a windmill, but correspond to features found in Nor-

wegian churches. Although conclusive proof is lacking, a good case can be made out for reconstructing the old ruin as the arcade and clearstory of a central church.

More startling if less pretentious is the monument known as the *Kensington Stone*, found in Northwestern Minnesota, and bearing a runic inscription that records the presence of 8 Goths and 22 Norwegians at that place in the year 1362. Often denounced as a forgery, the inscription is now accepted as genuine by the majority of scholars.

The Viking era was bound to leave its mark upon the history of European art. Its destructive effect has long been obvious. The invasions made an end of the Celtic tradition in Ireland and England, and brought the Carolingian Renaissance to a similar termination. On the positive side, we may cite the immense contribution that stemmed out from Normandy. By adding the Norman strain to the European population, the Vikings supplied the yeast in the lump. Gothic art might well have evolved from the Romanesque without the help of the Normans, but it would not look like the Gothic we know. To this narrative we must presently return. In the meantime, what of the art of the Vikings themselves?

From Viking burials we have an immense number of objects, mostly household utensils, arms, and articles of personal adornment. Wood carving may be cited as the chief decorative art of the Vikings. In general, its patterns are analogous to the Irish interlace but bolder, choppier, and without the cursive manoeuvres so gracefully achieved by the master-penmen. In the so-called Jellinge Style, the Ringerike Style, and the Urnes Style, the evolution of this art may be traced well into the High Middle Age.

But if we look at Viking civilization as a whole, it is plain that calligraphy never captured the imagination of the best men as it had done in Ireland. The Norse were interested in the actuality of speed and motion. Their great and dominating art was naval architecture; and their outstanding achievement was the design of the Viking ship. Few historians have as yet appreciated either the art or the science represented by those vessels. For their efficiency and for their beauty, no praise can be too high.

Numerous literary records testify to the sometime existence of very large Viking ships. Size is usually indicated by reference to the number of rowing benches in the vessel. A 34-seater owned by Olav Trygvasson probably represents the largest that was in any way usual; her length would work out at about 180 feet, or larger than most of the vessels in common use prior to the 19th Century.

In all the north, it was customary for persons of standing to be buried in their ships. Often the barrows were prepared with immense care, the ship be-

ing sealed airtight within a tumulus of peat overlaid with clay. With luck, wood can endure almost indefinitely under such conditions, and we are fortunate in possessing nearly a score of ships in more or less fragmentary form. The most important are the following:

The *Nydam Boat* was found in the mosses of Schleswig in 1863. She was 77 feet long, 10 feet, 10 inches wide, and very shallow. Her extreme narrowness indicates she was intended purely as a fast rowing vessel that would carry no sails. Shortly before World War II, a German firm built a replica for use in an historical motion picture.

The *Gokstad Ship* (Fig. 9.40) was discovered beside the Oslo Fiord in 1880. She is 72 feet long, 16 feet wide, and would draw perhaps 4 feet when loaded. She probably is a good example of the vessels used by the Norse for amphibious warfare: burdensome enough to carry a moderate cargo, stable enough to carry sail, narrow and sharp enough to row easily, shallow enough to enter any harbor or river, and of a shape that passes almost silently through the water. A replica of this vessel was built in 1893, and sailed from Norway to the Columbian Exposition held in Chicago that year. Her captain, Magnus Andersen, compiled a substantial account of the trip (*Vikingsfaerden 1893*), available only in the Norwegian. He states that the vessel reached a maximum speed of eleven knots. There are handsome and accurate models of the Gokstad Ship in the Science Museum, South Kensington, London; in the Glasgow Art Gallery; in the Musée Naval, Paris; and in the Deutsches Museum, Munich.

An even more beautiful and highly developed vessel was the *Oseberg Ship* (Figs. 9.38-39) discovered in 1903 on the western bank of the Oslo Fiord a bit to the north of modern Tønsberg. Unfortunately, this superb design has not yet attracted the modern builder, but she obviously represents the ideal of her type, and we may single her out presently for special mention.

The *Gokstad Ship* probably was, as stated, an example of the vessels used for raiding. The *Oseberg Ship* was a royal yacht. Both were intended above all to be fast, and neither could carry a bulky cargo. Readers who wish to visualize the boats that made the long trip to Iceland and the longer trip to America will do well to inspect the Viking model made by Mr. James Robertson Jack when he was head of the Department of Naval Architecture at Massachusetts Institute of Technology, now in the Francis R. Hart Museum at that institution. She is coarser in shape than the others and would be much slower, but she would carry a profitable cargo.

Before proceeding with specific comment, we would be well advised to correct certain misapprehensions which the reader may entertain if he happens to

be a landsman. The first of these has to do with seaworthiness. Seaworthiness has nothing to do with size; it is a function of buoyancy, which is in turn a function of good construction and proper design. The great waves do not hit little boats hard; they merely lift them and move them along. Thus the fearful crest which inflicts a terrific impact upon some giant liner is likely to do no worse than shake up the occupants of a small vessel; their experience may be strenuous and unpleasant, but cannot be described as lethally dangerous.

Many writers have carelessly described the Viking ships as "open boats" — the implication being that the vessels would fill with water in anything worse than a fresh breeze, and were thus unsafe at sea. For safety, there must of course be a tight deck. The model at M.I.T. is completely decked over, and it will be noted that both the Oseberg and Gokstad examples have decks at a lower level, but still sufficient to prevent water from filling the hull. These are not open boats, and it is hardly to be supposed that the incomparable sailors who manned them did not understand why. Uncomfortable though such vessels undoubtedly were, we have no good reason to be surprised at the distances they covered. There was nothing on the deep water to stop them.

Another popular misconception gives rise to the often repeated statement that the Viking ships could not sail to windward "because they had nothing but square sails." Readers of the sagas will remember numerous references to fleets that waited for fair winds. That does not mean the ships could not work to windward, but merely that it pays to seek a following wind when bound 500 miles beyond the horizon. Tacking into a harbor or out around a headland is quite another matter, and there is plenty of evidence the Northmen did it every day.

An apposite passage will be found in the *Saga of Saint Olaf*. On one occasion when the Saint had landed on the Finnish shore to plunder some villages, he met more determined resistance than expected. The Finns drove him back to his boats with heavy losses, and there was nothing to do but get out. At this point the saga says that "the Finlanders conjured by their witchcraft a dreadful storm and bad weather at sea. But the king ordered the anchors to be weighed and sail hoisted, and beat off all night to the outside of the land. The king's luck prevailed more than the Finlanders' witchcraft, for he had the luck to beat around Baalagaard's side in the night, and so got out to sea."

It matters very little whether Olaf's activities are correctly reported. The important thing is that the manoeuvre of beating to windward is referred to as something perfectly well understood by the reader. It is also interesting to see that the "Russian Finns" had a reputation for black magic even at this remote date.

It should be understood that the square sail, even if less efficient than the

same area set fore and aft, can be trimmed for windward sailing, and that all square-rigged ships of the seagoing nations have always been fitted with the proper gear. One simply swings the yard around until it approaches correspondence with the center line of the vessel, and flattens down the sail by sheeting in (i.e., pulling down with a rope) both lower corners, or *clews*.

The *Oseberg Ship* (Figs. 9.38-39) was designed and built as a royal yacht, and the owner was a remarkable lady. Her name was Asa. She was the daughter of King Harald Redbeard, and wife to King Gudrod the Magnificent. When about eighteen or twenty years old, she received and declined Gudrod's proposal of marriage — which so infuriated the king that he came in force, killed her father and her brothers, and carried the lady off to be his queen. As a mature and powerful man, already once widowed, Gudrod doubtless thought he was disciplining a child. He was mistaken.

About two years later on a night when the king got very drunk, Asa simply ordered one of her servants to stick a spear into him. She never denied responsibility for the murder. Her son, Halvdan the Black, was about one year old at the time; the queen ruled in his name until he grew up. She died about 850, probably in her thirties. Her grandson was Harald Hairfair, who brought all Norway under his rule.

The Oseberg barrow proved to be an archaeological discovery of almost unbelievable munificence. In addition to the ship herself, the burial included a voluminous number of fascinating objects. The barest inventory would take up too much space, and we must refer the reader to the magnificent publication *Osebergfundet*, of which Professor A. W. Brøgger was the senior author. Even so, it is worthwhile to mention here an anchor resembling the modern Herreshoff design and considerably better than most of those now in use, a little wagon, and a small sled. The latter two items are richly carved and might well have appeared in a fairy tale. In fact, everything in the burial was of the finest. Queen Asa obviously had been a collector and connoisseur. But her initiative and discrimination went far beyond mere decorative refinements like the beautiful carving with which the stem, stern, and tiller-head of her ship were adorned. That lady must have known very well how to choose a naval architect and how to judge whether he had done his work well.

It would be interesting to know what procedure the designer may have followed when making plans for this vessel. Her shape demonstrates a knowledge both profound and subtle, and we may assume that highly developed methods were familiar in 9th-Century Norway. Today, most ship-designers are trained in engineering schools, and they prefer to work by making a number of drawings which define the shape of the vessel. But the formulas available to

the modern engineer are still decidedly inadequate for so refined a problem, and the leading naval architects are still primarily artists. The best of them all, the late Mr. Nathaniel G. Herreshoff, an accomplished mathematician and one of the greatest engineers of the last generation, designed his ships as a sculptor carves statues. He carved a model out of pine wood, doing the creative work freehand and determining by eye alone the more subtle and important factors in the design of a Cup Defender or fast torpedo boat. A staff of assistants was available to check his judgment by such calculations as he thought desirable, but more often than not, he did not bother to have the check made. Some of Mr. Herreshoff's models are in the Francis R. Hart Museum of the Massachusetts Institute of Technology. His methods will explain how it was possible for the Viking shipbuilders, completely innocent of all but the simplest mathematics, to produce some of the best vessels that ever sailed.

Considered without relation to her function and purely as an exercise in formal design, it is evident at a glance that the *Oseberg Ship* belongs to the same school as the Irish manuscripts. There is a plain resemblance between her decorative carving and the interlacing patterns so conspicuous in the art of the illuminators, but we hardly refer to such details. The fundamental form of the vessel is generated by a series of lines, and the lines themselves are much the same as those drawn for another purpose in Ireland. The extreme height of bow and stern exists merely to dissolve the silhouette with a linear flourish at either end; this feature has no functional value. The skin of the ship consists of planks laid fore and aft over frames which define each cross-section, and it will be noted that each strake of planking overlaps the one beneath. The construction is still used today. Known as *clinker built*, it is slightly stronger for the same weight than smooth planking; but its chief advantage has to do with appearance: it emphasizes the lines of the vessel by the method of repeating them, producing a splendid and varied linear rhythm. It is no accident that sailors only occasionally speak of a ship's shape, but often of her "lines."

The *Oseberg Ship* attains a maximum *beam*, or width, of 16½ feet, and she is 64 feet long. Had she been intended for rowing only, she would have been made narrower. The extra beam is explained by the mast and rigging found with her: it gave sufficient stability to carry a press of sail. A notable feature of the design is the extreme skill of the designer in combining this feature with other and conflicting desiderata. Wide at the middle, the ship is beautifully sharp where she enters the water and fine again to let it close easily behind her. A look at the cross sections in Fig. 9.39 will demonstrate further that she would never put her full breadth down onto the water until heeled over under sail. As between her extreme beam and her width on the waterline while floating upright, there is a difference of no less than six feet.

The purpose of the refinement was to reduce to the minimum the total area in contact with the water, or *wetted surface* as it is often called. As a general principle, the more wetted surface, the more friction with the water as the vessel moves through it — and the slower she will be. It is interesting that a designer so studiously aware of that fact should add a long keel projecting some distance down from the body of the ship. A shallower keel would have been sufficient to protect the bottom when grounding, and the deep keel adds much drag. It is to be explained only because without it she would slide bodily sidwily when sailing, and never go to windward.

Inasmuch as a ship is better than a raft only because she can go, speed is of the essence in the design of any vessel. Like many other peoples, the Vikings had the habit of recording distances by reference to the time consumed, and not to the linear measurement between places. The run from Norway to Iceland was commonly classed as a seven day trip, and works out to an average of about $3\frac{1}{2}$ knots, or the same speed we might expect today under sail and allowing for unfavorable conditions along with the good. There are records which indicate that the same run occasionally was made twice as fast. When comparing vessels for speed, however, we must take account of their maximum speed when full power, engines or sails as the case may be, has been applied. We must also take account of the size.

As a general rule, the speed of ships varies in a certain relation to the square root of their length. If we measure the length in feet and express the speed in terms of knots — or nautical miles (6,080 feet) per hour — the best possible speed will be about 1.5 times the square root of the length. Thus, a ship a hundred feet long may now and then attain 15 knots — but only when the wind is strong, the water smooth, and only if her design is of the best. Since all these conditions rarely occur together, maximum speed under sail is a memorable event. The 11 knots recorded for the 1893 replica of the Gokstad vessel approaches the theoretical maximum for her size. The Oseberg design is more refined, and would surely be faster. With a strong breeze over the quarter, one would expect her to log 12 knots or even more if the water were smooth. In a note to the author, Mr. Francis Herreshoff has expressed an opinion that may be taken as authoritative; namely, that a strong crew could row this vessel at 10 knots for long enough to escape from a tight place. It is questionable whether a better type has yet been developed for amphibious warfare. We should also note that the best modern yachts, which would be no good for war, can sail no faster even though they are considerably handier. For a length on the order of a thousand feet, the 28 knots of the great Atlantic liners is a snail's pace, and to be explained only by considerations of economy: higher speeds are mechanically feasible, but bigger engines cost more to run.

Enough has been said to show that the Viking ships, too long neglected as part of the subject matter of art history, are among the most refined and highly developed products of the medieval mind. Certainly no other works of art had so great and immediate an effect upon political and social history. Except for the remarkable qualities of their vessels, the Vikings would never have come to Ireland, there would have been no Normans and no Norman Conquest, and no Norman kingdom in Sicily.

PRE-ROMANESQUE CHURCHES IN SPAIN

Some of the most interesting monuments of the Early Middle Ages exist in Spain. Small in size and not immediately impressive, these buildings are important both artistically and historically. Nothing so good was built anywhere else in Western Europe at anything like the same date. Some of the archaeological connections are fascinating. Here we may mention only two of the most important churches; for a more complete treatment, the reader is referred to an admirably compact monograph by the late Professor Georgiana Goddard King (*Pre-Romanesque Churches of Spain*, Bryn Mawr Notes and Monographs, Vol. 7, 1924).

At Baños de Cerrato in Palencia, near modern Valladolid, there is a little basilica dedicated to San Juan Bautista. An inscription says that the church was founded in 661 A.D. by Receswinth, a Visigothic king. Suffering from the stone, he had come to Baños to take the waters, and was cured — a miracle indeed if the chemical content was then the same as now. Except at the east end, the building appears to be without substantial alteration. It is unusually good for its period, and it has two features which stir up considerable archaeological wonderment.

We ordinarily associate the horseshoe arch with Moslem architecture, but there is no example of it in any Moslem monument that can with certainty be dated earlier than 711, when the Moors first crossed the Straits of Gibraltar to invade Spain. The arches used at San Juan Bautista are, however, a moderate example of the horseshoe type; and, as just stated, they were built fifty years before the Moors arrived. A suspicion thus arises that the Moslems got the motive from the Visigoths; but against that suggestion, small differences between the Visigothic horseshoe and the Mohammedan must be listed. The arches at San Juan are stilted a little; and there is a slight difference between the curve of the intrados and the curves of the extrados. The horns of the arch, moreover, project inward only a very little, the curve of the intrados hardly being projected beyond its horizontal diameter. Moslem arches (those at the Mosque of Cordova, for example) usually have extrados and intrados

parallel, they are rarely stilted, and the inward extension of the horns is pronounced. The whole matter is still further complicated — as historical questions almost always are in the Early Middle Ages — by the existence in Spain of a horseshoe arch of Roman date and by the existence of similar arches in Armenia.

The other peculiarity of the building has to do with the plan. The arrangement of the east end has now been changed; but its original outline can be discerned with virtual certainty. This shows that the church, as first built, had a transept or bema of reasonable projection from which there opened three apses, each rectangular in plan. Contemporary Italian basilicas almost invariably had the familiar semicircular apse. In fact, no other European church of similar date has this peculiar arrangement for the east end. Parallels exist, however, in Armenia.

Of immense technical importance to the ultimate understanding of medieval history, these matters have great illustrative value even for the general reader. The archaeological darkness surrounding San Juan Bautista at Baños is typical of the period rather than exceptional. At the same time, there is evidence enough to open up vistas of knowledge which, if it ever becomes amplified and provable, may entirely readjust our present picture of contact with the East at this early date.

A special interest attaches to the architecture of the Asturias, the only region in Spain never held by the Moors. While it would be sentimental to assume that political independence always works in favor of architectural originality, it is certainly a fact that in this small territory where the Christians maintained their sovereignty, some extraordinary work was done. For logic and intelligence of design, there is nothing to compare with it in all Western Europe between the fall of the Roman empire and the 12th Century A.D.

Perhaps the best of all the Asturian churches is Santa Maria at Naranco, near modern Oviedo (Figs. 9.41-42). There has been debate as to whether the building was originally a church or a palace; obviously it formed part of an ensemble constructed by King Ramiro the 1st, and the ensemble appears to have included both a church and a palace. An inscription fixes the date at 848 A.D.

The little building is approximately forty feet long and a dozen feet wide, but its architect was correctly described by Miss King as a man "of great and hardy invention." He designed one of the very few fireproof buildings put up in Europe during the entire period between the fall of Rome and the start of the Romanesque. The church is covered by a ribbed tunnel vault. The separate thrusts are contained by a system of salient pier buttresses against the

outside walls. On the interior, a blind arcade runs down either side wall, and it is important to notice that each rib of the vault is centered directly over the crown of one of its arches, or over one of the engaged columns, as the case may be. For an earlier parallel, one first recalls the Baths of Diana at Nîmes, but an even closer parallel to this construction is to be found at Shaqqa in Syria, where a similar articulation was given a long hall built early in the 3rd Century A.D.

The structural logic of Santa Maria at Naranco is, however, somewhat more overt; in fact, for a tunnel-vaulted nave with salient ribs and no aisles, the engineering is nearly impeccable. For the first time in our study of architectural history, we are confronted with the work of a man whose whole theory of design stemmed from the concept that structural forces themselves might suggest the shape and arrangement of the component parts of the fabric. The so-called "structural aesthetic" — destined to be one of the prime forces governing the design of the later Romanesque and Gothic — was evidently very well understood in the Asturias during the 9th Century. Before attention was focused on these long-forgotten little churches, it was commonly taken for granted that no such idea had ever entered the European mind prior to the late 11th and 12th Centuries. When the existence of the Spanish buildings became a matter of general knowledge, scholars at first refused to accept the dating, but it may now be said that no good reason to doubt it has emerged. The Asturias has always been a comparatively remote region, however; and its churches were too small to become famous. Thus ideas which might have advanced architecture by as much as two centuries never saw the light. We shall find ourselves returning to them, and at no small length, in Chapter 11.

THE ART OF THE CAROLINGIAN ERA

For convenience, we shall use the adjective *Carolingian* to indicate the cultural movement set into motion by the career of Charles the Great (regnal dates 771-814). A more detailed survey would demand our making a distinction between the lifetime and immediate influence of Charles, and the separate movements that took place in France and Germany after his death. It will be sufficient for our purposes, however, to think of the whole affair as one, and we shall use *Carolingian* as though it included the art sometimes catalogued under the headings *West Frankish* and *Ottonian*. In point of time, the period under review stretches forward at least as far as the reign in Germany of Henry the 2nd, who died in 1024.

Charles was the only monarch of the earlier Middle Ages who proved able to organize a central government in Western Europe. His power depended to

an unfortunate extent upon his personal capacity rather than upon well-conceived and durable institutions of government, but at the height of his success he held, in name at least, everything from the Pyrenees to a line drawn between Denmark and Dalmatia, including Italy as far south as Rome.

On Christmas Day of the year 800, Charles attended services in the old basilican church of Saint Peter at Rome. On that occasion the Pope, under circumstances that have never been entirely clear, crowned him Roman emperor. The papal act raised serious questions of jurisdiction, and proved in future a perennial subject of friction between Church and State. There can be no question, however, that Charles conceived himself as heir to the Caesars, and his imperial program as an effort to restore Roman order.

Personally preoccupied with military enterprises and with the political organization, Charles nevertheless did an immense amount to initiate and foster cultural revival. He delegated authority to various able men, of whom the most important was Alcuin of York (735-804). There is a tradition that Alcuin's handwriting became the model for the script used all over Europe. However that may be, the "schools" organized by Alcuin at Aachen, Tours, Reims, and elsewhere actually produced a monumental amount of learning, with the result that we often hear the whole era described as "the Carolingian Renaissance" — an exaggerated term, but an indicative one nevertheless.

Had Charlemagne's empire been kept intact after his death, the effect upon both history and art would probably have been beneficial to an extent appreciable only in our own time. But imperial unity apparently appealed to the 9th-Century mind as a principle far less important than the right of the individual heir to inherit his proportional share of a decedent's estate. At the Treaty of Verdun in 843, the empire was divided among the claimants. The division took cognizance — probably for administrative convenience at the moment — of language differences and other situations conducive to separatism rather than unity. Louis the German took everything east of the Rhine. Charles the Bald took the west. Lothair took what was then called "the middle kingdom," part of which still bears the name Lorraine, a softening of Lothair Regnum. Modern France and modern Germany, indeed nationalism itself, started with this division — and with it the turmoil of the 20th Century.

It is extremely hard to interpret the artistic monuments we have inherited from the Carolingian era. Indeed it would be an error to build our picture of those times on the basis of the physical relics still in existence: a considerable corpus of illuminated manuscripts, a number of statuettes, a certain amount of jewelry, and some rather discouraging architecture. Fortunately, there is reasonably adequate information about material we no longer have.

Carolingian Architecture

At Ingelheim and at Aachen, it is possible to discern the general outline of palaces built by Charlemagne himself. The gates of the palace at Aachen were standing, it is said, as late as the 14th Century. Literary evidence supplements the meager remains, and we read of terraced gardens, banqueting halls, and of river views commanded by upper windows and balconies. Obviously such facilities were not called into being except in response to a certain standard of dignity and refinement in the life of the court, but all the palaces were built of wood and other impermanent materials — a fact we modern historians are likely to weigh too heavily. We also hear of a fort at Merliacum that literally towered over the plain, and had a moat and drawbridge. It would appear that the design of defensive fortification improved greatly during this era for the simple reason that the central government could not protect its citizens from the Viking raiders. The strong tower intended as a place of refuge probably dates from Carolingian days; it was good enough to serve against the Vikings because they usually went away promptly and long before the garrison could be starved out.

Perhaps the most interesting single bit of evidence is a plan found at Saint Gall (Fig. 9.59), showing the arrangement of a monastic establishment. Often presented as reflecting actual construction, it is now generally conceded to be an imaginative layout for an ideal monastery. The geometric regularity of the composition suggests that the monks had studied the precious copy of Vitruvius which lay waiting in their library for another 500 years before its existence was announced to the modern world (see above, page 98). The plan is proof enough that men of this era thought in terms of a complex and highly developed community. It would be difficult for the production manager of a modern factory to arrange better for the various functions and services requisite to a self-contained and self-sustaining community. In addition to a church and dormitories, barns, stables, storage cellars, and workshops, there is provision for a hospital, a guest house, and a library.

The standard type of church in Carolingian days was the basilica. In the absence of classical columns in ready supply as in Italy, most of the Carolingian basilicas carried their wooden roofs on coarse piers capped by clumsy columns. Among existing examples, the small, severe *Basseoeuvre* at Beauvais (the nave to which the great Gothic transepts, choir, and apse are now attached) is as illustrative as any. At the little town of Lorsch near Worms, however, there still stands a set of three arches (Fig. 9.43) known as *The Basilican Gate*. Traditionally, and probably correctly, the monument is supposed to be all that is left from the narthex of a substantial basilican church. The date falls at the

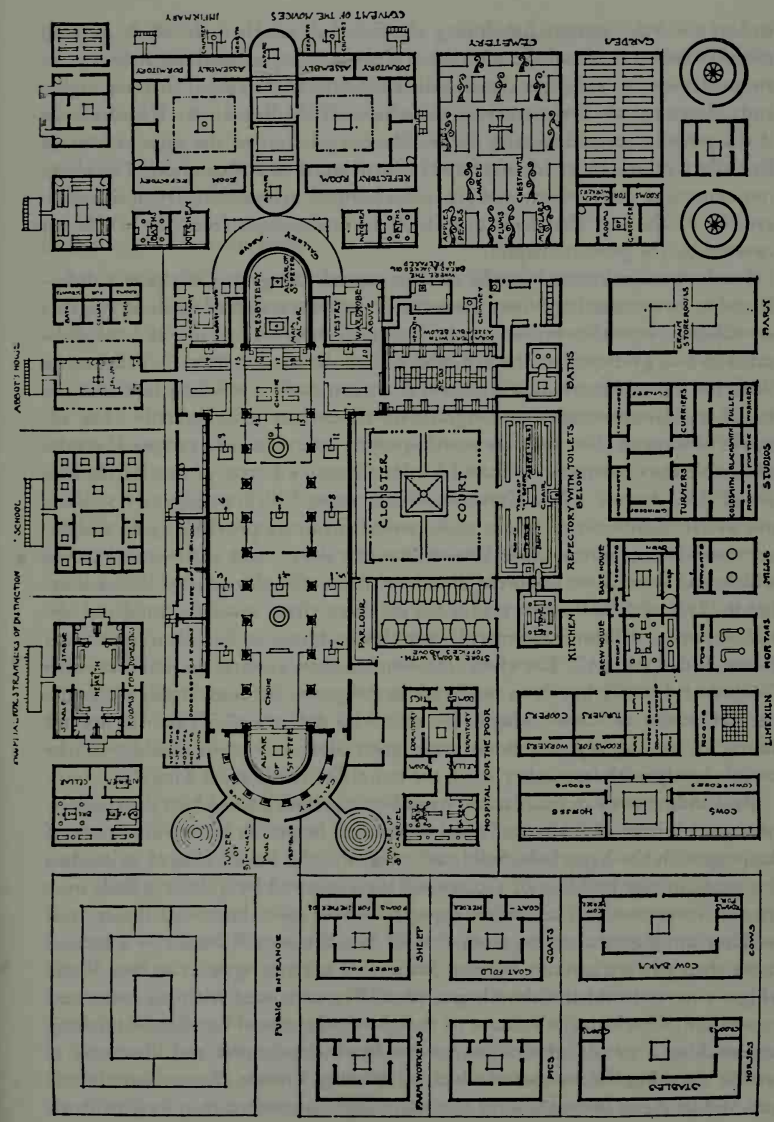


Fig. 9.59 Plan of an ideal monastery. Redrawn on the basis of a manuscript of Carolingian date found at Saint Gall.

end of the 8th Century, or during the first half of the 9th. With its high peaked modern roof and the addition of a couple of apses, nothing at first gives an impression of being less classical. It will be noted, however, that the arches and columns of the lower story fit the scheme of the Roman Arch Order even if the proportions and spacing differ. The ten pilasters of the upper story are patently Corinthian by intent, however provincial their execution. The chevron ornament above them and the polychromed masonry are typical incongruities of the sort that lend quaintness to monuments from the whole era covered by the present chapter.

For his personal church at the Aachen capital, the great Charles was determined to have something more pretentious than the standard basilica. His *Palace Chapel* (now the rotunda of the cathedral) was started in 796, and dedicated in 804 by Pope Leo the 3rd who had wintered at Aachen in order to be there for the ceremony. It is doubtful if we can name a building that ever inspired its contemporaries to congratulate themselves more heartily. The remarks of some of these men are worth quoting; we take our excerpts from the admirable documentation included by Mr. Kingsley Porter as part of his *Medieval Architecture* (Yale University Press, 1909. Vol. I, pages 170 ff). Various writers mention the de luxe ecclesiastical furniture provided: gold and silver candelabra, bronze choir screens, bronze doors, and such — to execute which, workmen were imported from far places. On this general theme, Einhardt (*Life of Charlemagne*) adds for emphasis that "since he could not obtain elsewhere columns and marbles for this building, he had them sent from Rome and Ravenna." Elsewhere the same author credits the builders with "wonderful art"; but he is moderate in his praise by comparison to Angilbert (*Carmen de Carolo Magno* iii, 94) who declares: "Where the second Rome, in her mighty new flower rises great aloft . . . some build well the temple lovely with its mighty mass, the temple of the Eternal King."

Resounding even in translation, Angilbert's periods earned him the contemporary nickname of "Homer"; but the church he praises is very much out of keeping with the hyperbole. Solid and adequate, the Palace Chapel at Aachen is a medium-size building of the central type, covered by a dome a little over 47 feet in diameter. The design appears to have been borrowed direct, and without intelligent analysis, from that of San Vitale at Ravenna — a fact of more than passing interest because Justinian's portrait appears at San Vitale (Figs. 9.16-17) and the church was peculiarly associated with his name and reputation. Charlemagne's choice of that particular model betokens something approaching a servile admiration for the Byzantine empire and illustrates as well as anything the manner in which all Western Europe, throughout the entire Middle Ages, looked toward Constantinople as modern men look to Paris,

London, and New York. It was the great and gilded metropolis, the center of the world. Conditions in the West may be inferred from the fact that Charlemagne had to import his skilled workmen, had to get his classical columns second-hand, and astonished his contemporaries with what amounts to a coarse and modest church. It is nevertheless the sober truth that his chapel was the most important building constructed in northern Europe between the fall of Rome and the late 11th Century.

Carolingian Manuscripts

Books were the great preoccupation of the Carolingian era. The brains and energies of its best men were directed to the acquisition and preservation of books, and to the production of copies. A great number of illuminated manuscripts survive from the period. Stylistically, they furnish us with a bewildering tangle of problems. There were apparently a number of centers at which the work went on. Within the limits of human patience and with occasional interpolations by the scribe, the copies were turned out with reasonable strictness insofar as the written text was concerned. With respect to the illustrations, it was apparently customary to copy more freely. Sometimes, indeed, the Carolingian illuminator lacked the skill to copy any other way. Thus any particular miniature may represent a style and composition of very complicated genealogy. In every instance, one has to visualize the style and composition of the manuscript used as a model — which may itself have had an involved derivation. One then must interpret what he sees with reference to the technical training of the illuminator who did the work. Of great historical interest, the detailed pursuit of such questions is hardly appropriate to the present work. Suffice it to say that the questions exist, and that there is to date no general agreement on such fundamentals as the number and location of the various Carolingian centers.

The dead average of Carolingian illumination is artistically inferior. The illuminators, or most of them at any rate, worked under conditions scarcely conducive to originality. Their business was to reproduce, not to create; but even under that system — closer to the factory than the studio — some of them rose to greatness. The occasional excellence of a single figure was now and again surpassed by an equally brilliant imagery embracing an entire scene. For an instance, we may turn our attention to a justly celebrated miniature from the *Codex Aureus* from Saint Emmeram at Regensburg, now in the Staatsbibliothek in Munich (Fig. 9.44).

The narrative comes from the Apocalypse (Revelations 4:10-11), where the four and twenty elders cast their crowns before the throne, saying, "Thou art worthy, O Lord, to receive glory and honor and power, for thou has cre-

ated all things, and for thy pleasure they are and were created." Christ is symbolized by the Lamb, and we see the elders grouped before him in a great hemicycle. Stylistically, the work might be understandable by reference to the Neo-Attic branch of Hellenistic art, and perhaps the artist was in the habit of working from models that put Greek figures in front of a neutral background. It is quite impossible to explain the content, however, by any conceivable derivation from the classical. The imagery itself is transcendental, and the surcharge of feeling is as wild and exalted as the Apocalypse itself. This is perhaps the first monument we have reviewed which indicates that the medieval temperament — as distinct from the classical and the modern — was at long last beginning to find itself, and means for its expression.

Every other Carolingian monument, or all of them together, may be dismissed as insignificant by comparison to the *Utrecht Psalter* (Figs. 9.45-46). That incomparable manuscript fortunately lends itself to reproduction, and it is now available to the whole world in Mr. Ernest de Wald's recent monograph (*The Utrecht Psalter*, Princeton University Press, 1932). The book consists of 108 vellum leaves. It contains the 150 Psalms, the canticles (liturgical songs from the Old Testament), the Te Deum, Gloria in Excelsis, Pater Noster, Apostles Creed, Fides Catholica, and the so-called "Apocryphal Psalm." The miniatures are line drawings in brown ink, and there is a picture to illustrate every bit of the text that lends itself to visual expression. In addition to this terrific volume of material, the artist had the energy to include an enormous amount of contemporary detail: birds, animals, tools and apparatus, men at work, landscape, and virtually everything else that came under his eye. The book was in England during the later Middle Ages, and was copied there more than once. Sir Robert Cotton owned it during the early part of the 17th Century, but it left his library for that of a Dutchman who presented it to the University at Utrecht in 1718.

The whole history of art hardly contains a parallel example of freedom on the part of an artist. We have to make an effort to appreciate that the miniatures preserve some resemblance to an earlier model. In fact, it can be said the book is "a copy" only by pointing out that most of the drawings seem to adhere to an original border; and that the trees, the hills, and the half-hidden buildings here and there recall similar items in the Joshua Roll and Paris Psalter. The model must, however, have contained pictures less like the Alexandrian and more like the *Odyssey Landscapes* (Figs. 6.14-15), because we see little figures moving fast within the represented space of great landscapes of infinite extension out into the distance. As an equivalent for the impressionism of Roman painting, the artist avoided the cursive outline, and drew his figures by making the pen zig-zag in a brilliant but nervous fashion. All of these phe-

nomena are best explained by the assumption that the master, whoever he was, was an accomplished manipulator of the Celtic linear technique, and of sufficient prestige to adapt the style of his model as he chose. Such a happening was rare indeed during the Carolingian era.

The northern temperament is made manifest by matters more important than a mere preference for line. In response to his classicizing model, the artist gave many of his pictures a certain measure of geometric order, but he obviously cared little for it. The schemes that came most naturally to him eschewed both rhythm and balance. The compositions hold together and make sense only through the fact of an all-pervading animation and vitality. The narration is according to the so-called "continuous method" familiar in much Roman work (the reliefs on the Column of Trajan, for example). Episodes which happened at different moments, that is to say, are included within the same picture without separation by frames or any other visual barriers. So strong is the common bond of action, however, that one does not care even if he bothers to know. The psychology of the observer's comprehension, it is still further to be noted, is not instantaneous as in classical art, but cumulative. The total impression is built up by the successive impact of innumerable visual experiences, each intense — a fact which makes the manuscript belong to the north even though its original came from the Mediterranean.

Details are better studied by reference to the captions under our book plates, which in this instance are appropriately extended. Certain general conclusions of an extremely significant kind can be drawn from what we may call the pictorial policy of the artist. When he read in the first Psalm that the righteous man delights in the law of the Lord, and meditates upon it day and night, this formidably imaginative master felt compelled to visualize the event as physical fact (Fig. 9.45). In like fashion, the illustration that goes with Psalm 150 (Fig. 9.46) actually shows us the musical instruments which the psalm requires, including a pipe organ even to the detail of a musician raging at the organ boys to give him more wind.

We may pass over the naïveté that permitted so profound a mind to visualize in 9th-Century French terms events described by a Jewish writer of a remote epoch. The crucial realization is this: he conceived the Scriptures as a record of human experience within the confines of this earth — for even his deities differ from men only by having the power to neglect gravitation. Unusual in its own day, this is the philosophy which was destined to dominate European thought in the end, and to produce the so-called "realistic convention" of modern art. (See below, Chapter 13.)

There is no voice to challenge the assertion that the *Utrecht Psalter* belongs among the very greatest monuments of pictorial art, or that its unknown au-

thor deserves to have his name mentioned in any company. There was no man of equal calibre to carry the style forward, however, and found a school. There are of course a good many items which are obvious derivatives, but they all make the same impression as a watered drink.

To the last statement, there is a single notable exception which, if we wish to be strict about it, falls in the Ottonian period as distinct from the Carolingian.

In 1019, when Saint Bernward was bishop at Hildesheim, a set of bronze doors were installed at the Church of Saint Michael (Figs. 9.47-48). The doors have since been removed to the cathedral. They consist of sixteen panels of relief, embracing selected scenes from Genesis and from the life of Christ. Most of the scenes have a single row of figures against the background, but it is more than plain that the master strenuously intended to represent actual distance as distinguished from the backdrop of a stage. His little figures move with the same nervous vitality as those in the *Utrecht Psalter*; most of them break loose, as it were, from the panel behind. Unskillful and unscientific in the matter of anatomy, this artist was magnificent in the department of vigorous gesture; small though they are, his people move with an epic finality. Their extraordinary power is not in the least diminished by the harsh and masterly realism of the faces.

With the doors of Hildesheim, spatial representation ceased to play an important part in painting and sculpture for some time. By the logic of their subject matter, a number of popular scenes required some kind of setting, but anything so adequate and convincing as this demonstration remained all but unheard of until the realistic movement of the 15th Century had done its work.

PRE-ROMANESQUE MONUMENTS IN ENGLAND

England was a poor country until the 18th Century and the influx of wealth from overseas. That economic handicap has contributed generously to archaeology, since it predisposed the English to keep and preserve their old buildings. All over the island, the traveler will find material dating earlier than 1066, but it is very rare to find a complete building. The Pre-Norman remains usually amount to a tower, a crypt, or a doorway now built into masonry of later date. Quaint and lovable, these venerable fragments have the greatest possible appeal to the sentiments, and we must resist the temptation to dwell upon them at length. For what we cannot say here, the reader may refer to the ample and delightful volumes by the late G. Baldwin Brown. Matters of principle will be illustrated if we confine ourselves to only two buildings.

At Earl's Barton, about eight miles east of Northampton, there still stands the finest of Saxon towers (Fig. 9.49), now attached to a later church. Squat and square-headed, the proportions of the Saxon tower were also destined to endure as an essentially English motive in the architecture of the later Middle Ages. The coarse surface decoration and balustered windows seen here were, in subsequent examples, replaced by the plate and bar tracery of the later medieval styles, but the mass and silhouette of the English tower have never changed in any significant respect. Similar towers were common in Normandy during the 12th Century (Fig. 11.16) and from there were passed on into the Gothic of the Ile de France (Fig. 12.7). There is a possibility that every church tower on earth was originally intended to carry a spire. Occasionally some modern draftsman restores the Earl's Barton tower on paper, drawing in the allegedly missing feature. Consistent perhaps with the intention of the designers in some cases, spires are usually out of keeping with the flavor of English architecture. Most English towers never had them, and look better without.

At Bradford-on-Avon, about twenty miles southeast of Bristol, there exists the little church of Saint Laurence (Fig. 9.50). The original foundation dates from Saint Aldhelm, who died in 709. It seems unlikely that the entire present fabric is so early, but it is equally improbable that any significant part, including the blind arcading on the exterior walls, dates later than the Norman Conquest.

The small size of the church is typical of the Saxon period, an interesting circumstance when one reflects that most of the great cathedral foundations date from the generation after 1066 — the Normans, like the Romans, using architecture to impress the inhabitants with the superiority of their administration. The total interior length, including the eastern chapel, is only 42 feet; and the nave measures only 25 by 13 feet, 8 inches. The proportions are extremely high and narrow, the same nave being all of 25 feet high. Entrance is by way of the extended transepts (one missing as of now), but instead of opening broad into the nave, these give only through a narrow door in a manner reminiscent of the Syrian prothesis and diaconicon (see above, page 302).

As a demonstration of certain permanent tendencies of all medieval design and of the British in particular, Saint Laurence's could hardly be improved upon. Throughout the sequence of styles that was destined to take place, the semicircular apse remained rare and exceptional in England; and the square east end, as here, was a perennial favorite. The broad and pronounced extension of the transepts is as notable a feature at Salisbury (Fig. 12.22) as it is at Bradford-on-Avon. In addition, it should be noted that the little building,

taking it as a whole, amounts to an ensemble of no less than four distinct units: the nave, the apse, and the two transepts. The size and placement of each unit was governed by functional considerations, physical or ceremonial as the case might be. The composition of the whole is the antithesis of Greek unity, and a splendid demonstration of the cumulative method of medieval art — flexibility having taken the place of strict logic of design.

THE BAYEUX TAPESTRY

The *Bayeux Tapestry* (Figs. 9.51–52) has often been presented as an historical curiosity, largely because modern eyes have long been habituated to “correct” drawing and “accurate” anatomy. The truth is that no other monument from the period of the Norman Conquest is half so important as a work of art. The tapestry is in fact an embroidery in eight colors of wool on a ground of coarse linen. Originally there were 76 scenes, of which we retain 72. The narrative begins with the decision of Edward the Confessor to assign the English succession to Duke William, and with his dispatch of Harold to make the arrangements. Considerable space is assigned to Harold’s exploits and adventures in France, and the story concludes with William’s amphibious expedition and the battle at Hastings. The width is 20 inches, and the length 231 feet — in the space of which we see over 600 human figures, more than 500 animals, 37 ships, and a great deal of scenery. A gallant but incorrect tradition says that the work was done by the Norman queen and her ladies, hence the name “La Tapisserie de la Reine Mathilde” — a designation that seems to have originated during the early 19th Century. The weight of evidence suggests that the actual patron was Odo, Bishop of Bayeux and half-brother to the Conqueror.

It is easy to make the mistake of associating the tapestry with manuscript illumination, but the true analogies are with mural painting — of which we have much from the 12th Century and rather little from this period. The designer obviously carried over into his drawings the habits and techniques he was accustomed to use for the execution of big frescoes intended to be seen from a considerable remove. There is no laboring of detail. Eyes, noses, and mouths are rendered by broad harsh lines. There is a minimum of modeling; most of the representation is in line and flat tone, with strong contrast of hue. In physical fact, there is a resemblance to the cultivated boldness characteristic of some 20th-Century painters (see below, pages 917–920), but the master of the *Bayeux Tapestry* was able to carry conviction as none of the modern primitivists can do: he was himself a member of a violent society with rough ways, and his coarse methods were as natural and authentic as breathing.

The power and brutality of combat, and the undeniable fascination of war, have perhaps never been dealt with so well in the history of the visual arts. Meissonier's painfully descriptive paintings of Napoleon's army are worthless by comparison, and even Goya must take second place. Not one of the combat artists of World War II was able to achieve a like power. Where can one find a better picture of a well-organized fleet at sea? (Fig. 9.51.) Is there anywhere on earth another battle scene with even a fraction of the same clash and rhythm? (Fig. 9.52.) As visual description, the pictures are grossly incomplete, but nothing important has been left out. Every single thing is unquestionably true, and the total effect is literally vested with authority.

Like so many other monuments from the earlier Middle Ages, the *Bayeux Tapestry* seems hardly to have started the artistic tradition which its excellent qualities justify. The prestige of miniature pictures in manuscripts appears to have been too great; and the power of both Romanesque sculpture and Romanesque painting (see Chapter 11), if any criticism of it is appropriate, was unfortunately diluted by complexities and refinements more in keeping with the work of the master penman. The grand simplicity of the tapestry was hardly ever arrived at again.

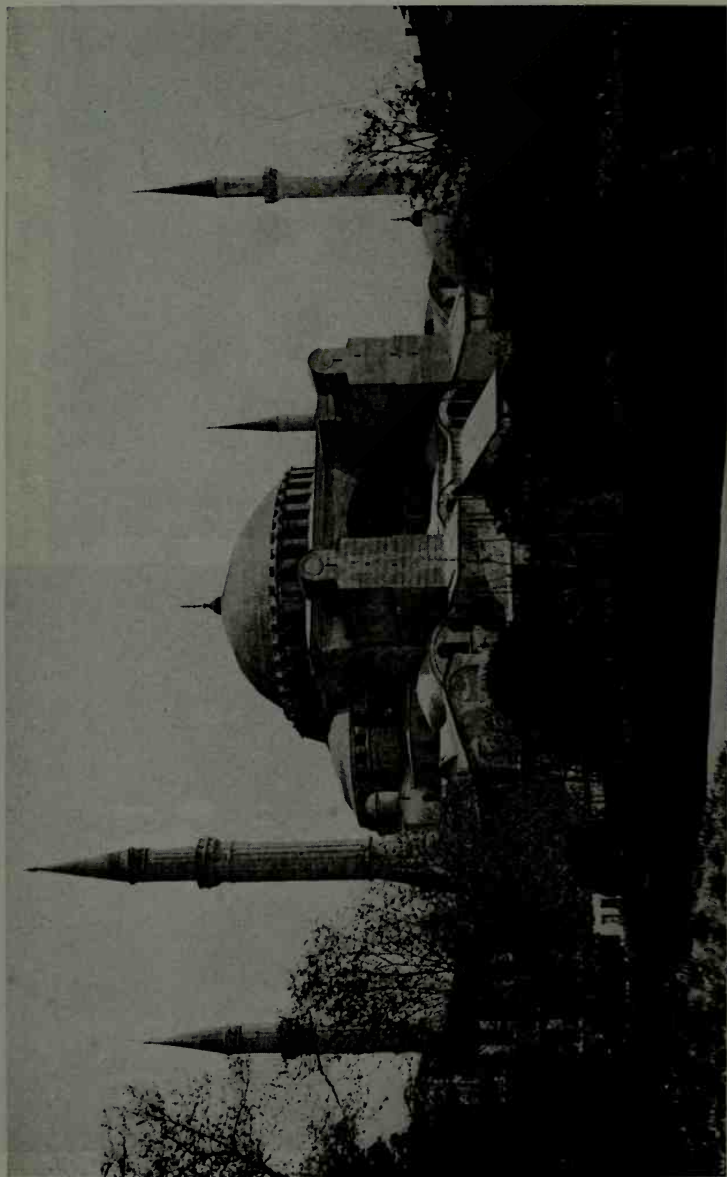
GENERAL CONCLUSIONS WITH REGARD TO THE ART OF THE EARLY MIDDLE AGES

In view of the evidence cited in this chapter alone, it is hardly possible to maintain the old-fashioned view that we may properly use the words "Dark Ages" when referring to the period of history between Rome and the 12th Century. The development of the basilican church, the perfection of the Viking ships, the Irish manuscripts, the *Utrecht Psalter*, and the *Bayeux Tapestry* require no defense. They simply take their own place among the great artistic monuments. It is thus plain that we may not dispose lightly of the culture of the Early Middle Ages. Indeed, what other era witnessed so many decisions which were to prove historically determinative and perhaps final?

We may not, on the other hand, indulge in overestimate. Most of the time, the art historian cites his examples from plenty. He mentions one work by Donatello, or writes about the Parthenon. The reader is supposed to assume that the citations are typical of a class — which is to say that there are many others of the same kind, and what he learns will prove useful when he sees them. During the period covered by the present chapter, that is not so. The examples that have been cited hardly amount to the total, but the chapter is still no survey. Almost every work of the first rank has been referred to at least by allusion. It is altogether plain that the 500 years, more or less, which

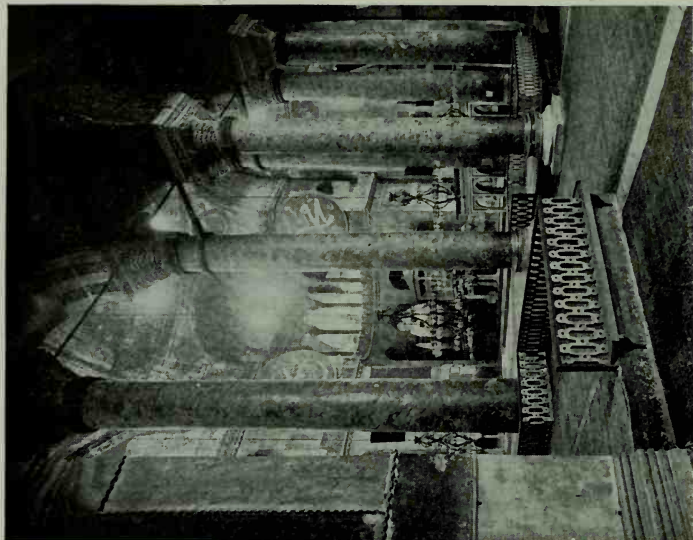
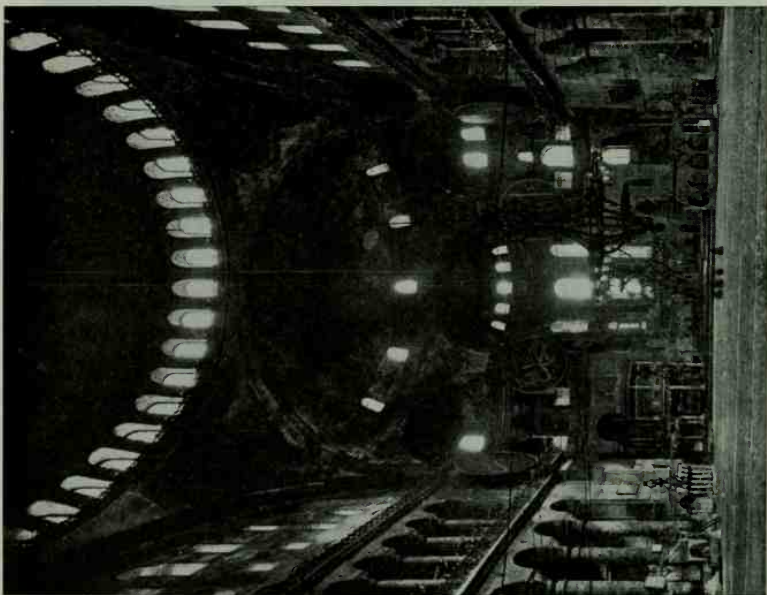
have passed under review did not compare in rate of production with various other areas of art history.

From this we may learn much about the life of the time. Conditions obviously militated against a superior level of culture. The preserved physical remains are inexpensive except for the small amount of jeweler's work that still exists. The artifacts most characteristic of the time are small to the point of being conveniently portable. The remarkable, indeed the amazing thing is that so poor an era produced so much — and, even more incredible, that so many of the survivals remain among the memorable instances of human achievement.

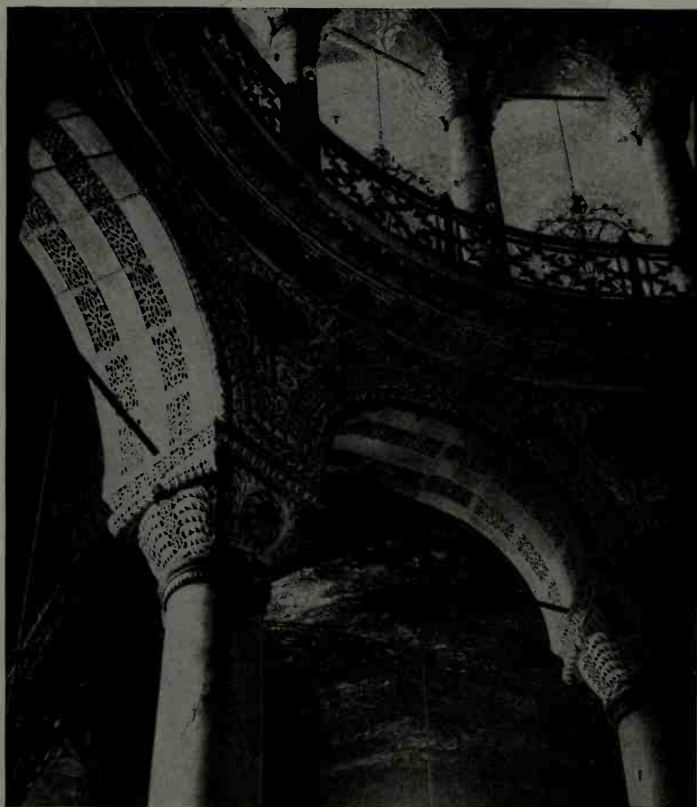


MARBURG

Fig. 10.1 Constantinople, Hagia Sophia, 532-537 A.D. Minarets: 15th-16th Centuries, 247 feet long, 231 feet wide, 184 feet high.



Figs. 10.2-3 Constantinople. Hagia Sophia. General view of the nave from the west (left), and diagonal view from the south aisle. MARBURG PHOTOGRAPHS.



SABAH

Fig. 10.4 View upward in one of the exedrae opening at the corners of the nave of Hagia Sophia.



Fig. 10.5 London, Victoria and Albert Museum. Ivory casket from Veroli. *The Rape of Europa*. Middle 9th Century?



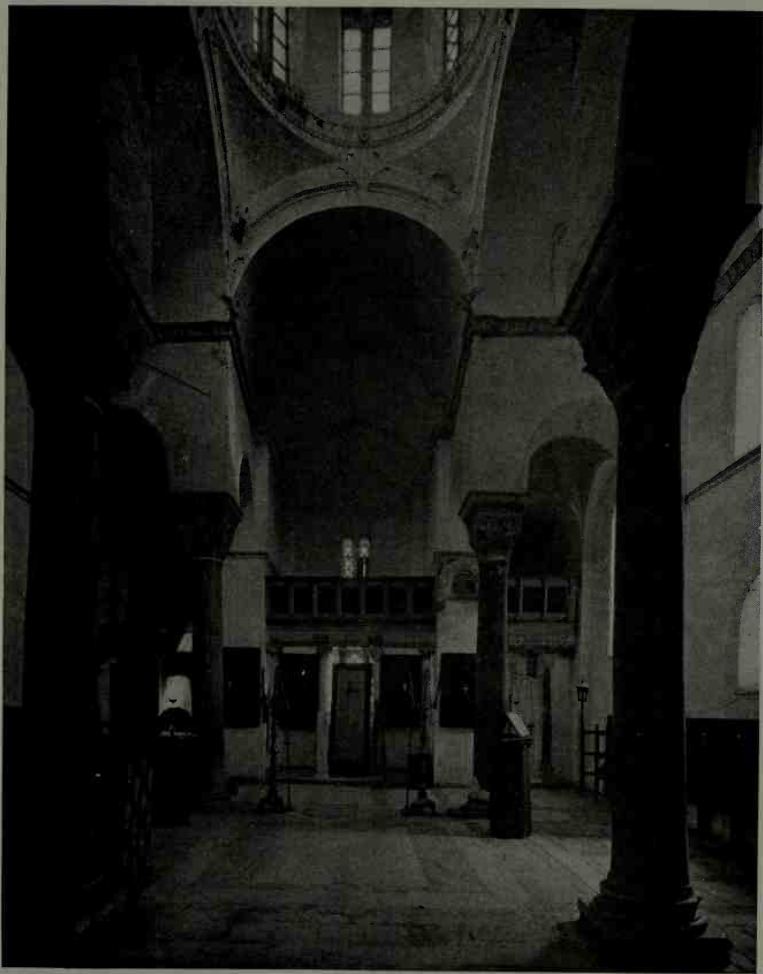
NELLYS

Fig. 10.6 Athens. The Little Metropolis. About 1150. 38 by 25½ feet. Interior height to crown of dome: 36 feet.



MARBURG

Fig. 10.7 Mistra. Saint Theodore. Late 13th Century.



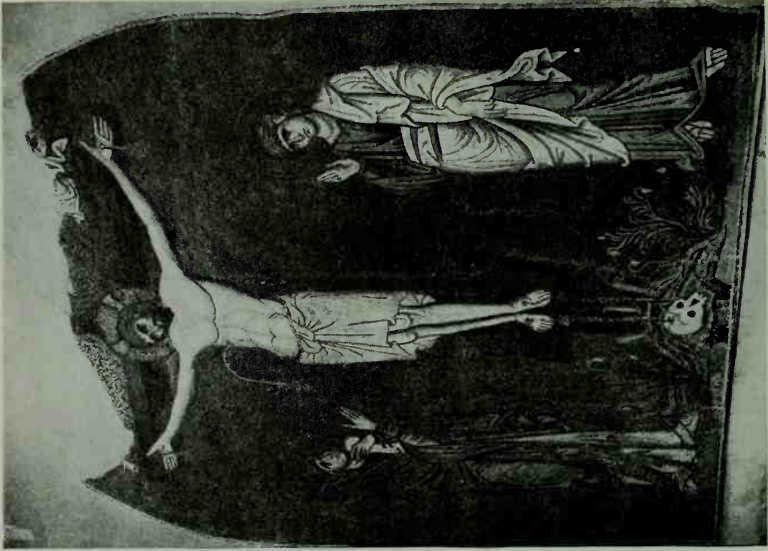
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Fig. 10.8 Hosios Loukas. Small Church. Early 11th Century.



PROF. CESARE FASOLA

Figs. 10,9-10 Daphni. Monastery Church. Late 11th Century. View into the dome, showing mosaic picture of *Pantocrator* (above) and mosaic of the *Crucifixion*.



ALINARI



Fig. 10.11 (left) Utrecht, Archiepiscopal Museum. Ivory Madonna, 11th Century.

Fig. 10.12 (right) New York, Metropolitan Museum. Ivory Crucifixion, 11th Century.



C. B. VAN WEELDEREN

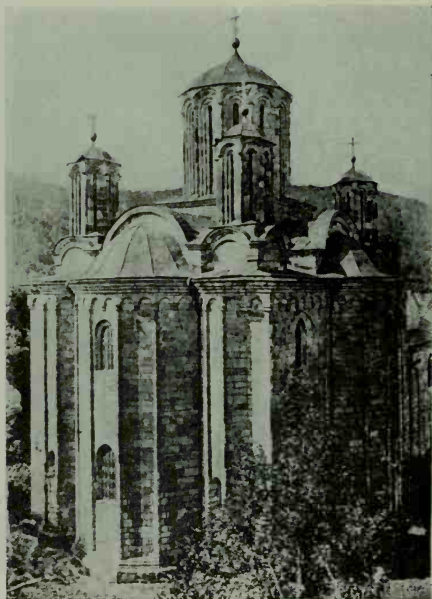


Fig. 10.13 Manassia. Church.
1407 A.D.



SABAH

Fig. 10.14 Constantinople. Killissé Djami. *The Magi Following the Star, and The Magi before Herod.* Mosaic. Early 14th Century.

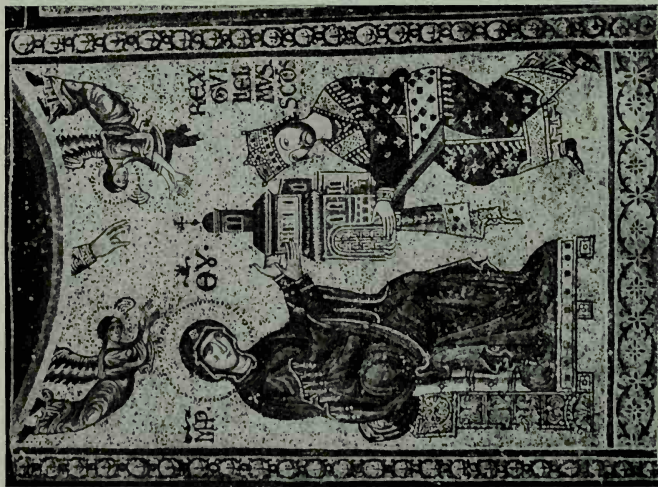


Fig. 10.15 Moscow, Historical Museum. *The Ikön of Vladimir.*



ANDERSON

Fig. 10.16 Torcello, Cathedral. Mosaics of the apse and arch, 11th Century.



ALINARI

Fig. 10.17 King William the 2nd offering a church to the Madonna. Mosaic, 12th Century.

Fig. 10.18 (right) Duccio, Head of Saint Agnes. Detail from *The Madonna in Majesty*, 1308-11. Siena, Cathedral Museum.



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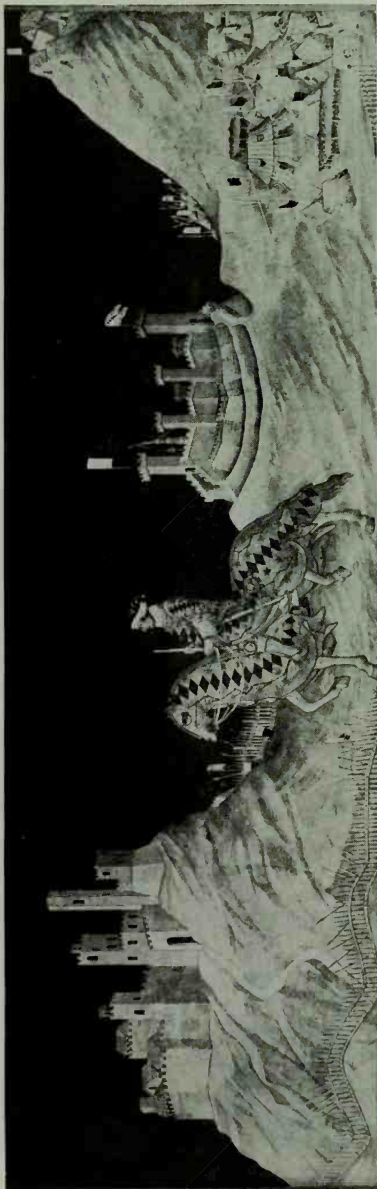


Fig. 10.19 Duccio.
Triptych with Madonna and Saints. London. National Gallery.



ANDERSON

Fig. 10.20 Simone Martini. *The Sant' Ansano Annunciation*. Florence. Uffizi. 1333.



ANDERSON

Fig. 10.21 (above) Simone Martini.
Guidoriccio Fogliani. Siena. Palazzo Pub-
blico. 1328.



ANDERSON

Fig. 10.22 (left) Pietro Lorenzetti. *Ma-
donna with Saint John and Saint Francis*.
Church of Saint Francis, Assisi.



BYZANTINE ART

WITH SOME MENTION OF THE
ITALO-BYZANTINE SCHOOL AND THE 14TH-
CENTURY SCHOOL OF SIENA

Byzantine art is the art of the Eastern Roman Empire, centering at Constantinople. It is an oddity of history that the name is taken from the original title for the city, for Byzantium was a word already 200 years out of date by the middle of the 6th Century when the style became clearly defined. (See above, pages 261-268.)

Byzantine art is one of the most important cultural phenomena in European history. It lasted longer than any other style. Its geographical coverage was immense, and it long furnished innumerable persons with the idiom of their visual imagery. Strange and foreign to the American eye, often carelessly explained and misunderstood, the Byzantine is by no means to be thought of as an exotic taste. It has a peculiar beauty and grandeur. It appeals to emotions which are different, and therefore new. It offers satisfactions not to be found elsewhere.

As compared to other areas of art history, Byzantine archaeology remains in a formative stage. A reliable synthesis is probably impossible at this date. The literature of the subject is still dispersed in the files of learned periodicals, in occasional monographs, and in several languages. In spite of the immense efforts of Strzygowski, Millet, and Dalton, and with all honor for the valuable papers that occasionally emerge from Dumbarton Oaks, the only comprehensive and comprehensible summary that exists today is Charles Diehl's *Manuel d'art byzantin* — which bears the date 1925, was largely compiled about fifteen years earlier, and has long been out of print and hard to buy. It is extraordinarily difficult, in fact, even to accumulate a reasonable number of photographs of Byzantine monuments; those that appear herewith are the product of an unusually strenuous correspondence.

The reason for all this is not far to seek. Byzantine territory began to fall into Moslem hands as early as the 7th Century, and the capture of Constantinople by the Turks in 1453 merely concluded the process. Innumerable examples of pictorial art have of course vanished forever, and as many more remain obscured by Turkish whitewash. Travel in the more remote parts of what was once the Christian East has been slow and difficult, often unsafe. There are a great many towns that have not seen a visitor from Western Europe within the memory of the oldest inhabitant.

It is entirely likely, however, that the next twenty to thirty years may resolve the confused situation. Relations between Turkey and the West have become increasingly cordial. The attitude of the incumbent Turkish government is liberal and enlightened — as conspicuously evidenced by the secularization of Hagia Sophia and the program for cleaning its mosaics. Warning the reader, therefore, that a much better and more adequate chapter will doubtless be possible before this book is many years old, we shall content ourselves with the conventional outline and confine our statements to a brevity altogether out of keeping with the importance of the field.

The Byzantine style has three chronological divisions, each commonly referred to as a *Golden Age*. The First Golden Age commenced with the reign of Justinian (527–565), and lasted until the outbreak of *Iconoclasm* in 726. The Second Golden Age is dated from the end of *Iconoclasm* in 843 to the year 1204 when the Fourth Crusade was diverted to the capture of Constantinople. The Third Golden Age covered the period from the end of the Latin Monarchy established by the Crusaders to the final fall of the city, or from 1261 to 1453. These dates refer, of course, to eras of substantial production of art in what we may properly call Byzantine territory. They do not apply with the same accuracy to the various provincial schools in Sicily, Russia, and elsewhere. To the latter, we shall have occasion to make passing reference as the historical connections come up.

THE FIRST GOLDEN AGE

The most important enterprise of the First Golden Age was the design and construction of Hagia Sophia at Constantinople (Figs. 10.1–4, 23). The present edifice is the fourth church of the same name on the same site, the third having been destroyed in the course of the so-called *Nika* riots of 532. Work appears to have commenced at once on the new building, and it was dedicated by Justinian himself in December of 537. The name *Hagia Sophia* is a transliteration from the Greek; it means “Holy Wisdom.”

Justinian's church was designed by Anthemios of Tralles and Isodoros of Miletos. Both, it will be noted, hailed from Asia Minor. The choice of Eastern architects for this immensely important commission is highly significant. It indicates that the best thought was then to be found at the eastern end of the

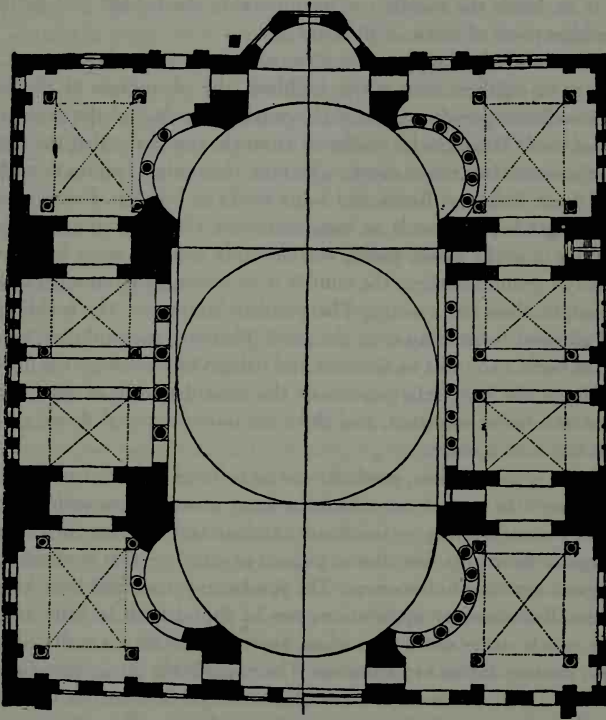


Fig. 10.23 Constantinople. Hagia Sophia. Plan. Left half at ground story level. Right half at gallery level.

Mediterranean rather than at Rome, and tends to corroborate still further the supposition that Constantine abandoned the West because he considered it the less valuable part of the empire.

The historical sources for Hagia Sophia are obscure. An immense amount of polemical argument has taken place, but as yet no one has adduced a dated series of smaller monuments, either around Rome or in the East, which form anything like an acceptable genealogical chain culminating in the great church

at Constantinople. In the case of so large a building, such a circumstance is extremely rare, but it surely begins to look as though Hagia Sophia itself were an experimental fabric. Certain imperfections in the design and the occurrence of serious accidents during and after construction all lend color to such an idea which, if so, labels the building as incontestably the boldest and perhaps the most reckless piece of work in all history.

The purpose of the design is best discerned in the plan (Fig. 10.23). It was an attempt to combine, in a major building, the advantages of the basilican nave, the well-composed exterior of the central church, and the great merit of a fireproof roof. There can be no dissent from the statement that the result was immensely successful; much more so, in fact, than other famous domed buildings like Saint Peter's at Rome and Saint Paul's in London. Every aspect and vista of Hagia Sophia, inside or out, reinforces the conviction that there is nothing like it in the whole world, and certainly nothing more brilliant.

As seen in ground outline, the church is an oblong, and considerably wider for its length than the average. The peculiar interest of the building is the method adopted for roofing over the nave. That was accomplished by centering a large dome (107 feet in diameter and rising 180 feet above the floor) over the middle of the nave. Half domes of the same diameter adjoin to east and west, but at a lower elevation, and there are four fractional domes still lower down at the four corners.

From four gigantic piers, pendentives rise to form a ring of masonry about 130 feet above the floor, from which the great central dome springs. It is this feature of the engineering — the mature and perfect solution for a dome over a rectangular floor plan (see above, pages 197–200) — that makes Hagia Sophia so great a puzzle to historians. The pendentive itself had been known for some time. Rudimentary applications can be found both in Italy and in the East at a much earlier date; the earliest known, if its date is really of the 2nd Century, exists at Gerasia in Palestine. The remarkable thing, therefore, is not the mere fact that pendentives were used at Hagia Sophia, but the fact they were used, perhaps for the first time, with complete understanding of the possibilities of the form, and to full advantage.

No other great interior presents anything like the same number of varied vistas (Fig. 10.3), and none has ever been more perfectly integrated (Fig. 10.2). Much of the power and fascination of the building derives from the sense of magnificent space — very like in effect to the sense of nobility, and enhanced by the use of innumerable columns and other members of the normal size. The wonderful dome, pierced by forty windows around its base, rests as lightly as a cloud above the floor. The eye sweeps upward through the subordinate vaults into the dome, and down again toward the apse. It would be a mis-

take to say the curves flow into one another, for they do not. As contrasted with modern streamlining, where the individual contour means nothing and the flow of the whole means everything, each vault surface retains its own shape and identity. We can see and feel it for itself, that is to say, and also with reference to the entirety.

Most of this the reader must regrettably accept on faith, for reasons of psychology rather than optics. A great many photographs are available which purport to show the interior as a whole; and it is geometrically true that they do so. But no single negative embracing everything from top to bottom can be satisfactory even though the exposure be made through the best lens in the world. The human eye embraces an angle of vision of about 120 degrees, of which a central cone of perhaps 65 degrees is alone in good focus. Visual inspection of such an interior demands, therefore, a succession of acts. The attention is first directed here, then there — an experience difficult or impossible to reproduce on paper.

Color, moreover — rich, deep, and glowing — was an essential feature of the design which can hardly be duplicated until the ultimate perfection of the colored motion picture. The walls and arches were constructed of brick and mortar, but the entire Mediterranean world was ransacked for columns and other marbles of unheard-of variety. There is Phrygian white marble with rose-colored stripes, green marble from Laconia, blue from Lybia, black Celtic marble with white veins, and white marble from the Bosphorus region with black veins, Egyptian starred granite, and Saitic porphyry. Eight immense purple columns were brought from Rome, having come originally from Baalbek, and there are eight green ones that once were thought to have come from Ephesos. To this display, we must add the superb mosaic pictures which have been out of view since the 15th Century; originally, they covered every important wall surface, the most important being a Madonna in the apse, an Apocalyptic Christ in the dome, and four seraphim on the pendentives. We can only imagine the church as it will be when the cleaning begun in 1934 is at length complete.

The inexhaustible excellencies of the interior are scarcely equaled by the exterior view — which is, nevertheless, one of the most interesting in history. As seen from a distance, the great church is a landmark never to be forgotten: superb, serene, modest. Its imperfections become apparent only in comparative close-up, and upon analysis.

We must discount, of course, the nondescript buildings which cluster around the base; they are an accretion of the years and no part of the original plan. The same thing may be said of the varicolored striping which mars the

exterior. The four minarets are a Turkish addition, to be sure; but on the whole, they improve the composition. Making such allowances, it is still difficult to feel that Hagia Sophia stands as more than an experimental essay toward a new theory of architectural design.

The extreme haste of the construction was to say the least unfortunate. Trouble seems to have been experienced before the building was half done. Piers sank in differential fashion, splayed out of vertical, and allowed arches to drop between. The foundations and substructure of the immense fabric have, in fact, been a constant worry from the beginning. The present dome is the second, or even the third, to cover the nave. The first collapsed completely in 558. Rebuilding proceeded under the direction of Isodoros the Younger, a nephew of one of the original designers; and it is believed he used a steeper pitch for the new dome, an expedient that somewhat marred the unity of the interior ceilings, but produced less thrust. An ambiguous record seems to say that the dome fell again in 567, but whether partially or completely, one cannot be sure. Part of it certainly fell in during the year 987. To this catalogue of disaster, we must add the fact that the four great supporting piers, as originally designed, proved too light; they were strengthened by Isodoros the Younger, and apparently remain as he left them — their greater bulk choking the aisles.

The abutment of the vaults, all too often explained in sentences more systematic than the facts, was surely more daring than prudent. Piercing the main dome with forty windows at its very spring was an aesthetic inspiration of the first order, but no one can call the expedient cautious. There is a certain merit in the placement of the two large semidomes to the east and west of the main dome. In that position, they tend to contain its thrust, but it must be conceded that they are hardly high enough to act as efficient buttresses. To the north and south, there seems originally to have been no equivalent provision for the containment of the great central dome. The unsightly masses of masonry which inefficiently perform that office today were added entire, or at least greatly increased in size, as late as the 13th Century. For the diagonal thrust of the four immense pendentives, there seems never to have been any well-conceived scheme of abutment.

It would appear to be a mistake, therefore, to suggest that the abutment of Hagia Sophia depends upon a system of thrust and counterthrust comparable to the scheme later developed in France for the Gothic cathedrals. On the face of it, we are justified in making the guess that neither Anthemios nor Isodoros had anything of the sort in mind. We know, for example, that they went to great pains to reduce the weight of their vaults by using hollow tile and other very light material. Also, that they attempted to cement everything together.

As contrasted to a logical system of buttresses, the aim seems to have been to eliminate thrust altogether by producing homogeneous and even monolithic vaults which would exert no more thrust than a teacup once the mortar had set hard. That, it would appear, is the reason the domes stand today.

Admitting all these faults, it is nevertheless impossible not to feel deeply that an important theory of exterior design is implicit in the appearance of Hagia Sophia. Except for the architecture of the First Golden Age and its derivatives, the builder's art has traditionally been an art of angles and flat surfaces. Here the design was governed by the nature of the convex curve — as seen in the contour of the main dome, and in the swing of the subordinate domes which build up toward it. While different from modern streamlining as already set forth above, the effect is closer to that recent theory of design than anything which has come and gone between the 6th Century and our own era. Modern ferroconcrete lends itself to such manipulation. Materials available before the Industrial Revolution do not. One might well hazard the guess that the true modern architecture, when it arrives, will be an art of curves, and more like the Byzantine than we have perhaps supposed.

Because they are larger and more conspicuous than the later Byzantine churches, the monuments of the First Golden Age — of which Hagia Sophia is merely the prime example — are the monuments which were emulated elsewhere. San Vitale at Ravenna, almost precisely contemporary to Hagia Sophia, was an attempt to imitate, in a region at that time provincial, the style of the metropolis. Charlemagne's Palace Chapel at Aachen (see above, page 324) was an imitation of San Vitale in a part of the world more provincial yet. Saint Mark's at Venice (begun 1063; disregard the addition of the conspicuous false domes) took its Greek cross plan, and its five domes on pendentives, direct from Justinian's Church of the Holy Apostles which stood at Constantinople until torn down in 1463. Exactly the same plan was popular in the 12th-Century Romanesque of Aquitaine. Saint Front at Perigueux is the prime example, and there are others much like it in the same district. Even more important than these West Christian borrowings is the little-appreciated fact that the domed architecture of the Moslem world, indeed much of the architecture of the whole Orient, came into being only after contact with the great buildings at Constantinople. The Taj Mahal at Agra is a plain case in point.

THE PERIOD OF ICONOCLASM

The First Golden Age of Byzantine art was brought to a disastrous end by the Iconoclastic Controversy. In a technical sense, the period of the contro-

versy began with a decree against images issued in 726 by the Emperor Leo the Isaurian. It ended with the restoration of images by a later Theodora in the year 843. With respect to bitterness of feeling and ruthless action, the entire affair must be ranged as the greatest and longest of the many altercations that shook the foundations of early Christendom. Ostensibly having its genesis in a difference of view about modes of worship, the struggle came to involve issues of almost every other kind: geographical, racial, social, political, and military — a web so complex and interwoven as to tax the re-creative powers of the best historians, and to render a true picture of the situation quite beyond the scope of our present purpose. It is important, however, to take note of the fact that Iconoclasm was coincident in date with the beginning of the split that has since separated the Eastern and Orthodox communion from the Roman and Catholic.

With respect to the history of art, Iconoclasm (literally, the smashing of *ikons* or images) stands as a matter of major importance because it almost completely eliminated any chance we might have had of studying the best Byzantine painting and mosaic of the First Golden Age. The religious issue involved was the age-old conflict between monotheism and polytheism, and the fear of idolatry. The complaint of the Iconoclasts was that the various saints had become, through the agency of idols (i.e., representative art), objects of worship roughly analogous to the numerous minor gods of the pagan hierarchy. They alleged still further that works of art on display in churches (viz., pictures and statues in their capacity as mere objects) were often worshipped for themselves, as distinguished from worshipping the person or ideal the picture was intended to recall or symbolize.

The Iconoclasts held political control at the capital for more than a hundred years. Their purpose, however deeply felt, was ruthless, and their actions efficient and devastating. Religious art of all kinds was systematically destroyed in wholesale fashion. Of the wealth of material that once existed at the capital, we have virtually nothing. It is possible, of course, that something of importance may still appear at Hagia Sophia and elsewhere, but we shall be fortunate if much turns up that dates from the First Golden Age.

For the reasons just cited, we shall omit any attempt to survey the subject. Indeed, insofar as any conception of 6th, 7th, and 8th Century work may be reconstructed, the reader cannot do better than refer back to our citation of mosaics at Ravenna (pages 265–267), or refer ahead to the section within the present chapter where we deal with the Italo-Byzantine school as such (pages 364–369).

While Iconoclasm must be regarded as a cultural tragedy for which there is no repair, the darkness of its effect is mitigated by one pale ray of happy light.

The Iconoclasts focused their animosity upon religious art. They did not have the same objection to secular art. It is therefore generally supposed that artists sought employment in the production of objects of a nonreligious kind; and for models, they turned to the two rich sources available to them: classical sculpture and oriental textiles.

A typical product of that tendency is a small ivory casket, formerly in the Cathedral at Veroli, a place about fifty miles to the east and south of Rome, and now in the Victoria and Albert Museum of London (Fig. 10.5). The general aspect of the principal panel of relief cannot fail to evoke a sense of reminiscence in persons who are familiar with later classical art. At the same time, the heavy borders consist of scrolls and rosettes deriving from motives familiar in Near Eastern work, these items alternating with bust-portraits that recall Roman coins and gems. In itself a distinctly minor work, the Veroli casket illustrates a healthy tendency: it comes from a new inspiration even if its sources are old, and it is lively. As such, it helps us to see how Iconoclasm, however accidentally and unintentionally, brought about a desirable relaxation of the hieratic standards at which Byzantine art — if we may judge from such instances as the mosaics at San Vitale — had evidently arrived. The effect upon the art of the Second Golden Age was excellent, as we shall presently have cause to note.

THE SECOND GOLDEN AGE

The Four-column Church

The churches of the Second Golden Age are distinguished not by size but by smallness. The largest of them are very modest with respect to dimensions, and the little ones are tiny. The architects of the period nevertheless displayed a remarkable sense for three-dimensional composition, and they developed a distinctive type of building that is without a peer in that respect.

All too often obscured by ill-arranged additions to the fabric of the church proper, the elements of the new type are best studied by reference to schematic drawings such as our Figs. 10.24 and 25. Three levels, or stories, are involved. The ground outline is a square, from which walls rise vertically for some distance to form what we may call the first story. The second story consists of four short sections of tunnel vaulting arranged symmetrically around the central dome to form the arms of a Greek cross. The tiny dome, set high on a drum, rises from the center of the cross to form the third level of the composition.

The typical system of construction is indicated by Fig. 10.25. Well within the larger square of the ground plan, four piers are set up to define the corners

of a smaller and interior square. The piers carry the inner ends of the second story vaulting, and the dome above. As shown on both drawings, small saucer-shaped domes were often added over the otherwise vacant corners of the ground story; during the period now under review, these four extra and subordinate domes were usually very low indeed. In most examples, they are completely concealed under the lean-to roofing of the exterior, a situation indicated at one corner of Fig. 10.24.

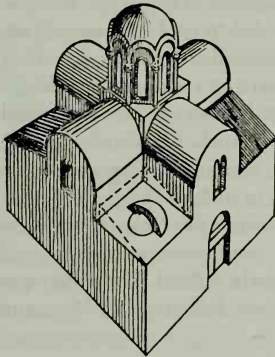


Fig. 10.24 Schematic drawing showing exterior composition of a typical four-column church of the Second Golden Age.

As a new and distinct architectural type, such churches deserve a name; we might call them *the four-column churches of the Second Golden Age*. Experiments with the several elements of the form can be traced in the early architecture of Armenia and Asia Minor, but the scheme in its entirety seems first to have been worked out in the so-called "new church" of Basil the 1st, usually called *La Nea*. It must have been complete when that emperor died in 886; and, although long since vanished, it ought to be remembered as the pilot model for the entire era.

At Constantinople, perhaps the best extant example of the new type is the building now called the *Kilissé Djami* (formerly Saint Theodore Trio), a structure extremely difficult to illustrate photographically. For a free-standing building, we may turn to the Little Metropolis at Athens (Fig. 10.6). It differs in some details from the typical as we have described it, but the differences are not in view on the exterior. Most churches of the period were varied in their mass by salient apses, and their texture was enriched by elaborately patterned brickwork. A capital example is the church of Saint Theodore at Mistra (Fig. 10.7), that remarkable ruined town a few miles west of Sparta.

Interior views of the four-columned churches are difficult to obtain. Fig. 10.8 is probably the best available. It shows the interior of the smaller of the two churches at the monastery of Hosios Loukas, dedicated to Saint Luke Stirites who died there in 946, and located a short way to the east of the modern hamlet of Stiris, which lies near the sea on the north shore of the Gulf of Corinth. The walls and ceilings have rather recently been done over in a delicate Rococo fashion, a fact we may disregard because of the good light and because the usual clutter of ecclesiastical furniture is happily absent.

In summarizing our remarks about the churches of the Second Golden Age,

we may pass over such matters as the homely and comfortable excellence of their texture (a considerable relief at times from the slick surface of classical marble). We may also defer attention to the special refinement of door and window openings: the period was approximately contemporary with the Romanesque of western Europe, and we may save space by referring the reader ahead to the appropriate chapter (pages 391-396), where he will find that similar openings were the common property of East and West at this moment in history. The great and special distinction of the four-column churches resides in the almost infallible excellence of their exterior composition.

They compose in masses. We may think of the ground story as a great square solid. Each arm of the Greek cross above is, in broad terms, a mass something like a Greek temple if it happens to have gables, or a cylindrical shape if the roofing corresponds to the vault below. The dome and its drum ordinarily amount to an octagon surmounted by a hemisphere. The composition, in a word, is an arrangement of no less

than seven masses which vary in shape and in scale. Masses, moreover, juxtaposed to one another in such a way that the smallest is on top, acting as the hub of the system, and the biggest is at the bottom. Such a design gives a powerful effect of solidity and stability. The build-up to the dome proceeds as though by inevitability, and the order is sure. The words necessary to describe such a composition, it will have been noted, have a curious familiarity for the modern reader: they sound very like the several aphorisms from Cézanne which only yesterday were cited as the sanction for cubism, and today furnish the chief authority for abstract art of every kind.

The churches of the Second Golden Age have a monumentality quite beyond anything that might be predicted for little buildings. It seems impossible

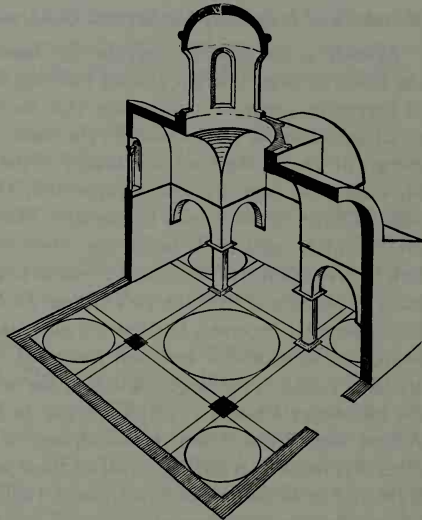


Fig. 10.25 Schematic drawing illustrating the component parts of a typical four-column church of the Second Golden Age.

that the Little Metropolis measures only 25 feet across the façade; and that its dome has a diameter of no more than nine. As though to emphasize its distinction as the smallest cathedral in the world, the blocks of masonry — most of them from classical ruins — were not reduced in proportion, but remain of normal size. And yet where can we find a design that betokens a broader view of architecture, or is more strong and competent?

Mosaics and Ivories of the Second Golden Age

As early as the 8th Century, the idea seems to have been prevalent among the Eastern clergy that the church building was to be understood as a symbol of heaven on earth — a conception that found its best expression in the pictorial decoration of the interior. In the dome, it was customary to put a mosaic picture of Christ, the Lord and Master of the universe. On the pendentives or squinches, the four Evangelists appeared; they were the men who had revealed Christ to the world. In the apse, Mary found her place, with a communion of apostles often below her; these were the persons who formed the link between God and man. Such a system seems to have governed the arrangement of pictures in Basil the 1st's famous *La Nea*; and by the 11th Century, it had apparently become a fairly strict convention. Among the monuments that happen to be accessible and well-preserved, the most complete mosaic cycles are to be found in the larger church of the monastery at Hosios Loukas and in the Monastery Church at Daphni, a site on the ancient Sacred Way between Athens and Eleusis. From the standpoint of quality, it may be said that no other Byzantine pictures are equal to those at Daphni; they reflect the Greek style, and recall the spiritual elegance of Hellenic idealism. We may select only two of the best for comment.

A view upward into the dome (Fig. 10.9) shows a bust-length portrait of Christ enclosed within a circle. Of an awful solemnity, this majestic representation of Our Lord presents him in an aspect unfamiliar to the average citizen of the Western world. His strength approaches the brutal. His expression is harsh. How can we reconcile such a rendering with the gentle Saviour?

The answer has to do with the various functions for which Christ may be imagined to be responsible in the operation of the religious polity. We see him here in the role of *Pantokrator* (literally, all-ruler), which means his executive and judicial capacity as governor of the universe, whose inhabitants he will one day bring to the ultimate reckoning of the Last Judgment. It is in this guise that most Christians thought of him and visualized him until the popular imagery was revised by the movement of sentiment and affection — which we can see reflected in art not much earlier than the West Porch at Chartres (about 1145; Fig. 12.5), and of which the prime exemplar was Saint Francis.

It is in the *Crucifixion* (Fig. 10.10) that we may see most clearly the influence from classical Greece. Neglecting the figure-style for the moment, the formula for the picture might be described as follows.

Against a neutral and impenetrable background, human figures appear in a single row as though on a shallow stage. The people are rather large, and are presented in comparative close-up. The composition is arranged on the principle of bilateral symmetry, the figure of Mary balancing that of Saint John at an equal and opposite distance from the central vertical axis. Mary and John, furthermore, direct their gestures inward and upward; their action serves to close the composition on either side, and to establish the triangularity of the arrangement.

All of these points might with equal accuracy be cited as characteristic of the formula used for the Greek pediments (see above, pages 57-66), and there can be no question that we see here an instance — in a different medium and very different in superficial appearance — of the traditional organic composition first developed by the ancient Greeks. Indeed, the only departure from an almost Phidian restraint is the inclusion of a mere indication of setting. At the foot of the cross, we see a small mound of earth and a skull; these signify Golgotha.

The figure of Saint John is Hellenic to a degree. The vertical dimension of the body is scarcely exaggerated. The pose has the chiasmic twist familiar in Greek art from Polycleitos onward (see above, pages 123-142). The head has the classical profile, and the expression is more than reminiscent of Praxiteles's melting sweetness. The drapery also is very Greek. Indeed it is only when we look closely at the anatomical details that we can find a substantial divergence from ancient standards, but it is true that the chest is sunken, and lacks that athletic convexity which was a Greek convention. The hands are exaggerated and their structure neglected; likewise the toes. The mechanical action of wrists and ankles is misunderstood.

Further evidence of Greek feeling is to be noted in the graded curves into which the artist has abstracted the Saviour's torso, and the graceful bend given the spurt of blood from his side. Otherwise the figure is a good example of the small store set upon anatomical accuracy during the Middle Ages.

Such matters are not even remembered, however, when one considers the content. As a historical narrative, a sequence of physical events, the death of Christ on the cross could be contemplated in detail only by persons having a legitimate interest in its medical aspects, by morbid persons, or by people without sensibilities. A colored motion picture of the *Crucifixion* would be beyond endurance. No subject can be named which better illustrates the limited usefulness of art that aims merely to represent.

The reality of Christ's death has its existence in the realm of ideas and the emotions. It is important as the prime symbol for the very essence of generosity and personal sacrifice — in the name of which it exerts an ennobling influence upon all human motivation. The subject presents the artist, in short, not with a narrative problem, but with a demand for interpretive power of a high order. It is fortunate, therefore, that the Byzantine artist working at Daphni had the benefit of the renewed classical inspiration brought about by Iconoclasm, also that he lived within walking distance of Athens. In all history, the Greeks are pre-eminent for their ability to extract from sordid and physical facts lessons that are divine; that capacity was the great legacy of the Greek genius to the Christian world. Upon the artist of the Daphni *Crucifixion* it had the effect of inducing order, clarity, elegance, and restraint.

He therefore kept his picture completely free from distracting details. The three persons who appear are the three most intimately connected with the tragedy; no others are necessary to convey its meaning. The fact of the Saviour's passing is indicated only by the pathetic relaxation of his body; the agony is over. Mary's erect pose betokens a state of shock; but even in shock, she holds herself with dignity. It is her figure, indeed, which carries most of the meaning, for her entire attitude is one of comprehension rather than panic. Our view of the Madonna is at once touching and heroic, both intimate and royal; surely there is no more adequate picture of Mary than this.

In accordance with its Eastern heritage, Constantinople never produced any significant amount of large statuary, but there was no prejudice against ivory carvings, and such were never more exquisite than during the Second Golden Age.

For our immediate purposes, the best example for special attention is the single figure of the Madonna (Fig. 10.11) now in the Archepiscopal Museum of Utrecht. There is no more typical instance of what we may call the standard Byzantine Madonna — an artistic type which became virtually a convention, and is important because it furnished all Europe with its visual imagery for Mary over a period totalling nearly 700 years.

The proportions of such a figure are elongated. Precise measurements always involve a certain amount of interpretation with regard to the limits between which we measure, but it may be said that the figure now under review is at least ten heads to the height. The impression of tallness is greatly enhanced by unusually narrow shoulders; also by an extraordinary and abnormal length of calf and thigh — putting the waistline very far above the usual.

The child is customarily held on the left arm. It is rather difficult to understand the mechanics of the costume, but it seems we may infer the existence of

two garments: a dress or gown gathered up at the waist; and a loose mantle or jacket worn over this, swung up over the head to form the familiar female headdress. The skirt falls to the ground; one knee pokes slightly forward to make a convexity; and on the other side, the folds are arranged in a radiating pattern reminiscent of a partly opened fan.

The head and its covering demand special attention. The upper silhouette of the cranium is rounded like a bullet, and the distance between the eyes and the extreme top of the figure as we see it is so great that there must be a special reason. Little as the Byzantines cared for anatomy, the likeliest guess seems to be that some form of stiff hat was worn under the mantle to give this appearance. Seen in full-face or in profile, the shape of the head is a delicate oval. The mouth is small, the nose long, and the eyes large and almond-shaped. The length of the cheek, from mouth to eye, is peculiarly great, and the total effect of the face is strange in the sense that an overbred animal is always exotically attractive. Often loosely described as "Oriental," this type of head is merely a refined exaggeration of a shape that occurs rather often among the populations of the eastern Mediterranean. The purpose of so finely drawn a figure was to suggest not nature and ordinary life, but an ethereal state of being from which the holy persons look out upon us, their own thoughts turned inward and their eyes demanding a recognition of their significance.

The standard Byzantine type for the Madonna remained constant in East Christian art for a very long time. With minor variations, it is the same as the Madonna who appears in the art of western Europe also. The peculiar fixity of a particular visualization requires a word of explanation.

In recent centuries, it has been more or less taken for granted that artists should have almost unlimited freedom to invent imagery for whatever subject they might undertake to represent. The physical appearance of the Madonna, that is to say — or the arrangement of figures and stage properties for a Nativity — are commonly thought to be within the jurisdiction of the individual. We even compare modern artists by reference to their fertility of imagination in this respect. Without suggesting that we are wrong in doing so, it is necessary to understand that medieval custom was radically different.

The imagery for any sacred character, and the iconography for any narrative scene, became established at a very early date; thereafter, the arrangement was governed by strict and specific rules. The authority of such rules, indeed their very existence, has often been denounced by recent writers as an intolerable repression of the creative imagination. There can be no doubt that it often was, but there was more reason for the rules than one might at first suppose.

The rules were intended to make pictures correspond with historical truth.

Saint Peter, as we have already mentioned (see above, page 287) always appeared with a square-cut white beard because people believed he wore one. Similarly, Saint Paul was always shown as a lanky man with a bald pate and a long, pointed brown beard. For the imagery of the Madonna, there was similar circumstantial evidence.

According to a persistent tradition, Saint Luke himself had painted a portrait of the Virgin. During the 5th Century, the Empress Eudocia acquired a panel at Antioch, and brought it home to Constantinople; she believed, and others believed, that the picture was the very same one painted from life by the Evangelist. It was set up at a crossroad, doubtless enclosed in some kind of shrine, and it acquired the nickname *Hodegetria*, loosely "she who points the way." It is impossible for us to know exactly what the *Hodegetria* looked like. Much less can we assert that the contemporary connoisseurs were correct in identifying the hand of the painter Luke. But the facts make less difference than what was accepted as truth in 5th-Century Constantinople, and it is a fair guess that the standard Byzantine Madonna does not differ radically from the *Hodegetria*. That being understood, it is easy to see why public opinion would compel every artist to stick very close to the original type, and would consider any meddling an impious outrage.

In histories of Italian painting, the word *Byzantine* has so often been used in an unfortunate sense that it behooves us to correct the impression — an impression gained from provincial and more or less inadequate work in Italy, and one which is altogether erroneous when applied to the production of the best Byzantine masters. The excellence of the latter was never better demonstrated than in a series of miniature ivory altar pieces, some of them literally of pocket size, related in style and coming mostly from the 11th Century. The most elaborate of the class is the well-known *Harbaville Triptych* in the Louvre. On the main face, it shows an enthroned Christ with more than a dozen other figures; and on the reverse we see still other saints flanking a central panel of uncommon beauty which perhaps represents the Triumph of the Cross in the Garden of Eden. While heavily vested in the usual stiff costumes, the figures of the saints are obviously studied from nature and vigorously individualized. The central panel, seeming at first to be a more or less mechanical rendering of Near Eastern motives, is actually as fresh and lively as a manuscript page by Jean Pucelle.

Even more exquisite, if such a thing is possible, is a tiny *Crucifixion* (Fig. 10.12). The quaint iconography is explained thus: the cross springs from the body of Adam (according to a widely held belief it had actually done so), while above are the soldiers who cast lots for the Saviour's clothing.

The End of the Second Golden Age

The Second Golden Age of Byzantine art was brought to an end by the Fourth Crusade. In the entire history of Christendom, no other scandal compares with it. Assembling at Venice with the intention of going to the Holy Land in Venetian ships, the Crusaders were persuaded to act as mercenaries in the service of Venice. In that capacity, they captured and sacked Zara in Dalmatia. Encouraged still further by the Venetians, they next proceeded against Constantinople. In 1204, they entered the city. There they behaved in a manner shocking even to the sensibilities of a world that took excess for granted as the inevitable privilege of conquerors. Dividing the spoils with the Venetians, the Crusaders gave up any idea of fighting the infidel. They simply settled down in the region of the Bosphorus, establishing a loose feudal government known as the Latin Monarchy. Never accepted as *de jure* by the population, the actual power of that government was maintained always on a most adventurous basis. Except for the capital and a few strong points here and there along the coast, it was no government at all. In the year 1261, under the leadership of the distinguished Paleologos family, the western rulers were expelled; and the Byzantine Empire re-established.

During the period of the Latin Monarchy, Constantinople was rendered sterile as a market for art. Architects and artists left the city. Many of them found employment in the Balkans and in Russia, regions already well disposed toward the Byzantine style. The dispersion of artists at this particular juncture in history is probably the reason why Byzantine art, given up long since elsewhere, survives to this day as the national style of Russia.

Seen against the broader canvas of world history, the Fourth Crusade and Latin Monarchy mark the final, and as yet irreparable schism between Greek and Roman Christianity. The differences of doctrine are of course important each to its respective clergy, but the popular basis for the separation springs from a lingering resentment against the brutality and debauchery of the Crusaders, of which the best that can be said is to pronounce it a blasphemy. This sadly natural reaction of the Byzantine population also had the effect of making Moslem civilization seem on the whole better than that of the Christian West, thus tending to diminish the will to resist the Arab invasion when it finally came.

THE THIRD GOLDEN AGE

The best examples of Third Golden Age architecture are to be found in the Balkans rather than in the region of Constantinople. Excellent monuments to

illustrate the character of the style are the Church of the Holy Apostles at Saloniki (1315), and the Serbian churches of Ravanitsa (1381) and Manassia (Fig. 10.13), which dates from 1407.

In plan the usual church of the Third Golden Age does not differ from the four-column buildings of the previous era: there is the same Greek cross inscribed within a square, the same central dome and the same subordinate domes in the corners. In elevation, however, there is a substantial change. The proportions of the lower square, or first story, are exaggerated vertically; and the vertical dimension is often emphasized by attaching slender engaged shafts to the exterior wall surface. The four corner and subordinate domes, usually concealed entirely during the Second Golden Age, were commonly raised high on drums. They act as towers, and complicate the sky line. The over-all effect has often been characterized as "the Byzantine Gothic" — a term that undoubtedly has historical validity because the western Gothic was at its height just as the Third Golden Age began.

For the purpose of understanding the changes that gave new flavor to the pictures of the Third Golden Age, it is wise to begin with an example which dates considerably earlier than the Fourth Crusade, but one which nevertheless signalizes the trend of the future. The painting referred to is the celebrated *Ikon of Vladimir*, a half-length panel picture of the Madonna and Child (Fig. 10.15). It almost certainly was painted at Constantinople before the end of the 11th Century, and it was exported thence to Russia. It there acquired an immense reputation as a picture with almost miraculous religious power. In 1395, for instance, it was brought to Moscow with the idea that it might help in repelling the armies of Tamarlane.

Generally similar to the standard Madonna in figure-style and costume, the *Ikon of Vladimir* is nevertheless strikingly different from the stately empress familiar in earlier work. The contrast has little to do with style; it is a matter of content. In the Vladimir Madonna, the baby has his arm around his mother's neck; he pulls himself toward her in a warm embrace. Mary inclines her head downward, holding her cheek against his, and she pulls the child to her in a gesture like his own. The picture is full of maternal desire. It has the tone of personal experience — experience, moreover, in which the observer shares because no man alive has failed to participate in similar acts and feelings at some time.

The qualities just cited are the very qualities that have long been cited as the special contribution of the humanistic philosophy which we conventionally suppose to have been unknown in Europe earlier than the Italian Renaissance. (See below, pages 619-621.) As knowledge of later Byzantine art be-

comes more complete and more accessible, it is obvious that a number of notions may have to be revised.

A number of important frescoes and mosaics are preserved from the Third Golden Age. Of these, perhaps the most notable are the mosaics of Kahrie Djami at Constantinople, from which we reproduce only one (Fig. 10.14). By comparison to the general run of modern representative painting, these pictures of the very early 14th Century may very well make the impression of being stiff and conventional. But by comparison to the mosaics at Daphni, they reflect a radical change in point of view. The artist of Daphni was a mystic. His purpose was devotional. His pictures stand as symbols for values of a transcendental kind. The artists of the Third Golden Age, on the other hand, seem to have thought of themselves as dramatists. Their purpose was to tell the sacred narrative in such a way that it would carry conviction; and in their view, there was nothing more convincing than a sense of actuality.

The most obvious index to this new conception may be discerned in the setting. Buildings and landscape appear in an intelligible relationship with the human actors. As for the latter, no one can doubt that the artist intended to show something that was alive, moving, and surrounded by air and space.

Here again, we find that East Christian artists appear to have anticipated those of the West. Techniques of accurate representation, in particular, have long been claimed as the special and original contribution of modern Western art, and even as artistic evidence for the superiority of the Western view of life and the world. (See below, pages 539-542.) The truth is that the mosaic painter of Kahrie Djami had little to apologize for in this respect, even to his great Florentine contemporary Giotto.

THE END OF THE BYZANTINE EMPIRE

In 1439, the Emperor John Paleologos journeyed to Italy to participate in the Council of Florence, the purpose of which was to reconcile the Roman church with the Greek. The concessions he was willing to make might actually have done so had they proven acceptable in the East; but the reverse was true — the attempt simply infuriated the population, and is reckoned actually to have facilitated the Turkish conquest which was about to come.

The intelligent face of John Paleologos is commemorated on a medal by Pisanello (Fig. 13.18). His visit to Italy did a great cultural service even though his prime objective was not realized. In his train, he brought several distinguished Greek scholars. The bearing of these men in public debate and private conversation fascinated the Italians, and it is at this date that the study of Greek in addition to Latin achieved its traditional importance in

Western education. In particular, the Greeks knew Plato, a philosopher almost forgotten in the West since the time of Saint Augustine. According to the testimony of contemporaries, the great Cosimo Medici, head of the famous Florentine house, immediately determined to set up at Florence an Academy for Platonic studies. Thus commenced the so-called Neo-Platonic movement which so profoundly affected art history by moulding the spirit of Botticelli and by furnishing the philosophy by which Michaelangelo lived. (See below, pages 649-654 ff.)

The emperor's progress from town to town was marked by an inflated bombast of elaborate and expensive ceremonies. At the moment, such were probably mistaken for grandeur; it seems doubtful whether anyone appreciated that the empire had only fifteen years more to live.

In February 1453, Mohammed the Conqueror laid siege to the city of Constantinople. The defenders were able to hold out some time because of the excellent system of defensive walls; but on May 29, the Turks forced an entrance, and the Byzantine empire came to an end after more than a thousand years of existence.

ITALO-BYZANTINE ART

From the time of Justinian in the 6th Century to the time of Giotto at the beginning of the 14th, Italy was an artistic province of Byzantium. To this statement, we must make only the exception of the great Nicola Pisano (see below, pages 545-546), who dedicated his famous classical pulpit at Pisa in 1260. In the previous chapter (pages 265-267), we have already dealt with the mosaics of Ravenna, a place where there was little production subsequent to the 6th Century. In other regions, however, work in the Byzantine Style continued to be turned out in quantity until the end of the 14th Century and later. The chief centers were at Venice and on the island of Sicily.

Always more than half eastern in its taste and culture, Venice kept to the Byzantine style longer than any other Italian city. The mosaic decoration of Saint Mark's began as soon as the walls were ready, and the building is today a museum of every change in style that has come since. Like so much provincial work, the work at Saint Mark's lacks the elegance and refinement to be expected at the artistic capital. Occasionally, however, the Italo-Byzantine artists rose to a very high level; this we may see in the stately Madonna which occupies the semidome of the apse at Torcello, an island near Venice (Fig. 10.16). With the usual row of apostles beneath her and sustained, as it were, by a flood of glowing and sombre color, she seems in her person to embody the most solemn and majestic concepts of religion.

During the 12th Century, an immense amount of Byzantine art was turned out in Sicily. Some of it, if we may judge by a fondness for Greek inscriptions, must be the work of artists who came from the Near East. The chief monuments are the great cathedral churches at Monreale and Cefalù, and the smaller but even more gorgeous chapels of the Palace and the Martorana at Palermo. Accessible to the modern traveler and surviving in wholesale quantity, the Sicilian mosaics furnish our best opportunity to have visual experience of the Byzantine interior as the Byzantine designers wished it to be. The two chapels mentioned are literally invested with mosaic. Virtually every surface confronts the eye with the rich color and jewel-like texture of that most gorgeous medium.

Superb though the general effect may be, the same can hardly be said for the merit of individual pictures. A typical example is the *King William the 2nd Offering a Church to the Virgin* (Fig. 10.17). Here we may indeed sympathize with the critics who have praised Giotto for turning his back upon the Byzantine style, thus making himself the father of modern art. Among other obvious defects, we may merely cite the drapery of the Madonna. Neither the major convolutions nor the minor folds preserve any reasonable relationship to the human form we are asked to read into the figure. It seems obvious that the Byzantine manner, at least as manipulated by the second-rate artists in the provinces, had been feeding too long upon its own conventions. The only remedy yet located for such an art is to have the artists return again to the direct study of nature.

The School of Siena

By bold steps and leaving much unsaid, we have brought ourselves to a point where it is appropriate to consider the artistic situation in Italy at the end of the 13th Century — the period which witnessed the self-assertion of numerous new and vital city schools of painting, and, through the agency of the 14th-Century School of Siena, a new and (as it was to turn out) final flowering of Byzantine art.

The force and prestige of the Byzantine conventions had been considerably weakened by the attrition of time and the advent of new ideas. The art that began about 1300 differed from that of earlier periods principally in the fact that the artist enjoyed a much wider margin of choice than before. At Rome, Pietro Cavallini at first cautiously departed from Byzantine models, and then attempted to recover some measure of Roman naturalism. At Florence, as we shall see in Chapter 13, the great Giotto struck out for himself along untried lines. But at Siena, the most conservative city in the world, it seemed natural to attempt to pump new life into the time-honored formulas.

Duccio (active 1279; died 1319) was the founder of the new Siensese School. In 1311, he finished an immense altarpiece for the cathedral of that city. The main face showed a large Byzantine Madonna enthroned among saints. The reverse of the great panel carried 26 rectangular panels of narrative painting, covering significant events from the Passion of Christ. In addition to these 26, there were originally still more subordinate panels in the *predella* (i.e., the lower border) and in the Gothic pinnacles across the top. In all, it has been reckoned that there were originally no fewer than 91 compositions in addition to the *Madonna in Majesty* of the main front. Long since dismantled and removed from its place in the cathedral, most of the preserved material is on view today in the cathedral museum nearby. A few panels have wandered into other hands; one of them is the *Temptation on the Mountain* in the Frick Gallery of New York.

The head of Saint Agnes (Fig. 10.18), one of the saints standing to the right of the Madonna on the main face, is in itself an epitome of Duccio's painting. The physical type is already familiar; the painter's special contribution has been to infuse the old formula with a warmer life, even with personality. Much of the meaning, moreover, is carried by the slow winding of the infinitely graceful lines, some of them brought out in pure gold against a darker ground. As the eye follows these curves, the mood of the painting is induced.

Duccio's line requires special comment. There is no other line like it in western Europe, even in Gothic France which was contemporary and where linear calligraphy had been carried to a high level of accomplishment. The nearest true parallel is to be found no closer than China, where the Sung painters had used pure line with similar purpose and effect. We must either postulate an alchemy of circumstances which somehow caused Duccio to develop the same aesthetic means, or we must suppose that he had seen some Chinese painting. The latter hypothesis is more likely. It has long been entertained by scholars, almost all of whom have failed to summon the courage to make an actual assertion in the absence of objective evidence. The likelihood that Chinese paintings were now and then on view at Siena puts no strain on the imagination, however.

We learn in school that Vasco da Gama rounded the Cape, went to the Orient, and returned on his great voyage of 1497-99. We also hear that Columbus discovered America by mistake, having intended also to reach the Far East. We forget, or we never hear, that the Middle East was not actually sealed off until the end of the 14th Century, at which time the western Tartars embraced Islam, the Seljuk Turks advanced, and the Mongol dynasty was overthrown in China. Until then, the routes were open. Marco Polo (about 1254-

1324) had been to China and back, as all the world knows. A Roman Catholic bishop established a diocese at Peking at the end of the 13th Century. During the 14th, Francesco Pegolotti, a member of the Bardi bank at Florence, was enough impressed with the traffic to write a set of directions covering the route to Peking. It was safe all the way, he said, if one merely took reasonable precautions.

In view of these facts, it would be remarkable if a few Chinese paintings failed to find their way west. Doubly so, in fact, if we stop to remember that the favorite pictorial form of China was the roll, the most conveniently portable kind of pictorial art, and the kind least likely to be accidentally damaged. The real puzzle is not that Duccio shows Oriental affinities, but why he is the only Western painter who does so.

Duccio stayed continuously at home, where he had the reputation of getting into trouble with his friends and neighbors. The other great Sienese painter of the 14th Century, Simone Martini (1285?-1344), was not only a widely traveled man of the world, but a distinguished gentleman. Well-born and himself a knight, he associated on terms of personal friendship with the highest in the land. He was, in fact, one of the very first artists to do so — a matter to which we shall allude at some length in a later chapter (see below, pages 532-533). After important commissions all over Italy, he was called in 1339 to the Papal Court, then resident at Avignon. He died there in 1344. Petrarch, also at Avignon, knew him well; in two of his sonnets, he speaks appreciatively of Simone's portrait of Laura, a picture unhappily lost. The presence of this eminent Sienese painter at Avignon had wide repercussions upon the history of art, for Avignon (see below, pages 531-539) proved to be the focus of origin for the so-called International Style, a type of Late Gothic painting of unusual charm.

Like Duccio (Fig. 10.19), Simone turned out a number of altarpieces of the kind that were virtually standard with the Sienese painters. The painting was done in tempera on prepared wooden panels. The background was invariably blank and of pure gold. The central subject was always a Madonna (for Siena considered herself to be under the special protection of the Virgin). Customarily, the Madonna was dressed in a gown and headdress of the usual Byzantine mode, the color being ultramarine blue. Such paintings were sumptuous and expensive; the blue pigment alone, made from powdered lapis lazuli, often cost a staggering sum and a good deal more than the gold, which cost enough. The Fenway Court Museum of Boston has a fine altarpiece by Simone, a Madonna with four saints. There one should look, also, at the little single Madonna by Lippo Memmi, Simone's closest follower; it is in better

condition of the two. The museum visitor must remember, also, that Siense paintings suffer when taken out of context. They were designed to carry the length of the nave in dark churches, lit only by candles on the altar. Very few of them remain in position, a rare exception being Pietro Lorenzetti's panel on the high-altar of the Pieve at Arezzo.

The pictures for which Simone is best remembered, however, are those in which to some extent he breaks away from the Byzantine manner and becomes a man of modern times. Like all members of the upper orders during the High Middle Age, he was literally fascinated with the theory of social hierarchy. Anyone who inspects with a sharp eye his frescoes of the life of Saint Martin, in the church of Saint Francis at Assisi, will receive a lesson in stratification that scarcely seems possible. As a native son who had acquired a broader horizon, he looked with good-natured satire upon the provincial solemnities of his own small city, an attitude we can see plainly demonstrated in his portrait of Guidoriccio Fogliani (Fig. 10.21), a mercenary general whose small services were thus commemorated on the wall of a principal chamber in the Palazzo Pubblico. Across a grand landscape panorama, dotted with hill towns and showing a military encampment over which flies the incomparable black and white banner of Siena, the silly little fat man rides his magnificent horse, taking himself seriously.

The drapery of the general's horse has often been hailed as the most gorgeous linear symphony in European art. Certainly a notable demonstration, it suffers by comparison with Duccio. Duccio's quiet conceals his daring; he often relies upon a single strand of gold to carry an entire field. For a full understanding of the multiplication and complexity in which Simone indulges here and elsewhere, we must refer the reader ahead to the most florid of the Late Gothic, a movement in which he was actually an early participant.

The Gothic affinities just suggested come out even more plainly in the famous *Sant' Ansano Annunciation* of 1333 (Fig. 10.20). All too often cited as the quintessence of both Simone and the entire Siense School, it is better described as half Byzantine and half French; the Madonna's gown, for instance, duplicates French costumes of the very same date. It doubtless came from Paris, which even then occupied its familiar position as the fashion center of the west.

The workmanship is consummately fine, but Simone's *Annunciation* remains a curiously shallow picture. He participates, like Duccio, in Oriental methods, and here attempts to characterize persons and describe their emotions by the use of line. Every curve of Gabriel's body, wings, and drapery is suave, flowing, and urbanely pressing forward. By contrast, Mary shrinks back, startled and even annoyed; this being indicated by her receding silhou-

ette, and by the sharper twists and angular junctions within the drapery. Without challenging the success of these devices, we may still have reservations about an imagery which conceived so holy an event as occurring in a Late Gothic palace, the Virgin being a Sienese débutante disturbed while snatching a moment of reading between engagements.

When Simone left for Avignon, the leadership of the Sienese school passed into the hands of the brothers Pietro and Ambrogio Lorenzetti, both of whom seem to have died in the Black Death of 1348. In spite of the important commissions entrusted to them by an enthusiastic clientele, neither brother had anything like the distinction of Duccio or Simone. Ambrogio's large frescoes of *Good and Bad Government*, executed for the Palazzo Pubblico between 1337 and 1339, are a tedious imitation of Giotto (who had by that time made his reputation); nothing could provide a stronger warning against the dangers of allegory. On one occasion, however, Pietro outdid the ordinary standards of the firm. We refer to his *Madonna with Francis and John* in the left transept of the lower church at Assisi (Fig. 10.22). The Mary is a poignantly appealing figure; mystic yearning survives in sufficient force to guarantee dignity, yet the effect is emotional to a degree beyond anything yet cited in the present chapter. The painting may be described, in fact, as very forward looking for its date in the 1330's; it actually foreshadows the famous Madonnas of Donatello. (See below, pages 619-621.)

The later history of the Sienese school is of general importance only in broad outline. Excellent paintings continued to be produced there well into the 15th Century, but no new masters of significant originality appeared. True to the extreme conservatism of the city, each successive man did his best to provide sensitive but minor variations upon the formulas of Duccio or Simone Martini. In a remarkable way, all of these masters kept alive the essential and peculiar spirit of Siena long after the rest of the world had gone modern. For special students and connoisseurs, the field is a paradise, but we must pass on.

*

11



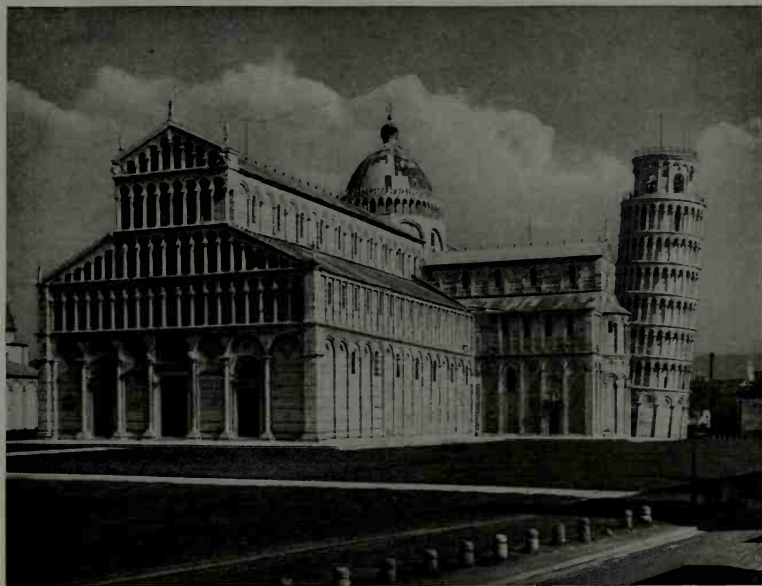
ROMANESQUE ART

The name *Romanesque* refers to the new style of art which appeared in western Europe about 1000 A.D., and went out of use with the great sweep of Gothic taste that spread like wildfire during the second half of the 12th Century. The great merit of the Romanesque monuments is today an accepted fact among art historians, but appreciation of the period came late. It is still possible to read in too many places that the Romanesque was some kind of humble and countrified derivative from Rome, or that it amounts to a cloddish period of fumbling, of interest only to patient historians, out of which at long last the Gothic evolved. Neither view is in the least fair or accurate.

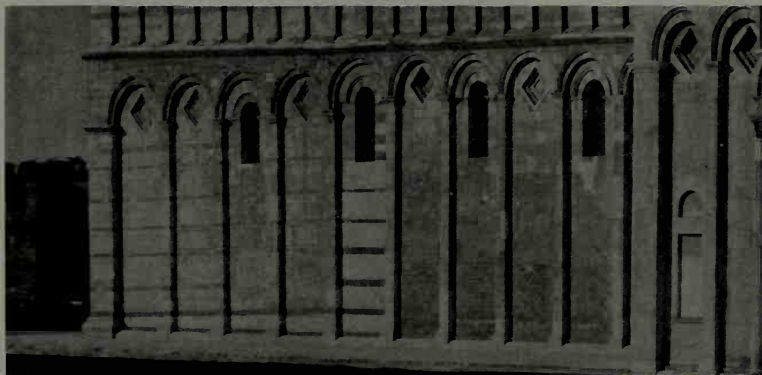
The truth is that the era now introduced was one of the greatest in the history of art. For abundant variety and teeming originality, no other period compares with it; major inspiration seems to have been almost a daily occurrence in every district of Europe. To the 11th Century goes the credit for reviving the art of monumental sculpture, virtually tabu for 500 years, and restoring it to its ancient and present status as an essential department of human expression. To the architects of the time goes the credit for recovering the ability to vault over large interiors, also a skill lost in the west since the decline of Rome. Confronted by problems and necessities unknown to the ancient Romans, they conceived and brought to near perfection the fundamental concepts that have ever since governed the thought of engineers — ideas even more alive and productive today than when first presented to the world. It is impossible to relegate such achievement to the status of historical subordination, and we therefore give the Romanesque more space and emphasis than it has sometimes received.

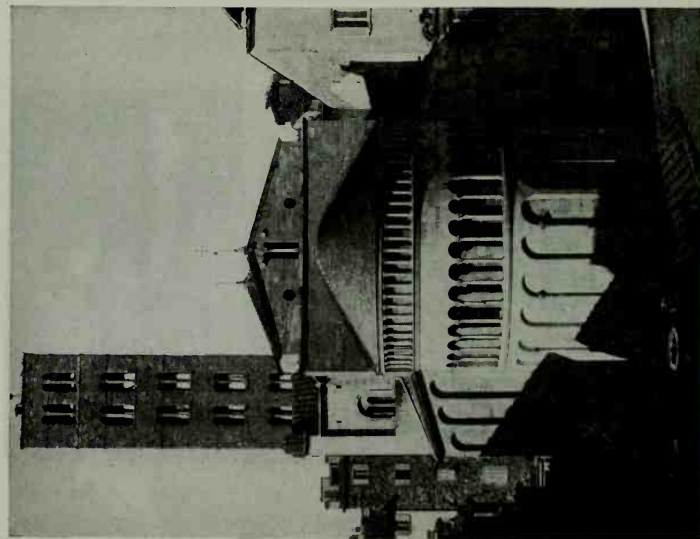
The Name Romanesque

The word *Romanesque* requires considerable explanation. The meaning is the same as *romance* — that is, "from the Roman." The word seems to have had its origin in a superficial resemblance between Romanesque architecture



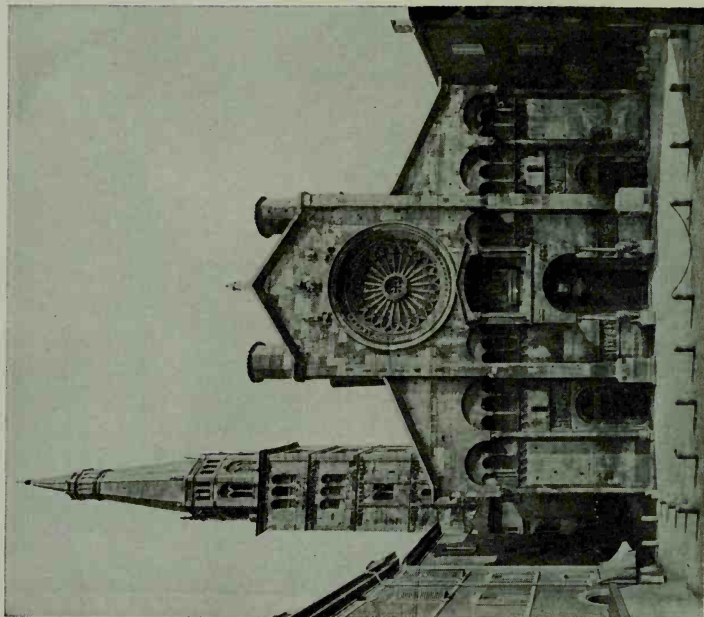
Figs. 11.1-2 Pisa. The Cathedral (1063-1100) and The Leaning Tower (1174-1350). Cathedral, 312 feet long. Tower: 179 feet high. Below: Detail of the blind arcade on the south side, showing irregularity in the height and span of the arches. PHOTOGRAPHS BY BROGI.





ALINARI

Fig. 11.3 Arezzo. Santa Maria della Pieve. Apse, showing dog-leg colonnettes.

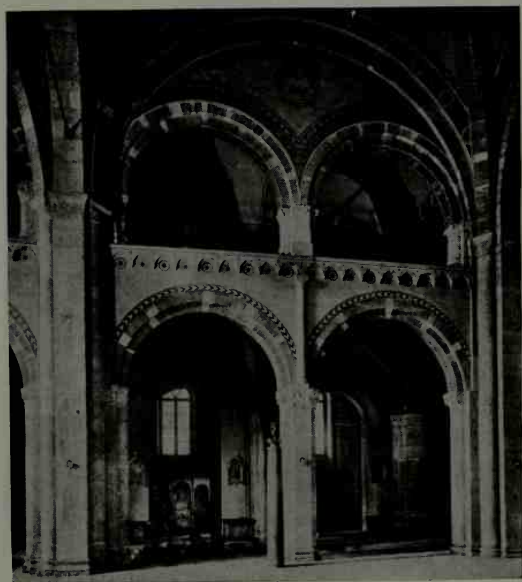


ANDERSON

Fig. 11.4 Modena. Cathedral. 1099-1106.



ALINARI

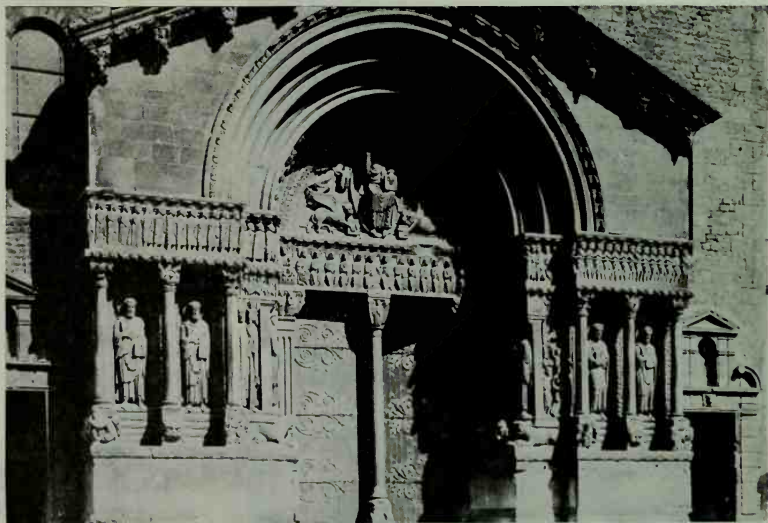


Figs. 11.5-6 Milan. Sant' Ambrogio. 11th Century? Diagonal view across the nave, and detail showing one bay of the nave arcade. Length of nave: about 210 feet. Width between main piers: about 37 feet. Height to underside of vault: about 62 feet.



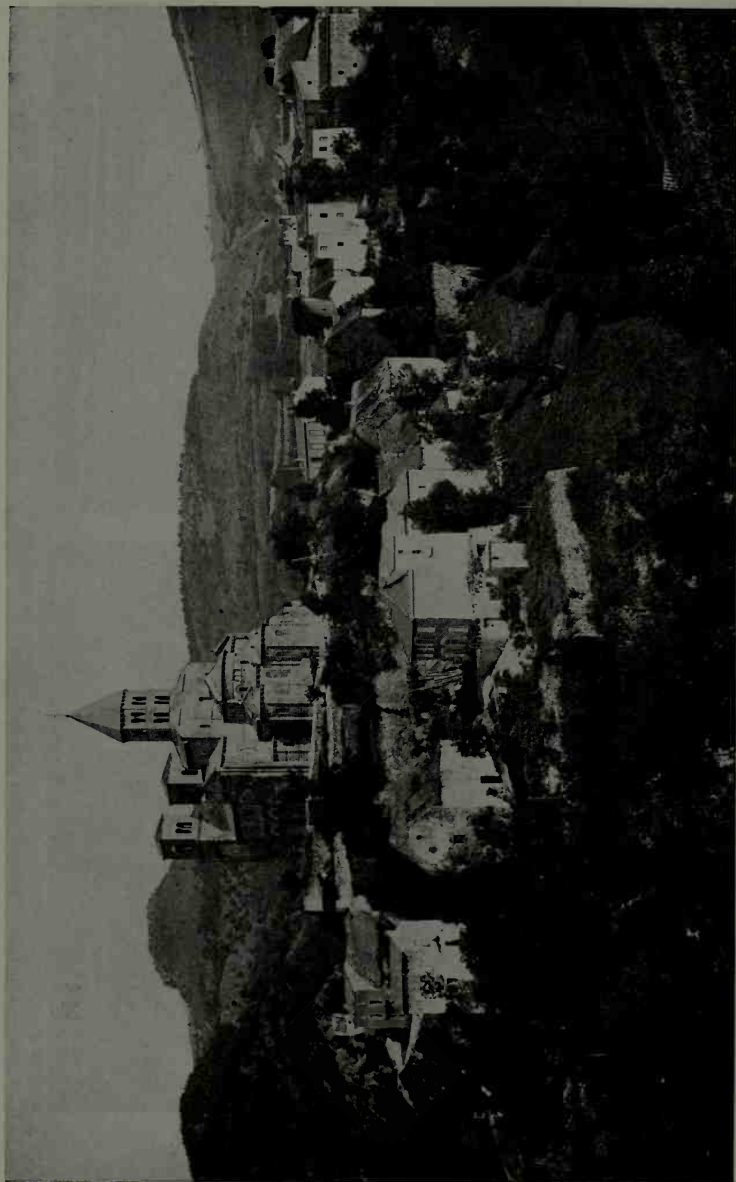
MARBURG

Fig. 11.7 Aulnay. Saint Pierre. South transept portal. 12th Century.



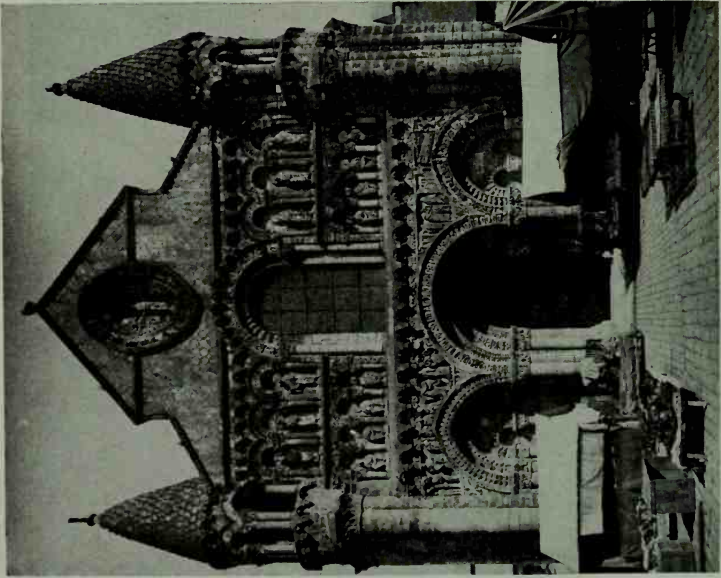
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Fig. 11.8 Arles. Saint Trophime. Main portal.



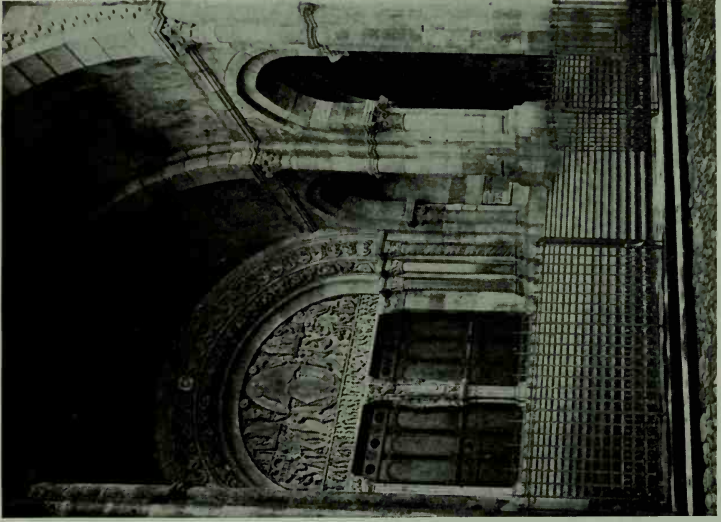
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Fig. 11-9 Saint Nectaire Church, 11th Century. View from the southeast.



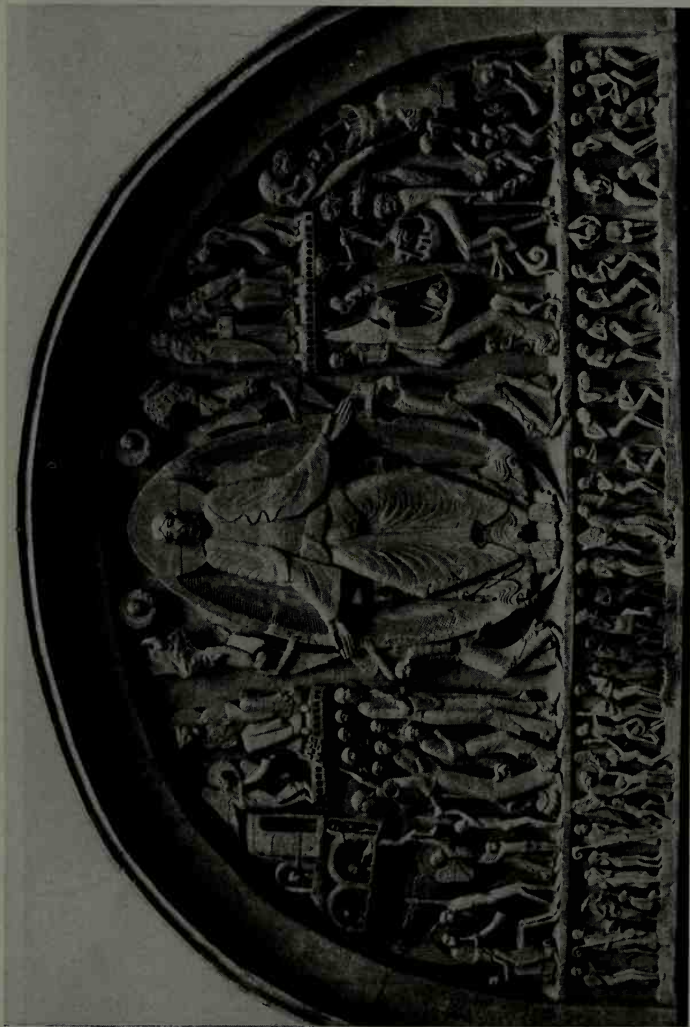
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Fig. 11.10 Poitiers. Notre Dame la Grande.



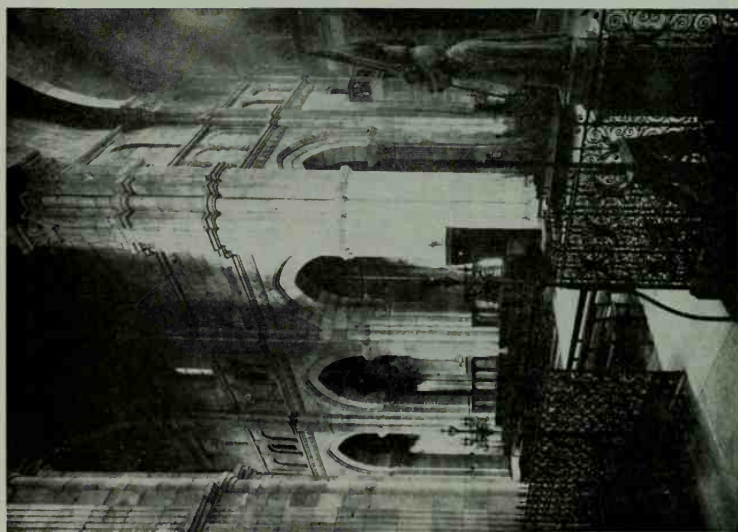
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Fig. 11.11 Autun. Saint Lazare. Narthex.

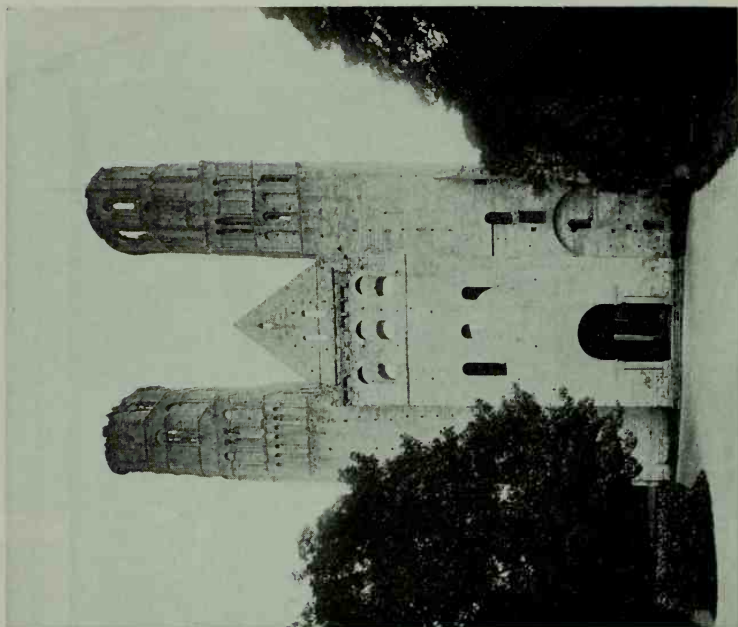


HUBAULT

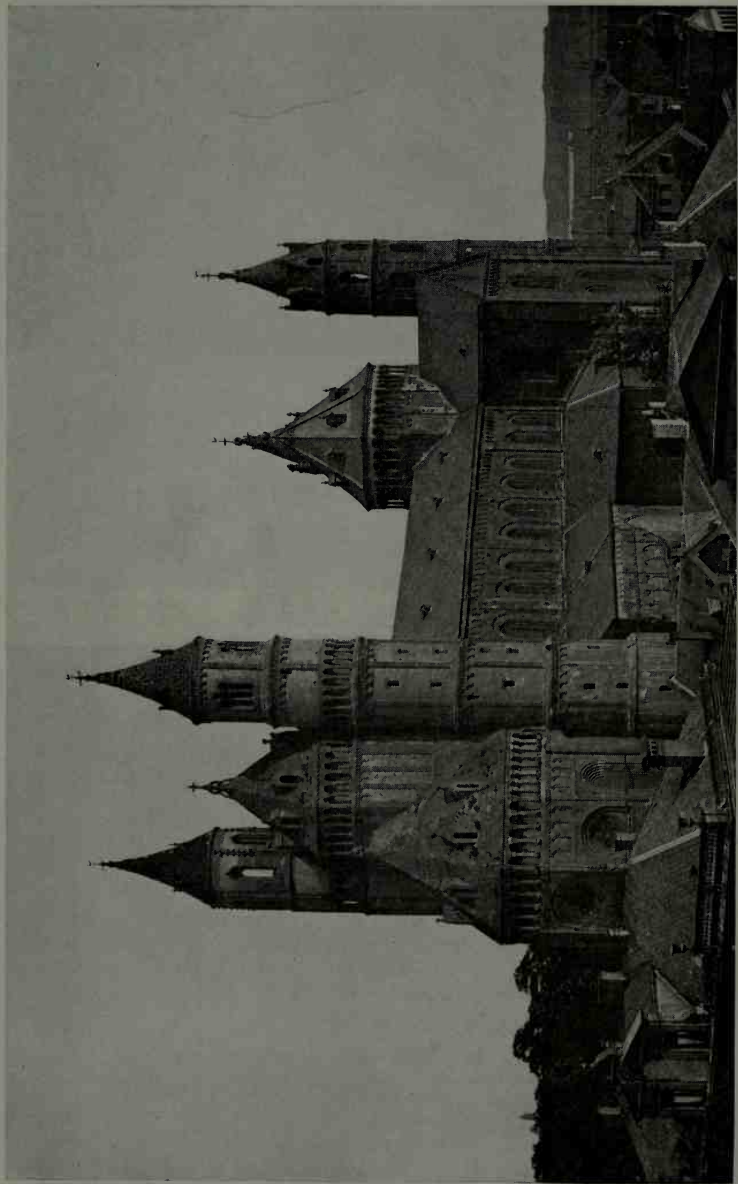
Fig. 11.12 Autun, Saint Lazare, Tympanum of the main portal. *The Last Judgment*. About 1132.



MARBURG Fig. II.13 Autun, Saint Lazare.

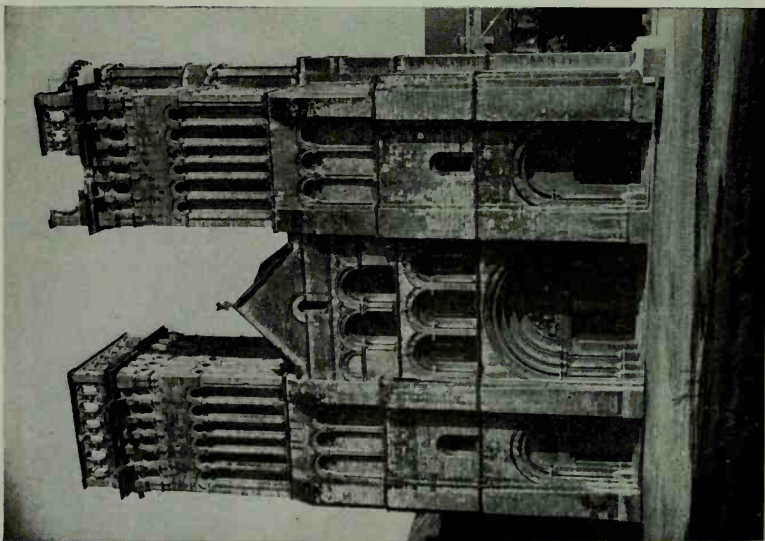


ARCHIVES PHOTOGRAPHIQUES Fig. II.14 Jumièges, Abbey Church, 1067.



DEUTSCHER KUNSTVERLAG

Fig. II.15 Worms, Cathedral. 11th-12th Centuries largely; west choir 13th Century.



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Fig. 11.16 (left) Caen, La Trinité, ("Abbaye aux Dames") Width of façade; 79 feet.



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Fig. 11.17 (right) Soulliac, Notre Dame, *The Prophet Isiah*.



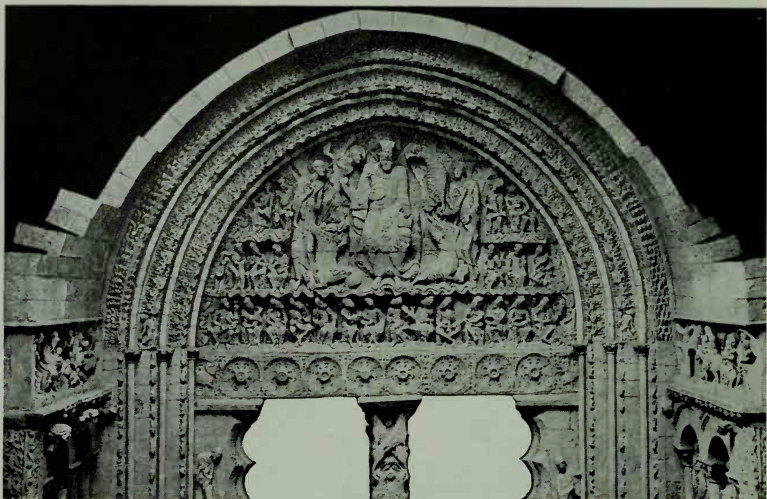
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Fig. 11.18 Conques, Saint Foy. Tympanum of *The Last Judgment*. Detail: Devils tossing the damned into the mouth of Hell.



Fig. 11.19 Vézelay, Museum. A Romanesque Capital.

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Fig. 11.20 Moissac. Saint Pierre. Tympanum with *Christ enthroned among the Four and Twenty Elders*. From a cast.



ARCHIVES PHOTOGRAPHIQUES

Fig. 11.21 Detail of Fig. 11.20.



ARCHIVES PHOTOGRAPHIQUES

Fig. 11.22 Vézelay. Church of the Madeleine. Tympanum: *Pentecost*. From a cast.



Fig. 11.23 (left) Detail of Fig. 11.22.

ARCHIVES PHOTOGRAPHIQUES

and that of ancient Rome. The Romans habitually had used the round arch, the engaged shaft, and ponderous proportions. Because the same elements might be observed in the 11th- and 12th-Century architecture of regions which once had been contained within the western half of the Roman Empire, it seemed self-evident to certain early and careless critics that the later style must inevitably have derived from the earlier. There can be no doubt that a connection exists, but the general trend of research gives us cause to minimize the direct influence from Rome. General statements are still premature, but there are certainly a number of questions which cannot be answered by reference to anything Roman.

Why is it that the peculiar arrangement of twin towers on the façade of the 12th-Century cathedrals at Monreale and Cefalù, the chief churches of Sicily, is not to be found elsewhere in Europe while almost the same arrangement existed in the now-ruined church at Tourmanin in a remote part of Syria? A notable feature of the famous cathedral at Pisa is the graceful blind arcade running down either side of the building (Fig. 11.1). What are we to say about the fact that no other known arcade of earlier date is so much like it as the arcade in a similar position on the cathedral at Ani in Armenia? Similarities like these may, on first reading, impress the layman as being of a rather mechanical sort, and hardly significant enough to invite historical conclusions, but the reverse opinion is entertained by professional scholars. The important thing to understand is not so much that a few precise duplications have been noted, but that in all the imponderable elements which give flavor and atmosphere to a building, the western Romanesque closely resembles eastern prototypes, and is very much less like anything Roman than its name implies. If, for example, we hastily glance at a photograph of an arch from the Colosseum and then at one from the octagon of Saint Simeon Stylites in Syria, it is the latter we might instinctively confuse with French or Italian design of the 11th or 12th Century.

The name *Romanesque* offers still other objections of an historical kind. It completely fails to take into account the heritage of the Northern and Barbarian Style (see above, pages 295-298) which so plainly exerted a definitive influence upon several essential features of the 11th- and 12th-Century art. An association with Rome also overlooks the peculiarities of the sculpture and painting produced in such abundance during the period about to be reviewed; both in style and content, nothing could possibly be at a further remove from anything classical. Romanesque engineering, moreover, was completely different from the Roman; social conditions were in radical contrast to those of Antiquity and it was impossible to organize large armies of workmen, or to transport and handle ponderous materials. For these handicaps, the builders of the

era compensated by a boldness and creative ingenuity different from and superior to anything Roman.

In addition to these points, there are persons who claim that the teeming variety of the 11th and 12th Centuries spells confusion of style, not unity — and that any single and inclusive title is therefore inappropriate. With that view it is not necessary to agree, as the pages to follow will demonstrate. But surely we have said enough to convince the reader some other name might have been a wiser choice than *Romanesque*: a pretty word, to be sure, and now time-honored. No one intends to give it up.

The Direct Causes of the Romanesque Style

The emergence of the Romanesque Style was visible evidence that western Europe had at last recovered from the classical disaster and from the political and economic uncertainties of the Early Middle Age. Insofar as the development may be connected with any system of secular politics, it seems to have derived from the relative safety and prosperity provided by the feudal system, then fully developed; and to have been furthered by the existence of the many towns and cities which were in those years beginning to assert a measure of social self-consciousness.

The numerous regional styles into which we must divide the Romanesque as a whole (see below, pages 398–408) constitute, in fact, a straightforward reflection of the political geography of Europe as it then existed. The hurdle to understanding is merely our modern habit of thinking in terms of a nationalism which did not signify during the era covered by this chapter. The culture of Europe did not divide itself between England, France, Germany, Italy, and Spain, but according to much smaller units which survive today merely as words with an aura of the romantic past: Normandy, Burgundy, the Auvergne, Provence, Lombardy, Tuscany, and so on. Of these, it is enough to say that most of them correspond with the sometime existence of a *grand seigneur*.

While preserving a hope of central government, with all officials deriving their authority by delegation from the king, the feudal system was altogether different in practical application. Effective power tended to fall into the hands of the men who found themselves best able to make their power felt by those around them. In view of the economy, which was agricultural and based on the theory of small self-sufficient units — also in view of the unbelievably bad roads and consequent dangers and delays in communication — the largest region that could be administered efficiently corresponded in size to the modern county. The count or the duke thereof could get around fast enough to keep track of affairs and make his will felt; he paid only lip-service to the king

whom he rarely saw. Hardly logical enough to suit the modern taste, the government so provided was sufficiently good to permit immense investments in architecture.

The advent of the Romanesque signifies still more than political and economic recovery; it is tangible proof that the Roman Catholic Church had become a very efficient organization. For the modern reader who lives in a secular world, an effort of the imagination is required even to conceive the situation as it then existed. The separation between the temporal and spiritual, which we take for granted, hardly had come into the European mind even as a theory. It was impossible to go through life without repeatedly coming into contact with the authority and rulings of the church. Not only did the institution collect taxes (tithes) in its own name and right, but also the church courts held jurisdiction over more than half the matters in which the normal citizen might sooner or later be involved. They ruled on everything of which clerics might complain or be accused, by virtue of their membership in the hierarchy. On certain subjects, by virtue of their impingement upon religion and ceremony, the church ruled no matter who was involved: marriage, widows and orphans, wills and inheritance.

The Catholic polity was something more, it will be seen, than an organization offering religious services at stated intervals. It was an engine of government. People were more frequently and more keenly conscious of it than of the civil authority. If one were devout — and the universal piety of the Middle Ages has at times been overstated — its communion was essential. If one were less than devout, the discipline of the church might at any moment be applied to render life intolerable if not actually impossible. Men under its ban found themselves cut off not only from the sacraments; they were shunned under pain of a similar fate by every human being, and the ordinary transactions essential to life were foreclosed of performance. The most powerful prince ruled in fear of ecclesiastical rebuke. The humblest person could not follow his obscure way of life except in relation to the clergy. Under such conditions, inclusion within the membership assumed an exigence unknown today.

In visualizing the church as it then existed, the modern reader must still further adjust his ideas to the fact that monasticism was immensely important during the Romanesque Period — as indicated by the preponderance of churches referred to in the pages below as “abbey churches.” Today we have only casual contact with monks and nuns; but during the Middle Ages, the secular clergy (those who do the work of the church among the people) comprised only part, and at times the weaker part of the hierarchy. The regular clergy (from the Latin *regula*, for “rule,” and applied to monks and nuns

because they lived according to rules laid down by their order) were numerous, rich, well-organized, and powerful. The greatest abbey of all was that at Cluny (see below, page 404), the central foundation of an order that owned and controlled over 300 major establishments, all of which were subordinate to a discipline as strict as the Jesuit. Western monasticism may be said to have gained full headway when Saint Benedict established the abbey at Monte Cassino (520 A.D.); but its heyday began when Cluny was founded in 910, and its attainment of immense proportions coincides with the period of Romanesque art.

It is evident from what we have said that there was cause enough for the exclusively religious cast of Romanesque art. A certain number of civil, domestic, and military buildings survive from the era, and there are a few instances of painting and sculpture of a secular kind. By comparison, however, those exceptions do not count, and we shall find no space to deal with them. Even so, the reader must not imagine that the government of the church had yet reached its ultimate perfection; that was delayed until the 13th Century, as we shall describe in the appropriate place. The divergence and separatism of the Romanesque Style correctly records a large measure of local authority, even variety of doctrine, during the 11th Century and the 12th.

Each of the causes so far cited, and all of them together, were of gradual application. Something further is required in order to account for the rather sudden start of a pan-European building effort — for it is a fact that substantial, permanent churches dating before 1000 are scarce as can be, while almost every locality can point to at least one Romanesque building still in good condition and daily use. The missing bit of motivation (the final impulse that brought action, so to speak) was very probably the safe passage of the year 1000 itself.

Although a number of scholars have been at some pains to scout the whole theory, there is certainly a great deal of evidence that large segments of the population dreaded the end of the world in that year. In understanding the remarks about to be made, the reader must appreciate that it never entered the medieval mind to construe the words of the Bible as plain language. Far from meaning what they said, the sacred writings were generally thought to be guarded and cryptic to a degree, their true purport to be fathomed only by a great effort of interpretation. So approached, and digested and redigested with devious intelligence, passages and combinations of passages often attained, in the imagination of medieval readers, some very surprising implications.

The idea of the Sabbath (Genesis 2:3) was combined with "the thousand years in thy sight" of Psalm 90:4 to create the notion that world history must

proceed according to units of a thousand years, vaguely as the days of the week. Six millennia of toil were to be succeeded by a millennium of rest, and there were many dark hints in the scriptures as to what must happen before the glorious days might commence. The "wars and rumours of wars" mentioned in Matthew 24:6 and Mark 13:7 would (according to the parallel passage in Luke 21:11) be announced to the world by great earthquakes, famines, pestilences, and "fearful sights and great signs . . . from heaven." To these passages, we may add the twentieth chapter of Revelations; for an imagination already whetted to expect the worst, its wild metaphor could easily seem to announce the end.

The church itself never endorsed such an interpretation; indeed, the obvious danger of social paralysis caused the Abbot of Fleury (about 995) to speak out in very strong terms: as a young man, he said, he had believed and preached that the Antichrist would come when a thousand years were finished, but now opposed the notion with all his force.

Other churchmen of perhaps equal authority took another view. About the middle of the 10th Century, Bernhardt of Thuringia had written a visionary treatise on the Apocalypse, expressing the opinion that the end of the world was presently at hand. The study of early English sermons has unearthed a number of items indicating that the Danish and Viking raids were there thought to be the very troubles predicted in the Bible. Wulfstan, Archbishop of York from 1003 until his death twenty years later and a former Bishop of London, gained much of his substantial reputation by writing homilies which hinted at the end of the world. In his 12th Homily, he says in part ". . . for the greatest evil shall come upon mankind when the Antichrist himself shall come . . . and it seems to us that it is very close to that time. . . ." Wulfstan's contemporary Aelfric, a monk who ranks as the greatest of Anglo-Saxon prose writers because he made a specialty of translating homilies from the Latin, accounts for his activity in one place by saying that he did it "for the sake of unlearned men who, especially at this time when the end is near, need to be fortified against tribulation."

It is obvious that a certain proportion of the great and powerful were by no means easy in their minds; and where such is the case, the ignorant and superstitious may always be expected to make a contribution. People were seeing things all the time and everywhere, including a whale the size of an island. Raoul Glaber, a monk who died at Cluny about 1044, has left a chronicle of events that must have disturbed even the most sanguine men.

During the decade 990-1000, a great many worrisome things happened. That ten years was marked by five successive seasons of crop failure; the famine was so bad that cannibalism was widely reported among the population

insane for food. Fires, the perennial curse of medieval life, were unusually frequent and devastating in France and Italy. One such fire at Rome ignited the roof of Old Saint Peter's. The helpless people called out in a mighty voice, challenging Saint Peter on threat of their curse to take care of his own — which he did, for the fire went promptly out. The plague known as Saint Anthony's Fire became epidemic. Serious heresies arose, one in France and one in Italy. Mount Vesuvius, as though to predict the whole course of events, had erupted in 993 with a hideous emission of noxious gases.

"So on the threshold of the aforesaid year, some two or three years after it," writes Glaber (as translated by G. G. Coulton, *Life in the Middle Ages*, page 3), "it befel almost throughout the world but especially in Italy and Gaul, that the fabrics of churches were rebuilt, although many of these were still seemly and needed no such care; but every nation of Christendom rivaled with the other, which should worship in the seemliest buildings. So it was as though the very world had shaken herself and cast off her old age, and were clothing herself with a white garment of churches. Then indeed the faithful rebuilt and bettered almost all the cathedral churches, and other monasteries dedicated to divers saints, and smaller parish churches. . . ."

It is unnecessary to exaggerate Glaber's testimony in order to draw the conclusion that he believed the year 1000 to have been a signal for the commencement of building activity. As a matter of statistical fact, however, the overwhelming number of important Romanesque monuments seem to have been started at least a generation after Glaber died, and most of those that survive today were completed well after 1100. Hence the frequency with which one hears the Romanesque referred to as a "12th-Century style." For all practical purposes, we may say that its elements were worked out during its first hundred years, and that most of its production took place during the next century.

THE ELEMENTS OF THE ROMANESQUE STYLE IN ARCHITECTURE

The Romanesque was the most diverse style in history. No two examples are alike; every building seems to reflect in some measure a novel conception. It is nevertheless possible to draw up a list of features which, by their repeated appearance all over Europe, furnish a kind of common denominator for all monuments. The diversity explains itself largely by reference to geography, each region having its peculiar type of church, built of the local materials and with an arrangement of towers, apses, and transepts found nowhere else. The features possessed in common by all regions are a series of special motives

(doors, windows, mouldings, piers, capitals, etc.) scarcely predicted by any earlier style, and for all practical purposes the contribution of the Romanesque. To these we shall now turn our attention, leaving a brief treatment of the regional differences for the next section.

Before we proceed, it is necessary to warn the reader what to expect. Familiarity with classical art may be a positive handicap in attempting to comprehend the Romanesque. No abstractions governed the designers of the 11th and 12th Centuries. Geometric order, either in plan or elevation, did not preoccupy them for a moment; they used such order or left it alone as they chose at the time. There is no system of proportions to which they adhered; their style encompasses some of the most delicate and some of the most ponderous building known in Europe. Because bulk transport over long distances passed beyond the realm of feasibility when Rome fell, we may expect to see any of the typical Romanesque motives executed in cheap brick, local limestone, exquisite marble, or whatever else may have been at hand. Almost every color available in masonry occurs at one place or another, and the textures may be as slick as silk or of a homely coarseness like tweed. The thing that counts, if we are to grasp the essential unity of the style as a whole, is to be able to recognize the typical motives no matter how they may be varied or on what part of the building they may appear.

Towers

It is difficult for us to imagine a time when towers and steeples were rare; and we are thus likely to overlook the most conspicuous novelty of the Romanesque. Towers had always been used for military purposes and other purposes; but the now-familiar identity of towers with church architecture dates from the period covered by the present chapter. We shall not at the moment take space to discuss the innumerable variations of the tower, with or without a spire to top it off, that were invented in the several districts of Europe. Suffice it to say that the Italians usually built the tower free-standing and separate from the body of their churches. The English and the Normans continued to use the tower of Saxon times (Fig. 9.49), square in plan and square of head. In the Rhineland, round towers with sharp spires were the going thing, while the people of Aquitaine developed a stumpy, bossy little spire very much like a pine cone (Fig. 11.10). The great contribution of the Spanish Romanesque was the invention of the so-called "Salamantine Lantern" (Fig. 11.32) — neither spire nor dome but partaking of both, and one of the most inspired combinations of simple elements in all architectural history.

It is difficult to account for all the Romanesque towers by reference to considerations that are practical in nature. We think of a church tower as a place

to hang a bell, and it is true that the association of churches and bells is at least as old as the traditional "invention" of church bells by Saint Paulinus of Nola (died 431). A certain symbolical intention may also have operated to increase the popularity of towers. Towers over the crossing may have evolved from the domes of the *martyria* (tombs raised over the graves of martyrs, or the relics thereof), a more or less familiar kind of building in the Near East. The incorporation of towers in the western façade (very rare in Italy, common elsewhere) may have been suggested by the notion that the emperor, God's vicar for secular matters, ought to be honored by a conspicuous feature — balancing the sacred apse, as it were — on the part of the church that faced the world. Either of these ideas might suggest the construction of a single tower, but both together hardly account for the multiplication of towers which so evidently was the Romanesque ideal. The notion of the tower obviously struck a very sympathetic chord in the aesthetic sensibilities of the people. In other words, they felt a powerful stylistic impulse. Among the influences available to them, the obvious one is the Northern and Barbarian Style. We may assume that the Romanesque builders, whatever they may have thought about the iconographical significance of their towers, felt inclined to build them for the same reasons that the Irish illuminators had, during an earlier era, rung infinite changes upon the complicated silhouettes of their initial letters, and for the same reason that the Viking shipbuilders used to extend stem and stern strongly upward into the air. Towers, in a word, give Romanesque churches the dissolving silhouette of northern art.

Ever since the Romanesque period, it has been habitual to think of the spire as a Christian symbol. For many persons, a church without a steeple is no church. The vertical momentum imparted to the eye by a tower is intimately expressive; it is impossible to challenge the propriety of an association with the aspiring element in Christianity. But before people might make the association, they had to have towers to look at — and the introduction of towers would seem to have antedated the modern symbolism.

In every architectural style, much and sometimes everything depends upon the particular kind of door or window which may be characteristic of the style as a whole. The standard Romanesque opening, as already indicated in other connections, was the round arch, but the round arch was rarely used in a plain and simple form. The Romanesque gets its flavor from a series of typical openings — each a distinct artistic motive in its own right — produced by rather simple manipulations and combinations of the round arch. The most important combinations are five in number: the splayed opening, the Lombard porch, the compound arch, the wheel window, and the Tuscan door.

The Splayed Opening

No better example of the splayed opening exists than the south transept portal of the Abbey Church at Aulnay in Saintonge (Fig. 11.7), a place a little more than fifty miles southeast of Poitiers. As the name implies, the splayed door is beveled in the plan view, and flares out toward one through the thickness of the wall. No other kind of opening seems to fulfill so well the several purposes of a doorway. In a crude and mechanical sense, doors merely permit circulation through walls, while protecting the interior from the weather. Artistically, a door is far more important than that. It is the barrier between outdoors and indoors, a psychological boundary that may be gentle or abrupt, which can invite or forbid. The splayed door softens the transition. It brings the actual opening into special focus; and by walking under its overhang, one finds himself halfway in while still outside — without further effort of the will, he may pass into the building.

The splayed door, in a word, extends a welcome peculiarly in keeping with a church building, and it was no accident that we find the idea of splaying brought to perfection in the Gothic churches of the 13th Century — all other types of doorway being virtually abandoned.

Both in the Romanesque and the later Gothic, the splayed doorway was made up of several concentric arches, at Aulnay four of them. The extrados of the inmost arch is identical, that is to say, with the intrados of the next one — and so on, until the outer surface of the wall is reached. Each of the four

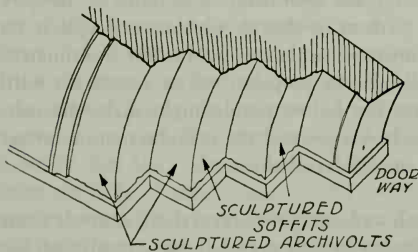


Fig. 11.24 Perspective cross section through the four orders of a typical Romanesque splayed arch.

arches that make up the doorway at Aulnay may be described as an *order*; and the entire ensemble can conveniently be designated as a *splayed arch in four orders*.

The arches used at Aulnay are the typical round arches of the Romanesque Style. While used for the majority of Romanesque churches — with an equal preponderance of the pointed arch in Gothic — it is by no means enough to distinguish one style from the other merely by reference to its favorite shape of arch. Round arches occur in the fully developed Gothic (Orvieto), and pointed arches are by no means uncommon in the Romanesque (e.g., at Autun and in Sicily). The real difference has to do with the comparative simplicity of the Romanesque, as

contrasted with the elegant complication of the Gothic. Fig. 11.24 is an attempt to illustrate this point insofar as the Romanesque usage goes; it is a schematic cross section taken through a splayed door like that at Aulnay, at a level a little above the spring.

It will be noted that each of the four concentric orders has a simple rectangular cross section, within the limits of which even the sculptural decoration is severely compressed. There are, moreover, only four orders; and the end of each is as plain as the beginning of the next. Other Romanesque doorways of the splayed type use a round rather than a rectangular face for each order, but the criterion of simple shape, clear division, and a limited number of parts persists. By comparison, the Gothic will present the eye with a bewildering refinement.

The Compounding of Supports: the Theory of Structural Logic

The three outer orders of the splayed arch at Aulnay come down, it will still further be observed, each on its separate colonnette, with a section of wall acting as support for the fourth order (Fig. 11.25). Such an articulation of supports is of the essence in the new theory of structural logic which first captured the imagination of Europe during the Romanesque Period, and from which all modern engineering stems. Although the theory is discussed at length in the next section but one (pages 409-416), we must for the sake of clarity now make a brief statement of what is involved.

Much earlier architecture is structurally logical in the sense that it has endured. It may be said, indeed, that nothing will stand even for a moment unless the force of gravity is opposed in some way that, upon investigation, proves to be logical. We refer here not to the mere capacity to stand, but to a theory of design that had its genesis in the structural forces brought into play by the mechanism of a building, and in the work done by each component part. There are four parts in the splayed arch at Aulnay; therefore, we find four members in the support beneath. A one-to-one correspondence exists between the work done and the shape of the members that do it.

In getting at the last point, it may be helpful to think of the Aulnay door as having been produced in an attempt to eliminate (more strictly, to omit) unnecessary masonry. Such a theory works toward the ideal of making the least material do the maximum amount of work. Structures so designed depend for their safety upon an accurate analysis of forces, and a precision in

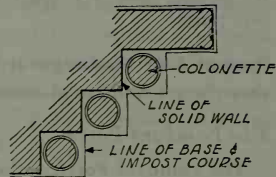


Fig. 11.25 Cross section through the compound supports beneath a typical Romanesque splayed arch of four orders.

the placement of parts. It follows that designers, as they become more and more familiar with a particular structural problem, will begin to give every part a shape best adapted to the work it must do. The procedure may or may not produce beauty; when form follows function, we sometimes arrive at the hideous — as we shall point out here and there in the chapters to follow.

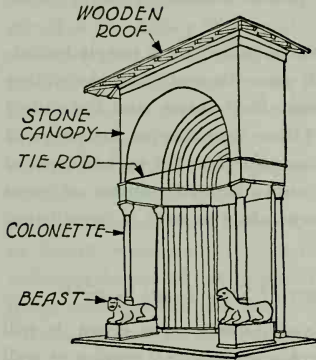


Fig. 11.26 Schematic drawing to show the principal parts of a typical Lombard porch.

those of Sant' Ambrogio at Milan (Figs. 11.5,6,37) are complicated because they carry a number of arches.

The Lombard Porch

The Lombard Porch, indicated schematically by Fig. 11.26 and well-illustrated by the main portal of the Cathedral of Modena in Lombardy (Fig. 11.4) is made up of the following elements. The builder starts with two stone beasts sitting on pedestals. Lions are the most common, but other preferences (griffins on the transept portals of Modena, elephants at Bari) may be accommodated. From the back of each beast, there springs a slender colonnette, and from the colonnettes, the arches of a delicate canopy. At Modena, a second story is provided to shelter a tomb; most Lombard porches have only one story.

The Compound Arch

The façade of Modena shows us still another very common Romanesque opening, the compound arch. Never used as a door, it is often employed for

Thought of collectively, the ensemble of shafts under either side of the arch at Aulnay would be referred to as a *compound support*. As an architectural unit, the compound support is more often encountered in the form of a *compound pier*, which is merely a free-standing post with a cross section determined by whatever it carries. The compound piers of Saint Sernin (Fig. 7.3) are comparatively simple because they carry little, while

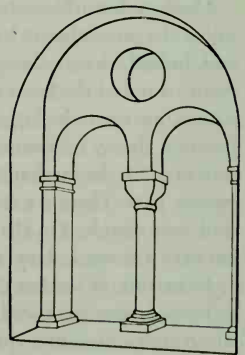


Fig. 11.27 The compound arch.

gallery openings, tower windows, or as we see it here, to form an open gallery in the thickness of the wall. The compound arch in its simplest essentials is shown in Fig. 11.27. It amounts to a side-by-side arrangement of little arches which spring from a colonnette and are enclosed within the frame of a big arch. The same motive was common in Byzantine architecture of the Second Golden Age, was passed on from the Romanesque into the Gothic (the pointed arch being substituted for the round), and occurs

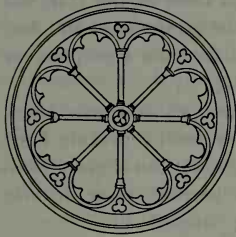


Fig. 11.28 A typical Romanesque wheel window.

in a few examples of the Early Renaissance (classical mouldings and classical columns taking the place of the medieval). Surprisingly simple in its form, the compound arch enriches any building with an intricate and delightful variety of line and surface, and an ever-changing pattern of light and shadow.

The Wheel Window

The conspicuous circular window above the central entrance at Modena is still another typically Romanesque motive. The complex of stone mullions within it is called *tracery*. As it happens, the tracery at Modena appears to have been restored during the Gothic era, as one can tell from the pointing of the arches. A more usual form during the Romanesque would be like Fig. 11.28, where the arches are cusped but rounded. A wheel window is often called a *rose window*. There can be no strict differentiation between the terms. If the tracery impresses one as the spokes of a wheel, use the former; if as the petals of a flower, use the latter.

The Tuscan Door

The Tuscan Door appears in Fig. 11.29; and in a somewhat unusual form on the main front of the Cathedral at Pisa (Fig. 11.1). In typical examples, two fat Corinthian pilasters form the door jambs, with a lintel spanning the opening and a relieving arch above the lintel. Lions' heads, or other grotesques, mark the impost blocks at the spring of the relieving arch, within the *lunette* (sometimes called *tympanum*; Fig. 11.29) of which one often finds a panel of relief or perhaps a painting protected by glass.

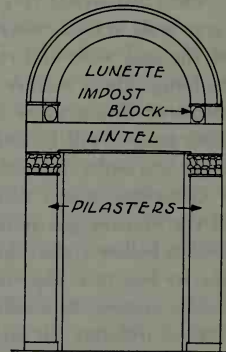
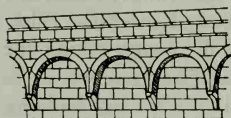


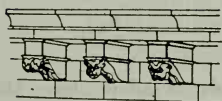
Fig. 11.29 Schematic drawing to illustrate the principal parts of a typical Tuscan portal.

Motives for the Decoration of Wall Surfaces

Whatever their practical utility as doors and windows, the several Romanesque motives so far cited serve the aesthetic purpose of lending an extraordinary interest to the wall surfaces of the Romanesque church. No other designers were so clever and inventive — when it came to that particular department of architecture — as those of the 11th and 12th Centuries. Among the many minor and decorative devices developed for such a purpose, we may mention the following.



LOMBARD TYPE



FRENCH TYPE

Fig. 11.30 Corbel tables.

In innumerable instances, an otherwise blank wall will be found subdivided by delicate horizontal mouldings which project but slightly from the surface, and cast a narrow, crisp shadow. Such are known as *string courses*.

A string course will often be strengthened in its effect by the addition of *corbels*, sometimes called *corbel tables*. Two kinds are shown in Fig. 11.30. The Lombard corbels are tiny arcades that hang in mid-air. The French are little brackets, sometimes with gargoyles, projecting at right angles to the wall. While in general true, the implied geographical distinction must not be construed as restrictive.

The *blind arcade* (Fig. 11.31) is found on a very large scale at Pisa, where it stands the full height of the aisle walls and runs completely around the building. On a smaller scale, and with compartments of almost every imaginable proportion, the same motive will be seen everywhere the Romanesque was built, and both indoors and out.

Geometric shapes formed still another resource of the Romanesque architect. At Pisa, we see them used as hollow coffers sunk in the wall, as indicated also by Fig. 11.2. Elsewhere, and especially in Lombardy, crosses, diamonds, triangles, and other simple forms were used whenever an architect felt inclined to design an odd kind of window.

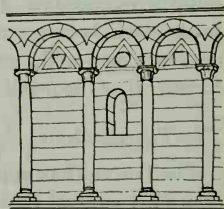


Fig. 11.31 A typical blind arcade of the Romanesque period.

The Eccentricity of the Style

To the list of typically Romanesque motives so far cited, we must add another element which is underlying and fundamental to the whole style, but

by no means susceptible of easy definition. We refer to what may be called the eccentricity of the Romanesque — a factor which is in part spontaneous, and in part the product of calculated intention.

Any perusal of a dozen or more measured drawings which faithfully reflect the actual condition of as many Romanesque churches will surprise if not shock the modern reader. Walls are often slightly out of parallel. Bays of vaulting are defined by "squares" which are not strictly rectangular, but have one or more angles askew. The arches of an arcade, as in the blind arches of the ground story on the south side of the Cathedral at Pisa (Fig. 11.2) rise to different levels at the crown, differ somewhat in curvature and span.

Such things reflect methods of building which were easygoing to a degree. Medieval society was completely incapable of the strict discipline familiar in Roman times and today. Without impeaching the nobility of the chivalric code which emerged during the later Middle Age and ameliorated the realities of conflict, in theory at least, with a few intrusions of decency, the fact remains that the medieval armies were perhaps the most inefficient and ineffective in history, size for size. The great numbers of workmen necessary for a large building project were similarly loose in their organization. Plans in the modern sense of complete and accurate scaled drawings, appear to have been unknown, although small models of the intended fabric seem to have been common. As a result, there was nothing like the modern regularity of procedure. Much was left to the improvisation of the moment. The case of the Cathedral at Florence — a Gothic building, but perfectly illustrative of the point before us — may be mentioned as typical. Dissatisfied with the conventional arrangement of transepts and apse, the original designers gave the church an immense octagonal crossing a full 138 feet across. They hadn't the slightest idea how to build the dome with which they intended to cover that part of the building. The last dome of similar scale had been designed 600 years before by Anthemios and Isodoros, for Hagia Sophia. Construction can hardly be said to have progressed at Florence; it dragged on for over a hundred years before the octagon was ready for its dome — with the method of building the dome still to be thought up. It was necessary to advertise and to hold a competition in order to get suggestions. Brunelleschi (see below, pages 631-638) won, and he made his reputation with a brilliant and daring design.

Such methods of building — and they obtained throughout the entire Middle Ages, not applying to Romanesque alone — were not economical. A great many churches fell down, altogether or in part. On the other hand, not one critic in the whole world would trade medieval irregularity for the sterile precision of modern and Roman methods. In a much more informal way and often capriciously, the effect arrived at is similar in nature to the curvature of

the Parthenon. There is life in the stones. The buildings are quaint, picturesque, and lovable.

Deliberate eccentricity often formed part of the Romanesque intention. It was not by chance, but by design, that the fifth column from the left in the open arcade at Arezzo (Fig. 11.3) was given a dog-leg twist in the middle. The famous Leaning Tower of Pisa (Fig. 11.1) is another instance of whimsy let loose in the field of architecture. It was by no means unique; there were other leaning towers, including two at Bologna. Objective proof of the designers' intentions is lacking in this particular instance; but although the contrary statement has often been categorically made, the weight of the evidence attests that the lean was planned from the beginning. The foundations have subsided somewhat, it is true; but not enough to account for the phenomenon.

For Romanesque eccentricity, the reader must not look for a rational explanation; the thing itself is not of the mind. Let him instead turn back and review the pages in which he was first introduced to the northern and barbarian temperament as expressed in art (see above, pages 298-301). The leaning tower and other deliberate violations of common sense are to be explained as the Irishman — a member of an ancient tradition, as we are able to know — explained jumping through the plate-glass window: he couldn't say why he had done it, but could certify that the idea seemed good at the time.

THE REGIONAL STYLES OF THE ROMANESQUE

Although it was the most varied style in history, the Romanesque tended to assume a certain amount of uniformity in different parts of Europe. Within the limits of the style as a whole, it is customary to recognize a number of regional subdivisions. Each one is an artistic pattern in its own right, a special field of study not to be dismissed as mere local history. Limitations of space permit us here only the briefest passing description of the more conspicuous features by which the taste of the several regions may be recognized when seen, and the regional styles mentioned below are merely the most important and by no means all that exist. So rapid a summary is bound to be bare. Unavoidably, it fails to convey the richness of local culture which still survives in Europe. Even so, it opens up a vista that is all too often overlooked.

The simplest scheme of classification that is free from misleading implications is as follows. In Italy, the styles of Lombardy and Tuscany require special mention. In France, no less than five districts must be cited as producing distinct types of Romanesque architecture: Provence, Auvergne, Languedoc, Aquitaine, Burgundy, and Normandy. In addition to these seven divisions, the

most superficial kind of completeness requires at least an allusion or two to the derivative schools of England, Germany, Spain, South Italy, and Sicily.

Tuscany

The churches of Tuscany are beyond compare the loveliest and most graceful of all. Often built almost entirely from the superb local marble and unique in their attempt to make every part delicate rather than ponderous, these buildings present the eye with a pattern of line and color that has often and correctly been compared to the effect of a ship under sail. The Cathedral at Pisa (Figs. 11.1, 2) is the largest and most famous monument of the district. A number of smaller churches are equally worth knowing: at nearby Lucca, the Cathedral, San Michele, and San Giusto; at Florence, San Miniato; the Pieve at Arezzo (Fig. 11.3); and the several churches at Toscanella, of which San Pietro is the most notable.

In a period characterized by a ferment of structural ingenuity, the architects of Tuscany were distinguished for a complete lack of interest in engineering. Except for the presence of Romanesque details, Pisa might accurately be described as an Early Christian Basilica. Because there was no vaulting, no problems of abutment hampered the provision of large clearstory windows, with the result that the interior is full of light — the effect thereof being enhanced by the color and texture of the marble walls. As to the latter, photographs are grievously deceptive. Stripes of soft blue limestone run at intervals through the courses of marble. Because blue tends to reproduce as black in a photograph, the contrast becomes unpleasantly exaggerated; but in fact, it is rather pleasant.

In matters of detail, the most striking feature of the Tuscan style is the profusion of open galleries, always in the form of miniature arcades supported by delicate colonnettes. Ideally, an entire building would be enveloped with such arcades, a result nearly achieved in the Leaning Tower at Pisa — with an almost Oriental enrichment of the texture. Blind arcades, supported either by engaged columns or by slender pilasters, were used for almost all wall surfaces where the open arcade was not wanted. In addition to these features, the Tuscan designers made considerable use of geometric shapes, either as inlays in several colors or in the form of hollow coffers sunk into the masonry.

Lombardy

It was the Lombards who first gave mature and logical expression to the structural aesthetic which was certainly the most original, and probably the greatest single contribution of the Romanesque period to architectural design. Their prowess in that respect forms the subject of the next section of this

chapter. We shall postpone discussion at this point, and concentrate upon the decorative charm of the Lombard churches — a matter some authors have passed over in their enthusiasm for Lombard engineering.

Modena may stand as a typical example for the region (Fig. 11.4). It has all the characteristic features except that its façade conforms to the basilican cross section, a shape used only about half the time in Lombardy. Numerous other churches make the façade into a kind of screen, with a single very broad gable at the top; for instances, see San Michele at Pavia and the Cathedral of Parma.

In the texture and color of their masonry, the important Lombard churches are less dazzling than the marble buildings of Tuscany, but they have a quiet elegance even so. The individual blocks are small, neatly cut, and closely joined, with a smooth rather than a polished surface. There is a certain crispness in edges and lines.

It was customary in Lombardy to unify the composition of the façade by strong verticals, usually in the form of continuous pilaster strips as at Modena. Where corbels appear, the Lombard type was usual, as we might expect, and the favorite doorway was the Lombard Porch. Open arcades composed of compound arches are as common here as the simple arcade in Tuscany. Lombardy developed, moreover, one of the important local schools of Romanesque sculpture. When human figures were involved, Lombard sculpture has a solid and plastic character not usually found in relief. Where grotesques and animals appear, the local artists took a delight in savagery unusual even in a period famous for that specialty. As we may judge from the panels that appear on the façade at Modena, the Lombards failed to work out any coherent theory of the interaction between sculpture and architecture by which each art can be made to help the other.

South Italy and Sicily

It is perhaps a mistake to refer to the 11th- and 12th-Century churches of "the two Sicilies" as Romanesque. Successively controlled by the Greeks, the Romans, the Byzantines, the Saracens, and from approximately 1100 on by a Norman dynasty with connections developing in Italy and Spain, it is difficult to imagine a region where a greater variety of inspiration might affect the decisions of an artist. Of those cited, almost all influences seem to have been in active operation during the Romanesque era; and to the offerings from the historical past, we must add the direct imitation of the contemporary Romanesque of other districts. In fact the only thing available that seems not to have been directly copied at one time or another is the Greek architecture of the region — for well-preserved temples remain in good repair at Paestum, south of Naples, and at Segesta and Agrigentum on the island of Sicily.

All of this being so, it comes as no surprise to find that the similar cathedral churches at Monreale and Cefalù, near Palermo (see above, pages 364-365), amount to large basilicas, with arcades of pointed arches in the Saracen form, their interiors ablaze with Byzantine mosaics, and their outside walls decorated with Oriental patterning. The general hodgepodge of inheritance did not, however, prevent the construction of some buildings which, if imitative rather than original, are among the finest we have. Such a one is the Cathedral at Troia, about sixty miles northeast of Naples. The body of the church is like Pisa; but the flavor of the design is changed by the addition of some superb Lombard detail.

Provence

The two most important churches of the Provençal Romanesque are Saint Trophime at Arles (Fig. 11.8), and Saint Gilles nearby. The special feature of these is the splendor of their western portals. The entrance to Saint Gilles, the more elaborate of the two, remains one of the noblest entrances in existence. Distinctively Romanesque in detail, both façades emanate a monumental calm not always associated with the period. Since both date later than 1150, that characteristic may reflect the advent of the Gothic point of view; but to an even greater degree, the atmosphere of weighty quiet probably derives from the unparalleled wealth of classical material still standing at Arles, at Nîmes, and throughout Provence.

Because of the substantial difference in proportions, the resemblance at first escapes attention, but it is a fact that both portals reflect the standard scheme for a Roman triumphal arch: the podium at the bottom, and then the familiar sequence of order and entablature. The capitals do not deviate far from the Corinthian silhouette, and the larger statues possess a dignity which has aptly been described as "senatorial."

Auvergne

The churches of Auvergne are at once the most ponderous and picturesque of all the French Romanesque; they also happen to be, as a group, the oldest. Notre Dame du Port at Clermont-Ferrand, the central monument of the region, dates from the middle of the 11th Century. Because that church is hemmed about with other buildings, it can scarcely be photographed as a unit. We therefore illustrate the type by Fig. 11.9, which shows Saint-Nectaire, about fifteen miles south of Clermont, a free-standing church splendidly set on top of a hill.

Seen in plan, the average church of the Auvergne is more complex than most other Romanesque types. The transepts extend a considerable distance

out from the nave. The arm of the cross between the transept and the apse is elongated to form a *choir*; and six or eight columns were commonly arranged in a semicircle at the eastern end of the choir to make a kind of open apse with an ambulatory behind it. Opening off the ambulatory, we often find a series of miniature chapels, each circular in form. These are called *absidioles*, and they ordinarily are arranged radially, like the petals of a flower. The effect is to produce a ground outline at the east end strikingly similar in plan to that of the High Gothic.

To the architects of the Auvergne must also go the credit for intelligent experiment with vaults, and for the invention of the system of abutment illustrated by Fig. 7.2, where the thrust of a tunnel vault over the nave is contained by continuous half tunnel vaults over the galleries to either side. From Auvergne, the arrangement went to several other districts, as we shall note in due time.

Excellent as an insurance of structural stability, no arrangement could have been much worse when it came to providing light for the interior. In an effort to ameliorate that fault, the local architects resorted to a bold adjustment in the elevation of the building. At the crossing, they raised a rectangular attic with a north and south dimension corresponding to the width of the nave. Above the attic, they built an octagonal tower, usually only two stories in height, topped off by a squat spire. Clearstory windows were thus provided at an ideal height but hardly in an ideal relation to the long axis of the church.

As seen from the east, however, the Auvergnat churches are among the most interesting ever designed. The various masses present the eye with harmonies and contrasts of size and shape. Absidioles, apse, and attic arrange themselves in a graduated and ascending sequence, culminating in the tower. The total effect is both solid and lively, and there are analogies to the best examples of modern abstract painting and sculpture.

Languedoc

Toulouse is the principal city of Languedoc, and its central monument is the Church of Saint Sernin (Fig. 7.3). The Romanesque churches of that region — to be visualized roughly as the southwest corner of France — are very much like those of Auvergne. While the western façade of Saint Sernin is without special distinction, the view from the east is imposing. The apse is flanked by absidioles radially arranged; and while the attic familiar in Auvergne was here omitted and the transepts extended, there is an unmistakable attempt to build the masses up into a composition culminating in an octagonal tower — which in this instance runs a full five stories high.

The ribbed tunnel vault of the building, and its abutment, have already

been adequately dealt with in Chapter 7 (see pages 201–202); from the standpoint of structural logic, this particular form of vault has rarely been better handled.

A special interest must always attach to Saint Sernin, because at Compostella, at the extreme northwest corner of Spain, there stands the church of Santiago which is — except in matters of detail — a duplicate of Saint Sernin. The resemblance is almost certainly to be explained by reference to the medieval custom of going on pilgrimages.

The body of Saint James, after transportation from the Near East by ship, had supposedly been laid at rest at Compostella. That remote place presently assumed an immense importance. It eclipsed all other destinations in attraction to pilgrims. While details remain obscure, it seems almost certain that the pilgrims followed routes that were well-defined, and it is believed that the church must have maintained a considerable organization to provide for their welfare. If so, we may infer that a number of buildings were put up. Being under one administration, those would naturally tend to assume a definite and single style. Inasmuch as Toulouse was an important stopping point on “the way of Saint James,” the virtual identity between the two churches is probably thus to be explained.

Aquitaine

We have already had occasion to refer to the Romanesque of Aquitaine (see above, page 351), because the builders of that region so often paid homage to Constantinople by vaulting over their churches with multiple domes on pendentives (Fig. 7.21). Saint Front at Perigueux is usually cited as the most important monument of the region. It is surely unexcelled in the unique and delicate complexity of its skyline, but it is an individual and special, rather than a typical building. The Cathedral at Angoulême has a more usual plan in the shape of a Latin rather than a Greek cross, and it shares with Notre Dame la Grande at Poitiers (Fig. 11.10) the distinction of an excellent and typical façade.

Roughly derivative from the basilican cross section, the central portion of the façade is flanked by two low towers, each of which may be described as a grandiose compound pier (see below, page 394) topped off by the characteristic pine cone spire of Aquitaine. Horizontally, the composition is likewise divided into three parts, the lines of demarcation being established by heavy string courses over a set of corbels that combine both the Lombard and the French types. Constructed of smooth masonry, this façade might be quite without merit. As it stands, it is one of the best ever done in the Romanesque style. The profusion of sculpture combines with the coarse tiles to impart an

over-all sense of rough and kindly texture which has, on the whole, been improved rather than harmed by centuries of weathering.

Burgundy

The Abbey Church at Cluny (Fig. 7.4) was the central monument of the Burgundian Romanesque and the administrative focus of the vast and powerful Cluniac Order, the most cogent subdivision ever developed within the Roman Catholic hierarchy. The church proper had a double set of transepts, five aisles, and no less than fifteen absidioles opening off transepts and ambulatory. Its length approached 500 feet, to which we must add the length of a monumental narthex, itself another nave, extending westward five bays more. Largely the work of the middle 12th Century, the magnificent building survived until the time of the French Revolution. By then neglected and in disrepair, it was destroyed with blasting powder, and the rubble sold for cheap building stone — a succinct and terrible illustration of the extreme modernity of what we may call the historical sense. The architecture of Cluny is known to us through the archaeological reconstruction conducted by Mr. Kenneth Conant, and a few pieces of decorative sculpture have been preserved. Their quality establishes the presumption that the excellence of the immense fabric was as notable as its size.

Cluny being gone, we must form our impression of the Burgundian Romanesque by reference to smaller monuments. The style is on the whole well represented by the Abbey Church (La Madeleine) at Vézelay, and by the Cathedral (Saint Lazare) at Autun (Figs. 11.11-13). At both Vézelay and Autun, a good sized narthex precedes the nave; and above the great doorway leading therefrom into the church, there is a semicircular lunette, or *tympanum*, with a major composition in relief sculpture (see below, pages 420-423). Aside from the narthex, which is more elaborately developed here than elsewhere, the churches of Burgundy remind us in their architectural features of Auvergne and Languedoc. The distinctively Burgundian contribution has little to do, in fact, with either the form or the major component parts of the building. It inheres, rather, in a special precision and finesse, even a richness and luxury, notable in every detail of the fabric. Not only is there much more sculpture here than elsewhere, but every bit of carving, even the smallest moulding, is of an unequalled delicacy. In addition, an imponderable flavor from the Antique imbues everything Burgundian: the fluted pilasters at Autun seem spiritually more classical than many a bit of work from the Italian Renaissance — a circumstance less surprising than it seems when we remind ourselves that fragments of a temple to Apollo may still be seen at Autun, and that the Porte Saint André once formed part of the Roman walls.

Normandy

Because of its connection with England and because it made so direct a contribution to the French Gothic, the Norman Romanesque seems in many ways to be the culmination of the style. No church is more typically Norman than the gaunt and ruined Abbey at Jumièges (Fig. 11.14) standing within a great meander of the Seine about ten miles, as the crow flies, due west from Rouen. At the date of its consecration in 1067, it was the grandest building produced in the west since the Early Christian period and the architectural symbol of a great and learned monastery.

Jumièges might be called a basilica transformed by the Romanesque. In plan and general disposition of parts, it conforms to the traditional arrangement, and it carried a timber roof. But in every aspect of appearance and atmosphere, it was a new thing in a sense the Tuscan churches were not. It is important as one of the very earliest major buildings where a frank and thoroughgoing attempt was made to emphasize the vertical dimension. In accordance with what became standard Norman practice, the western façade embodied twin towers integral with the central section; but even by Norman and Gothic standards, the proportions employed at Jumièges were uncommonly narrow, and the angle at the gable of the nave roof acute beyond precedent. At the crossing still another tower soared into the air; of that, only a fragment remains.

The body of the church was divided into the usual nave and aisles, with an unusually high gallery at the triforium level. For the supports, simple circular columns alternated with compound piers. On the inner side of each compound pier a pilaster strip was placed, with a slender shaft engaged on its face; shaft and pilaster ran the full height of the nave from floor to ceiling. It is supposed that the main beams of the roof crossed the nave at the points of support thus provided; and the entire arrangement betokens the presence of a nice sense for the structural proprieties. It may also be cited as a linear method for emphasizing the height of the interior; and as such, it is an early indication of the movement of taste in the direction of the Gothic.

The two abbey churches at Caen, La Trinité (Abbaye aux Dames) and Saint Étienne (Abbaye aux Hommes) were founded by William the Conqueror and his queen. Students of the period disagree as to whether they were intended from the first to carry cross vaulting, or were converted during the 12th Century from wooden ceilings. Certainly the present vaults are clumsy in appearance, seemingly experimental in design, and hardly in harmony with the refinement of the parts below. However primitive the engineering, the Church of the Trinity occupies a unique place in history because the architect

who designed its vaulting appears to have been the man who invented the flying buttress (see below, page 416). The same church furnishes us with an almost perfect Norman façade (Fig. 11.16). It is this façade that went directly into the French Gothic, and became the formula for the western front of all the great cathedrals of the Ile de France.

Taking them as a class, the Norman churches are notable for severity in matters of detail. There is some sculpture, but not much. There are a few ornamental mouldings and an occasional indulgence in geometric pattern; but again, not a great deal. Jumièges may be taken as the extreme with respect to restraint; and La Trinité is actually ornate by comparison with many others. There seems to have been some sympathy for decoration that might be contrived from strictly architectural motives in simple combinations. Blind arcades of various sorts and sizes were used to relieve otherwise blank surfaces; and an arcade of narrow compartments — with tiny arches on top of lengthy colonnettes — was a special favorite of the district.

The apparent promise of the Norman style came to an end early in the 12th Century, after which very few churches were built. There was trouble within the Norman clergy, friction between the Norman king and the Roman hierarchy, and a general tendency on the part of vigorous and imaginative Normans to seek their fortune in England. By the time those difficulties were resolved, the taste of all Europe had changed, and the Normans, like everybody else, found themselves building in the Gothic style.

Romanesque Architecture in England, Spain, and Germany

Architecture was a prime and immediate interest of the Norman monarchy in England. A long list of famous cathedrals date their foundation within a generation of the Conquest, and furnish us with a tangible record of the superb administrative judgment of the new government. By forwarding the construction of cathedrals, they both propitiated the bishops and kept them at a distance from London. The crown was advertised as cooperative with the church, and interested in the betterment of local conditions. It was no accident that the Romanesque of England ran to exaggerated size.

Unfortunately, none of the great English churches survive in their original Norman form. Neither have any of them entirely lost it. With a paradoxical love for both the old and the new, it was for centuries the British habit to do over small parts of a building in whatever happened to be the going style of the moment. Thus almost every monument became a kind of historical museum illustrating all the architectural fads and fashions of the centuries.

Few medieval buildings survived the fire which devastated London in September 1666. Saint John's Chapel in the Tower, grim in its severity, and

Saint Bartholomew's, Smithfield, are the principal Romanesque monuments still to be seen in the capital.

The Cathedral at Durham, even though its towers and windows are partly Gothic, comes as close as any building to furnishing us with what we may visualize as the Anglo-Norman Romanesque exterior. Standing grandly above the river Wear, the great church is one of the finest sights in the world; indeed it is a truism to say that no other race of men has ever possessed a fraction of the English genius for composing architecture in relation to landscape and foliage — an art of which some continental architects appear to have been totally unaware. The interior of Durham has suffered to an unusual extent from the 19th-Century enthusiasm for restoration; in their overconfidence, the restorers reduced the nave to an uncommon, historically erroneous, and cold simplicity. The north transept of Winchester (the nave having been done over in Late Gothic) probably gives us today our best impression of a large Norman interior.

The Romanesque of Spain was in general derivative from that of southwestern France. Certain distinctively Iberian characteristics are notable, however. Because of their immediate association with a large Moorish population, and because authentically Oriental architecture was in plain sight at Cordova and Granada (Fig. 2.16), it was inevitable that Spanish artists should attempt to combine the Western forms with Near Eastern decorative motives. Cusped arches and horseshoe arches appear in arrangements that are otherwise typically Romanesque. Rhythmic patterning of wall surfaces (for example, the brick work of San Lorenzo at Sahagun) was common. In addition, fountains — always included by the Moors wherever possible — are numerous in Spain while rather rare elsewhere. As noted above, the great contribution of Spain during this period was the Salamantine Lantern (Fig. 11.32), a squat tower with turrets at its four corners and gabled niches on the four sides, with a historical derivation that seems to draw upon a mixture of suggestion from Normandy and Aquitaine. Because of its late date, the Old Cathedral at Salamanca is sometimes classified as Proto-Gothic.

There are a great many Romanesque churches in Germany. In fact, the style so perfectly fitted the national taste that it has never died out there, and is often used today for new buildings. A number of the German churches are basilican; Saint Godehard's at Hildesheim is a good example. In matters of detail, Lombard influence is evident; likewise a Byzantine flavor (the result of direct contact through royal marriages) lingers like an aftertaste in all the medieval art of Germany.

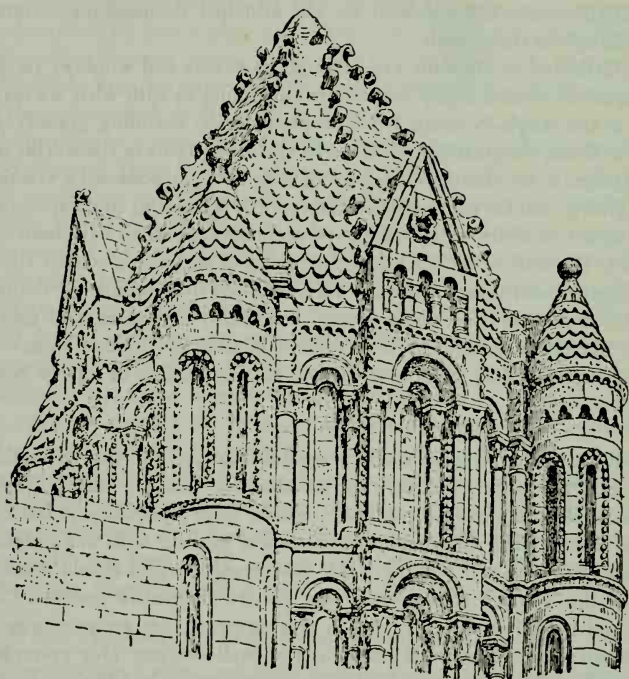


Fig. 11.32 Salamanca. Old Cathedral. Lantern.

More spectacular and more famous are the great vaulted minsters of the Rhine: those at Cologne, and the magnificent cathedrals at Mainz, Speyer, and Worms (Fig. 11.15). Late in date and derivative in detail from Lombardy, these large buildings are somewhat behind their time with respect to structure, but no reservations need deter our admiration for their exterior appearance. Worms in particular is a noble pile. Its immense size indicated by the multiplication of normal parts, its powerful masses seem endowed with life; it rises rather than stands above the lesser things around.

ROMANESQUE ENGINEERING: THE DEVELOPMENT OF THE STRUCTURAL AESTHETIC

With respect to felicity of design, the best Romanesque churches are those that carry the wooden roof. By comparison, most of the vaulted buildings are dark, overbearing, stern, and often outright clumsy. It was nevertheless these latter that looked toward the future, and make it necessary for us to recognize the Romanesque mind as a powerful force, capable of great new inspirations and major accomplishment.

Romanesque society was a society emerging from several centuries of disorder. People were prompted by a strong, immediate, and perhaps personal memory of destruction. They felt impelled to sacrifice something, and at times almost everything, for the permanence of vaulting. It was reserved for the Gothic to solve in final fashion the age-old problem of ecclesiastical architecture: how to design a well-lighted building of the traditional basilican form, but covered by a fireproof roof. The Romanesque period was the era of experiment leading forward to that desideratum, and some of the experiments were ingenious and original to a degree.

Some of the most eccentric vault forms ever conceived came into being in an effort to find a shape that would require little centering, exert small thrust, and which above all might be constructed from comparatively small stones. Although it seems at first to be outright bizarre, the roofing of Saint Ours at Loches (Fig. 11.33) is extremely clever and entirely practical. The nave was covered over by a series of steeples, each in effect a hollow pyramid. It is probable that little or no centering was required, and the pyramids exert no substantial thrust horizontally. The only complaint against the expedient is aesthetic: the unity of the ceiling necessarily breaks up into a series of separate items between which no visual coherence exists. Otherwise, the system might have become popular.

A system of even greater merit was tried at Saint Philibert in Tournus (Fig. 11.34). It was perhaps not entirely the invention of the Romanesque builders,

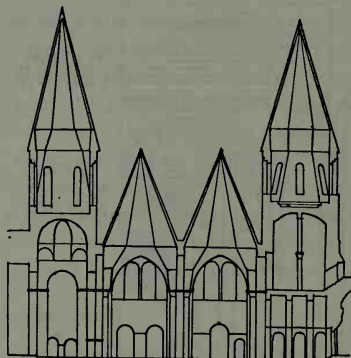


Fig. 11.33 Loches. Saint Ours. Schematic drawing to illustrate the peculiarities of the vaulting.

because a similar arrangement formed part of the substructure of Hadrian's villa at Tivoli; but the tricky problem of abutment has never been better solved, and good lighting was easy to provide. The vaulting of the nave was simply subdivided into five transverse compartments, each one being covered by a small tunnel vault with its axis at right angles to the nave. A clearstory window opened at either end of each compartment. The construction is perfectly safe. Each bay cancels out the thrust of its neighbors, and the total abutment required was only enough to hold in the last bay at either end of the series. Mechanically, there could hardly be anything more efficient, but the arrangement proved aesthetically intolerable; not only did it break the ceiling up into separate parts without artistic relation to each other, but the elements themselves (each section, that is, of tunnel vaulting) ran contrary to the long axis, or most important directional force, of the nave.

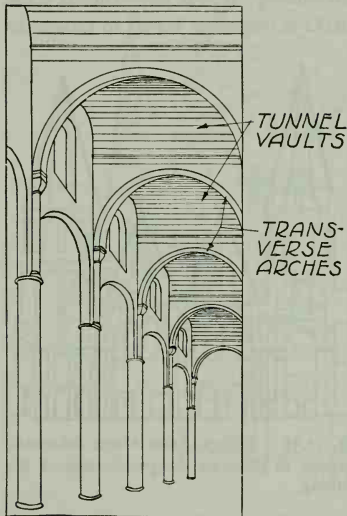


Fig. 11.34 Tournus. Saint Philibert. Drawing to illustrate the method of vaulting.

The domed churches of Aquitaine have already been cited in another connection. They were fireproof, to be sure; but they were ill-lighted and, from the standpoint of an aesthetic unity of the ceiling, perhaps even worse than either of the two systems just reviewed.

When integration of design is wanted for an interior, no other vault compares with the tunnel vault. It is a natural unit rather than an assembly of parts, and it has an axis so powerful that its force is not harmed by the addition of transverse ribs. The ribs, indeed, may be said to emphasize the length by providing a step by step progression toward the apse. Cluny had such a vault; and among those preserved, the finest are at Autun, Saint Sernin at Toulouse, and at Compostella (Figs. 7.3 and 11.13).

It seems logical to suppose that the thrusts of a ribbed tunnel vault would concentrate themselves almost entirely at the ribs. The system seems to invite the use of small separate buttresses properly located to contain each individual rib. Either because they did not believe this or because they had not yet comprehended all that might be accomplished by utilizing such concentration, it

was common Romanesque practice to buttress such a nave by some form of gallery vault at a high level, more or less as shown in Fig. 7.2. Because the arrangement renders clearstory windows inexpedient, such a nave was almost certain to be gloomy. Inexpedient or not, windows were sometimes provided (Fig. 11.13). In such instances, the stability of the vault must depend upon the inertia of its own weight (i.e., wasteful bulk of masonry), and upon the tensile strength of the mortar — for it can hardly be buttressed in any neat or logical fashion.

It seems a pity the ribbed tunnel vault passed out of popularity with the 12th Century. Had the full force of medieval genius been turned to the development and perfection of that pleasant form, the subsequent history of ecclesiastical architecture might have been favorably affected. That did not happen because the ribbed cross vault captured the imagination of architects. There is no denying it offered the easiest solution to their perennial problems; and it therefore became the only kind of vault ever used by the Gothic builders. While it is impossible to withhold admiration for the brilliant engineering ensuing upon its general adoption, there is no escaping the truth that a bay of cross vaulting, ribbed or otherwise, presents the eye with a confusion of line and contour. As an artistic form, the thing itself leaves much to be desired.

Sant' Ambrogio at Milan: Organic Architecture

Experimental cross vaults were common in Romanesque architecture. Usually, however, the nature of the form was incompletely understood, and its special advantage exploited only in part. By common consent, the earliest logical and mature use of the cross vault occurred when the plans were drawn for the nave of Sant' Ambrogio at Milan (Figs. 11.5-6, 35-39). The precise date of the design remains to be firmly established. Some parts of the church are very old; it was rebuilt several times, and the records are not clear about which period of rebuilding included the vaulted portions we are interested in. Italian scholars, perhaps overly anxious to claim priority for their own nation, used to contend that the entire fabric dated from the 9th Century; but they reasoned too boldly from an ambiguous inscription. It seems likely that the important elements of the vault system were designed, and perhaps built, during the pontificate of a certain Guido (1046-1071); but they may date from still another period of activity around 1129. In 1196 major repairs were necessary. French critics, likewise moved more by patriotism than evidence, have tried upon occasion to reduce the historical importance of Sant' Ambrogio by suggesting that the repair of 1196 was in fact a complete redesign and reconstruction according to French models — which by then had in truth surpassed the primitive structural logic of the church at Milan. And there the question rests.

Sant' Ambrogio has no transepts. The plan shows a three-aisled church, with the nave divided into four bays. We are concerned only with the western three, because the one nearest the apse is covered by a cupola. For some reason best known to themselves (there being no advantage one way or the other) Italian architects have traditionally preferred to use square bays of vaulting, and at Sant' Ambrogio the aisles were therefore made half as wide as the nave, with the result that two small bays exist in the aisle beside each big bay in the nave. Fig. 11.35 illustrates the relationship. Because a pier was necessary to take

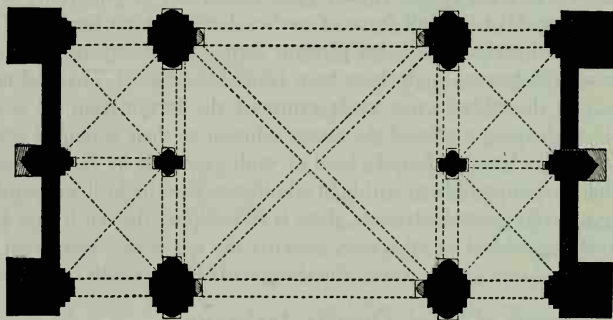


Fig. 11.35 Milan. Sant' Ambrogio. A detail from the plan, showing the relationship between the nave bays and the aisle bays, and illustrating the reason for an alternating system of supports.

the spring of every transverse rib in the aisles, the total number of piers was determined not by the nave vaulting, but by the number of bays in the aisle. But since some piers carried much and some little, the size and shape of any particular pier was adjusted accordingly. Hence the alternation of big complicated piers and small simple piers as shown by Fig. 11.6. Any church with such an arrangement of supports is said to have "the alternating system," as contrasted with "the uniform system" which was common in France.

Fig. 11.36 is an attempt to show in schematic fashion the complicated skeleton of ribs which forms the fabric of Sant' Ambrogio. The great vaults, as will be seen, were buttressed in adequate if not perfect fashion by smaller cross vaulting at the triforium level. A study of this drawing will make plain better than words the extent to which the entire design, from its first conception, was governed by a penetrating sensitivity for structural fact; and while inspecting the photographic plates, the reader should take care to note that questions ordinarily decided by artistic intuition (and for the sake of appearance only) were here settled by reference to structural logic. Every capital,

for example, was placed at a level determined by the impost of the arch it carries. Capitals bearing diagonal ribs have a diagonal orientation. The shafts from which the great nave ribs rise are unbroken verticals; they cut boldly through all subordinate material.

The intimate and functional relationship between part and part bears some analogy to the skeletal structure of a living thing. The attractiveness of the

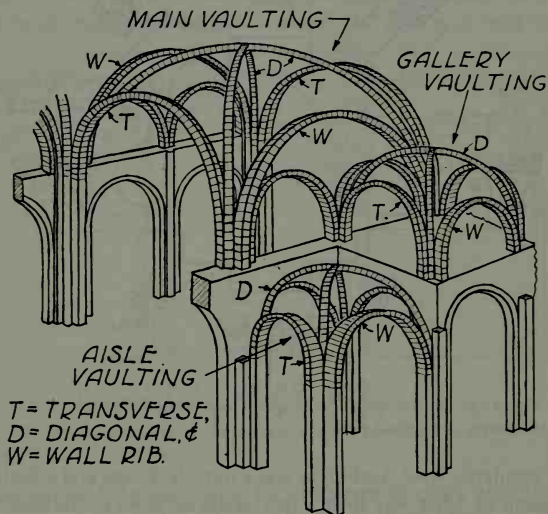


Fig. 11.36 Milan. Sant' Ambrogio. Schematic drawing to illustrate the arrangement of the more important parts of the fabric.

analogy is increased by the notion that there is life in the arches of the framework. Subjected to compression and exerting thrust, they seem to be undergoing an actual experience of a muscular kind.

The remarks just made will suggest a train of thought which has been popular among architectural critics for the past three generations and more. It has been usual to refer to a fabric like that of Sant' Ambrogio as *organic*, a term that entered the American vocabulary through the eloquent teaching and persuasive writing of the late Charles H. Moore. We have used the same word to name the system of composition invented and perfected by the Greeks and used by others (see above, page 65). There is no reason why the term may not prove useful, and perhaps helpful, in both applications, but a word of caution is requisite. *Organic* implies alive, and we think of life as good. *Inor-*

ganic, a word Mr. Moore used too often, seems by the same token to say dead. Moore applied it to any building that did not happen to be vaulted and to demonstrate in its design, moreover, a lively interest in the structural aesthetic outlined herewith.

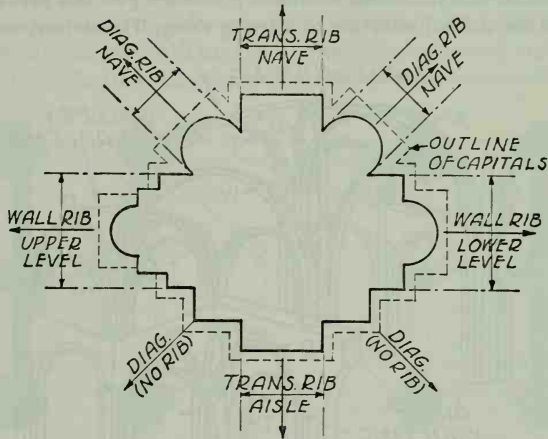


Fig. 11.37 Milan. Sant' Ambrogio. Cross section through one of the larger compound piers.

By any standard, Sant' Ambrogio was a notable design and a highly articulate expression of what was then a new aesthetic theory, and one which has since proven wonderfully productive. It seems a shame that justice requires us to call attention to some serious faults. The abutment, as already suggested, was far from a final solution of the problem; the high gallery condemns the

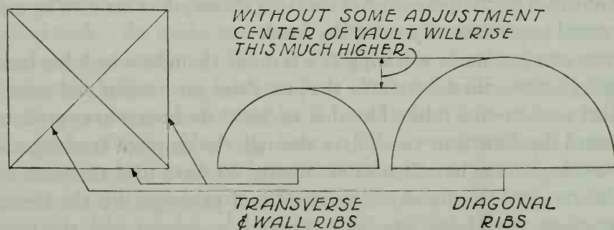
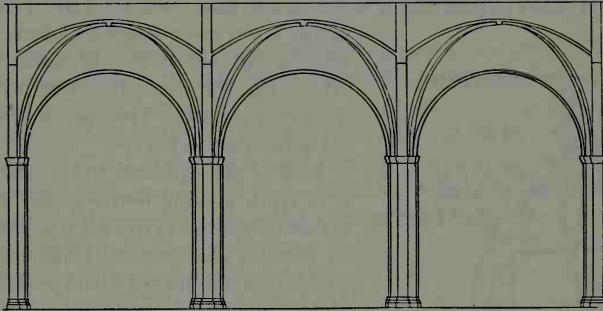


Fig. 11.38 Schematic drawing to demonstrate why the cross vaults of Sant' Ambrogio are of a domical shape.

nave to gloom. The doctrinaire application of structural logic to the piers (one part in the pier for every rib in the vault) made it necessary to accept a pier of great bulk and tedious complexity. Fig. 11.37 shows a cross section; impeccably logical, it is hardly a lucid expression.

The chief and major defect of the building is schematically indicated by Figs. 11.38-39. It appears never to have occurred to the Lombard designers to stilt the ribs of their vaults (as the Gothic architects were later to do) with the purpose of governing the height to which the crown of each rib might



SANT' AMBROGIO

Fig. 11.39 Milan. Sant' Ambrogio. Longitudinal cross section to demonstrate the rise of the domical vaults.

rise. They simply used the half circle for the shape of every arch they built. The bays being square, it followed that the diagonals had to rise higher than the other ribs; and because of that, each bay of cross vaulting was forced into a shape much closer to the dome than we might at first suppose. All of those things being settled, there was no chance left for getting a ceiling that might compose as an artistic unit. Instead, the nave of Sant' Ambrogio confronts the eye with three great gloomy and separate hollows. Its designers had nevertheless grasped most of the principles employed during the 13th Century. In order to arrive at the perfected Gothic, it was only necessary to draw a few conclusions from the suggestions implicit in the construction of this 11th-Century building. Men can be forgiven for a great deal of crudity when they are 200 years before their time.

Buttresses of the Abbaye aux Dames at Caen

Of all the faults listed at Sant' Ambrogio, clumsy abutment is perhaps the worst; but before a remedy could be found, it was necessary to wait for the

invention of a new and neater type of buttress — the *flying buttress* which forms so conspicuous a feature of the Gothic. As suggested above (page 406) the principle of the thing seems first to have been conceived at Caen, and by the man who designed the vaults for the Church of the Trinity.

That church has no gallery. Instead, the triforium space is occupied by a frieze of blind arcading only a few feet high. There is a lean-to roof behind the triforium and over the aisles. Under that roof and opposite each impost where the ribs of the nave vault gather to concentrate the thrusts, we find a series of segmental arches pitched steeply downward to meet the outer walls. These half

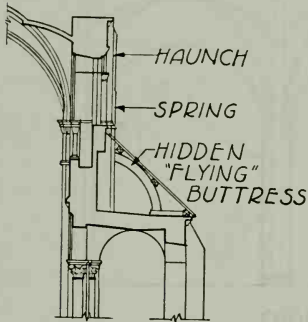


Fig. 11.40 Caen. La Trinité (Abbaye aux Dames). Drawing to illustrate the placement of the buttresses.

well, and the stability of the vault depends much upon its own inertia and the weight of the walls.

arches act as compression members, transmitting the thrust of the nave vaults. Above the triforium, clearstory windows open into the nave. The interior is one of the pleasantest in Europe.

Each of the segmental arches referred to is in truth a flying buttress; they merely are not permitted to fly. All that remained to produce the ultimate solution of the problem of the fireproof and well-lighted church was to remove the aisle roof, bring the buttresses outdoors, and raise them up to a position where they might act efficiently. For, as Fig. 11.40 shows, the ones at Caen are far too low to do their work

ROMANESQUE SCULPTURE AND PAINTING

The Romanesque period witnessed the revival of monumental sculpture and painting. Since Early Christian times, the art of painting had been largely limited to the production of miniature illustrations designed to be bound up in books. Of full scale sculpture, Europe had seen almost none since pagan Antiquity.

It is not easy to account for the revival at this particular moment in history. We may suppose that the same forces which called Romanesque architecture into being also account for its adornment. It is also clear that the strength had gone out of the distaste for sculpture which Europe had imported from the Near East along with Christianity. But whatever the causation, the artists of the 11th and 12th Centuries produced a prodigious harvest of material; so

much, indeed, that a whole lifetime of study would hardly be enough to make one intimately familiar with all the monuments. To save space, we shall confine our attention to Romanesque sculpture alone, and to certain French monuments which, by common consent, may fairly be called the definitive examples of the style as a whole. Of Romanesque painting, we must content ourselves with the mere remark that its stylistic features are similar, and that its study has of late years occupied the attention of some excellent scholars. A few examples are on view in American museums, notably the paintings that originally decorated the apse of Santa Maria de Mur, now in Boston.

The best way to approach Romanesque sculpture is to attempt to visualize the practical problems faced by the sculptors themselves. Confronted with the necessity of reviving an art that had been out of use for 500 years, what were they to do? Where could they look for guidance?

In the first place, all patronage came from the hierarchy of the church. Secular subject matter seems hardly to have been forbidden, but there was so little of it that it did not signify. In radical contrast with our modern view of the matter, neither painting nor sculpture seems to have been so much as conceived in the light of an independent art. Both were considered merely as an extension of architecture; the business of sculptor and painter was to increase the merit of churches by adding suitable embellishment.

It must be conceded, moreover, that Romanesque architects were almost invariably somewhat arbitrary and even rather stupid when it came to making proper provision for the work of the sculptors and painters. During the Gothic era, suitable arrangements for the display of sculpture were thought a necessity; niches and pedestals of the right sort were integral with the design of the church itself — and sculpture has never been better shown (see below, pages 464-467). But during the period now under review, the reverse was true. Major compositions had to be crowded into spaces that appear at times actually to have been left over. Narrative subject matter of a briefer kind was often ordered as a replacement for the acanthus leaves on the capitals of columns and piers, most of which remind us in a general way of the Corinthian. Single figures of major saints were specified at points and in places where no one would now dream of putting them.

All of these things combined to produce an art at first extremely confusing to the modern student. Distortions are commonplace, often simply for the purpose of adjusting things to the space assigned. Miniature figures are juxtaposed with oversize figures, in defiance of normal relations of scale. Compositions teem with item after item, as though a tempestuous spirit were being cramped within the containment of the frame.

Architectural limitations and impositions account for much that we see, but what of the other sources that produced this uniquely fascinating art which has the power to lure us quickly away from the classical and Renaissance standards of modern society? Like all other artists, the Romanesque sculptors were men, not Gods. Lacking the power of total creation, they could create only by borrowing from the work of earlier artists, and producing a new synthesis of their own. And when — and rather suddenly, it would seem — the order came for them to start a new artistic period, their first impulse was to copy. What was there for them to look at?

It is probably no exaggeration to say that the complete catalogue of Romanesque sculpture reflects somewhere the appearance of almost everything that might have been on view in the medieval world. At one extreme, we find such instances as the tympanum of the church at Dinton in Wiltshire, for all practical purposes a barbarian drawing committed to stone. At the other, we find the archaeologically self-conscious sculpture of South Italy, a local and premature Renaissance, which produced marble busts that might easily and properly be mistaken for classical sculpture. Most of the time, however, the Romanesque sculptor found his model in the works of art his ecclesiastical patrons already owned and were used to, namely, the illustrations of Christian manuscripts. It was this fact that accounts for much that is complex and strange in the whole period. Not only were there available manuscripts of a great many kinds, but the sculptors themselves, primitive in their own craft, were yet deriving their style from an extremely sophisticated tradition in another medium.

Occasionally, it is possible to identify the particular miniature which served as model for a capital or lunette. More often, the style itself is a self-evident indication that some such transaction took place, and we can usually make a fairly good guess about the particular class of manuscript from which the sculptor worked. Within the great variety of style, or styles, thus brought into the total catalogue of the period, it is fair to say that most work in what we may call the main current of the Romanesque derived from manuscripts of two kinds.

For animals, grotesques, and devils the whole barbarian tradition furnished sources of incomparable virtuosity. We may imagine frequent reference to such manuscripts as the *Book of Kells* (see above, pages 305-310); but in order to account for the more plausible but still fantastic creatures to be seen on the face of the outer order of the splayed arch at Aulnay (Fig. 11.7), we must refer also to the *bestiaries*, a peculiar kind of book that had become immensely popular.

A bestiary purported to furnish information about the appearance and nature of living creatures. A large one might include descriptions of as many as 200 animals, from whose habits the text would draw religious lessons. As a class, the bestiaries may be traced back into pagan times, and some of the entries reflect classical fables. The zoological metaphor in which the Bible abounds also stimulated the medieval imagination, and if we look for them we may see lambs of God, lions of the House of Judah, and even the deaf adder that stoppeth up her ears. The influence of the bestiaries did much to make Romanesque sculpture into an art "splendidly free from the fetters of realism" — for most of the beasts in the bestiaries are imaginary.

Drawing upon the northern tradition as expanded by the bestiaries, Romanesque artists brought into being a class of sculpture in which the wildest and strangest visions of the mind were reduced to tangible representation and made permanent in stone (Fig. 11.18). The entire society of the period was peculiarly congenial to such material. No account could possibly be long enough to describe in detail the manifold variations of the Romanesque excursion into the supernatural, and we must be content with only an instance or two to illustrate the temper and trend of the time.

The story of the Devil's endeavor to tempt Christ seems, for example, to have furnished a precedent for innumerable personal appearances by the Black Master and his demons to humbler Christians. Raoul Glaber, quoted above (page 389) in quite another connection, says that the Devil bothered him on at least three occasions. "He was of small stature. He had a protruding belly, and a low forehead. His large mouth revealed a denture like that of a dog. His hair stood on end, and his movements were convulsive." It is one of the innumerable contributions of M. Emile Mâle to have recognized that Glaber's description conforms very closely with the Devil who appears several times on the capitals of Vézelay (Fig. 11.19).

For subject matter demanding the presence of the human figure, the leading Romanesque sculptors (in France, at any rate) seem to have relied for their models upon manuscripts either produced by the Carolingian School of Reims (see above, pages 326-328), or deriving from one of the traditions set in motion by that school. Their preference is profoundly indicative of the direction in which European taste was moving, for it had been the great achievement of the Reims illuminators to have adapted northern line to the rendering of the human figure. In suggesting the work of Reims as a favorite source during the period covered by the present chapter, it is necessary to stipulate that we refer to figure-style only; the spatial representation so competently handled by the Reims painters formed no part of the Romanesque borrowing.

The handling of the single figure is epitomized by the *Prophet Isaiah* of the Abbey Church at Souillac (Fig. 11.17). The slender canon of proportions, the extravagant pose, the action of the body in the region of the hips — all remind us of manuscripts from Reims. The surcharge of feeling, in which the artist so plainly participated, could have come from nowhere else. With incredible skill, the sculptor rendered in stone the swirling curves of some master penman. In several places, he has resorted to under-cutting in order to produce shadows which recall to some extent the darker areas of paintings. Purists will raise objections that such a tour de force, however accomplished in the technical sense, forms no part of the proper business of the sculptor. There is much to be said on their side; surely nothing could be more out of place in stone carving than the meander pattern below the figure, which is rendered in perspective because perspective had been necessary in the picture that was used for a model. Such reservations tend to be forgotten, however, when one considers the total effect of the whole work: where or when has religious ecstasy been more adequately demonstrated in visual terms?

For the modern student to whom the beauty and dignity of the body seems axiomatic, this and other Romanesque figures nevertheless require considerable apology and explanation. The emaciated, unhealthy, unlovely, and incorrect anatomy of the *Isaiah* do violence to our taste and habits of thought. It must be remembered that the Romanesque artists lived in a world into which the modern scientific point of view had not yet intruded, and in a religious atmosphere that held the body in contempt. Its creation in the divine image was minimized, and its capacity as an instrument of temptation and evil was reinforced by constant warning. The point was not to celebrate humanity, but to visualize states of the spirit. So appreciated, the Romanesque figure-style becomes entirely comprehensible.

Having thus characterized the Romanesque style in sculpture, we may turn our attention to its most notable major monuments. From the wealth of available material, it is difficult to choose; but there are few who would quarrel with the statement that the three grandest compositions of the period are the great tympana of Moissac, Vézelay, and Autun.

The subject of the tympanum at Moissac (Figs. 11.20-21) is taken from the fourth chapter of Revelations, where Saint John describes his vision of God's throne. A gate opened into heaven, revealing the Almighty surrounded by four-and-twenty elders who wore crowns of gold, and by the four beasts we know as the Symbols of the Evangelists (see above, pages 286-287). In his hand, God held a book sealed with seven seals, and there was "a strong angel proclaiming in a loud voice, 'Who is worthy to open the book, and to loose the

seals thereof? ' ' The artist has supplied a second angel, but that is no liberty, since many of them were there, continuously singing.

Crowded and confusing at first glance, the composition becomes vivid and clear as one gathers familiarity: like all other art related in any way with the Northern Style, the total effect arrives only after a cumulative process of comprehension. Once one knows the tympanum well, the realization emerges that no style bound by the rules of natural fact could possibly compete with the Romanesque in the field of Apocalyptic imagery. Transcendental visions demand an art that surges quite beyond the limits of all possible experience on earth.

For the student who becomes interested in problems of stylistic derivation, the Moissac tympanum offers an added interest. Professor Mâle (*L'art religieuse en France du XII^e siècle*, Chapter I) believes that he has identified the very manuscripts (or some so like them it makes no difference) which were used as models by the Moissac sculptor. The four-and-twenty elders with their peculiar musical instruments appear in an illustration preserved in the Bibliothèque Nationale, in a copy of the commentary on the Apocalypse written by Beatus of Liebana, a Spanish monk. For the figure of Christ, M. Mâle finds a likely source in a miniature now in the library of the Cathedral at Auxerre.

Although other explanations have been suggested, it seems almost certain that the tympanum of Vézelay (Fig. 11.22-23) was intended to represent Pentecost. The bare description of the event as given in the second chapter of The Acts has been considerably elaborated and built upon by the imagination of the artist. In the middle, there is a Christ enclosed in an elliptical glory (full length halo). To either side of him, a bit of cloud serves as an indication of his heavenly location. We are intended to suppose that his body is the radiating center through which the heavenly spirit passes, thence being transmitted to the Apostles below by means of rays emanating from his fingertips. The agitated draperies indicate the sculptor's attempt to depict the "rushing mighty wind" that swept down from heaven and filled the house.

Different scholars have advanced different views about the identity of the numerous figures across the lintel below the main scene, and those contained in the compartments which run above and around it. While it is far from easy to decide the matter, a probable explanation is as follows:

During the Middle Ages, Pentecost was understood to signify more than the gift of tongues; it was a mandate to carry the Gospel to all humanity. That idea furnishes a reason for the otherwise incomprehensible variety of people who crowd every available space. A detailed study will reveal many of the wonders of the 12th-Century ethnography. Many of the figures, it seems, were

intended to represent the various heathen to whom the word would be taken. Of special interest are the Cynocephaloi, a dog-headed tribe believed to live in India; and the Panotii, with immense ears, who were then to be found in South Russia — or at least so it was said. In the semicircle around the whole, in little circular compartments, are the *Signs of the Zodiac* and the *Labors of the Months*, subjects which remained in high favor as long as the Middle Age lasted. Over and above their interest as genre, it seems plausible to suppose that the monthly cycle of activities would suggest the passage of time on earth. The astronomical symbols seem similarly related to the vaster concept of the universe, and of eternity.

The tympanum of Saint Lazare at Autun is a *Last Judgment* (Figs. 11.11-12). It is signed by the sculptor Giselbertus, who states his purposes plainly: *Terreat quos terreus alligat error* — "Let this horror appall those bound by earthly sin!"

In the lower register, the dead are rising from their graves. Two of them, just to left of center, carry musette bags, one with the mark of the cross and the other with a conch shell, the badge of pilgrims to Jerusalem and Compostella respectively. In the middle of the lunette above, there is a gigantic figure of Christ. The inscription around the border of his glory announces the business of the occasion: to the blessed he will award crowns; the evil he will send to perdition. The tympanum, judged barbarous by the canons of the church, was covered with a brick facing in 1766 — a mistake which probably saved it from complete destruction during the revolution, but one that accounts for the mutilation of the Christ and other figures. The head of the Christ was identified, however, in 1949; and it is back in place today.

To the Saviour's right, in the top register, we see the virgin; and to his left, Saint John the Evangelist. Both are there to act as intercessors for the souls who come to judgment. Beyond them, and in several other places, are angels with trumpets, blowing the blast that will one day announce the end of the world. To Christ's right and a bit below, Saint Peter stands with his immense key; he is surrounded by angels who help him chaperon the souls of the blessed into the heavenly city. On the other side, Saint Michael superintends the weighing of the souls. The ethics of the Devil and his minions may be inferred by their eagerness to pull the scales down on their side. Those who have failed the test are tossed into the flaming mouth of hell, which opens like a hopper at the extreme right.

Living long after the Greeks and long before the Italian Renaissance, Giselbertus was not bothered by artistic theories which inevitably influence our thought today. Among those theories, we must make special mention of the

notion that there is an inevitable association of art with beauty — an idea that we inherit from the Italian artists, who in turn had inherited it from Antiquity. Beauty was obviously quite the opposite of Giselbertus's intention when he executed his famous *Last Judgment* — which is probably the most terrible and hideous work of art on record. It is immensely important to appreciate, however, that his philosophy was different from the Greek idealists not in kind, but in direction. Where the Greeks picked, chose, elided, and in general corrected the works of nature to fit their peculiar ideas of the noble and beautiful, this 12th-Century sculptor (also starting from things he had seen in the world) used his imagination to produce the worst devils in history. His point of view was not far different from that of the modern Surrealists (see below, pages 936 ff.). They derive their subject matter from the little known reaches of the mind, often with shocking effect. He drew his from the visualizations evoked by the more extreme and terrible suggestions contained within the Bible, and he arrived at the most extreme and radical art the world has yet to see.

*

12

GOTHIC ARCHITECTURE

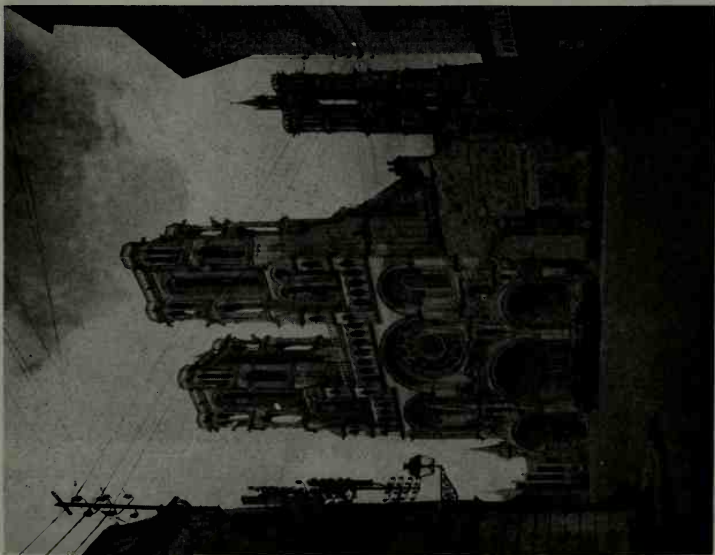
Gothic art began to assume its characteristic forms during the first generation of the 12th Century. As though by manifesto, the existence of a new style was announced in the year 1140, when the Abbot Suger approved the plans and caused work to commence upon a new church for the royal abbey at Saint Denis, about 2½ miles outside the northern walls of Paris, and on the site where the martyred first bishop of the city had been buried — after walking, it is said, all the way from his decapitation on Montmartre, carrying his head in his hands. Unfortunately, Suger's church was almost completely obliterated by a reconstruction undertaken in 1231, the new work being done in the then dominant High Gothic style. From what is left and from what may legitimately be inferred, Saint Denis was the first large and important church in which all parts were fully articulated to produce the skeletal structure henceforth typical of the Gothic.

It would be a mistake to suggest that the design of Suger's Saint Denis came into being by way of a single act of inspiration. The truth is that every essential of the new system had been in plain sight somewhere or other among the manifold variations of the Romanesque. The novelty lay in an original synthesis of well-tried features; and for the synthesis itself, earlier and humbler churches in the vicinity had pioneered the way.

Saint Denis is to be remembered not only as the signal for the arrival of the Gothic style, but also as the monument which marks the assumption by France of the cultural leadership of the whole Western world. The France to which we refer is not the extensive modern political unit, but the medieval France, more exactly known as the *Ile de France*, which was the traditional name in feudal times for the district reserved by the king as his personal domain. The name is often rather loosely applied, and the area designated differed from time to time. For our purposes, we may visualize it as the region around Paris. Chartres, Amiens, Reims, and Bourges may be thought of as suggesting its artistic if not its political boundaries.



67 feet. Height of vaults 78 feet. PHOTOGRAPHS BY CLARENCE WARD.



Figs. 12.1-2 Laon. Cathedral. Started about 1165. Overall length 397 feet; 178 feet across transepts. Towers 187 feet high. Width across nave



ROUBIER

Fig. 12.3 Chartres. Cathedral. The three western doorways, together with their sculpture, originally formed part of an earlier church and date from about 1145. Most of the fabric, including the north tower, is of the first half of the 13th Century. The spire on the south tower was added in 1510.



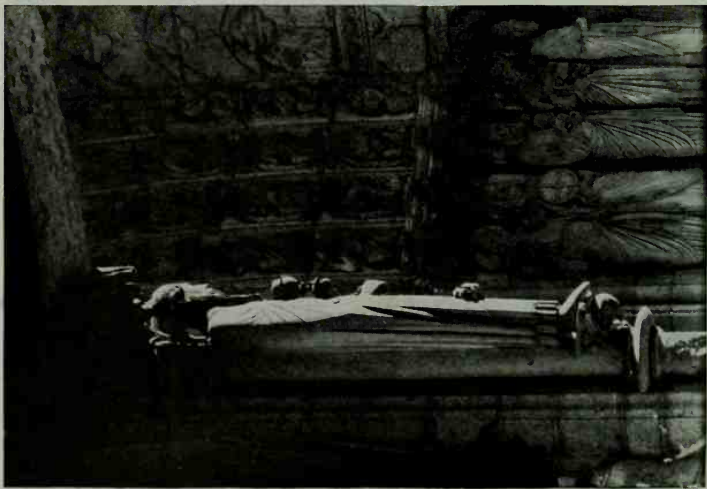
AERO-PHOTO

Fig. 12.4 (above) Chartres Cathedral.

Fig. 12.5 Chartres Cathedral. Central doorway of the West Porch. About 1145.

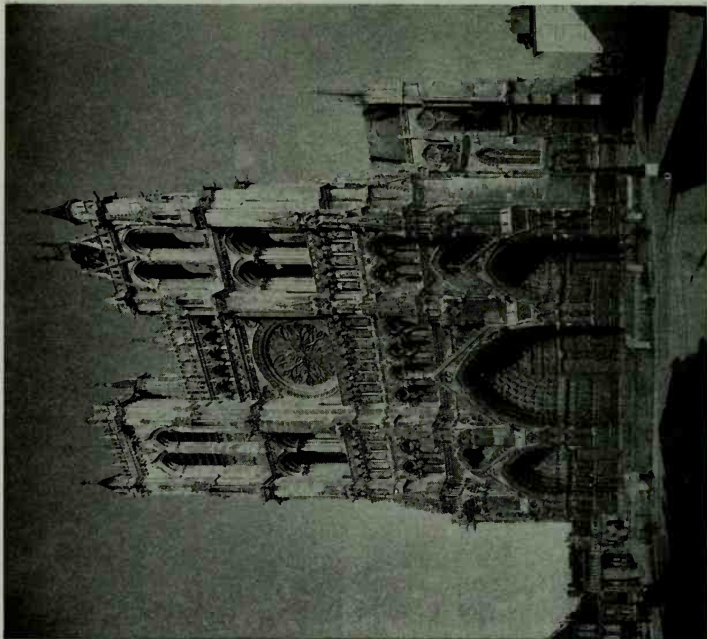


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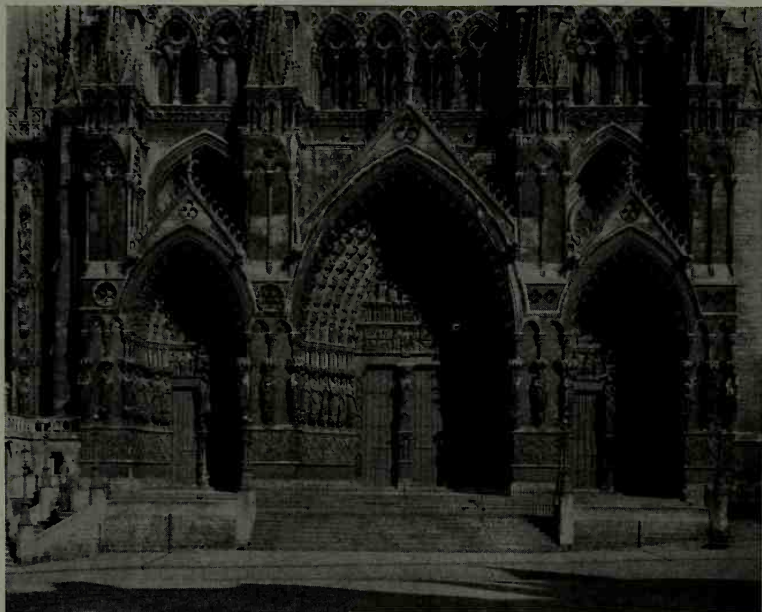
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Fig. 12.6 Chartres, Cathedral. Statue of Melchisedek, on trumeau of the central door of the North Porch.



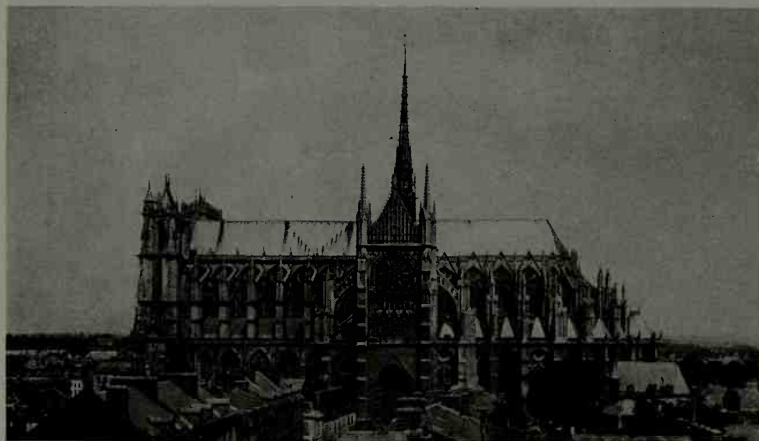
CLARENCE WARD

Fig. 12.7 Amiens, Cathedral. Started 1220. Height of north tower: 216 feet.



CLARENCE WARD

Fig. 12.8 Amiens. Western doors. Width across façade: about 130 feet.



GIRAUDON

Fig. 12.9 Amiens. View from the south. Height to ridge of the roof: 200 feet. To tip of flèche: 370 feet. Length: about 475 feet.

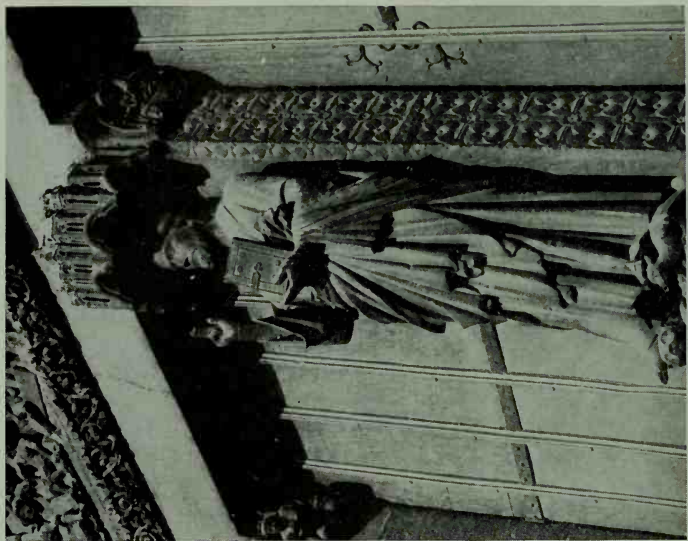
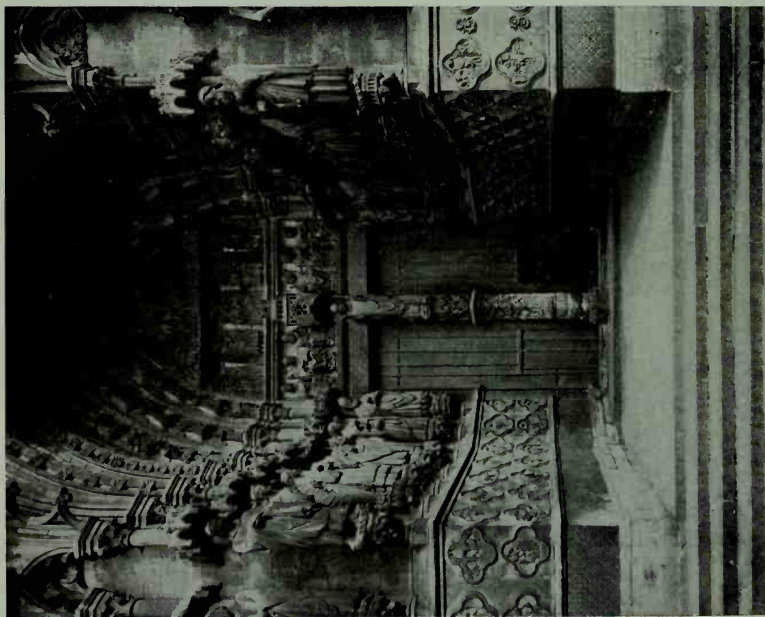


Fig. 12.10 (left) Amiens, North door on the West front, with statue of Saint Firmin on the trumeau, CLARENCE WARD, Fig. 12.11 (above) Trumeau of the central door, with "Le Beau Dieu," ROUBIER.



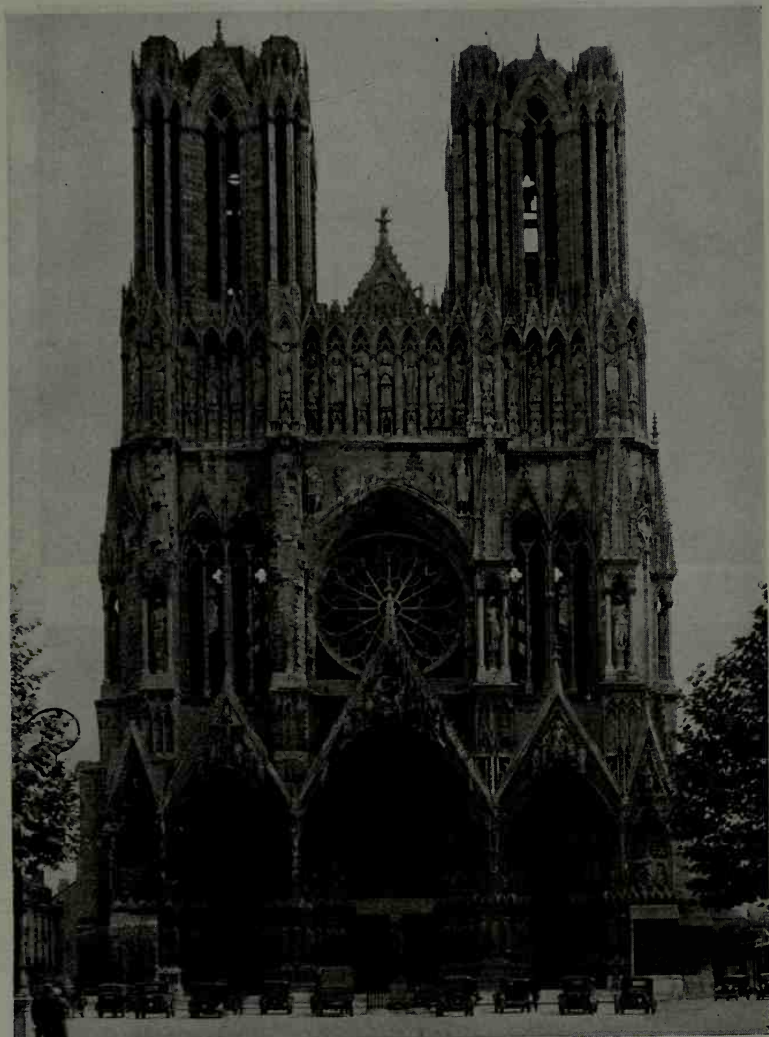
CLARENCE WARD

Fig. 12.12 Amiens. View into the vaults of the choir and apse. Height to underside of vaulting; about 139 feet.



CLARENCE WARD

Fig. 12.13 Amiens. View of the nave from the gallery of the south transept. Width of nave: about 46 feet. Extreme width of church from wall to wall: about 150 feet. Height to underside of vaulting: 139 feet.



CLARENCE WARD

Fig. 12.14 Reims. Cathedral.



Figs. 12, 15-16 Reims. Main portal of the western façade. Left: *The Presentation in the Temple*. Right: *The Annunciation* and *The Visitation*. PHOTOGRAPHS BY ROUBIER.



ARCHIVES PHOTOGRAPHIQUES

Fig. 12.17 LeMans. Cathedral. The chevet. End of the 13th Century.



CLARENCE WARD

Fig. 12.18 Beauvais. The choir as rebuilt after the collapse of the vaults in 1284.



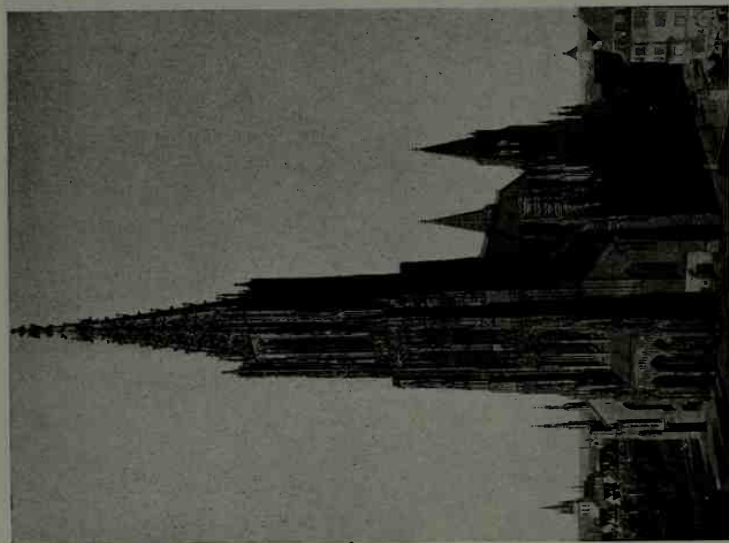
ANDERSON

Fig. 12.19 Florence. Santa Croce. Started 1294.



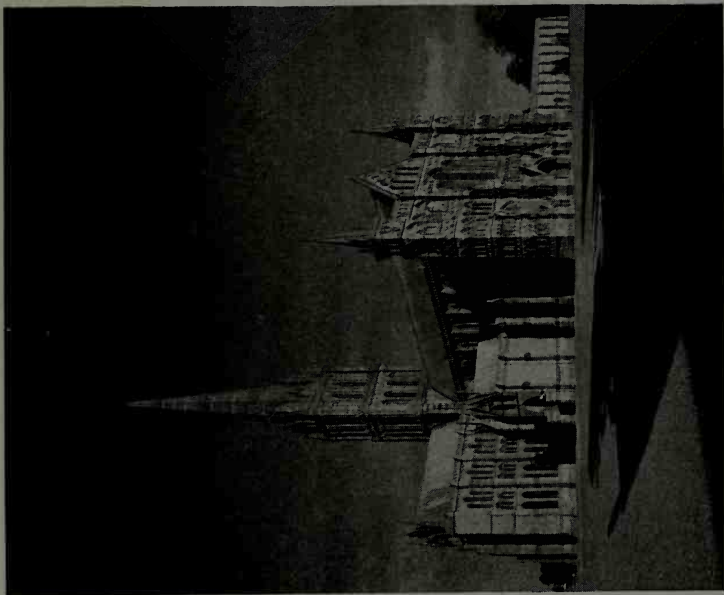
MARBURG

Fig. 12.20 Marburg. Saint Elizabeth's. Started 1235.



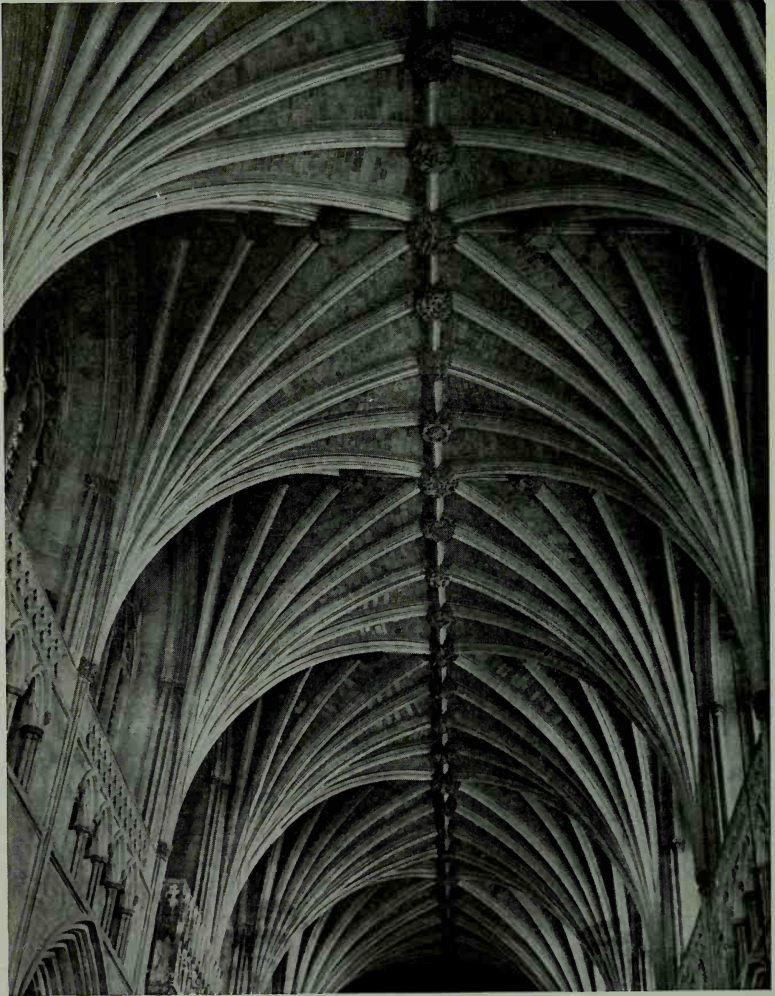
DEUTSCHER KUNSTVERLAG

Fig. 12.21 Ulm. Cathedral.



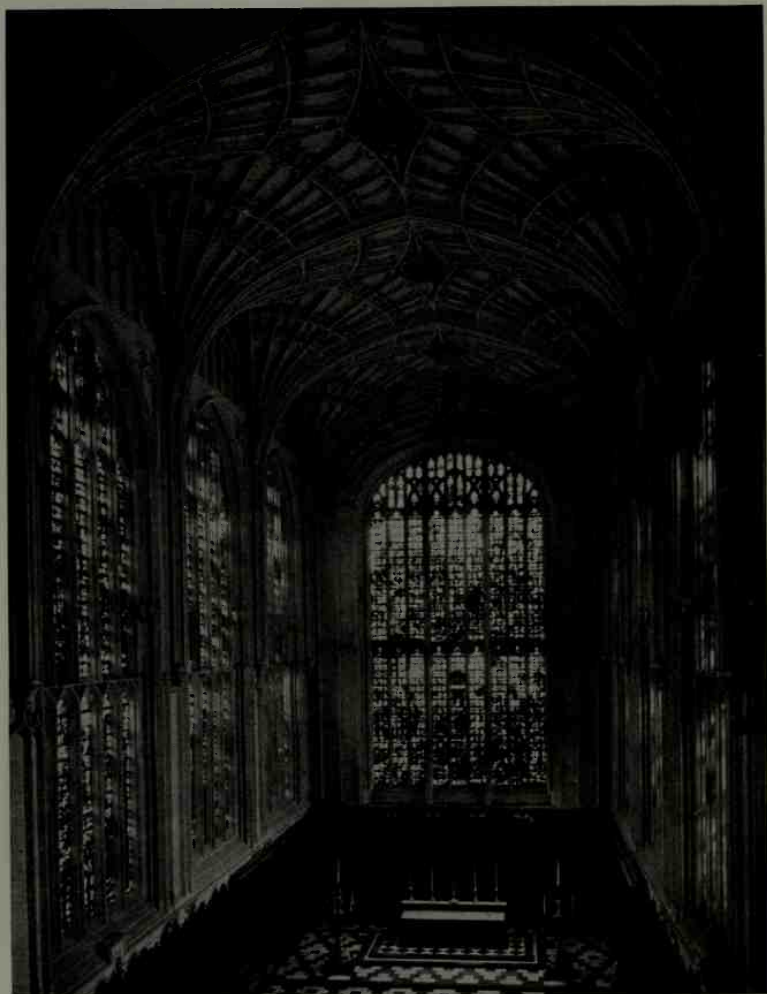
NATIONAL BUILDINGS RECORD

Fig. 12.22 Salisbury. Cathedral.



CROSSLEY

Fig. 12.23 Exeter, Cathedral. Vaulting of the Nave. 14th Century.



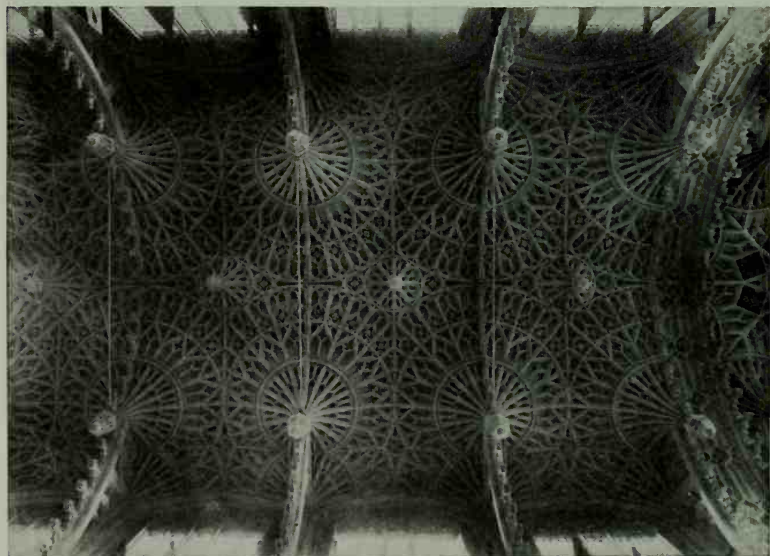
COUNTRY LIFE

Fig. 12.24 Cambridge. King's College Chapel. 1446 to about 1535.



NATIONAL BUILDINGS RECORD

Figs. 12.25-26 London. Westminster Abbey. Chapel of Henry the 7th. 1502-1520. View from the southeast (above) and view of the vaulting (below).



CROWN COPYRIGHT

Fig. 12.27 London. Westminster Hall. Hammer-beam roof. 1398. Span: 68 feet.



TUCK



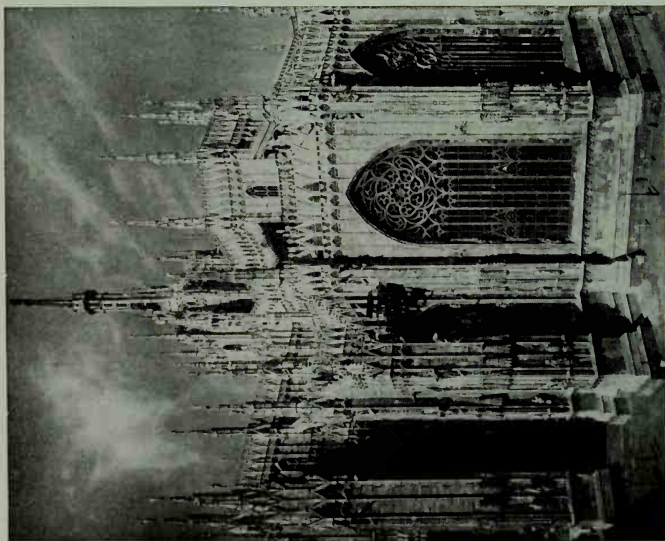
WAYNE ANDREWS

Fig. 12.28 (above) Topsfield, Massachusetts. The Parson Capen House. 1683.



Fig. 12.29 (left) Cottage at Kingsbury Green, Middlesex.

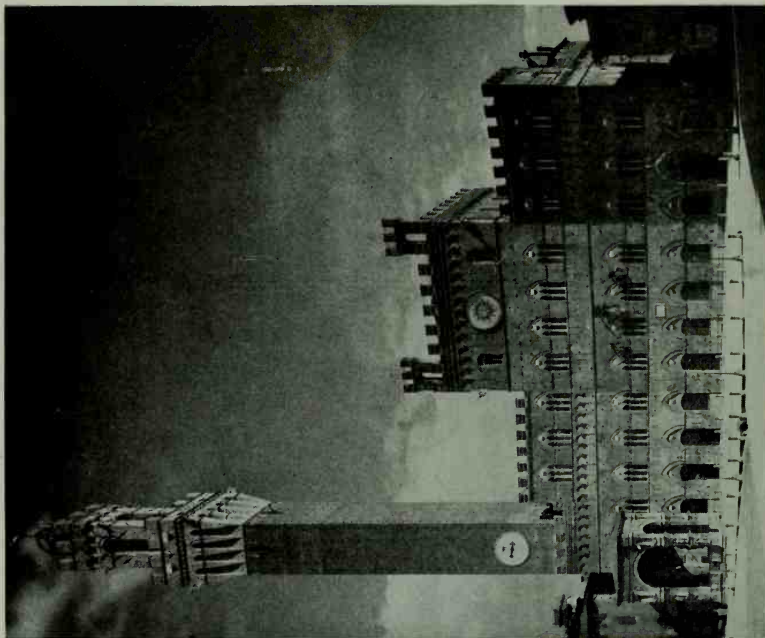
M. S. BRIGGS



BROGI

Fig. 12.30 Milan. Cathedral, 1386-1500.

Fig. 12.31 (right) Siena. Palazzo Pubblico, 1287-1305. Tower, 1338-1405.



ALINARI



Figs. 12.32-33 Valladolid. College of San Gregorio. 1488. PHOTOGRAPHS BY RICHARD W. DWIGHT.



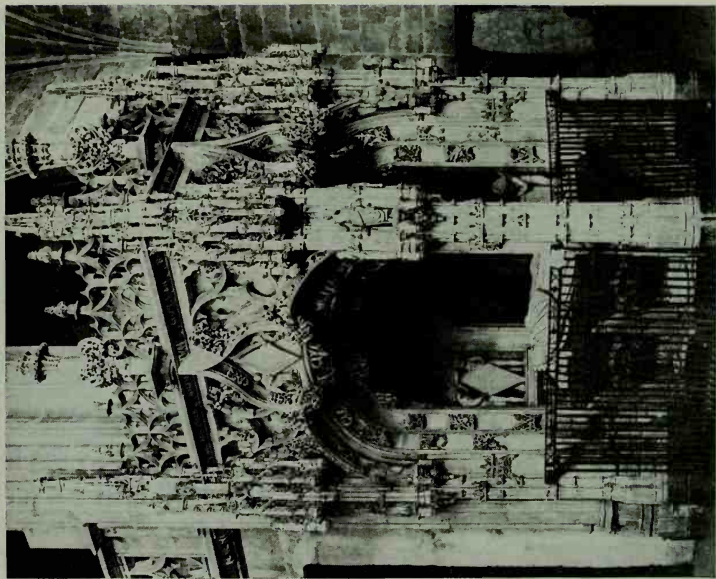
STOEDTNER

Fig. 12.34 Salamanca. University. Detail of façade.



MARBURG

Fig. 12.35 (left) Coutances, Saint Pierre. Finished 1494.



ARCHIVES PHOTOGRAPHIQUES

Fig. 12.36 Bourg, The Church of Brou. Tomb of Marguerite of Austria (died 1530).



FRENCH GOVERNMENT TOURIST OFFICE

Fig. 12.37 Chambord. Chateau. 1526-44. View from the air.

Once the internal logic of the new style had been made manifest at Saint Denis, development went on apace within the Ile de France. Perfection succeeded development, and refinement perfection. Word of the new advances went outward from the Ile de France to all parts of Christendom, attracting ready interest. As the 13th Century opened, almost every region was prepared to abandon its local Romanesque for the novel French manner — which was more or less perfectly understood, as later pages will demonstrate. And as he reads the text below, let the reader often remind himself that where the Gothic went, everything else that was French came with it. French books, French clothes and manners, French schools and procedures, French customs and institutions — all were a pattern for the rest of the Christian world. It is a simple statement of fact to say that the heart of Gothic Europe lay in Paris.

Reasons for the Cultural Primacy of France During the Gothic Era

Artistic styles do not emerge from nothing. The reader will naturally be curious to know what causes combined to produce the Gothic in the Ile de France at the particular juncture when it appeared, and to maintain northern France, moreover, as the vital and creative center of the style for better than 150 years.

The primacy of France depended upon more than the presence in that area of the cleverest architects; it derived from a great combination of things. In the first place, the power of the French kings, hitherto nominal, had been strengthened into the best centralized and best administered civil authority in Europe. Philip Augustus (reigned 1180–1223) was the creative genius who performed the final act of solidifying the royal power; superb in both diplomacy and force, he looms as a personality of brutal grandeur.

A much more attractive figure was Philip's grandson, Louis the 9th, who came to the throne in 1226. With the Pope, he had a *modus vivendi* which was positively cordial by contrast to the relations between the pontiff and other rulers. While both Germany and England were disrupted by civil wars, he managed to maintain comparative peace in France. He understood very well the value of court display as an adjunct to the royal dignity; but at the same time, and with the insight of an artist, he discerned the meaning of restraint in dress, and of gentleness and consideration in relations with others. His lifetime coincides with the general acceptance of the ennobling code of chivalry, which has ever since remained the European philosophy of manners. The contrast, indeed, between his court and that of his mighty grandfather has caused more than one historian to declare that there were absolutely no gentlemen in western Europe before the 13th Century. Profoundly religious, Louis injured his health by ascetic practices. An accomplished knight, he went on two Cru-

sades; he died in North Africa on the second, in the year 1270. All the virtues of medieval society seem to have been concentrated in the person of this king. He was canonized in 1297, and he is usually known as Saint Louis.

In addition to being the seat of a monarchy both strong and good, the Ile de France had certain material reasons to aid her assumption of leadership. A glance at the map will show that the area was uncommonly well situated to participate in the general expansion of trade which took place all over Europe during the Gothic era. The celebrated and circulating *Fairs of Champagne*, the most highly developed system of marketing since Rome, were conveniently at hand. The district was also ideally placed to profit by the traffic along several great river highways. Prosperity ensued, and must not be forgotten as a necessary pre-condition for the construction of great cathedrals.

By comparison to the rest of Europe, the Ile de France had, when considered as a likely center for a new era in human culture, the immense additional advantage of being the seat of the greatest of medieval universities. After existing informally for a generation and more, the University of Paris assumed its corporate identity shortly after 1150. It set a new standard for all the others, and it remains one of the best. No other institution has ever had teachers remotely comparable to the series of great men who taught there. Abelard and Peter Lombard were among its earlier professors, to be followed by Albertus Magnus and Saint Thomas Aquinas.

The university had started as a place where advanced students might receive instruction in the art of dialectic; and the earliest curriculum, if it may be called that, set the pattern for future policy. By importation from Spain and the Near East, Western scholars had gradually come into possession of better and more complete texts of Aristotle. They put their improved knowledge to work in a full-scale attempt to create a distinctively Christian philosophy which has ever since been known as the *Scholastic* — the name is not an attempt to describe their ideas; it merely means they taught in schools. The great single monument of Scholasticism is the *Summa Theologica* of Saint Thomas, a work that concerns us deeply because it bears intimate analogies with Gothic art.

Saint Thomas's great idea was to prove the truth of the Christian dogma by reference to data we see about us in the world. His ultimate aim was to present a consistent picture of the universe by showing that every item and object fitted into the divine scheme. The final conclusion to which his thinking leads us is the concept that there is no difference between the finite and the infinite, but that one is simply an extension of the other.

So brief a summary does severe injustice to a work almost as large in bulk as

it is in intellectual grandeur; let the reader seek the original for himself. We have said enough, however, to make our present point, namely, that the colossal scale of Thomas's inquiry made brilliant powers of arrangement necessary. Thousands of ideas had to be marshalled in an effective system of heading and subheading. His success may be judged by the numerous ways in which one may hear it said that everything in the *Summa* fits into a place. Its minute parts fit not only one another, but make sense in relation to the general scheme. Word for word, the same statement is precisely true of the French Gothic cathedral.

It is not suggested that all the master builders were philosophers with university training, but it would not be surprising to find proof one day that some of them were. The important thing to appreciate is the certainty that Scholasticism had a much broader and more popular base than we might at first imagine. The artists of that period breathed in a deep respect for sustained intellectual activity. That, without doubt, was the reason why everything Gothic — over and above its other excellencies — had to stand logical analysis and satisfy the rational faculty. In comprehending the force and color of what has just been said, we must attempt to see that the Gothic mind felt no need to separate the idea of divinity from the physical world. To the builder of the period, it probably seemed plain common sense to regard the stones of his church as details in God's universal order. Thrust and abutment, for one in the same state of mind, were less brute forces, and more a department of celestial physics. Building (so viewed) became more than a skill; to understand it was to possess an essential constituent of the knowledge by which men might come to a Christian understanding of their world.

Such seem to have been the reasons for the superior ingenuity which distinguishes the Gothic of northern France from all the rest of Gothic, making it at once more scientific, more elegant, and more abstract. But still another reason — a final item to remind us that history does not always proceed along avenues laid out on the grand scale — must be adduced to show why the Ile de France became the birthplace of the new day. The simple fact of the matter is that the region had not been prosperous during the Romanesque period. Its monuments from that time are small and few. There thus existed the plainest possible reason for architectural activity: in Paris and the towns around it, there was a serious lack of adequate churches.

The Name Gothic

Before attempting to deal with the monuments, it is requisite that we pause briefly to explain how the new French style came to be called *Gothic*. The word is a misnomer, and in general use today only through habit. In no sense

was it contemporary with the art it designates, and it originated as a taunt. The first persons to use it were men of the later Renaissance who wanted to give trenchant expression to their contempt for everything medieval. A more catholic taste would have corrected their criticism. A more precise knowledge of history would have corrected their language. There were no Goths left in Europe during the 12th Century; they had disappeared as a distinct ethnic group about 600 years earlier. It is strange that men of the highest mental powers could have entertained such views or made so gross an error, but we must remember that the modern historical perspective by which we profit dates only from the 19th Century.

Gothic retained its opprobrious connotation until the latter part of the 18th Century. Its use in any kindly sense was probably unknown until the time of Horace Walpole; but from that point onward, the word has gained an ever-increasing aura of prestige. Medieval art actually vied with the classical during the 19th Century as a field for art-historical research; the greatest monument from that movement is the still indispensable *Dictionnaire raisonné de l'architecture française du XI^e au XVI^e siècle*, which was complete in 1868. The author was Viollet-le-Duc, and his ten handy volumes constitute a gold mine of lucid architectural drawings, some of which we reproduce here. It is also to be remembered that the Romantic movement of the same period (see below, pages 852-861) was largely inspired by sympathy for the medieval values. The result was that *Gothic* began to emerge as a term of praise.

Once established as such, it followed inevitably that an attempt would be made to refine its meaning. One of the most cogent thinkers along that line was the late Charles H. Moore, the first curator of the Fogg Museum at Harvard University. We have already referred to his organic theory of architecture (see above, pages 411-416). With respect to the name Gothic, Moore's intention was to reserve its use for monuments of demonstrable superiority — which to his mind meant only the most organic of all. Moore asserted that the essence of the Gothic style (and therefore the meaning of the name) was to be found in a peculiar structural system which depended for stability not upon inert mass “. . . but upon a logical adjustment of parts, whose opposing forces neutralize each other and produce a perfect equilibrium.” All other buildings, however much they looked like Gothic, were relegated by Moore to the category of “pointed” architecture.

Moore learned his theory from Viollet-le-Duc, but his central position at the oldest and then the only great university in America lent his words a special influence which still continues. His assertions always had an unusual power to convince; and as a teacher of teachers, he has probably been more precisely remembered and explicitly quoted than any other critic of art.

Moore was correct in most of what he asserted but gravely wrong in what he denied. His strictures would deny the name Gothic to everything from the era except the architecture of northern France. In construing Gothic solely as architecture, he forgot the sculpture, the stained glass, the manuscripts, the furniture, the jewelry, and all the other arts that are truly Gothic — and to which, as a matter of fact, he alluded often in his writings. In presenting the development of Gothic architecture solely as a mechanical evolution brought about by a gradual refinement of engineering, he left out the crucial truth that there would have been no Gothic except for the presence in Europe of the Northern and Barbarian Style — of which, as we shall see presently, Gothic was the mature and ultimate expression.

Even today, there is substantial difference of opinion about the meaning and interpretation of the Gothic; scholars who are otherwise friends argue and contradict with feelings that tend to become aroused. How can the same visual data evoke such difference of reaction? The answer is that Gothic is at once a supremely emotional and a supremely rational art, a situation sometimes described by reference to a union of reason with faith. Characterized by infinite detail and strict rules of organization, it is also characterized by an extraordinary immediacy of appeal to the feelings. It dazzles the casual passer-by; and it furnishes the most rational and objective student with an experience that is very close to mysticism. Every expression of sincere opinion about so ramified and subtle an art is bound to contain much truth, and every attempt at explanation is equally bound to leave something unsaid.

Gothic as a Product of the Northern and Barbarian Style

As set forth in the last chapter, the Romanesque period signaled the emergence of the medieval mind from a keen and helpless sense of inferiority to Rome. The Gothic period marks the arrival of the European population upon a new plateau of existence: they were then ready to express themselves in terms of their own. They respected Rome, but they did not feel inferior. Dante's choice of the vernacular was one result of the new cast of mind. Gothic art was another.

It would be extreme to say that Roman influence was completely absent from the Gothic. Its presence in matters of detail is often plain enough; and it may be argued that Gothic engineering derived from a logical power ultimately traceable to the Romans. But however casual the inspection, it is manifestly clear that the effect of any work of art in the Gothic style is completely different from anything classical. The intention was not in the least the same, and the artistic idiom is impossible to explain by reference to the Antique.

Gothic is linear. At Ulm or Amiens or Toledo, wherever the eye falls, it

finds itself on a line along which it is impelled to move. Gothic architects went to an immense amount of trouble to produce such an effect. In one way or another, almost everything they did had some relation to the production and multiplication of lines. They reduced the bulk of working members to the limit of safety — an excellent structural expedient, to be sure, but also a process which reduces the possibility that a pier or a buttress might impress us as a mass. The narrower and thinner anything becomes, the greater the likelihood that it will tell as a line.

The linear predilection is specially conspicuous in Gothic mouldings. If the splayed doorways of Amiens (Fig. 12.8) are compared with the Romanesque door at Aulnay (Fig. 11.7), the increased complexity of line will be instantly apparent. The cross section of any typical Gothic moulding (Fig. 12.10), to state it another way, is exceedingly subdivided and subtle by comparison to its simple Romanesque counterpart (Fig. 11.24). Indeed, it seems to be a fact that the ultimate ideal of every Gothic architect was to reduce his aesthetic means to unadulterated line. In a few extreme examples of the later Gothic (Figs. 12.24, 26, 30) that end was very nearly arrived at. Nothing built of stone could possibly be less plastic; and to become more linear, one would have to resort to structural steel and wire rope.

The instinct of every Gothic artist to multiply lines was part and parcel of a general stylistic desire to multiply parts. Every Gothic object, whether a manuscript page (Fig. 13.11) or a cathedral (Figs. 12.1-23) consists of an infinite number of small details, each intensively defined. Standing in the nave of Amiens (Figs. 12.12-13), who can count the parts? But when we walk into the Pantheon at Rome (Fig. 7.1), we see only two things: the cylindrical *rotunda* beneath, and the hemisphere above.

In their methods of composition, the Gothic artists felt no need of geometric order. Symmetry like that of the western front of the Cathedral at Paris is rare rather than common, and even there is far from strict. The situation at Chartres (Fig. 12.3) is much closer to the normal for Gothic. The two western towers are radically different; but the eccentric arrangement is not only more interesting, but more true to the nature of the style.

By contrast to the classical artist whose instinct was to enclose his compositions within actual frames of a simple geometric outline, or to suggest in some subtle but unmistakable way the existence of an unseen but very present boundary line (see above, pages 70, 83, 109), the Gothic artist invariably attempts to produce a silhouette distinguished by innumerable sharp projections and innumerable deep indentations. His smallest punctuation mark (Fig. 13.7) thrusts its little spiny points out into the space around it. Wherever statues are comparatively free from the restrictions ordinarily imposed by ar-

chitecture, they are given a very complicated outline (Fig. 13.13). In architecture, a broken outline was feasible only at the top — which suggests the genesis of the vertical emphasis for which the Gothic church is noted. It being impossible to throw the eye off in all four directions, the decision was made to emphasize the easiest and most practical direction: upward. All lines lead up until they converge at the tip of a spire. Momentum then carries the eye out into the sky (Fig. 12.38).

But even on the skyline, a dissolving silhouette was by no means easy to provide. A few odd situations made such an outline almost natural if not automatic; Mont Saint Michel was perhaps the most fortunate site of all from that special point of view. Otherwise, it was requisite to build unusually tall steeples, as at Salisbury (Fig. 12.22), or to multiply miniature finials in prodigal fashion as at Milan (Fig. 12.30).

Such are the major elements of a more abstract kind that go to make up the Gothic style: the linear idiom, the myriad detail, the dynamic and eccentric composition which demands the broken silhouette. To these we must add a minor element that has to do with content: whenever the Gothic artist undertook representation, he demonstrated a powerful taste for the grotesque. When rendering the human body, he did not hesitate to distort whenever it helped or inconvenienced him.

All of these factors in combination can signify only one thing: Gothic was a product of the Northern and Barbarian Style. (See above, pages 295–298.) No other artistic source can possibly explain it except for superficial details. By comparison with earlier monuments in the same style, Gothic was disciplined by civilization and inspired by Christianity, but it was nevertheless the product of a deep and long dormant yearning for an authentically northern art — which made itself manifest just before the middle of the 12th Century, swept all before it, and came forward in full force in 13th-Century France.

Chronology

We shall find it convenient to recognize three subdivisions within the Gothic era: the *Early Gothic*, the *High Gothic*, and the *Late Gothic*.

Taking Saint Denis as the initial monument in the new style, a general overview of the second half of the 12th Century will show that a number of buildings may be grouped together as forming a stylistic group. A distinct departure from the Romanesque, these churches differ from those of the next century in the matter of proportions. They are heavier; and their effect is quieter. The term *transitional* is sometimes applied to them, but its unfortunate connotations make it better to refer to the group as Early Gothic.

The great Gothic century was the 13th; it is to work of that time we refer

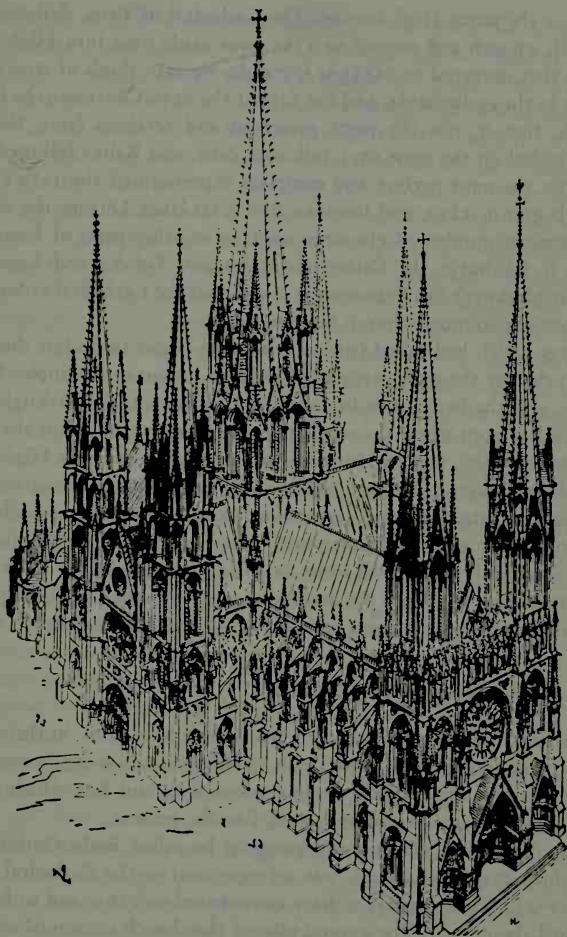


Fig. 12.38 Schematic drawing by Viollet-le-Duc to show how a Gothic church might look with its complete set of spires.

when we use the name High Gothic. The Cathedral of Paris, designed as an Early Gothic church and started in 1163, was made over into High Gothic after a fire that occurred in 1235; as it stands, we may think of it as the last monument in the earlier style, and the first of the new. Chartres (the body of the church, that is, not the parts preserved and retained from the Early Gothic cathedral on the same site) followed Paris, and Reims followed Chartres. Amiens, the most perfect and complete expression of the 13th Century style, was begun in 1220, and Beauvais five years later. During the same period, an immense number of churches went up in other parts of Europe: the Cathedral at Salisbury; the Cathedrals at Burgos, Toledo, and Leon; Saint Elizabeth at Marburg; San Francesco at Assisi, and the Cathedral at Siena. Europe has not seen so much church building since.

The forces which had called Gothic into being began to decline during the 14th Century, but the style persisted. The latest important examples fall well after 1500, and the best are to be found not in France, but in England and Spain — both regions where the population was reluctant to accept the taste of the Renaissance which was, by that time, at full flood in Italy. In High Gothic, as we shall see, design had found much of its motivation in structural facts, but the later architects felt no inspiration from the engineering which had for some time been generally understood. They understood it so well, indeed, that they frequently performed tours de force of construction. Most of their imaginative energy went into the decorative aspects of the style, a department in which they have not been and probably never will be surpassed.

THE EARLY GOTHIC

The Cathedrals at Sens, Noyon, and Senlis must have been, in their original condition, very like Suger's Saint Denis. As they stand today, somewhat altered and changed, they present perplexities of style and date which foreclose an adequate treatment in a general work like the present.

The last monument which could properly be called Early Gothic (and a church which may have equals, but no superiors) is the Cathedral at Laon (Figs. 12.1-2). Work appears to have commenced in 1165, and to have continued until about 1225. The ground plan of the church is unusual among the large cathedrals of France. The transepts extend further from the nave than usual, and the east end is square. Both features occur in other churches of the same diocese, and both are typical of England. Perhaps the matter is to be explained by the fact that an Englishman held the see during the early part of the 12th Century.

Laon is also highly distinctive in elevation. It has five towers: two for the

western façade, as in Norman Romanesque; two flanking the nave westward of the transepts; and another over the crossing. It was intended that there should be two more, or seven in all. The remarkable thing is not the number of towers included in the plan, for the Gothic went even further than the Romanesque in the matter of the broken skyline, but that as many as five were actually put up. Most other churches never received the full complement of towers originally visualized by the builder. The towers themselves are magnificent. Poking their heads out at different levels are statues of oxen, in memory of the beasts who hauled the stone up the precipitous hill on which the town and its cathedral stand. "I have been in many countries," wrote Villard of Honnecourt (the only Gothic architect from whom we inherit a word; see below, pages 459-461), "but I have never seen such other towers." Aside from the special magic of Laon, what are the differences that separate the Early Gothic from the Romanesque? The façade of the Church of the Trinity at Caen (Fig. 11.16) will give us a closely analogous composition in the earlier style, and comparison will bring out the following differences.

The Romanesque building, for all its splayed doors and blind arcades, is fundamentally a plastic expression. One is impressed with the stone: its weight, its shape, and the solidity of the masses into which it is built. It can hardly be said that Laon is without plastic interest, but something has been added. One is first impressed, perhaps, with the play of surfaces in and out. The splayed doors are much deeper. The wheel window is set well into the thickness of the wall. Going higher, we find that the western towers are not simple units of shape as they were at Caen, but consist of many smaller parts cleverly coordinated with each other to make an integral whole. There is so much openwork that the voids begin to do as much work upon our sensibilities as the solids.

Whatever else it may be, the total effect of Laon is considerably more complicated than that of any Romanesque building. There is a greater articulation of parts, and there are more parts. Perhaps the most important aspect of the result is the creation of spatial relationships more subtle and ramified than any to be found in all the earlier styles of architecture. Space penetrates the masonry in numerous places, and at new and unexpected angles.

The spatial expectations raised by the exterior are not belied indoors (Fig. 12.2). The actual area of openwork has been made relatively much greater than ever before, and the masonry correspondingly reduced in bulk. The difference from Romanesque will be made plain if we once again avail ourselves of a comparison. Fig. 12.39 shows the nave arcade, the clearstory, and part of the cross vaulting of the Old Cathedral at Salamanca, a design that is Gothic in every sense except that the hand and heart of its architect remained Ro-

manesque. The archways and the windows scarcely impress one. The mass and shape of the masonry tell the whole story. Without suggesting better or worse, it is evident that the builder of Laon had possessed himself of a different architectural vocabulary.

Turning with more particularity to the details of the fabric, it will be noted that there are four horizontal divisions in the nave system. The tri-

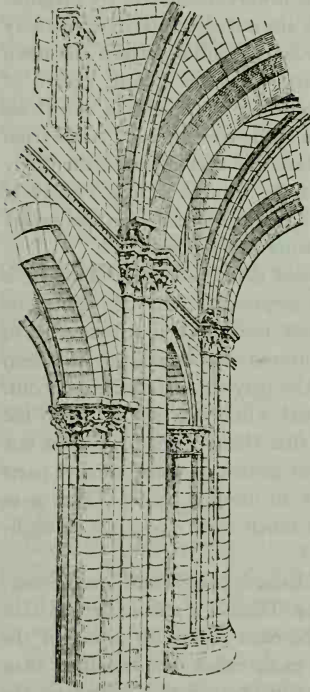


Fig. 12.39 Salamanca. Old Cathedral. Drawing of two bays of the nave.

forium space, that is to say, is subdivided; over a high gallery of compound arches, there is a smaller and shallower gallery in bays of three simple arches carried by colonnettes. The four-part arrangement had the advantage of gaining height, a dimension that was put to very good use on the exterior of the church. The lower buttresses, meeting the nave vaults at the spring, are supported directly by the gallery vaults, and there is a heavy and somewhat primitive flying buttress above each of these, impinging upon the nave arches approximately at the haunch. The same four-part arrangement was characteristic of all the Early Gothic churches.

The cross vaults of the nave are of the six-part type. An extra transverse rib is run across the nave through the intersection of each pair of diagonals, thus dividing each bay of vaulting into six cells rather than the usual four. Six-part vaulting was popular in France both during the Romanesque period and for the Early Gothic. It is difficult to say why. The extra rib helps very little in the matter of reducing thrusts at the fundamental points of concentration, and the extra cells of the vault complicate

an overly complicated form still further. But as compared with the best Romanesque vaulting, the vaults at Laon reflect a major advance. For a detailed discussion, we refer the reader ahead to pages 472-480. At this point, it will suffice to say that a more thorough understanding of the cross vault had made excellent clearstory lighting both safe and convenient, and that the age-old problems of church architecture were very close to a final solution at this time.

One cannot look at Laon or any other Gothic building without being impressed by an elegance heretofore unknown in the history of medieval architecture. Simple by comparison with later Gothic, the mouldings used at Laon are delicate and subtle by comparison with the Romanesque. Not only has the absolute bulk of each part been cut down, but there was also evidently a serious preoccupation with proportions and relative proportions. One instance of that is the graduation in the weight and thickness of parts as the fabric rises; the nave arcade is heavy, the triforium light, and the clearstory lighter still. Still another indication of the new aesthetic sense is to be seen in the clever equilibrium between horizontal and vertical lines, both dimensions being emphasized and both equally so. Finally, it is significant that structural logic has been tempered with a nice feeling for form. The engaged shafts which correspond to the ribs of the vaulting come down only to the nave capitals, and there they stop, permitting the lower piers to be unencumbered and neat.

THE HIGH GOTHIC: THE CATHEDRAL AT AMIENS

It is customary to think of the 13th-Century cathedrals of northern France as representing the Gothic in its best and most typical form. Considerations of chronological priority do not enter into the verdict, because the French churches are almost exactly contemporary to those of other lands. The pre-eminence of the Gothic of the Ile de France rests, rather, upon considerations of design. As a group, the churches of that region are more uniform in appearance than those of any other region. In their construction, they conform more thoroughly to what we may call the disciplines of the style. In matters of detail, they demonstrate a richness and polish — and yet a harmonious simplicity — not duplicated elsewhere, or at any other time.

Among the French churches, Amiens (Figs. 12.7-13) is the one that demonstrates the greatest over-all elegance and coherence. In the evolution of Gothic, it came at the perfect moment when all the subtleties of the style were understood, and before any tendency toward elaboration had started to assert itself.

Like most other cathedral churches in France, Amiens was dedicated to the Virgin Mary. Dedications to the Virgin had been frequent enough in other times, but during the 13th Century there were so many that we almost forget all the other saints. The reason is not far to seek: at this time, the inner quality of French society was coming to full flower in the code we call Chivalry. In sum, that code assigned to the female the staggering responsibility for main-

taining on earth almost every kind of idealism. Her task began with personal loveliness, and ended only with the attainment of transcendent virtue. Her person was sacred, and her mere presence was enough to enforce better behavior than men considered suitable as between themselves. The thought of her was an ethical power extending outward to the ends of the earth; in distant lands, it inspired her true knight to valor altogether beyond his ordinary capacity. Only the Madonna might conceivably fulfill every detail of so amazing an obligation. Hence the cult of the Madonna in Gothic art, the innumerable churches dedicated to her, the countless pictures and statues. She was the ultimate fulfillment of womanhood, and a queen who owned the hearts as well as the allegiance of all mankind.

Amiens owes much of its excellence to the fortunate circumstance of having been built to a single set of plans, and by a single continuous building effort long enough to complete most of the fabric. The present edifice replaces an earlier church which had been struck by lightning in 1218 and badly damaged by fire. Work on the new cathedral apparently commenced immediately. An inscription in the pavement (now removed) may be translated as follows:

In the year of grace 1220 this work was first begun. Evrard of blessed memory was then bishop of this diocese and Louis son of Philip the Wise was king of France. He who was master builder was Master Robert and surnamed de Lusarches. Master Thomas de Cormont succeeded him, and afterwards his son Master Regnault who caused this inscription to be placed here in the year 1288.*

It appears that the choir of the old church was still usable. Therefore the builders of Amiens started their work with the façade, a reversal of the usual custom. By 1228, they had raised the nave to the clearstory level, and the nave was vaulted over by 1236. The façade was by then complete up to the level of the string course just above the rose window. Sixteen years had sufficed for an immense amount of construction.

From that point on, things progressed more slowly. By 1247, the choir was finished up to the level of the triforium string course. Rather little seems to have been accomplished during the next decade. A severe fire during the year 1258 did a good deal of damage at the east end of the building. In 1279, with considerable ceremony, relics were translated to the new sanctuary, an event which probably signalizes the final completion of the choir and apse.

But like most other Gothic buildings, Amiens was destined to become venerable but never complete. Between 1366 and 1402, the two western towers were carried to their present height. There is no knowing whether they were meant to be left square-headed or to have spires. Over the crossing, probably

* As translated by A. K. Porter, *Medieval Architecture*, Vol. 2, page 304.

in accordance with the intention of the original designer, a delicate spire was raised. Such a spire in such a place is referred to as a *flèche*; the same word had long been used to denote a dart or an arrow. The present *flèche* is a reconstruction of 1529, and a good example of Late Gothic openwork. The gallery between the western towers was the last substantial addition; it dates from the 19th Century, and Viollet-le-Duc was the designer.

The Builders of Amiens

The name of Robert de Lusarches introduces us to the idea of the master builder. It also plunges us into one of the major mysteries of medieval history. Who built the great cathedrals? On that important question, our sources are almost silent, and we shall never have a satisfactory answer unless it be found one day in some paper that still lies hidden.

The suggestion has repeatedly been put forward that each community built its own cathedral. In order to bolster up that notion, reference is frequently made to hysterical demonstrations of religious enthusiasm which now and again found expression in parades. A notable instance occurred at Chartres in 1144; and at about the same time, the Abbot Suger wrote of events at Saint Denis:

"How often did both our own people and our very devoted neighbors, nobles and serfs together, tie about their arms, their chests, their shoulders, the rope attached to columns to drag them up the hill! Thus instead of beasts of burden, they did the labor."*

The popularity of that particular form of religious exercise did not last long. In 1194, an attempt seems to have been made at Chartres to duplicate the per-

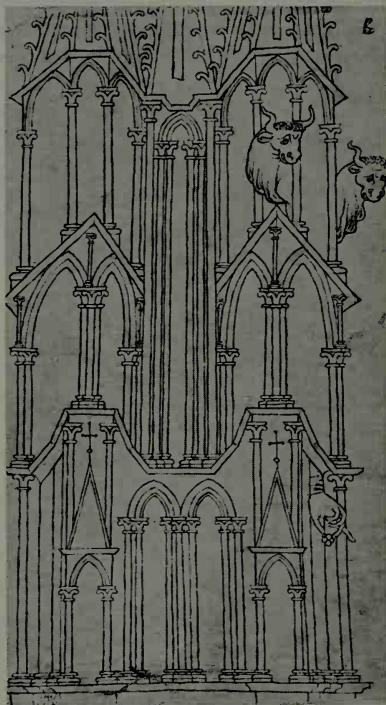


Fig. 12.40 Paris. Bibliothèque Nationale. Album of Villard de Honnecourt. Folio 10 verso. The Towers of Laon.

* As translated by A. K. Porter, *Medieval Architecture*, Vol. 2, pages 150 ff.

formance of 1144, but without success. The whole affair appears to have been a 12th-Century phenomenon, and the instances recorded smack of the remarkable rather than the customary. We may therefore doubt whether any significant bulk of building material was ever transported by the device of religious parades.

It is conspicuous, moreover, that the records mention only the transport of raw materials. They do not say that members of the community were per-

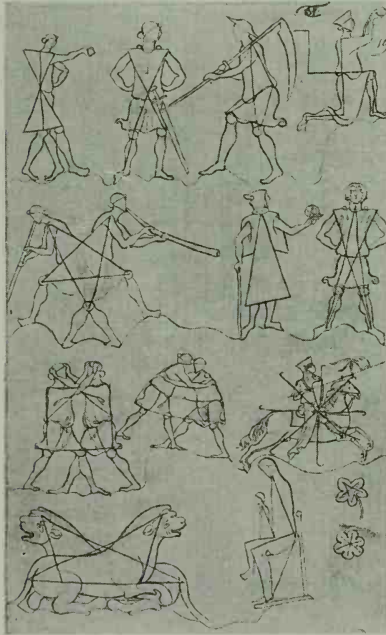


Fig. 12.41 Paris. Bibliothèque Nationale. Album of Villard de Honnecourt. Folio 18 verso. Cubist studies of various figures.

mitted to shape and assemble the stones. It is one thing to work off enthusiasm by pulling a cart, and quite another to cut the voussoirs for an arch that will stand 140 feet in the air. The theory of popular and spontaneous construction is attractive because it is both romantic and democratic, but we dare not believe it. The Gothic church is too large, too complex, too elegant, and too closely reasoned a piece of work — something, in short, utterly beyond the capacity of amateurs.

It is certain, in fact, that experts were employed. Most of them seem to have been laymen. In addition to Robert de Lusarches and his successors at Amiens, we know a good many others by name: Jean le Loup, Peter Parler, William of Sens, Ingebram, Walter of Melun, Villard of Honnecourt — merely to list a few. But when the medieval documents mention these men, they simply cite a forgotten name and say no more. To us such treat-

ment is amazing in view of the responsibilities entrusted to them by their contemporaries, and especially so when compared with the wealth of biographical detail about second- and even third-rate artists of the Renaissance. Anonymity on the part of the great is one of the pieces of evidence that separates the Middle Ages from the modern world. People simply did not set the same value upon fame. The Abbot Suger, to cite the most conspicuous

instance of them all, was so much impressed with his new Saint Denis that he wrote a substantial account of the building procedure — but he fails to say one word about the master builder he was privileged to employ.

As to the building procedures, we know surprisingly little. We can get some idea of what the ordinary 13th-Century architectural drawing looked like from the notebook of Villard of Honnecourt, today preserved in the Bibliothèque Nationale (Figs. 12.40–42). It contains numerous drawings. The rendering is strictly linear, and the obvious intention was merely to show the mechanical relationship between part and part. Far from precise, Villard's drawings are nevertheless wonderfully direct and purposeful. Such drawings were almost certainly supplemented and reinforced by a small model of the building. We have an occasional reference to such models, though none have survived.

When plans and model, such as they were, had been approved, what did the master builder do next? Suger speaks of summoning skilled modelers and sculptors; but whom did he summon, how did he know they were skilful, and from where? The matter is an almost complete mystery, and any supposition we may make must be speculative.

Because a great many men of special training were needed, it is obvious that the required number could not have been found at Amiens and could never have supported themselves there except during a period of work on a very large building. If they did not come from Amiens, they must have come from somewhere else, and it seems necessary to suppose that they came together. We may guess, in short, at the existence of some sort of corporation. If so, what rules did they have, what by-laws? Was Master Robert an elected officer, or an employer?



Fig. 12.42 Paris, Bibliothèque Nationale. Album of Villard de Honnecourt. Folio 7 verso. Animals and a maze.

The theory of migrant communities of artists and builders is supported to some extent by the congruence of style in some of the sculpture at Reims, Bamberg, and Strasbourg,

making it seem likely that the same men worked at all three places at different times. But staggering though it is to the imagination, great numbers of these men — comparable in creative power to the famous artists of Greece and the Renaissance — have literally vanished from the face of the earth without leaving a hint of their personal or corporate identity. We have their art; but of themselves, we know nothing.

The Plan

An outline drawing of the ground plan of Amiens (Fig. 12.43) has a deceptively stubby proportion which is altogether obliterated in the building itself by the articulation of the elevation. Such a drawing shows us a cruciform church, with transepts of very moderate projection, and a very long choir. The three western doorways open directly into the nave and side aisles. West of the crossing, the space which

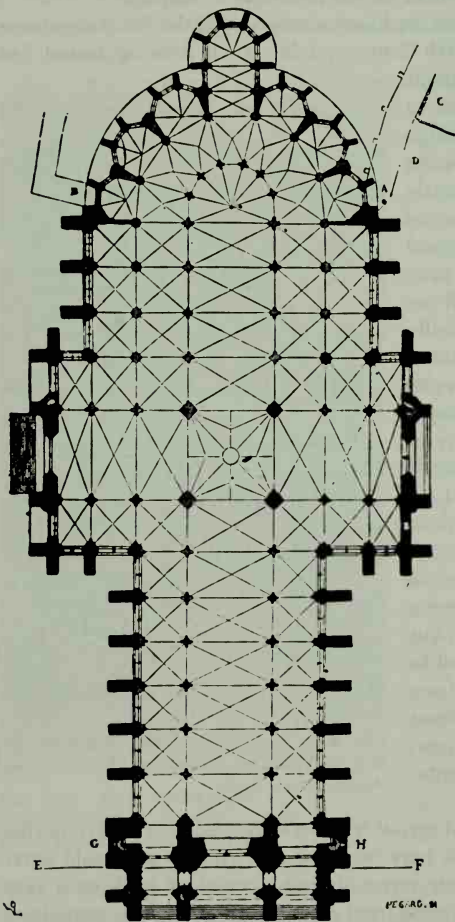


Fig. 12.43 Amiens. Cathedral. Plan.

might have been used for a second set of aisles is subdivided by lateral partitions into chapels. The transepts have three aisles, and a five-aisle arrange-

ment is used for the length of the choir. An ambulatory of one aisle runs around the semicircle of the apse, opening into a set of seven radial chapels.

By contrast to the square bays which were popular in some Romanesque schools, the main vaults of Amiens are arranged in a series of narrow oblongs, with the long axis of each oblong at right angles to that of the nave. Such was the usual scheme for Gothic. By adjusting the proportions of the oblongs, it was perfectly convenient to make them correspond with any desired intercolumniation and to any rational arrangement of the aisle vaults. The need for an alternating system of supports was thus eliminated. In order to achieve this new freedom in plan, it was necessary for the Gothic designers to invent a radically ingenious arrangement of the vault-ribs, a matter to which we shall return in due course.

But there is more to be discerned in the plan of Amiens than this. A great many persons testify that French Gothic plans bring up memories of lace or of flowers. The impression is far from superficial. We must expect to understand Gothic in terms of lines and open spaces. It is only occasionally an art of surfaces, and rarely an art of mass. Of that general condition, there is more than a suggestion in the ground plan. As indicated on the plan by the inked-in sections, the total area of masonry is minute by comparison to the total space enclosed by the boundaries of the building. It may be said, indeed, that the Gothic church has no walls. In the traditional sense of the wall as a structural member under compression, that is literally true. In Gothic, the weight of the building is carried on a framework of arches which spring from a series of isolated and separate supports. The interior is protected from the weather by immense windows.

The Elevation

Most of the French cathedrals are city churches. Most of them face on city squares. For that reason and in some contrast with the Gothic of England and Germany, the French churches were designed on the assumption that the western façade — considered as a composition in its own right — was more important than the appearance of the whole building as seen from some other angle. The façades of Amiens and Chartres (Figs. 12.7,3) give a good idea of the grace and power with which such churches loom above their surroundings. Of the two, Amiens is the more typical, for Chartres had a checkered history to which we shall allude from time to time.

As the prime illustration of a special type in the history of architecture, the façade of Amiens deserves special attention. The fundamentals of the composition come directly from the Norman Romanesque (see above, pages 405-406), but during the 13th Century certain Gothic features became standard. Upon

occasion, these latter might be large or small, and placed high or low, but there seems to have been a feeling that all ought to be there.

The façade is divided into three parts both vertically and horizontally. The two towers and their smaller doors correspond to the side aisles. The large central door opens into the nave. Strong vertical buttresses which, though continuous, exhibit an extraordinary variety of form at different levels, mark these three vertical divisions. The verticals have enough relief so that they always take the sun, and stand out as axial elements unifying the façade. Most photographs have been taken in a diffused light, but the French façade is at its best when bold dark shadows are cast to the right or left.

The horizontal boundary lines are plainly visible, though considerably less vigorous. An elaborate moulding runs across the façade at the height of the gable over the central doorway. The next horizontal division is itself subdivided. It consists of an open gallery of delicate, pointed compound arches, and a "row of kings" — a series of male statues in niches. The notion that they represent either kings of France or kings of Judah may have a basis in fact, but probably has an even stronger basis in fancy. Above the row of kings, we find the rose window with its curvilinear tracery, and the two towers which, at this level, are pierced with arches.

The thing that counts about the tripartite horizontal division is not the mere fact of its existence, but the relation maintained between solids and voids. In the lowest section, there is scarcely any open work at all. In the middle section, the voids and the solids are approximately equal. In the upper part, the openings occupy more area than the masonry. There is reason behind such a graduation. The lowest and heaviest part of the façade corresponds closely in height with the nave arcade, the heaviest section within. The middle part of the façade fits with the triforium level, and the more open upper section has its interior counterpart in the clearstory. The designers, we may guess, felt driven to prove the unity of the whole building by demonstrating in this way the intimate harmony of its parts. It is by such insistence upon relationships that they show themselves to work with artistic problems in very much the same way that the Scholastic philosophers worked with religion.

A similar instinct for order and relationship made itself felt in the disposition of the numerous statues on the façade and throughout the church. Because each cathedral was in this respect an individual proposition, we must avoid any suggestion that the Gothic designers followed a book of rules. It is true, however, that they recognized certain general principles of hierarchy, and arranged their sculpture with a nice sense for precedence. It will be understood in what follows that we are concerned here not with the statues as

such (which is the business of the next chapter), but only with the architectural implications of the sculpture.

On the *trumeau* of the central doorway (the place of highest honor) we usually find, as at Amiens (Fig. 12.11), a statue of Christ. In a similar position on the *trumeaux* of the lateral doorways, are statues of the Virgin and of Saint Firmin, the first bishop of Amiens who died a martyr's death in the year 289 (Fig. 12.10). In the central tympanum over the Savior, we find the event for which the universal church had engaged to prepare mankind: the Last Judgment. In that position it catches the final glow of the setting sun which one day will set on the last evening of the world. In the splay of the central doorway, statues of the Apostles flank that of the Christ. Saint Firmin is accompanied by other saints of whom the cathedral possessed relics, and Mary is accompanied by figures recalling the story of her life.

The principal statues of the façade thus took account of sacred personages and events of both general and local importance; and, in a similar manner of having a reason for everything, it was more or less customary to put Old Testament subject matter on the façade of the northern transept because the northern dark and cold seemed analogous to unenlightenment. New Testament material was common for the southern façade, facing the region of warmth and light.

In controlling the style of their statues, the Gothic architects were less unreasonable than the Romanesque (see above, page 417), but they were rigorous. No matter how sacred the subject, the statue was thought of as an embellishment of the building and subject to architectural rules. Because Gothic was fundamentally a linear art, that general proposition was construed as meaning that statues should be used to lend variety and interest to architectural lines. On the façade of Amiens, we find them used for almost nothing else.

A straightedge placed along the axis of one of the great verticals bisects not only the buttress it follows, but several statues as well. The little statuettes that decorate the separate orders of the splayed doors are arranged to conform with the curvature of the arch — not with the rules of representation, for some of them appear to be in the act of defying gravity. It will be further observed that each of the large statues in the door jambs below is placed in such a way that its axis, if projected, carries into the curve of an order in the archway above.

The relationship between architecture and sculpture, as just described, seems to have been well-understood as early as Saint Denis. Like many another logical system, it was more severely and literally applied when new. Thus, the statues on the West Porch at Chartres (Fig. 12.5), which dates from about 1145 and formed part of the Early Gothic church replaced by the present one,

are uncompromising in their architectural reference. In order to make certain that each figure would tell as a line, the vertical dimension was radically exaggerated, and the poses were made to conform with the principle of frontality (see above, page 22).

The 13th Century was slightly less doctrinaire. The *Beau Dieu* of Amiens (Fig. 12.11) was designed with a primary regard for its architectural purpose. The proportions of the body were governed by the dimensions of the trumeau to which it was to be attached. The pose is strictly vertical, and the elbows are held in contact with the sides. The right hand, raised in benediction, projects straight up. Only in the drapery is there a suggestion of the diagonal. But as Fig. 12.11 indicates, there is much naturalism in the anatomy and much plasticity in the modeling.

If we study the façade still further, it will be unmistakably clear that its designer went to a great deal of trouble to provide a proper place for every statue. A great many figures stand in niches. For others, corbels project from the wall, and there are canopies overhead. The design of the building, it may even be said, demands a statue wherever we see one: sculpture is literally incorporated into the surface of the walls.

So quickly stated and reviewed, the Gothic theory of sculptural decoration sounds rigid and unfeeling, but no such impression can be entertained when we judge by the results. An amazing number of statues were accommodated by these methods. Reims is said to have about 2,000 in all, of which 530 appear on the western front alone. Yet no taint of excess mars its beauty.

A Gothic artist would doubtless have declared that the purpose of decoration was to increase the beauty of the thing decorated — the meaning of which we may comprehend by walking away from a Gothic church until we reach the distance where the eye can no longer resolve small details. The statuary then begins to tell as a flicker of light and dark enlivening the fundamental lines of the church. At a very great distance when even that much may not be accurately discerned, one is still conscious of an opulence of texture never to be observed where sculpture is lacking.

The transepts, which scarcely show up at all in the ground plan, were given during the 13th Century a development only less imposing than the western front. They rise as high as the nave (Fig. 12.4), and each has a considerable façade of its own.

It must be confessed, however, that the French architects never arrived at an adequate handling of the great volumes imposed by the dimensions of the interior. Such becomes distinctly and disturbingly apparent whenever one takes a station to the north or south, and sees the cathedral in full broad-side (Fig. 12.9). The western towers, so imposing from the front, seem to shrink

and lose their power. The elaborate transepts lack the strength, and the flèche lacks the scale to adjust the composition. The long, level ridge of the roof obtrudes itself as the most conspicuous feature in sight; and the dissolving silhouette — that essential of all northern art — is destroyed. Feeling that the level ridge is “out of style,” every historian has made the most of each bit of evidence that might indicate an original intention on the part of the Gothic architects to multiply towers and otherwise adjust the situation. Some have even gone to the trouble of preparing drawings to show what the ideal cathedral ought to look like — as, for example, the drawing by Viollet-le-Duc reproduced in our Fig. 12.38.

The eastern aspect of a French Gothic church is, however, almost as grand as the façade. From that point of view, the flying buttresses show up to the best advantage. They meet the vault ribs at points of concentration, and swing through the air carrying the thrusts to the vertical pier buttresses which are placed at intervals around the semicircle of the apse. The entire assembly (apse, radial chapels, and buttresses) is known as the *chevet*. The chevet of Amiens is not the best, so we substitute for it that of Le Mans (Fig. 12.17), perhaps the most powerful and ascending composition of them all.

The Interior

The nave of Amiens (Fig. 12.13) has long been recognized as the supreme achievement of 13th-Century architecture. The nave proper consists of seven oblong bays of four-part ribbed vaulting, carried on compound piers. A square bay covers the crossing; its ribs are arranged in the pattern of a four-pointed star. Beyond the crossing, the choir extends in four more oblong bays to the apse. The principal difference between the nave and the choir is the fact that in the choir, in keeping with the somewhat later date, both triforium and clearstory were glazed.

The problem of the basilican church with fireproof roof and good, even generous clearstory lighting had been solved with the Early Gothic. The special excellence of Amiens depends not so much on any fundamental advance over immediately previous church design, but upon a perfect fulfillment of everything good in the Gothic style. In a period noted for grace, the architectural details drawn by Robert de Lusarches stand nearly alone in their elegance. Every line and contour has a modest beauty, and in no other Gothic church was so nice a standard maintained throughout the entire fabric. But perfection of detail would not be enough to justify the assertion that Amiens is the best of the Gothic churches. The building is notable for the success with which the possibilities of scale and proportion have been realized, and it is our best illustration of the Gothic concept of spatial composition.

Although the Gothic architect did everything he could to reduce the volume of his masonry, he still had to use a great deal of it. And even though the voids are more important than the solids, the scale and proportion of the stonework at Amiens was nevertheless a vital matter. As with all Gothic buildings, the whole is an ensemble of small parts — a northern infinity of detail. In a large cathedral interior, the effect was to produce in an exaggerated form the experience noted at Hagia Sophia (see above, page 348). We construct our concept of the size of the whole by adding up, as it were, the sum of the parts. When one considers that the apse is about 125 yards from a man who has just come in through the western doors, and the vaulting about 135 feet above the level of his eyes, it becomes evident that even the best photograph in the world can convey very little of the real impression of scale. In the original condition of the building, all of the windows were presumably of stained glass. The dim and colored light must have exaggerated, as though by atmospheric perspective, the actual distances and sizes.

In addition to the effect of absolute size, established as described, the vertical and horizontal dimensions received direct and unmistakable emphasis. The nave is more than three times as high as its width. The pointed arches point up, a fact often lost sight of by those critics who cannot pause in their haste to explain that thrust is reduced when an arch is pointed. Verticality was also emphasized by an almost infinite repetition of vertical lines.

It is easy, of course, to stress one dimension at the expense of another; but as compared with the other Gothic cathedrals, the interior of Amiens is remarkable for the reconciliation between the vertical and horizontal. A good many things contribute to the power of the long axis. First, the rhythmic repeat of the bays, which produces a sense of progression toward the apse and altar. Then there are three linear horizontals which lead the eye toward the far end of the church: the successive capitals of the nave arcade form one such line; the floral moulding at the lower boundary of the triforium is another; and the string course along the base of the clearstory is a third.

To a great extent, the wonderful harmony of height and length was made possible by a relaxation of the theory of structural logic. Although the excellence of the French cathedrals has often been cited as *prima facie* proof of the organic dogma, the fact is that detail for detail Amiens is less precise than Sant' Ambrogio at Milan (see above, page 413) when it comes to furnishing us with an illustration of form governed by structural principles. At Amiens, the shafts that correspond to the wall ribs are radically reduced in diameter, and are carried down only to the triforium level. The shafts corresponding to the diagonals are only slightly larger, and they terminate on the abaci of the nave capitals. The only verticals of any substantial size are those under the trans-

verse arches. They alone go to the floor, and only they are permitted to cross over a horizontal line. It is important to point out in passing that there is no mechanical basis for the diameter assigned to each of the clustered vertical ribs. Their size is not in proportion to what they carry; if the wall rib is adequate to bear the weight upon it, the shaft under the transverse arch is altogether too big. The dainty order of the graduated sizes simply softens the boundary between the wall surface and the verticals engaged upon it. They rise gently from their background, and blend gently back into it.

A sober succession of declarative sentences may with good luck describe all the details we have mentioned, but more poetical language is needed if we are to give any hint of their effect when brought into complete and simultaneous view. Almost every writer who has commented upon the nave of Amiens has resorted to the vocabulary of flight, for no other physical sensation so well combines the vertical and the horizontal as we see them architecturally combined at Amiens. When we speak of the "soaring effect" of this interior, we are telling the truth, but it is important to understand also that we are recognizing a new quality in the linear idiom of northern art. Celtic line has risen above its original impetuous movement, and come to maturity. The jerk and yank of Romanesque sculpture have likewise given way to a serenity of motion. Amiens is dynamic art at its best, full of poise and elegance, full of grace and dignity.

Any man who has climbed a mountain and looked at the view is conversant with the emotional appeal of space. Among the arts, architecture alone offers an opportunity for the manipulation of space which exists in fact. With the exception of a few 20th-Century pieces which may be said to have a spatial reference or implication, sculpture is form surrounded by space and isolated from it. Painting exists on a plane surface; and although some of its most profound effects have been achieved by representing space, the painter is nevertheless subject to some severe handicaps. He must select an eye point; and in spite of the claims sometimes advanced for certain recent experiments, painters have to date been able to deal successfully with space from only one aspect at a time. Only the architect may use actual space as part of his medium.

In the history of architecture, it is possible to recognize three schools of thought with respect to the handling of space. The first is represented by the Greeks and the Egyptians; it is doubtful whether the designers of the Parthenon gave a thought to voids except to use them as a set-off for their admittedly superb solids. It was the great single achievement of Roman architecture to advance beyond such negation of space; but true to the classical habit of mind, the Romans construed space as a material for sculptural manipulation: their

vast buildings isolated a block of space, if we may use the expression, and modeled it. By so doing, they separated the interior from the world outside and controlled the space within — both operations being consistent with the classical fear of the indefinite. It was no accident that Roman windows were set high and at inaccessible points where one could not conceivably use them as exits.

The Early Christian basilicas marked a great new conception with regard to the handling of enclosed space, not necessarily better in itself but certainly different from anything earlier. Handicapped by a tottering government and a ruined economy, the architects of that time were foreclosed from following out the logic of their inspiration; the projects they dreamed of remain in the realm of speculation. Certain elements of their enlightened thinking are nevertheless indisputably plain in their work. As we noted in Chapter 4 (pages 289–290), those men assigned to space a new artistic dignity. They gave it the same importance as masonry. They seem to have appreciated that air was a gas. Instead of shaping chunks of it, they let it flow through passageways and interstices. But beyond and above all of that, their feeling was not curtailed by the classical dread of the infinite. The occupants of an Early Christian basilica are not imprisoned by walls as they would be inside the Pantheon. Doors and windows are numerous, fairly large, and above all accessible. The light and air of the interior is not part of a constricted artistic unity, but an extension of the light and air of the whole world.

With respect to the handling of space, nothing built between about 500 A.D. and the start of the Gothic period can be cited as any considerable improvement over the Early Christian basilica. Hagia Sophia (see above, pages 348–349) has perhaps the best interior ever designed, but the theory behind it is eclectic rather than original — half Roman, half Early Christian. Some Romanesque churches follow the Roman theory of space; in others and especially in the more organic buildings, structural problems so preoccupied the designers as to exclude any significant manipulation of space for artistic effect. But by about 1200, the mechanics of church architecture were a matter of common knowledge and no longer an end in themselves. It was then possible to make a significant advance.

The Gothic architects invented no new theory of space; they simply had the techniques which made it possible to follow out the implications of the Early Christian system. Many of the items mentioned in the paragraphs immediately above contribute to the spatial composition. The innumerable small parts, each a unit of measure, perform their function as readily with reference to the enclosed volume as with reference to length and height. The soaring effect produced by the various linear elements may also be thought of as a

spatial concept; to suggest flight is to suggest an unlimited volume of air opening from the foreground into the remote distance.

The practical exigencies of construction forced the Gothic church, in its aspect as a mechanical fabric, to approach completeness and self-sufficiency (see below, pages 472-480); and for that reason, a number of critics have sincerely put forward the idea that, in the end, the Gothic principle and the classical principle are the same. To whatever extent they meant to say that Gothic compositions have the same protective unity as the Greek and Roman, they spoke too soon. The truth is that the Gothic mind found it unthinkable to establish in a work of art a miniature cosmos with rules of its own.

In fact, Gothic architects went to the greatest pains to declare the unity of the cathedral not as of itself and for itself, but with the whole universe around. Out-of-doors, that purpose was made plain by the broken skyline — the very last thing, incidentally, to be given up during the period when the Late Gothic was being abandoned for the style of the Renaissance. Within the church, the same intention was expressed by the size and placement of passages, doors, and windows.

A diagonal view across the nave of Amiens (Fig. 12.13) gives us in a more refined and perfect form the same experience noted when one takes up a similar station in one of the Early Christian basilicas (Fig. 9.26). Beyond the archway in the immediate foreground, there is another, and beyond that, openings succeed each other until a window or door is arrived at. As an approximate statement, it is fair to say that every line of sight ends in an accessible opening, and that no other kind of terminal was permitted if the architect could possibly help it. The extent to which that custom amounted almost to a rule may be assessed if we recall that one end of the long axis of each of the French churches ends in the windows of the apse, and that the opposite vista is not closed, as we usually say, but opens up into the great rose of the western façade. The square east end that was standard in England invited exploitation of this stirring effect; and in extreme instances, the entire eastern wall was glazed — a notable example being the immense perpendicular window at Gloucester.

As seen at the end of a vista, the large and accessible Gothic windows have an important effect. Unlike masonry, glass does not shut the world away; it lets it in. Light and air interpenetrate the architecture. Similarly, the windows provide no barrier for the mind. Either in thought or in actuality, it is easy to make the transition from indoors to the immensity of the universe outside. It may be said, indeed, that Gothic space is a continuation of universal space, and part of it — differing from the Early Christian only in the greater degree of artistic success with which the effect is made. These facts, it must be added,

contribute powerfully to the truth of the idea that Gothic architecture forms a physical record of Christian aspiration. Through the medium of space, it is made clear that nothing exists alone; even the mighty fabric of the cathedral relates itself to the divine order, and occupies an appointed place.

The experience of Gothic space is one of the most profound the visual arts provide; but for the fullness of its effect, another element, not so far mentioned, must be present. That is the stained glass, which still exists in anything like the original amount and condition only at Chartres in France and at Leon in Spain.

As a major art, stained glass painting became feasible as soon as Gothic engineering eliminated the structural handicaps which in every earlier style had curtailed the size of window openings. From the standpoint of adequate illumination only, most Gothic windows are in fact too large; and unless the glass is colored, the interior is likely to suffer on bright days from an unpleasant glare. But by flooding the whole church with colored light, the Gothic artists introduced a new element.

While it is possible to prepare a useful rationale for color (see below, pages 564-578), it was true in the 13th Century and it is true today that the effect of color upon us is one of the great emotional mysteries. Upon entering Chartres, all persons experience a surge of feeling that goes altogether beyond understanding. It is easy, and certainly very appropriate, to associate that experience with the superrational or transcendental component of religion. Color, it might be said, is the physical attribute of mysticism. By comparison with churches that lack stained glass, Chartres calls up an experience which is much more intimate: no other monument brings one so close to fulfilment, or so nearly satisfies the soul's yearning for union with the infinite.

GOTHIC ENGINEERING

The stylistic and spiritual intentions which brought Gothic into being have been sufficiently well-summarized above to suggest that Gothic engineering, however wonderful its accomplishments, was a resource to which the Christian society of that time turned for the aesthetic expression of their religion. In no sense was engineering the cause of Gothic or the motive for it, as Mr. Moore and others believed—even though they were indubitably correct in pointing out that the development of Gothic coincides in time with a rapid advance in structural sophistication. It is hardly too much to say, in fact, that a serious student might comprehend the true if not the full meaning of the style without once bothering his head about the complex of ribs, buttresses, shafts, and other working members which make the lofty vaults and great

windows practical. But for anybody in the least mechanically inclined, such an omission would be impossible and intolerable.

Engineering has correctly been defined as the art of making the findings of pure science available for human use; but when we apply the word to anything medieval, the reader must understand the obvious difference between the *ad hoc* experiments of the 11th and 12th Centuries, and the methods of the modern laboratory. In all the medieval world, there was no mathematics capable of dealing with subtle mechanical problems of any kind whatever. There never was, in fact, until the development of the calculus during the 17th Century; even Leonardo da Vinci, the greatest scientist of the High Renaissance, was unable to comprehend variation in terms of the square or cube — problems we assign to school boys today. When he took the responsibility for designing Amiens, Robert de Lusarches nevertheless had at his command an immense and certain knowledge about the construction of vaulted churches. Even now no one knows any more than he knew; but the data then in his possession were nothing like our modern formulas. He could calculate not at all, but he carried in his memory a tremendous record of reckless trial and disastrous error — and he knew how. His outlook, moreover, was not stultified by the disastrous modern distinction between art and engineering — a separation as wretched from the mechanical point of view as from the aesthetic. One of the chief glories of Gothic architecture is the truth that for once in all history, structure and beauty were everywhere and always the same. There was literally no difference between the two, and we have no right to separate them except for convenience in discussion.

In attempting to understand the superb mechanics of Amiens and other cathedrals, it is well to begin with a brief list of considerations that were fixed, and questions which were no longer outstanding. The basilican type of church was as firmly established as Catholicism itself. Another kind of building might have served the ritual as well and been easier to build, but probably nobody gave a moment's consideration to such a change of custom. The ribbed cross vault was, by 1220, almost as firmly established as the basilican form for the church. The master builders knew that it would work, and they knew that they could trust their supervisors and workmen to build it. As shrewd country builders still observe about one thing and another, it was "the proper way."

Masonry, moreover, was the only fire resistant material available. One cannot help wondering what the Gothic builders would have done with structural steel, but they never heard of it. In considering their masonry, there are several special points to remember. A good deal of cement went into the fabric of every Gothic building, but the use of concrete as a fundamental material (as the Romans had done) seems to have died with Antiquity. The point just made

is one with which some scholars disagree; and on their side, it must be conceded that here and there one encounters a very ingenious application of mortar and rubble. Nevertheless, for purposes of general understanding, it is fair to say that the Gothic architects did their thinking in terms of cut stone, and that their structural system contemplates the action of cut stone under compression, and provides for it.

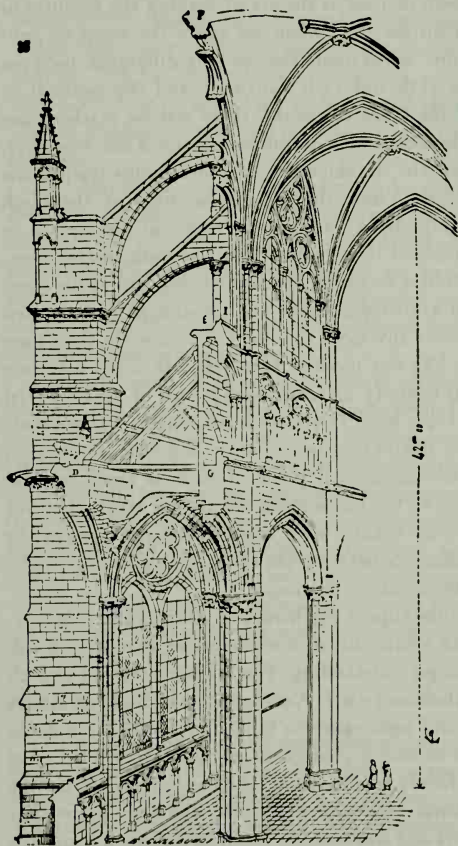


Fig. 12.44 Amiens Cathedral. Perspective cross section.

miserable facilities at hand most certainly provided the necessity that was the mother of Gothic invention.

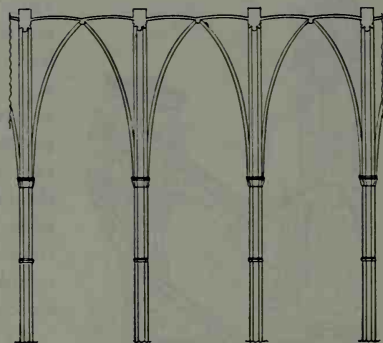
Keeping these points in mind, we may now refer to the several structural drawings of Amiens (Figs. 12.44-46). It will be evident at a glance that the

Gothic architecture was an architecture of small stones. The point cannot be too strongly or too often emphasized, for much of the atmosphere of the whole style derives from it. The gigantic monoliths of the Romans are absent both in fact and in spirit. Most of the stones laid during the Gothic era were small enough so that half a dozen men could pick them up and put them in place. A great many blocks were bigger than that; but it is rare to see one that could not be pulled along an ordinary country road by a yoke of oxen harnessed to a sledge. The

designer was keenly alive to the aesthetic difficulties imposed by the thrust of arches. Most of what he did may be interpreted as an effort to minimize that factor. He found ways to reduce the absolute thrust of every arch in the fabric, and he found ways to prevent the abutment from spoiling the beauty of the church.

Of the various stratagems resorted to, none has anything like the importance of the extreme delicacy of construction characteristic of the High Gothic.

No other medieval invention compares with that one in mechanical excellence. Every component part was reduced in scale to a proportion approaching the danger point. The result was an architecture that made the most efficient use of materials on record — with the possible exception of the best, but not all, of the bridges designed by Mr. Roebling at the turn of the last century. No other architecture used less masonry (an approximate index for cost) in relation to the cubic content enclosed. But above all, the bold reduction in weight radically reduced the capacity of the arches and vaults to exert thrust.



AMIENS
UPPER HALF

Fig. 12.45 Amiens. Cathedral. Longitudinal cross section to illustrate the very moderate undulation of the vault surface along the axis of the ceiling.

The daring of Gothic construction is no figure of speech. It can hardly be exaggerated, and the venturesome spirit of the period may be emphasized by pointing out what happened at Beauvais (Fig. 12.18). Started only five years after Amiens, with vaults only a few feet higher and with parts only a little lighter, the choir was finished and put into use in 1272. In 1284, the vaults came crashing down. The original design for the choir had called for four-part vaults; as now reconstructed, each of the bays was divided into two by adding an extra pier, and an extra rib was added to make the vaults six-part. The work dragged, and the transepts were not complete until 1500. Instead of starting to erect the nave, the canons then elected (in 1548) to build themselves a tower over the crossing. It was a shade over 500 feet high; and it must have been a sight to startle the world. In 1573, the tower tumbled down. There are various possible explanations both for the collapse of the choir vaults and for the crash of the tower. We need not go into the matter, but

anybody has a right to remark that the builders had overreached themselves. It is also worth pointing out that our modern building codes (admittedly erring far on the side of caution) would condemn as in flagrant violation a great many Gothic churches that have stood for 600 years.

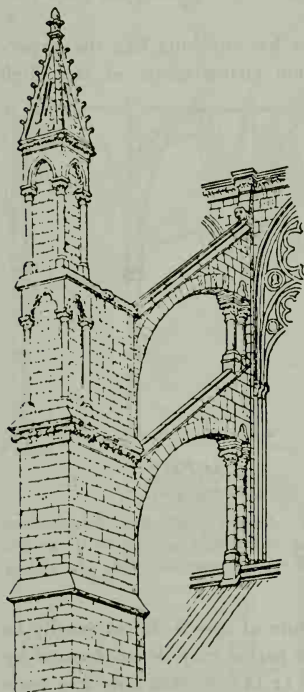


Fig. 12.46 Amiens. Cathedral. One of the flying buttresses of the nave.

Hence the segmental arches we call flying buttresses (Fig. 12.46), which meet the nave vaults at points where the thrusts are concentrated, take the compression, and swing it over to pier buttresses arranged along the outer borders of the church. It will be noted that the extrados of each flying buttress is loaded with masonry, a clever way of making it bear a little harder against the thrust of the vault — a small consideration that indicates the narrow margin between stability and danger in Gothic construction. The diagonal inclination of the buttresses serves also to indicate in graphic and jaunty fashion the direction of the thrust.

A second innovation that helped to control thrust was adoption of the pointed arch. As set forth in Chapter 7 (pages 190–193) the advantage of the pointed arch is not that its thrust, measured in pounds, is less; but simply that the thrust is directed at a steeper angle toward the ground. Or to put it another way, the horizontal component of the thrust is less — a consideration of the utmost importance in view of the lofty placement and delicate proportions of the fully perfected flying buttresses. It should be noted, however, that round arches often occur in the Gothic, especially in Italy.

As to the flying buttress, it was made necessary by the basilican form of the cathedrals. It was almost never used except on churches with a clearstory rising above side aisles. The Sainte Chapelle at Paris, for example, needed no aisles because of its special purpose, and its abutment is by pier buttresses only, engaged to the outside walls. But where vaults were high and clearstory windows large, it was imperative to find a form of buttress that would cast the least possible shadow across the stained

There has been a certain amount of debate recently as to the actual function of the flying buttresses in the Gothic fabric. When buttresses happen to get destroyed, as by bombardment, the vaults do not always collapse as the rule book says they ought to do. Generalizing from altogether too few such instances, some writers have even gone so far as to say that once the cement has hardened, Gothic vaults exert no thrust and the buttresses do no work. There is just enough basis for their belief to create sincere perplexity.

Mortar is an adhesive. It tends to glue all the voussoirs of an arch or vault together. So long as the mortar holds, the vault is nearly in the condition of a monolith; and it probably exerts little or no thrust unless something happens to break the joints open. But mortar is not a strong or even a good adhesive. With luck, it may upon occasion hold in surprising fashion, but one cannot safely rely upon it. A designer must always expect the worst — which in vaulted architecture means that no reliance can be placed upon the holding power of

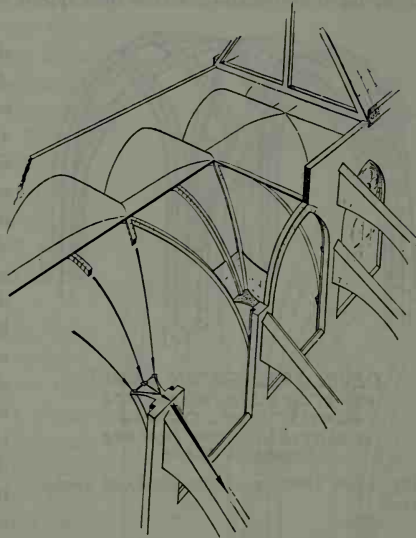
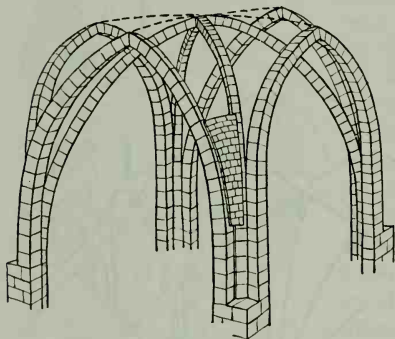


Fig. 12.47 Schematic drawing to illustrate the concentration of thrusts achieved by the special system of cross vaulting developed in France during the High Gothic era.

cement, and everything must be arranged on the assumption that every stone might some time try to slide over the next. It is from that point of view that the following paragraphs are written.

The flying buttresses of the High Gothic are extraordinarily slight for the work they do, but they were used with confidence all over northern France. No such performance would have been possible except for the development of a new and special form of the cross vault — a vault with a peculiar shape which brought the thrusts of all ribs into a single force focused upon a very narrow area at either side of the church. Because the direction of that force was known, it was feasible to counteract it by putting a flying buttress in exactly the right place, and pitching it at precisely the right angle.

As stated in Chapter 7 (page 206), an adequate comprehension of the thrust pattern of cross vaulting can ordinarily be gained by reference to the plan view only. When, however, we deal with the more clever and more subtle elements of Gothic vaulting, the thrusts as seen in plan retain the same importance, but we must be prepared to give simultaneous consideration to the grouping of arches and shafts as they appear in vertical elevation (Fig. 12.47).



*DEVELOPED GOTHIC VAULT
POINTED & STILTED ARCHES
ALMOST LEVEL CROWNS
A SECTION OF THE THIN WEB
SHOWN IN PLACE*

Fig. 12.48 Drawing of the developed Gothic vault.

one of the great Gothic inventions to find a way to make each of the six arches of the vault frame rise to an equal height (Fig. 12.49). The transverse arches were merely pointed a little more, which brought their crowns to the same level as the diagonals. The wall ribs were given a steeper pointing still; and they were

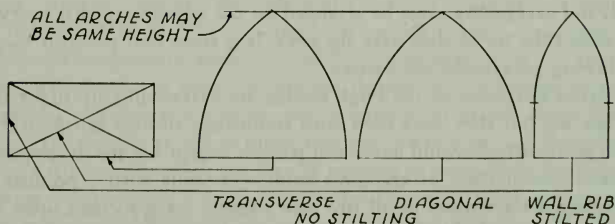


Fig. 12.49 Schematic drawing to illustrate the Gothic method for bringing all arches of the vault frame to the same height regardless of their great or short span.

Referring again to our discussion of the domical vaults at Sant' Ambrogio (pages 414-415), and comparing Fig. 11.36 with Fig. 12.48, the notable superiority of Gothic vaulting becomes apparent. Every bay at Amiens, as seen in plan (Fig. 12.43), is a narrow oblong. By comparison with the square, an oblong plan makes the diagonals span a distance relatively much greater, and the wall ribs receive a span exaggeratedly shorter by comparison. One might jump to the conclusion that an even worse shape than that of Sant' Ambrogio's dark hollows would have to be accepted, but it was one of the

stilted in radical fashion, so that they spring from a level many feet higher than the diagonals — but they come to just about the same elevation at the crown.

One excellent result of the arrangement is illustrated by Fig. 12.45. Instead of rising up in great concaves, the vaulting of Amiens undulates only slightly. The bays have, in colloquial language, a fairly "level crown." The advantage of the level crown is apparent in any view of the nave. The use of cross vaulting made it necessary to divide the ceiling into a number of separate bays, each a form artistically separate from the next. Perfect unity of the entirety was impossible so long as that kind of vault was used, but the level crown permits a reasonable coherence between bay and bay, and a reasonable continuity in the long axis of the ceiling.

About the stiling of the wall rib, there is much more to be said. The structural brilliance of that expedient has, to this point, hardly been touched upon. A glance at Fig. 12.12 will show that the transverse arches which designate the boundary between each pair of contiguous bays may be said to belong to each bay equally. Because we know that the thrust of the transverse arch is at right angles to the nave, and directly in line with the buttresses, we may from here on take it for granted, and neglect it in our explanation. It contributes nothing to the subtleties of our problem. Let us instead concentrate our attention upon the diamond-shaped areas of vaulting which spread upwards from each pier, being bounded by the diagonals.

Fig. 12.13 and Fig. 12.50 show the same diamond-shaped parts of the vaulting from another angle, and we should observe that there rises from each pier a three-dimensional solid of masonry of peculiar shape.

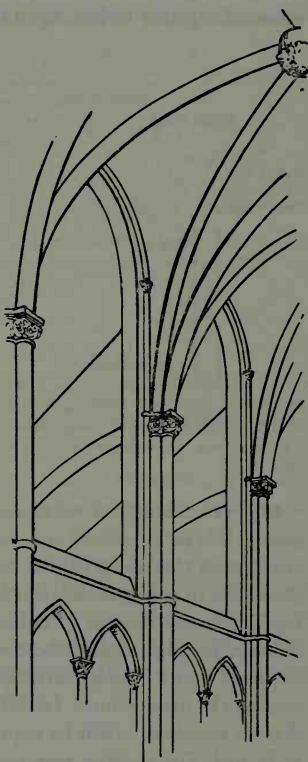


Fig. 12.50 Schematic drawing to illustrate the impingement of flying buttresses against the double ploughshare solids of French vaulting. The proportions are approximately standard for the period of the High Gothic.

We need a name for it. Sometimes referred to as the *Gothic vault conoid* it might better be called *the double ploughshare solid* of Gothic vaulting. If we imagine one of these solids to be cut by a horizontal plane at a level near the haunch, its cross section will approximate that shown in Fig. 12.51. Such a cross section indicates the tremendous advantage (from the standpoint of focussing all thrusts upon a narrow area) obtained as a result of stilting the wall ribs. Figs. 12.12-13, 18, 46-47, 50, all indicate how closely the thrusts are squeezed together to bear upon the narrow inner face of each flying buttress.

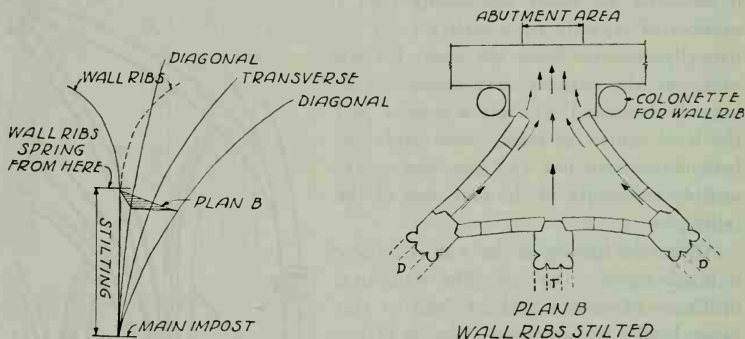


Fig. 12.51 Schematic drawing to illustrate the focus of thrusts made possible by the stilted wall ribs and the double ploughshare solid. Left: the various ribs seen in perspective. Right: a cross section through the double ploughshare solid at the level of the haunch of the diagonal ribs.

Fig. 12.52 indicates what the situation would be were the wall ribs not stilted. It is an imaginary cross section, similar to Fig. 12.51, but drawn on the assumption that the wall ribs were made to spring from the same level as the diagonals. In rising, such wall ribs would of course spread apart as fast as they rose. The more the ribs spread apart, the wider the area between them would become. In other words, the compressive force of the vault-thrust would be dispersed over a broader surface — a surface which could not possibly be covered by the narrow inner face of a delicate flying buttress. Ponderous and unshapely members would be required instead, if safe and proper abutment was to be had. The window area, moreover, would be considerably reduced.

The description just completed will give the reader an introduction to the major achievements of Gothic engineering. Detailed inspection of the monuments will reward him with an almost infinite number of structural refinements in which the builders themselves obviously took the keenest pleasure.

Wall ribs, for example, usually have capitals at the level of their own springing. The tiny spires placed as finials for the pier buttresses (Fig. 12.46) almost always appear at the outside edge of the buttress, where their small weight aids the abutment by squeezing the outer joints of the masonry more tightly together. Once generally understood, moreover, the flying buttress itself was used in a great variety of dispositions; no two churches have them arranged in just the same way.

Another sidelight on Gothic engineering is the fact that those great design-

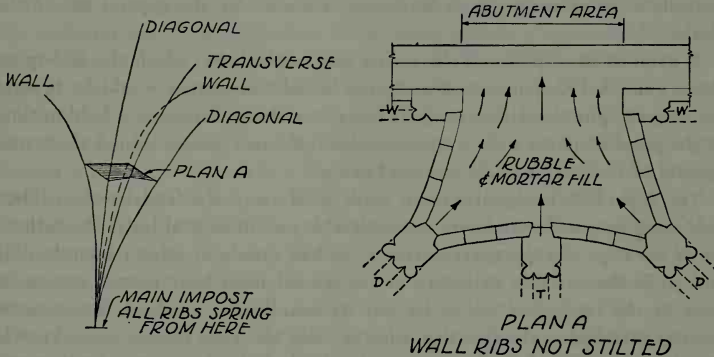


Fig. 12.52 Schematic drawing to be compared with Fig. 12.51: the thrust pattern of a ribbed cross vault without stilted wall ribs.

ers refused to be enslaved by their own structural theory. For example, the upper tier of flying buttresses at Reims ostensibly impinges upon the vaulting at the haunch, but when the roof burned off after the bombardment of 1914, it was revealed (to the great surprise of people not intimately familiar with the church) that those buttresses came nowhere near the haunch. They were too high, and they had been pushing against each other through horizontal beams for nearly 700 years. From that instance alone, we may observe that the Gothic architects, although more concerned than any earlier school with mechanical excellence, were not immune to the charm of form.

THE 13TH-CENTURY CHURCH, AND THE SPREAD OF THE GOTHIC STYLE

The 13th Century was a heyday of church building, and everywhere the style was Gothic. Over and above the unique prestige of the Ile de France, there must have been other strong reasons for the adoption of a single and uni-

versal style — a considerable contrast with the previous diversity. The strongest reason of all is doubtless to be sought in the character of the 13th-Century church.

The difference between Gothic Christianity and Romanesque Christianity was not a matter of the comparative level of individual piety. It had to do, rather, with church government. The relative separatism of the ecclesiastical polity during the two Romanesque centuries is well evidenced by the numerous local subdivisions we are compelled to recognize within that style. The centralization of authority at Rome was reflected by the general use of the Gothic.

A detailed description of the events and methods by which the Bishop of Rome extended his power and perfected his administration would be beyond the scope of our immediate subject, but the reader will require a bold outline of the papal situation if he is to comprehend the motivation behind the transmission of the Gothic to all western Europe.

The Popes had, in the first place, made good use of the feudal system. They held lands personally; and over a considerable part of central Italy, the authority of the Pope was the government. They had vassals, as other monarchs did; and while the *de facto* authority of the pontiff must have seemed remote in some of the regions of which he was technically the overlord, an immense prestige attached to the fact that whoever held the Vatican also was acknowledged feudal lord of Sicily, Aragon, England, Ireland, and the Latin monarchy established after 1204 at Constantinople. At any moment and upon any pretext of his own choosing, the Pope could and did assert his right to interfere in the practical affairs of the populations mentioned.

In addition to the powers just cited, which belonged to the Pope in his capacity as a property holder, there were other recognized powers which derived from the moral and spiritual status of the Vatican; often these proved even more cogent when the church wished to sway the imagination and, in some measure, direct the impulses of men. From the moment when Leo the 3rd crowned Charlemagne, the Popes had claimed the right to crown, or not to crown, the elected successors of Charlemagne. Endless friction and conflict ensued; but in the period immediately before the 13th Century, the papacy had enjoyed better than average success in asserting the superiority of the spiritual leadership over the temporal. The Popes thus started the Gothic period in a position of great political influence.

Upon the daily affairs of all persons, the church continued, as before, to exercise an ever-present effect unknown today; but more and more, policy and even specific direction tended to come from Rome. The collection of church revenues was perfected into a complex system of taxation which gave the

church a share in almost every profitable enterprise, and fetched into the Vatican treasury an enormous sum annually. Canon law, which previously had lacked unity and system, was brought into uniformity, largely as the result of Gratian's *Decretum* — a compilation of documents, plus a treatise in which the learned author attempted to solve their contradictions and arrive at a coherent juridical system. Brought together about 1148, Gratian's work, although not a set of statutes, presently began to acquire the effective authority we recognize today in the writings of Blackstone and Coke.

In addition to the jurisdiction the church claimed as its own, its function in the medieval world was made even more effective and indispensable by conditions which, for the time, played into its hands. The feudal monarchies, even that of France, were loose and ineffective to a degree almost impossible to comprehend today; they simply did not perform many of the duties necessary for the operation of society. Into the vacuum stepped the church with an organization so perfect it may rightly be compared with that of the Roman Empire. The papal prerogative to appoint bishops (a power long disputed) had become absolute early in the 12th Century. By the start of the 13th, its technique had been refined into a system of patronage and discipline rarely equalled in the history of human institutions. In every community of the Western world, the Roman authority was represented by direct appointees of the Pope, most of them able and much respected men. It was the exception rather than the rule for promising young churchmen to remain in one place; most of them had served the church in many lands before they could be called mature and prominent. With them they took their medieval Latin, in which language all church business was conducted. Inelegant by comparison with the classical, it was nevertheless the closest thing to the gift of Pentecost yet seen on earth. It furnished a channel for the passage of information and ideas unknown before the perfection of the Catholic polity, and unknown since. Where there is unity of tongue, there is likely to be unity of taste, and the Gothic style in art seems to have traveled the obvious route.

But none of these things, nor all of them together, furnish us with an adequate explanation either for the imposing powers of the 13th Century church or for the completeness with which Gothic art was devoted to the service of religion. Lusty and often barbarously cruel, Gothic society was genuinely religious in a sense for which history has no parallel. The people believed what the church taught. Their membership in a common religion was everywhere symbolized by the building of churches in a common style.

THE HIGH GOTHIC IN SPAIN, ITALY, GERMANY, AND ENGLAND

The largest and most famous French cathedrals are not earlier, but approximately contemporary to those of the rest of Europe. Salisbury was begun the same year as Amiens. The cathedrals at Burgos and Toledo were started in 1221 and 1227 respectively. The church of Saint Francis at Assisi dates from 1228, and that of Saint Elizabeth at Marburg from 1223. The figures make it unmistakable that the actual transmission of the style from the Ile de France outward must have taken place before 1200 or thereabouts. In trying to understand the operation of the French influence, it would therefore be a mistake to give a great deal of weight to the highly perfected work of the 13th Century. While no simple statement can be entirely true, it appears to be generally so that the foreign architects, insofar as they depended directly upon French models, remembered as they worked, not the High Gothic of Amiens, but the Early Gothic — and often in a less developed state than Leon.

Few of the foreign churches carry out the logic of the style as it was understood in northern France at the time Amiens was designed. As machines, most of them lack the precision and polish common in French work. Flying buttresses, if used at all, tend to have a clumsy shape, and often are neither placed nor pitched ideally. Mouldings are simpler. Most parts tend to be heavier.

Spain

During the 13th Century, Spain was an artistic province of France. It is possible to recognize a bit of authentic local flavor in the tracery of the rose and in the cusped arches of the triforium openings at Burgos, but much of the surface embellishment that gives character to the interior is, like the lantern and western spires, Late Gothic. The mouldings and piers of Toledo are very French. The western façade of Leon derives directly from the unique lateral porches of Chartres; Leon is, in fact, a watered version of a French church.

Italy

Italian Gothic is one of the anomalies of art history. It is like a bird that cannot fly. Nothing but the overwhelming prestige of France could have brought a northern style into the very dooryard of classical art, and the outland manner was never fully understood or accepted. The vaulted cathedrals at Florence, Siena, and Orvieto are the most famous, perhaps; but they give a false impression of the typical form taken by Gothic architecture in Italy. For that purpose, Santa Croce at Florence (Fig. 12.19) will serve us better.

It may be described as a wooden roofed basilica built with pointed arches. The piers, capitals, and mouldings betray in their form an extreme reluctance to render more than lip service to the prevailing French fashion, a condition in general true everywhere on the peninsula. The plan of Santa Croce is peculiar to Italy, and typical of the average Italian Gothic church (Fig. 12.53). The apse and choir amount to a separate chapel, narrower than the nave. To the north and south, a series of smaller chapels open through the eastern wall; in two of them on the south side, Giotto (see below, pages 550-563) did cycles of frescoes, and the church contains an amazing collection of monuments by famous artists of the Renaissance.

Germany

It has often been said that the Romanesque style was more congenial to the German temperament than the Gothic, and that buildings like the cathedral of Cologne (a direct derivative from Amiens) reflect no more than a temporary affectation for something French. Such statements are half true, to be sure, but they overlook at least two excellent contributions to the Gothic which appear to have originated in Germany.

In the arrangement of the interior, the Germans made an interesting departure from the traditional cross section of the basilica. Saint Elizabeth's at Marburg (Fig. 12.20) is an example. The nave and the side aisles are of equal height, eliminating the conventional triforium and clearstory. The effect is to open up the interior from wall to wall, and to unify rather than subdivide the space it contains. As a type such buildings are known as *hall churches*. Rather than a chevet, Saint Elizabeth's has a trefoil arrangement at the east end.

In the composition of the exterior, the Germans also proved inventive. The cathedral at Freiburg in Breisgau will illustrate their contribution in this department. Instead of the twin towers characteristic of France and common all over Europe, the western front was given a single tower of monumental dimensions. Because the German nave was usually much lower than that of a

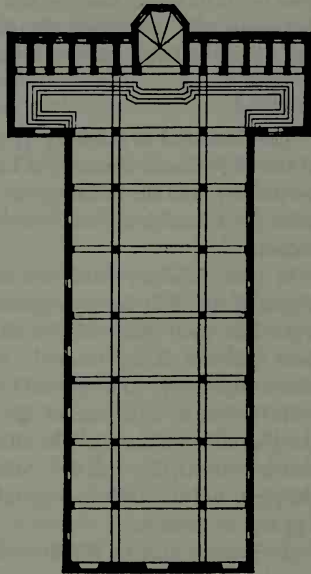


Fig. 12.53 Florence. Santa Croce. Plan.

comparable French church (the interior height at Freiburg is about 89 feet, and the tower stands a full 380 feet high) such towers dominate the composition and make a diagonal view of the building as good as its eastern or western aspect. The principle involved was carried to its logical conclusion in the Late Gothic cathedral at Ulm (Fig. 12.21). The over-all length at ground level is a little more than 400 feet. The spire soars into the air to an apex 528 feet above the pavement (Washington Monument: 555 feet; Woolworth Building: 750 feet), making it the highest church tower in the world.

England

The Cathedral at Salisbury (Fig. 12.22) is stylistically the most consistent of the High Gothic churches of England. Work began in 1220 (the same year as Amiens), and the building was substantially complete forty years later. No other great English minster ever went up in so prompt and straightforward a fashion.

In plan, Salisbury conforms to the shape of an archiepiscopal cross, the length of the choir being exaggerated to accommodate the second set of transepts. Like most other English churches, the apse is square, maintaining the local tradition dating from the very earliest years of the Middle Ages (see above, page 329). As compared to Amiens, the plan seems long and rambling, with far greater extension of the transepts; but in terms of feet and inches, the church is no longer. The effect of length depends, rather, upon a nave that is both narrow and low. Salisbury measures only 32 or 33 feet between the piers, and the vaults swing only 82 feet above the floor — as compared to 139 feet at Amiens.

An interior view of Salisbury can hardly be expected to please people who have learned their taste at Amiens and Laon. The English were never much interested in the organic theory of architectural design; and there is neither the refinement, the logic, or the coherence between part and part which so distinguishes the French cathedrals.

All of that is forgiven if not forgotten when one goes out of doors. Like most other English churches, Salisbury stands in a park. The lawns and trees around it have received competent and sensitive care for generation after generation; and the church, taken together with its setting, forms a picture incomparably better than anything to be seen on the continent — where noble buildings are usually in immediate juxtaposition to all the bustle and squalor of commercial life within a crowded city. It is no accident that the medieval architecture of England has formed one of the traditional subjects for painting, as the reader may see for himself in the numerous portraits of this very cathedral by no less a master than John Constable.

The church itself could hardly be better designed for the situation in which we find it. From any angle and every angle of view, its silhouette is rich and various. The grand central tower, 404 feet high and the loftiest in England, dominates and centralizes the composition, and gives the mass of the building an omnifacial organization in sharp contrast to the unfortunate appearance of Amiens when seen from the side.

The façade of Salisbury is very moderate by comparison with the west front of either Lincoln or Peterborough, but it conforms to a general English custom of designing the entrance front as though it were an independent screen without any necessary or essential relationship to the building behind. The artistic philosophy involved is not far different from that which became popular during the Italian Renaissance (see below, pages 634-635); both then and now, most critics feel some sense of reservation about it — especially when the screen, as a screen, leaves something to be desired in harmony and coherence of line and texture.

As the reader may have reflected when considering the comparatively moderate height of the nave, the design of Salisbury is but one instance indicating that the Gothic architects of England remained ultra-conservative in matters of structure. By 1220, anyone who cared to learn might have acquired without great trouble an adequate knowledge of abutment by means of the flying buttress, but such buttresses are conspicuous by their absence at Salisbury and on most other English churches. The walls are thick; and with the addition of small pier buttresses at appropriate points, enough inertia is provided to contain the thrusts. It may be questioned whether Salisbury is thereby rendered safer against earthquake, bomb concussion, or other destructive accidents: during World War II, it was the delicate but well-braced Gothic of France that stood punishment best of all.

LATE GOTHIC ARCHITECTURE

The forces which had made Gothic did not outlast the 13th Century. By comparison with that inspired era, the 14th Century is horrible to contemplate.

It was the century of the Hundred Years' War. Northern and western France were subjected to pillage and ruin. From the standpoint of the population, it made little difference whether French or English armies passed over the land; the result was the same. As the creative center of European life, France was through.

The so-called Babylonian Captivity of the Papacy began in 1305. The Popes removed to Avignon, where they remained until 1378. The Babylonian Captivity was followed by the Great Schism. In legal technicality, the schism came

to an end in 1415 when the Council of Constance elected Martin the 5th, deposed one of the competing Popes, and persuaded the other to resign. But the harm was done. The whole of Europe had resented the sojourn at Avignon, and the general state of mind was not in the least mollified by the sumptuous court maintained there by the pontiffs. The position of the Pope was forever compromised. Church government ceased to be what it had been. Discipline was difficult, and in some places impossible to enforce. Many of the clergy became notorious for their corruption.

Certain controversies in the matter of doctrine still further tended to undermine the unity of Christendom. Bitter differences of opinion, it must be remembered, had been perennial within the Catholic church, but those who lost the argument never got away with it before the 14th Century. During the 13th Century, for example, Roger Bacon had been silenced; the Emperor Frederick the 2nd of Sicily and all his line had been eliminated; and the Albigensian heresy had been crushed out of existence with a barbarity as sincere as it was terrible. But during this new era, John Wycliffe rose up in England to claim that the Bishop of Rome had usurped his extraordinary powers, thus paving the way for the ultimate secession of the English church. Unlike earlier heretics, Wycliffe died in his bed, the Papacy being without power to get at him. Some of Wycliffe's students at Oxford returned to their native Bohemia with the ideas they had learned in England. The upshot was the heresy of John Huss, at whom the church could get. Huss was burned at the stake, but under circumstances that impressed innumerable persons as grossly unjust. An irresistible groundswell of feeling began to make itself felt — presently to become a tidal wave sweeping on toward the Renaissance, the Reformation, and modern times.

Heart-rending enough to this point, the narrative of the 14th Century is still incomplete. In 1348, all Europe was swept by the plague. Known in England as the Black Death, that epidemic was the worst on record. It is difficult to make a sound guess as to the mortality, but most authorities feel that about half the population of Europe died of it.

In the face of such a historical summary, it is difficult to see how cultural progress of any kind was possible, and it must be conceded that unified Christendom suffered a blow that has proven as yet irreparable. At the same time, the current of tragedy did not sweep with equal force everywhere. It left islands where humane accomplishment remained feasible: this is the century that produced Chaucer, Dante, Petrarch, Giotto (see below, pages 550-563), and the Late Gothic.

Origins and Causes of the Late Gothic

Modern art history has not yet done its work on the Late Gothic. Historians may perhaps be forgiven for taking more interest in the origin of styles than in their maturity, but the fact is that some of the finest expressions of the whole Gothic era fall well after the 13th Century. Insofar as we can now interpret the evidence, it seems likely that England took the lead in this further development of the style. Building ceased almost completely in France; and when churches were built there again (and not many of them then), the style had changed. By comparison, the English churches went up at more regular intervals, and seem to show a more orderly movement toward the later and more ornate stages of development. Beginning with the "Early English" of Salisbury, it is possible to follow a kind of evolution in the tracery of windows and in the increasingly elaborate patterns assumed by the ribs of the vaulting. A "Geometrical Decorated" stage and a "Curvilinear Decorated" stage are said to lead the way toward the "Perpendicular" which was popular during the 15th Century and the "Tudor" of the 16th. Easy enough to put down on paper, such a classification is at times very, very hard to apply to the monuments with any real assurance, and it is fair to hazard a guess that during the whole Late Gothic episode in England and everywhere else, rather little depended upon the precise state of a centralized style, and much upon the taste and judgment of the individual architect. We shall therefore give up any attempt to arrange our examples to fit some logical scheme; but for convenience, we shall group them according to the modern national divisions.

England

The Cathedral at Exeter (Fig. 12.23) is our best example of the Late Gothic in its first stage. The towers adjacent to the transepts are Norman, and a few fragments of masonry are thought to date from Saxon times. Most of the present fabric was built under six different bishops between 1257 and 1394. In spite of its protracted and heterodox history, Exeter has an over-all harmony and oneness unsurpassed among medieval churches. A certain uniformity of scale and texture was maintained as each successive addition was made, with the happy result that the various forms blend together.

The general effect is more opulent than that of any High Gothic church, but the particular feature to which we should turn our attention is the vaulting of the nave. The crown is almost perfectly level, and a continuous ridge rib follows the axis of the ceiling. From each main impost on either side, no fewer than eleven ribs spring upward and outward in a radial pattern. Some of these meet each other at the ridge rib, and others meet their opposites at

various points along the transverse arches. All ribs are the same size, and the familiar appearance of cross vaulting is quite done away with, but may be traced if one makes the effort.

The aesthetic purpose of the new rib system at Exeter can hardly be explained in terms of simple and single intention. It certainly indicates a desire to elaborate upon the decorative aspect of a style that no longer offered any important opportunity for structural improvement; and while opinions differ, there can be no denying that the somewhat confusing contours of cross vaulting are lost in a rich new complexity of line and texture — and the ceiling pulled into a better unity thereby.

The addition of subordinate ribs makes it necessary to introduce two new terms. An extra rib that springs from a pier is named a *tierceron*. Tiercerons are to be distinguished from *liernes*, because liernes run between two main ribs, springing from one and terminating on another without coming into any contact with a pier.

The tracery of the windows at Exeter would fall into the category of "Curvilinear Decorated," and there is a distinct difference between the Late Gothic as we find it there, and the ultimate or "Perpendicular" stage of the style. Insofar as the transition was orderly, it may be studied at Winchester and Gloucester, both originally Norman churches and both remodeled during the 14th Century to fit contemporary fashion. For the Perpendicular in full flower, we must turn to King's College Chapel at Cambridge (Fig. 12.24) and to the Chapel of Henry 7th, attached to Westminster Abbey at its extreme east end (Figs. 12.25-26).

The exterior of King's College Chapel is unimpressive; it amounts to a rectangular framework of piers and arches, with the skyline rather weakly broken by a number of small spires. The interior, however, is surely one of the best ever designed. The walls, if we may still call them that, consist of 25 immense stained glass windows. The windows are so big, in fact, that the supremely delicate stonework functions, in an almost literal sense, as a mere frame of reference for the light and color that flood the space within. The arches used for the window heads and the transverse ribs are good examples of the four-centered "Tudor" arch (see also Fig. 7.9); they are "pointed" only in a very strict sense of the term. The name *Perpendicular* comes from the tracery of the windows. Curvilinear work is restricted to the extreme upper part; and about halfway up, the vertical mullions are intersected by a horizontal mullion, or *transom bar*. These particular windows are unusual in having but one transom bar; others of the same class have many.

A geometrical description of the so-called "fan vaulting" of the chapel

would be tediously long and artistically insignificant. Those familiar with the *double ploughshare solid* of the High Gothic will have no trouble in recognizing the heredity, but it is worth remarking that at this point the ploughshare solids are true conoids with a semicircular cross section. The vaults were built of cut stone voussoirs; they do not depend upon the ribs for support. Because the latter — once “working members” — now became a mere enrichment of the surface texture, fan vaulting has been unpopular with those who attach moral significance to the revelation of structure.

The circular nature of the fans made it awkward to adapt such vaulting to a rectangular plan because an empty space inevitably appeared in the middle of each bay. At Cambridge, those spaces were glossed over by carved pendants decorated with heraldry. In successive bays, the Beaufort portcullis alternates with the Tudor rose.

The Chapel of Henry the 7th (Figs. 12.25–26) represents the Late Gothic in an extreme form. Built at the time architectural stonecutting had reached its quintessential perfection all over Europe, the vaulting is a tour de force of daring. The voussoirs are a triumph of applied geometry; depending on their bevel alone, the architect has suspended in mid-air large pendants of stone.

The exterior is only less remarkable. It was one of the very few instances where the nature and logic of perpendicular tracery had full rein. The pattern of window lights, transom bars, and mullions was carried in low relief right around the vertical piers and other areas of masonry. Even through the soot of innumerable London winters, this supremely neat working of the surface carries unhindered; in the deepest and most smoke-laden fog, to see this building is to see something chaste and gay.

All Gothic, early or late, was predominantly a vaulted architecture, but we must not omit mention of certain notable developments in wood. Because English society was and remains (all London notwithstanding) rural and agricultural by preference, that country has always raised trees and entertained an uncommon liking for wood. Because, also, men from every part of the island have traditionally gone to sea, at no time has there been a village that lacked at least one man with something better than a passing acquaintance with boat building. Wood is the age-old medium of boat builders, ever princes among craftsmen: their work is subtle, complex, and expert beyond anything within the capacity of the cabinetmaker. It was no wonder, then, that England bred a race of connoisseurs in the working of wood. During the Late Gothic era, when elaboration was the order of the day, that taste came out in a great number of superb wooden ceilings of different kinds. Among them, the most

famous type was the *hammer-beam roof*, evolved at the end of the 14th Century.

A hammer beam is a bracket, or *cantilever*. Its simplest form is shown in Fig. 12.54, and its function is to carry a vertical strut on the upper and outer corner. The strut, in turn, connects with an inclined rafter, and helps stiffen it. The rafters may therefore be longer than would otherwise be feasible, and

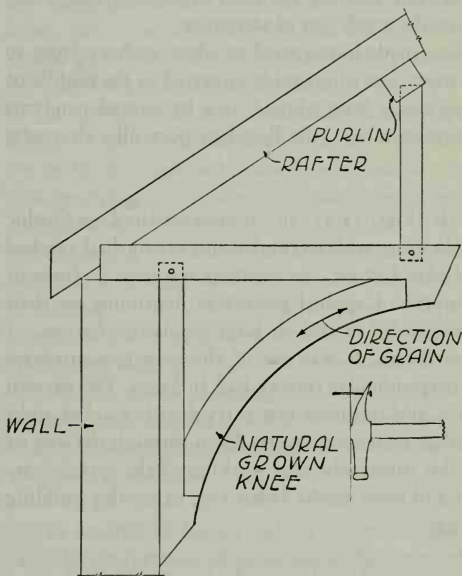


Fig. 12.54 Schematic drawing of hammer-beam support.

the span between wall and wall (and hence the area of floor free from supports) greater.

We may doubt whether such structural considerations dictated the choice of hammer beams in many instances. A great many hammer-beam roofs are so complex and elegant that almost any kind of vault would have been cheaper. That fact will be apparent if we note how very often curved pieces of wood were included in the innumerable variations of the form, especially for the hypotenuse leg of the triangle. Such pieces, if they were to hold their shape indefinitely, had to be *knees* of

curved grain, individually selected from the gnarled limbs of the finest oak trees. Timber of that superb order has always been a matter of great pride and price.

The hammer-beam roof of Westminster Hall in London (Fig. 12.27), where Richard the 2nd was deposed, Charles the 1st condemned to death, and Cromwell proclaimed Lord Protector, has a span of 68 feet, one of the very widest ever attempted in wood prior to the invention of new fastening methods during World War II. The northern nature of Gothic has certainly never been more emphatically expressed; the shape of the hammer beams might have been suggested by a bit of Irish jewelry.

It should be mentioned, lest our enthusiasm for marvellous craftsmanship

carry us away, that the hammer-beam roof is hardly admirable as a structural device. Without tie beams to take tension and hold the lower ends of the rafters at a predetermined distance from each other, such a roof exerts thrust. In most cases, no system of buttresses was provided, but the roof was light and the walls thick enough to stand such thrust as there was. Fortunately, there is little snow in England to load the roofs of buildings, but serious trouble has been experienced with this and similar construction in other countries.

Every man who reads or speaks English has a special place in his heart for the domestic architecture of the Tudor period. These are the houses in which the English raised country life to the artistic level. These are the rooms where the greatest poets and the greatest wits did their thinking, their writing, and their talking. The stupendous adventurers who went to the New World, moreover, remembered Tudor villages when they thought of home.

It is generally conceded that English homes of the Late Gothic era represent a considerable improvement over anything earlier in date. From Hampton Court Palace to the smallest house in the Cotswolds, the design of such buildings proceeded on much the same theory. The required rooms were laid out as seemed best by owner and builder. Many plans conform roughly to the shape of a square, an H, or an L, but geometry did not in the least detain or preoccupy the men who put up these houses. They concerned themselves with the means and the practical needs of the family, with the conformation of the site, the direction of prevailing winds, and the view from the windows. Then they enclosed their rooms with walls and roofing. The method, it will be seen, is identical in theory to the procedure advocated by all the talk and writing of our most advanced architects today. It is true that "modern" houses look different from Tudor houses, but the resemblance would be surprising if the gabled roof were added to many a "radical" 20th-Century dwelling.

A small Tudor cottage (Fig. 12.29) is sometimes vaguely reminiscent of the Greek temple form; but because a wide span between walls was difficult to handle, such houses are always narrower; the gable has the steep Gothic angle; and the skyline tends to be more or less broken by chimneys and chimney pots. The second story often has an overhang which adds slightly to the floor area above — and which also invites the attachment of decorative pendants similar in nature if not so refined as the pendants that hang from the vaults of Henry the 7th's Chapel. Narrow clapboards were common in England, but just as common and much more conspicuous was the construction known as *half-timbered*. The timbers of the framework, that is to say, were left in plain sight, and the interstices between them were filled in with plaster. Timbers or clapboards as the case might be, the result was a Gothic complexity of line.

The temple-like unity of typical Tudor cottages reflects the comparative simplicity of the life lived by those with modest means. As soon as any family bettered itself, its home ceased to be so simple in form. Additional rooms of any size and any shape, and running in any convenient direction, were simply added on. Thus any old or large Tudor dwelling is likely to be long, low, rambling, and possessed of a markedly irregular sky line. Nothing could be more unlike the classical, or more consistent with the nature of northern art.

The High Renaissance was almost over in Italy before any important change took place in the artistic taste of the English people. It has often been a matter for remark, indeed, that England has always remained Gothic. Where else, for example, is the government conducted in buildings of that style? The very same point may be illustrated by reference to the earliest permanent architecture of the English colonies in America.

Few of the early colonists had any claim to aristocracy, which meant that few of them had any personal taste for the Italianate details modestly added to great houses from the time of Henry the 8th onward. Although their great-grandsons were to study, admire, and import such ideas, it is probable that hardly a man in the colonies had ever taken so much as a serious look at the work of Inigo Jones, John Webb, or Sir Christopher Wren. Naturally and without self-consciousness, the Americans of the 17th Century simply put up homes of the kind they were used to (Fig. 12.28).

Thus while Italy and France were Baroque, America was still in the Gothic phase; but for that fact, no hint of apology is required. Only a few of the earliest houses survive, but there is much to be said in favor of those that do. Designed for a domestic economy that did not contemplate servants, such homes provided a comfort and efficiency excelled not by all, but only by the very best houses of our modern day. The kitchen fireplace was the only source of heat, to be sure; but if a small fire was maintained at all times (thus keeping the great mass of brickwork warm) a surprising amount of comfort was possible even in zero weather — and with much less fuel than one might suppose. Gas, electricity, running water, and even the iron stove were lacking, but anyone who has inspected a large number of colonial gadgets and implements can testify that labor-saving devices were conspicuously plentiful. Contrary to what we tend to take for granted nowadays, life under such conditions was neither without the essentials nor the amenities. Above all, the kitchen and the living room were identical in the 17th-Century American home. By that simple expedient of arrangement, the colonial housewife saved the steps that her 20th-Century sister can save only if she is lucky enough to have a streamlined modern dwelling.

Germany

The Cathedral of Ulm, already cited above (page 486, and Fig. 12.21) was surely the most conspicuous achievement of the Late Gothic in Germany; but that land is rich in smaller and less pretentious monuments which have exerted a much broader influence than most of us realize. One thinks especially of the old houses in Nuremburg, and of the great city squares so common in Germany, with civil and commercial buildings crowded around them. Congestion combined with prosperity to produce multistoried houses with immense gabled roofs high enough to contain within themselves an extra floor or two of rooms. The type of architecture referred to often appears in the background of plates by Albrecht Dürer (Figs. 16.47-50), and it has contributed greatly to the appearance of the average American city. In order to understand why, one must recall the years before 1914, when Germany was as much admired in America as Hitler's Reich was later detested.

A particular development in ecclesiastical architecture that ought to be singled out for special mention was the celebrated brick Gothic of Germany. The Frauenkirche of Munich, with its onion spires, is a well-known example; but as a class, the brick churches (mostly of the 15th Century) were more characteristic of the Baltic provinces. Their warm color and pleasant texture offer a refreshing variation from the limestone of most Gothic, which when weathered all too often becomes tediously gray.

Italy

The Cathedral at Milan (Fig. 12.30) was begun in 1386 and all but finished by 1500. The western façade was not entirely complete until the time of Napoleon; it was then given some Baroque doors and windows. The general shape of the building is unusual; it seems to have been suggested by that type of Lombard Romanesque (see above, page 400) characterized by a single, continuous, and very broad western gable. In accordance with Italian custom, moreover, no bell towers were incorporated into the mass of the church itself.

Milan was intended to outdo all existing cathedral churches. No architects in Italy had sufficient reputation to command confidence for the project in view. Various masters from France and Germany were therefore called in; two of them had worked on the Cathedral at Ulm. No one can say that these men were negligent in their attempt to dazzle the world. The church is immensely big. The masonry is fine marble, itself a symbol of elegance and luxury unusual in Gothic architecture. There are said to be 2,300 statues (mostly modern). The nave capitals themselves were transformed into pedestals for statuary. The vaulting is not vaulting at all, but a dreamy lacework of open tracery.

Milan is unquestionably the most sumptuous church in the world, but it does not stand comparison with other works of the Late Gothic. The gorgeous detail, so wonderful at first glance, is in truth only complicated and expensive. The carving that covers so many surfaces, including the flying buttresses, lacks the sensitivity of Henry the 7th's Chapel at Westminster. The statuary is empty of content, and the innumerable little pinnacles that break the skyline are individually dull — their repetition becomes tiresome on acquaintance. The interior, which seems grand when one first enters, is in fact merely grandiose; there is nothing to remind us of the proportions or the spatial understanding of Amiens. As an engineering proposition, Milan is stupid. Tie rods were required to absorb thrusts not properly provided for by the placement of the buttresses.

Italy is full of less bizarre monuments dating from the Late Gothic period: at Venice, the Palace of the Doges; at Florence, the Palazzo Vecchio and the Bargello; at Siena, numerous private palaces still occupied by the families that built them, and the Palazzo Pubblico. Except for the use of pointed arches for the window openings, most of these buildings are hardly Gothic at all. Deriving mostly from military architecture and marked by the expediency always associated with such a source, it would not be overly harsh to say that numerous well-known Italian buildings of this era have no style at all. But from age and use they have taken on an appealing patina, and the sternest critic finds it hard to judge them with impartiality. The clemency of the Mediterranean climate, the charm of the Italian scenery, and the incomparable richness of historical association all combine to make one sentimental. But if an attempt at objectivity is made, we shall find ourselves arriving at the conclusion that the only great and definitive work of architecture produced in Italy during the period now under review was the so-called "Mangia Tower" rising over the eastern end of the Palazzo Pubblico at Siena (Fig. 12.31).

The general form of the Mangia upsets all the ordinary proprieties of tower designing. It is slender and delicate at the bottom, heavy and wide at the top. Presented with a table of dimensions or even with a description in words, almost anyone would feel inclined to make a flat statement that the design was certain to prove a failure; yet the truth is that no other tower so perfectly fulfills the Gothic ideal of flight, and by implication the Gothic ideal of infinite space. An adequate analysis of the reasons remains to be written, but there is no voice to contradict the universal admiration. It is obvious, of course, that the use of a lighter color at the top contributes in some measure to the effect by calling up unconscious reminiscences of plant forms; but beyond that suggestion, our present aesthetics seems curiously unable to grapple with the problem.

Spain

An immense amount of work went on in Spain during the Late Gothic era, but the larger and more prominent enterprises of that time are curiously dry and disappointing. The 15th-Century lantern and the western spires of Burgos were built by Germans; they are florid, and cloy quickly. The Cathedral at Seville, begun in 1403, has the distinction, for whatever it is worth, of enclosing the second largest floor area of any Christian church. The dimensions seem to have been suggested by those of the mosque which once occupied the same site. The *Giralda*, a bell tower that is pretty and has an even prettier name, stands at one corner. Originally the minaret of the mosque, its lower portions are Moorish and of the 12th Century, while the present spire and belfry are additions of the 16th. If such monuments represented the best Spanish work of the later Middle Ages, we might well omit the present section entirely; but if we turn to smaller and less famous examples, there is a different story to tell.

Spain presents us with the phenomenon of a population that might with equal reason express itself artistically in the idiom of the Near East (Fig. 2.16) or the northern and linear style that flowered in the Gothic. The earlier history of Spanish art demonstrates for the most part a tendency to do one or the other, with provincial dependence upon the French or Moorish source as the case might be. But during the 15th Century, the Near Eastern heritage amalgamated with the northern for the first time in the so-called "Plateresque" style. The name is from *platero*, a silversmith; and it is an attempt to characterize both the opulence of the decoration and the lovely precision with which its tiny details were rendered.

Two façades at Valladolid illustrate the Plateresque in its most perfect form. They are San Pablo and San Gregorio (Figs. 12.32-33). The immediate impact of the two is more Oriental than Gothic. A very casual glance might lead one to confuse them with examples from the earliest part of the Middle Ages, when the Oriental form-will was working the Classical Style over into the Byzantine (see above, pages 261-269). The Gothic component of the design comes out, however, in the arrangement of the sculpture and its subject matter, in the continuous buttresses and the broken skyline, and in the elaborate variety of novel variations on the pointed arch.

The Plateresque survived the Late Gothic era, and the very same name is often used to designate work like that shown in Fig. 12.34, where the architectural forms are plainly derived from the earlier phase of the Italian Renaissance. The shift from Late Gothic is likely, however, to pass almost unnoticed. It is not the architecture that governs, but the texture and quality of

the immensely fertile decoration which came into its own at this time in Spain. Indeed, it may truly be said that from the Late Gothic onward, Spanish architecture (while running through the standard cycle of Early Renaissance, High Renaissance, Baroque, and Rococo) continued to be dominated by an Oriental enrichment of surface unparalleled for sheer richness and virtuosity.

France

During most of the Late Gothic era, Frenchmen were compelled to limit their architecture to comparatively small buildings, or to finishing up churches of earlier date. Most of the Late Gothic monuments of France are of the latter class: towers, porches, choir screens, rose windows, tombs (Fig. 12.36), and similar items. By a kind of tacit understanding, the original plans (if they still existed) were cast aside, and the work to be done was freely designed to fit the fashion of its own date. Thus we find that the transept façades of Beauvais do not correspond with the Gothic of the choir, but to the Gothic as it was in the early 16th Century. The same thing may be said of the new western front of Rouen, and the façade of Troyes. In every instance, it would seem, when new work was added to old, the junction between the two was handled cleverly. Now that several centuries of weathering have intervened to blend all the masonry into a common color, it is often difficult to recognize the precise place where the later additions begin. Such being the case, the casual observer may be forgiven for thinking that everything in view comes from the same period; if so, he forms the mistaken notion that the High Gothic — really a rather chaste style — was very fancy indeed. The northern and later spire of Chartres is an instance in point (Fig. 12.3).

About the middle of the 15th Century, conditions became more propitious in France, and some notable work was done. The Late Gothic choir and apse of Mont Saint Michel were begun in 1450. Hard and perhaps impossible to photograph in any adequate fashion, nothing could better illustrate the Late Gothic at its flamboyant and exquisite best. The so-called "Butter Tower" at Rouen dates from 1487. One may have a preference for something less elaborate or a good reason for wanting something more simple, but it would be a stubborn purist indeed who dared level any serious argument against it.

As the 16th Century drew near, there was a reaction in France against the extremes at which the Late Gothic had arrived. A certain number of buildings, therefore, were designed with the idea of using flamboyant carving not as an over-all investiture of architectural form, but as a foil played off against plain and neutral surfaces. The nave of Saint Pierre at Coutances (Fig. 12.35) is a case in point, and the Church of Brou, put up at Bourg by Margaret of

Austria, is another. It would not be hard to contend that both represent the best, not of the Late Gothic alone, but of all Gothic. Wonderfully gentle and lovely, this final flower of the medieval style seems to sum up all the indefinable qualities of France. At no other time has there been so perfect a combination of chastity and finesse.

Transition from the Gothic to the Renaissance: the Chateaux

Readers with a sense for the schedule of history must have realized long ago that a great many of the Late Gothic monuments fall much beyond the date we ordinarily use to mark the beginning of the Renaissance, but the Renaissance (in the simple sense of a style consciously derived from the classical) was at least a hundred years old in Italy before it had much influence north of the Alps. It first attracted the attention of influential Frenchmen in the course of the Italian campaigns of Charles the 9th and Louis the 12th, who invaded Italy twice during the decade 1494-1504. Those monarchs were so charmed by the new Italian style, especially its northern variation, that they undertook to import it when they returned home. The first effect of the foreign taste and the transition from one style to another is marked by the existence of a number of monumental residences, mostly in the Loire Valley where, for a span, the aristocracy made a vogue of elegant country life in the charming atmosphere of Touraine.

For our immediate purpose, the best example to study is the Chateau at Chambord (Fig. 12.37). The general conception was borrowed from military architecture, and conforms fairly well to the type known as a *concentric castle*. The essential feature of such a castle is that it shall have one wall within another, permitting the outer defenses to be sacrificed gradually while the garrison retreats in good order to an impregnable central unit variously known as the tower, the donjon, or the keep. The main block of building at Chambord, containing the important halls and chambers, is a reminiscence of the donjon. The turrets are circular in plan because that shape more easily resisted the impact of the battering ram, and they project from the wall in the manner of towers intended to restrain an enemy from scaling by permitting cross-fire from above. But as a military building, Chambord was grossly out of date: during the 15th Century it had been made abundantly plain that any commander who understood the crude artillery of the era might expect to take the strongest castle in a matter of days. Reflection upon these points will suggest a certain artificiality in the design of all the chateaux. For perhaps the first time in our study we encounter a sentimental harking back to forms that had once been useful, but at the date of building had little to offer beyond atmosphere.

While all its elements are medieval, even to the broken skyline, a Roman

spirit governed the disposition of parts at Chambord (see above, pages 221-223). The plan was kept perfectly symmetrical to its short axis, and approaches symmetry to the long. In elevation, mass was made to balance mass according to the classical, and not the Gothic rule. The windows, moreover, were made square-headed, and strong horizontals predict the coming revival of entablatures. Such things also meant that the Gothic was about to end.



MARBURG

Fig. 13.1 Bamberg. Cathedral. Detail from the screen of Saint George's Choir. *Jonas*. About 1230.

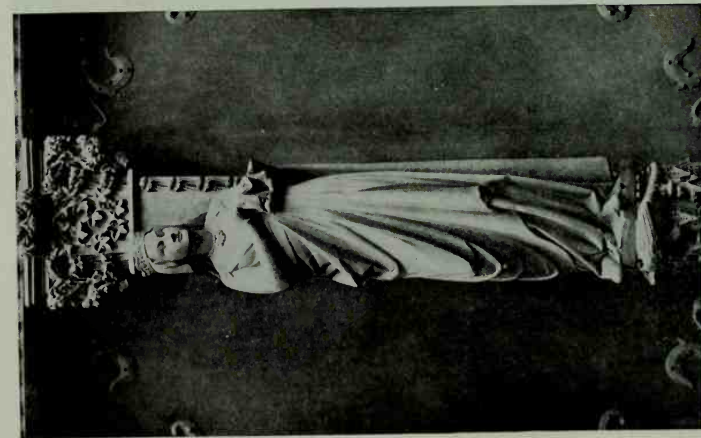


MARBURG

Fig. 13.2 Strassbourg. Cathedral. *The Synagogue*. About 1250.

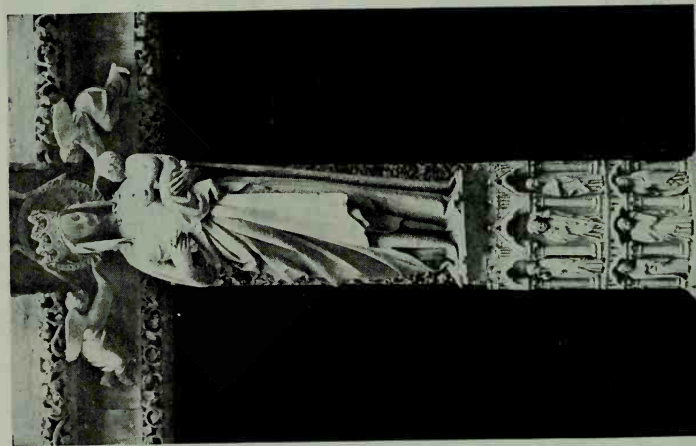


TEL Fig. 13.3 Paris. Cathedral. North door of the west front. Detail of the tympanum, showing six Royal Prophets. About 1230.



ALINARI

Fig. 13-4 Paris, Cathedral, Madonna on the transept portal. Shortly after 1250.



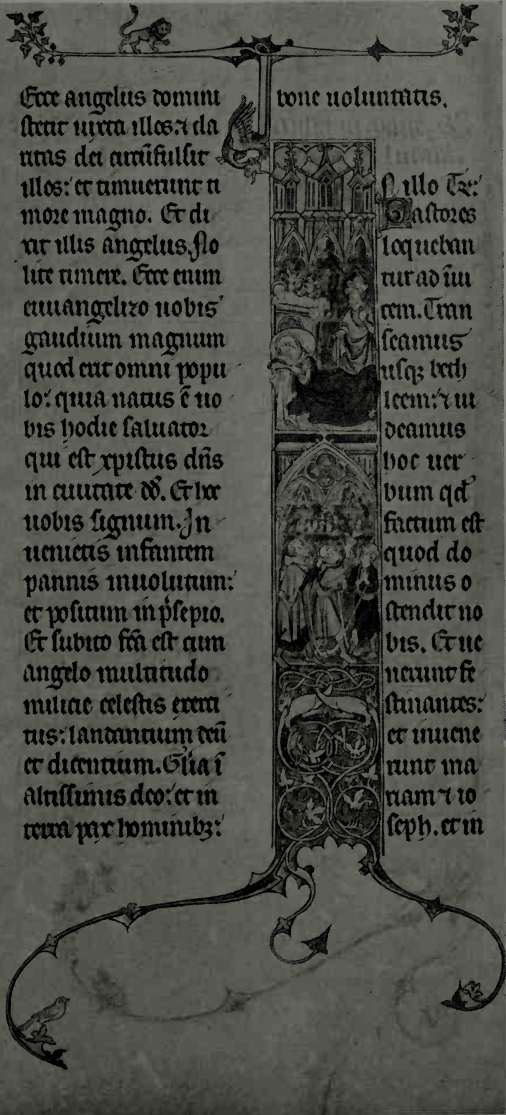
BULLOZ

Fig. 13-5 Amiens, Cathedral, Madonna on the transept portal. "La Vierge d'Oréc," 1280-1300. From a cast.



ALINARI

Fig. 13-6 Paris, Cathedral, "Notre Dame de Paris," 1330.



Ecce angelus domini
stetit iuxta illos: et da-
ritas dei circumfulsit
illos: et timuerunt ti-
more magno. Et di-
xit illis angelus, flo-
lite timere. Ecce enim
euangelizo uobis
gaudium magnum
quod erit omni popu-
lo: quia natus est ho-
mo hodie saluator
qui est christus dñs
in ciuitate d. Et hoc
uobis signum. In-
ueneris infantem
pannis inuolutum:
et positum in presepio.
Et subito facta est cum
angelo multitudo
militie celestis crea-
tus: laudantium deū
et dicentium. Gloria
in altissimus deo: et in
terra pax hominibus:

tone uoluntatis.

In illo tē:
Pastores
loqueban-
tur ad in-
fem. Tran-
scamus
usq; beth-
leem: et ui-
deamus
hoc uer-
bum qd
factum est
quod do-
minus o-
stendit no-
bis. Et ue-
nerunt fe-
stinantēs:
et inuen-
erunt ma-
riam et io-
seph. et in

Fig. 13.7 London. British Museum. Additional Manuscript No. 17341. Folio 10 verso. A French Gospel Lectionary of the 13th Century.

Fig. 13.8 Pompey quitting Rome. A miniature from a French manuscript of the 13th Century.



ARCHIVES PHOTOGRAPHIQUES



Fig. 13.9 Paris. Bibliothèque Nationale. Lat. 14284. Scene from the life of David.



Fig. 13.10 Paris. Bibliothèque Nationale. *The Breviary of Belleville*. Folio 118. The murder of Thomas à Becket.

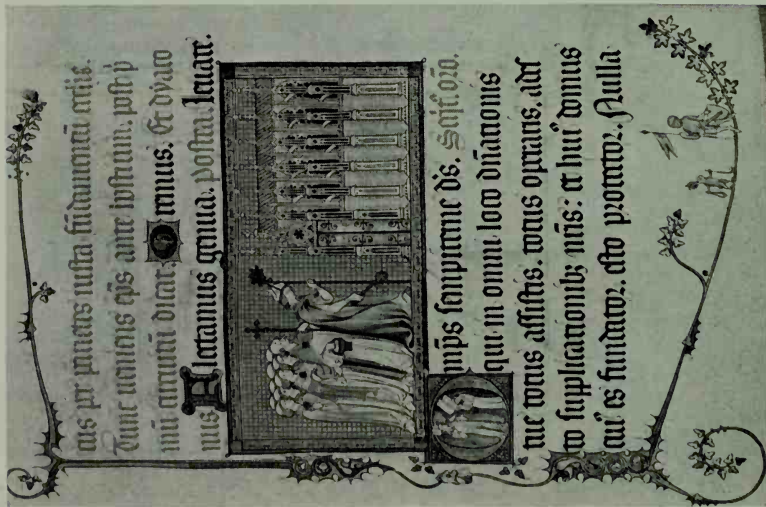


Fig. 13-12 (left) Cambridge, England, Fitzwilliam Museum. *The Pontifical of Metz*. First half of the 14th Century. A bishop sprinkling holy water during the ceremony of dedicating a church; and (below) parody of David and Goliath.

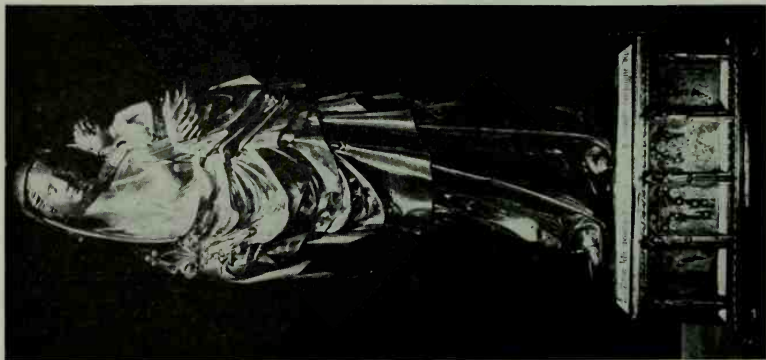


Fig. 13-13 (right) Paris, Louvre. Silver statuette of the Madonna. 1339.

Figs. 13,14-15 The Brothers Limbourg. Two miniatures from the *Très Riches Heures, February* (left); and *August*, with the château of Étampes in the background. PHOTOGRAPHS BY GIRAUDON

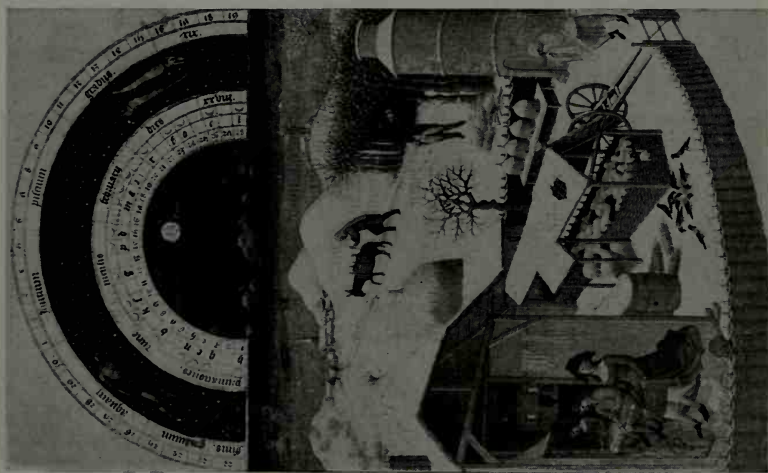
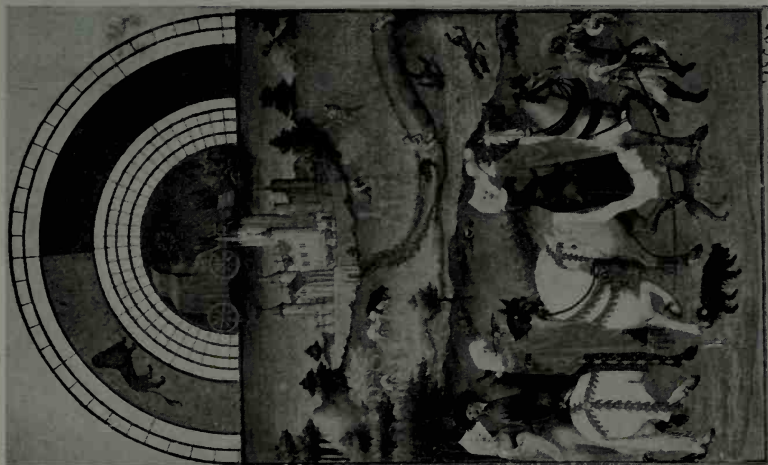




Fig. 13-16 (left) Stefan Lochner.
Madonna with a Violet, Cologne,
Archiepiscopal Palace.

Fig. 13-17 (right) Bernardo Mar-
torell ("The Master of Saint
George"), *Saint George and the
Dragon*, Chicago, Art Institute.
Tempera on panel, 38 x 56 inches.



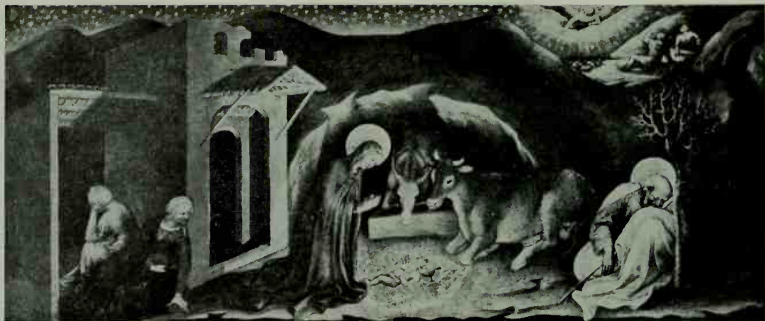


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Fig. 13.18 Pisanello. Medal of John Paleologos, commemorating that Emperor's visit to Italy in 1438-39. Florence. Bargello. Obverse: portrait of the Emperor. Reverse: the Emperor stopping at a roadside shrine while on his way to the Council of Florence.



Fig. 13.19 Pisanello. *Saint Eustace's Vision of Christ in the Form of a Stag*. 1436. London. National Gallery.

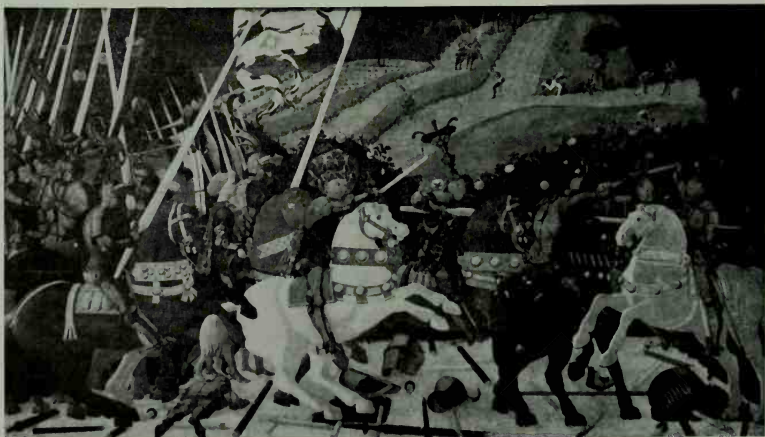


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Figs. 13.20-21 Gentile da Fabriano. Above: *Nativity*. Predella panel to *The Adoration of the Magi*. 1423. Florence. Uffizi. *Madonna* (right). New Haven. Yale University Art Gallery.



Fig. 13.22 (below) Uccello. *The Battle of San Romano*. 1432. London. National Gallery. Tempera on panel. 6 feet high.





GIRAUDON

Fig. 13.23 Portrait of Charles the 5th. Detail of the *Parement de Narbonne*. 1374-1378. Paris. Louvre.



ARCHIVES PHOTOGRAPHIQUES

Fig. 13.24 Statue of Charles the 5th. About 1378. Paris. Louvre.



ARCHIVES PHOTOGRAPHIQUES

Figs. 13.25-26 Saint Denis. Tomb of Bertrand du Guesclin. Died 1380.



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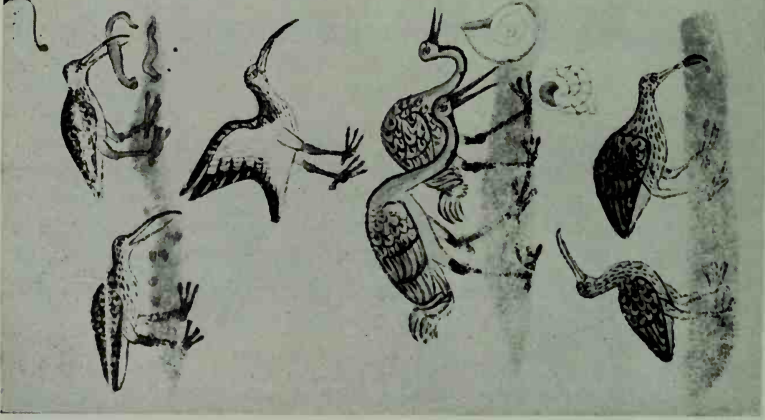
Figs. 13-27-28 Claus Sluter. *The Moses Well*. 1395-1406. Dijon. Chartreuse de Champmol. Height 10½ feet. Detail above: Isaiah.





Figs. 13, 29-30 Two miniatures painted on leaves of the manuscript originally known as the *Tres Belles Heures*. Above: William of Bavaria landing at Veere, from the so-called "Turin Hours" lost in 1903. Below: Baptism of Christ from the so-called "Milan Hours" now in the Museo Civico, Turin.

huc & illuc
 mutando
 cauando
 rostro
 nell
 lando
 lando
 tant
 fuis
 dno
 et
 sro
 tra
 cu



no venter sup manit usali
 venter in in de falcon
 fow g male venteris & q
 ano reth sup venteris

fufertus q non e mueret
 ner S fies venteris sup
 ano reth sup venteris



Figs. 13-31-33 Rome, Vatican Li-
 brary, Pal. Lat. 1071. The *De Arte*
Venandi cum Avibus. Birds on folio
 11 verso, portrait of Frederick the
 and on folio 1 verso, and falconers
 on folio 103 recto.



ANDERSON

Figs. 13.34-35 Capua. Museum. Colossal heads of personified Capua and Pier delle Vigne. First half of the 13th Century.



ALINARI

Fig. 13.36 Nicola Pisano. One panel from the pulpit of the Baptistery of Pisa. *The Presentation in the Temple*. 1260.



ANDERSON Fig. 13.37 Giovanni Pisano. *The Crucifixion*. From the pulpit completed in 1310 for the Cathedral of Pisa.



ANDERSON
Fig. 13.38 Giovanni Pisano. *Madonna*. Pisa. Campo Santo.



CLARENCE KENNEDY
Fig. 13.39 Verona. Tomb of Can' Grande della Scala. Died 1329.



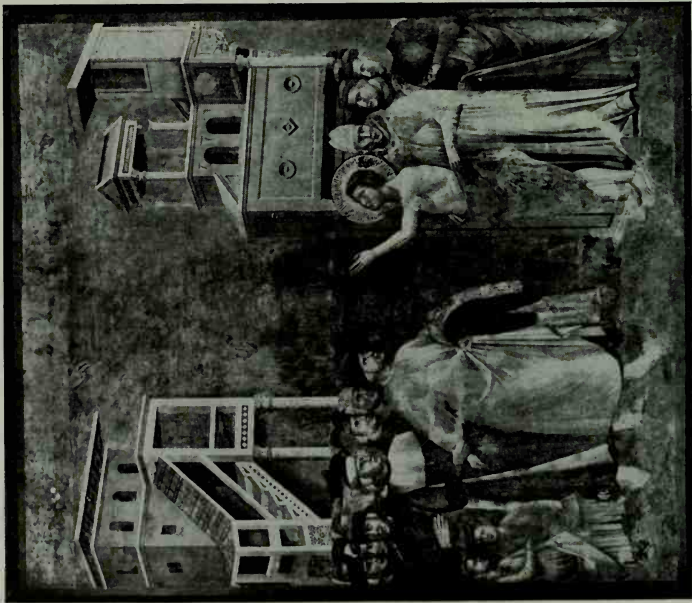
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Fig. 13.40 Orvieto. Cathedral. Scenes from Genesis on the pilasters of the west front. Early 14th Century. Probably by Lorenzo Maitani.



ARCHIVES PHOTOGRAPHIQUES

Fig. 13.41 Paris. Cathedral. Tympanum over the so-called "Red Door." About 1270.



Figs. 13.42-43 Giotto. Frescoes in the nave of the Upper Church of Saint Francis at Assisi. About 1296. *Saint Francis Renouncing His Father* (left) and *Saint Francis's Sermon to the Birds*.
ANDERSON



Figs. 13.44-45 Giotto. Frescoes at the Arena Chapel in Padua. 1303-05. *The Meeting at the Golden Gate* (above) and a detail from *The Nativity*. ANDERSON



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Fig. 13.46 Giotto. *The Flight into Egypt*. Padua. Arena Chapel. 1303-05.



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Fig. 13.47 Giotto. *The Death of Saint Francis*. Florence. Santa Croce. Between 1318 and 1322.

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13

SCULPTURE AND PAINTING DURING THE GOTHIC PERIOD

Introductory: Statement of Coverage

The business of the present chapter is twofold. It is in the first place an attempt to acquaint the reader with the most important monuments of statuary and painting produced during the Gothic period. But over and above their worth as an essential department of Gothic art, those same monuments offer us perspective upon the manner and process by which the Middle Ages came to an end and the world of the Renaissance began. Before proceeding with our narrative, it behooves us, therefore, to give the reader warning as to the course of events. He may then know what to look for.

In the north of Europe, there was no precise break between medieval and Renaissance culture. The Renaissance art of France, Flanders, and Germany came into being by a gradual and even orderly evolution from the Gothic. Things were different in Italy, where the population had never entirely accepted the Gothic nor forgotten the Classical. Ideas and expressions in the key of the Renaissance were more overt in Italy, but it is impossible to maintain the conventional notion that the entire movement originated there. The very earliest examples of northern Gothic sculpture contain within themselves a prediction of the future — and hence of the values which have governed European motivation from the 15th Century onward to our own time.

The first thing to watch for is this: as the narrative proceeds, the reader will note how art history (as the dates get later) finds its frame of reference less and less in the great ecclesiastical tradition, and in the immense cathedrals which survive as the principal monuments of the medieval church. Almost unconsciously, we shall find our attention directed toward single statues and

pictures — works of comparatively small size, executed by individual artists. More and more, as we go along, our powers of observation will tend to focus themselves upon the people who are represented. The single human figure, we shall presently realize, ultimately became the prime factor in all art, the irreducible and indispensable unit thereof.

The stage of development just described was arrived at in Italy before the end of the 13th Century, and its advent was sudden and dramatic. In the more prosaic north, the process was less spectacular and the evolution more regular in its movement; but in all Europe, it was during the 14th and 15th Centuries that the human individual asserted himself and took his place as the essential element in society. *Humanism* became the faith of the world, and it has furnished the foundation for all philosophical speculation these past 500 years. Of both individualism and humanism, we shall have much to say at a number of points. For our immediate purpose, it will suffice to mention the following.

The word *humanism* has been used in a variety of senses, some of them entirely arbitrary. We use it here to designate the philosophy which starts from the concept that the individual has dignity — worth, that is to say, in and of himself and during his brief and mortal life. Such a view conduces to a picture of reality as an equation between the race and the environment, and such was in fact the outlook that became general as the Renaissance arrived.

Nothing could be at a farther remove from the philosophy typical of the Middle Ages. The medieval mind had seen life as an equation between man and God. If the notion of personal worth asserted itself at all, the assertion was submerged in the need for grace. We all know, of course, that innumerable persons during the Middle Ages did not live up to such idealism. Many of them were drunkards, libertines, and worse. Undoubtedly, they derived from their activities as much worldly pleasure as may be so derived at any period in history, but we must distinguish between ideals and behavior. Insofar as the accepted dogma of society governed, the suggestion that either a good or a complete life might be possible on earth had been outlawed. All hope had been fastened on heaven. If we were able to name the moment when Western civilization passed into the Renaissance, it would be the instant when a majority accepted in their hearts the idea of this world's respectability.

Acceptance of the world made it necessary that art should become realistic; also that art should in some degree become expressive of interest and satisfaction in worldly things. In Gothic art a single monument might, and often did, combine both those elements; but to an unusual extent, the two purposes remained distinct and separate.

As early as the middle of the 13th Century, we can recognize a tendency we

shall designate as *Gothic Realism*. It is exemplified by such vivid statues as the *Jonas* at Bamberg (Fig. 13.1). The artists who belonged to the realistic movement specialized in statues and pictures primarily motivated by the belief that the appearance of things in nature, including all the unlovely accidents, amounted to the law of art. Some of them restricted their attention to increasingly accurate and severe studies of anatomy. Others became specialists in representing the figure within the environment. Both groups entertained a theory of art in no way different from the objective realism of Antiquity. As things turned out, Gothic Realism was the art of the future; its advent marked the beginning of the *Representative Convention* (see below, pages 539-542) which governed all European art until the end of the 19th Century.

In substantial contrast to the Gothic Realists, and contemporary with them, were other artists whom we may name the *Gothic Mannerists*. The general nature of their work is indicated by the figure of the personified *Synagogue* at Strasbourg (Fig. 13.2). Such men were comparatively indifferent to accuracy of representation, although most of them knew enough about it at any given time to avoid obvious mistakes that would label their work as out of date. Their art was the perfect counterpart for the more luxurious kind of Late Gothic architecture. Their purpose was to emphasize grace and elegance in the figure and to capitalize upon fine clothes for people, fine trappings for animals, and the lovelier aspects of scenery and the climate.

Gothic Mannerism had nothing like so long a history, nor so important an influence as Gothic Realism. It continued as a strong style only while the feudal aristocracy devoted itself to making life a florid and gorgeous pageant vaguely based upon the ideals of chivalry. The last flower of Gothic Mannerism was the so-called "International Style" which dominated much of European art from about 1350 onward (see below, pages 531-539). By about 1450, only the most conservative artists still showed elements of mannerism, and after that the whole theory was dead.

In our survey of Gothic sculpture and painting up to the end of the 13th Century, we need merely to remember that both realism and mannerism were present as tendencies; the style of a particular piece of work sometimes swung one way, sometimes the other. About the beginning of the 14th Century, however, the two tendencies became divergent movements, each represented by a school of specialists. At that point we shall find it convenient to trace each movement separately.

EARLY GOTHIC SCULPTURE:

THE WEST PORCH OF CHARTRES

The three western doorways of the present Cathedral of Chartres were preserved from an earlier fabric. The statues probably date shortly before 1150, at which time they were the last word in modernity. We usually cite them as the earliest preserved examples in an authentically Gothic style, but the reader should make a mental note that the work at Chartres was probably derivative from slightly earlier and similar statuary executed for Suger's Saint Denis.

The statues at Chartres (Fig. 12.5) were the work of men to whom the Gothic theory of architectural sculpture (see above, pages 464-466) was a new thing, to be implemented in the most exact and specific manner. Because Gothic is linear, the figures were radically distorted in the vertical direction. Each statue is so tall that its plastic values are all but lost in its function as an enriched architectural line; and for the same reason, all the poses were kept frontal and stiff.

And yet there is much here that will please the most ardent humanist. Each face is unique and personal. Hundreds of visitors have demanded to know the names of the sitters. The old folk are characters and the young people are charming. Only one or two of the girls and women are pretty, but all are winsome and dainty — an emphasis upon femininity new in European art at this time, and reflecting, no doubt, the arrival of the chivalric code of manners.

HIGH GOTHIC SCULPTURE:

PARIS, THE LATER WORK AT
CHARTRES, AMIENS, REIMS

During the 13th Century, architectural dictates were enforced upon the sculptor, but much less severely. When a given figure was meant to run with an architectural line, it was incumbent upon the sculptor to minimize diagonal impulses of the sort produced by extended arms and crosswise drapery, but no one asked him to make the figure itself into a kind of line. Excellent niches and brackets were designed as an integral part of the architecture, with the result that statuary has never been more advantageously displayed. Within reasonable limits of cooperation, the sculptors could thus do about as they pleased. With a nice sense for the implications of their own medium, the best men conceived and executed all the larger statues as free-standing figures rendered plastically and in the round, and the "architectural restrictions" may be written off as having done no harm. There was, for instance, no particular reason for

distortion; and while less precise than the laboriously accurate anatomy of the 15th Century, most 13th Century sculpture is approximately correct.

The content of 13th Century work was, like the style, both restricted and free. There seems to have been a common understanding that all religious art must aim at a lofty and spiritual tone, but within that policy considerable variation was permitted. Thus we find that High Gothic sculpture, while recognizably uniform in style, presents a much greater range of emotion than we found true of Greek art of the Great Age. Each city, in fact, seems to have given its statues something of its own special character.

The *Saint Firmin* of Amiens (Fig. 12.10) was one of the solid men of that guild-governed town, a monument to all the people who do the world's work. In some contrast are the six royal prophets (Fig. 13.3) who sit across the lower register of the north, or *Virgin Portal* on the west front of Paris. A continuous scroll runs over their knees; it probably signifies philosophical agreement. In their faces we may recognize a quality not often seen except in university towns — the plain but indefinable mark of the scholar. Or we may go again to Chartres, where the statues of the two transept porches (Fig. 12.6) were gradually assembled from perhaps 1210 to as late as 1275. Easier in pose and realized more plastically than those of the West Porch, these later figures maintain the same lyric and even mystic charm. One tends to think of them as transfigured rustic types; the male countenances in particular have a gentleness almost never seen except in quiet rural places.

The monuments just mentioned are typical of the High Gothic at its best. As statues in their own right: above criticism. As architectural decoration: unexcelled in the whole history of art. As an expression of the Gothic ideal: a gracious moderation of earlier severity in the direction of human warmth. To such remarks, a more complete demonstration than we can undertake in the present text would add a staggering variety of lesser sculpture including in its subject matter an exhaustive survey of almost every creature on earth or imagined — an encyclopedic catalogue of all things included within the divine scheme.

But at a very early date, High Gothic statues began to exhibit certain qualities which predicted the decline of the medieval synthesis to the same degree that they predicted the future course of art. Shortly after the middle of the 13th Century, for example, the two transept portals of the Cathedral of Paris were finished up complete with sculpture. It would not be hard to contend that the doorway of the northern transept with its beautiful Madonna on the trumeau (Fig. 13.4) is the most perfect bit of Gothic that we have. It is strong without being coarse, delicate without a hint of weakness, mature but not yet

overblown, and the very definition of elegance. But if we take a closer look at the figure of the Madonna, we may sense all that was good in the 13th Century, and yet feel a certain departure from its religious motivation.

The model chosen for the Madonna was a woman of about 35. Her body is heavier and more robust than a girl's, but her pose is lithe and fluent. She stands with the weight on the left foot. The right leg is held slack, with the foot slightly back and the knee gently forward to make a convexity in the drapery. The baby (now lost) was originally present to balance the composition. The costume is of peculiar interest, for it was during the 13th Century that Paris became the world capital for female fashions. The waist is high, and the upper parts of the dress, including the sleeves, are closely fitted around shoulders and bust. The skirt, by contrast, contains a voluminous amount of cloth which necessarily falls in great undulating folds. In order to walk, or merely to free the feet for an easy standing posture, such a skirt must be caught up (as here) by a hand — a gesture that produces a diagonal cascade of drapery to one side or the other.

There is no possibility of a contention against the statement that this Madonna is utterly charming; but at the same time, she signalizes the discard of Gothic conventions. The curvilinear pose and diagonal drapery, although moderate at this point in the evolution, signify the intention of sculptors to break completely away from the subordination of sculpture to architecture. What was to be gained in freedom for their own art was, in equal measure, to be a sacrifice of integration for all the arts. In the matter of content, we may be happy to welcome the arrival of that peculiar department of charm — something both less and more than beauty — which makes the Frenchwoman an adornment of the race, but at the same moment we embrace standards that are less spiritual than those of a generation earlier.

The sacrifice at first seems trivial until we turn our attention to the next step in the process which we shall find well illustrated by the famous *Vierge d'Orée* attached to the south transept portal at Amiens (Fig. 13.5). Because the portal as a whole had a complicated building history, the precise date is not agreed upon, but we may safely assume that this particular figure falls between 1280 and 1300.

In the matter of style, the tendencies remarked upon above are more pronounced and less decorous. Pose and costume alike have been made extreme. There is no longer any possibility of considering the statue as a desirable enhancement of architecture either by harmony or by contrast. It is simply a jarring and conflicting note. As to content, no defensible aspect of humanism will excuse it; for the Queen of Heaven, we are asked to accept a smirking middle-class woman who learned her manners as a shop girl. It is worth noting before

we pass on that the figure is called golden because it was in fact gilded when installed.

Both the Madonnas just cited illustrate very well how a prediction of the coming realism and a prediction of the coming mannerism often coexisted within the same work of art. For the first demonstration of mannerism as such, and in strong measure, we must turn to the west front of Reims (Figs. 12.14-16). The design of the whole façade was a grandiose attempt to secure greater luxuriance and refinement than elsewhere; but because Reims was under construction for ninety years and in view of the large number of statues, a sweeping statement is bound to have exceptions. Almost every tendency known during the entire 13th Century is illustrated somewhere in the ensemble.

Two of the best-known and best-loved statues are the Mary and Elizabeth of the *Visitation* (Luke 1:39-45), to the right of the central doorway (Fig. 12.16). In their general appearance, they bring back memories of certain classical marbles, particularly the *Demeter of Cnidus* now in the British Museum, but a closer inspection shows that the types are Teutonic. The Elizabeth, in fact, is very like an Elizabeth on the Cathedral at Bamberg.

For these two particular statues, it is impossible to question the religious content. Where can we go for a more perfect rendering of Saint Elizabeth's mature tenderness toward Mary? Or for Mary's joy in her approaching motherhood, made grave by the weight of her holy mission? And yet, are not these emotions very conscious and highly drawn? And what of the guess amounting to conviction, that the style actually was drawn from several sources; are we not there somewhere near the border where creative power passes over into aesthetic discernment?

Once again, our impulse to reservation may seem altogether too ready, especially when applied to the *Visitation* group. The phrase *mannered elegance* hits straight home, however, with respect to various other statues at Reims. Among those, the most famous are two angels (Fig. 12.16) originally intended as a symmetrical pair and rearranged to make one of them the Gabriel of the *Annunciation* (Luke 1:26-35). Both seem to have been the work of a master who came to Reims about 1260.

For the bodies, he used a very slender, tall proportion, with an unusually small head. For the pose, he used the strong S-curve that was the vogue of the moment. The combination produced sinuous and even serpentine figures, an impression fortified by the exaggerated grace with which the head is poised. The inner lines of the drapery and the silhouette of the wings have a similarly self-conscious refinement; their curvature is more feline than human. On the faces, there is a smile that has attained a notoriety almost equal to that of the

Mona Lisa. Doubtless the sculptor intended it for the sublime, but he produced the epicene. In connection with his attempt, it is worth remarking that innumerable others have failed in the same endeavor. In the entire history of art, there are perhaps eight or ten monuments capable of inspiring an observer with emotions authentically transcendental.

Because angels do not live on earth, the strictures just listed might be dismissed as a mere misunderstanding of something supernatural, but the same escape clause is hardly available in those instances when the Reims sculptors undertook to represent people. If we turn our attention to other figures by the same hand, the Joseph, for instance, and the lady who attends Mary (sometimes called the Prophetess Anne) of the *Presentation* (Luke 2:25-35; Fig. 12.15) we are likely to experience much the same puzzlement as that evoked by certain monuments of Greek sculpture during its Hellenistic phase. The statues are either better than anything that came before, or shallow and cheap, or both at the same time. One's first impulse is to say of the Joseph, "What a wonderful face! How gentle, how cultured, how refined!" And of the lady, "How dainty she is, and yet how intelligent!" But reservations and qualifications thrust themselves forward. The lady's hair and dress, to say nothing of Joseph's handsome whiskers, occupy too prominent a place in our attention. The sculptor used much skill in elaborating those details, but the elaboration seems to have been something extra — a kind of overlay obscuring the contour and meaning of the mass beneath. Once started, such a train of thought suggests the suspicion that we have here the work of a master who judged by surface appearances, and whose philosophy tended uneasily toward the frivolous.

FRENCH MANUSCRIPT ILLUMINATION TO ABOUT 1400 A.D.

An immense number of books survive from the Gothic period, but they have not been given their proper place in art history. All too often, we find such material dismissed with a mere allusion which seems to hint that serious authors have no time for pretty little things. The truth is that book designing reached its high point during the 13th Century, and has never been so good since. As to the art of decorating pages, there has never been anything finer, and the little pictures which are worked in here and there are, except for their tiny size, as worthy as any other class of painting (Fig. 13.8). In addition to their absolute value as works of art, the Gothic manuscripts have a peculiar importance historically. During the 13th Century, the art of bookmaking became more and more closely centered at Paris until it approached a near-

monopoly, and was referred to as such by Dante. The influence of French taste upon the rest of Europe may in large measure be accounted for by the continuous export of those portable works of art.

For a typical piece of work corresponding in date and spirit to the great cathedrals, we may turn to a page from a Gospel Lectionary (book of readings) now in the library of the British Museum (Fig. 13.7). It has often been said that every element and quality of the Gothic style shows up somewhere on every page of Gothic illumination, and the statement is scarcely an exaggeration. This particular page, for example, has a composition closely analogous to that of the cathedrals. There is the same absence of symmetry, the same dynamic use of line to achieve an eccentric type of unity, the same intimate organization of details into a complex whole. The text and the pictures and the decorations all form essential parts of a single and coherent visual scheme. Just as the Gothic architect designed suitable niches for the accommodation of statuary, the Gothic book designer provided an enframing of much the same sort for the pictures. His choice of architectural forms for the purpose was no matter of chance, it appears to have been a uniform custom by which we are reminded of the cathedral, and reminded, also, that no work of Gothic art ever exists alone. It will be noted still further that every letter and punctuation mark was given the intense definition typical of all northern detail; also, that each one is in itself a miniature demonstration of Gothic composition and outline. There could be no more thoroughgoing manifesto of the universal nature of the Gothic style, or of the determination of every Gothic artist, whatever his medium, to make his work a reflection of the idea that the universe is complicated, and can be made intelligible only by a supreme act of logical organization.

Certain other features peculiar to Gothic illumination and more or less constant in its practice are worth mentioning. The space below the lower picture is filled with a 13th-Century version of the Irish interlace. The floral spray sweeping across the top and bottom of the page also takes a Celtic swing; and it will be noted that its upper branch is, by all the laws of anatomy, the foliate double tail of a little dragon. But the vocabulary of these artists was not limited to the grotesque. At the top of the page, there is a very good lion; and at the bottom, an excellent bird.

All of these items tend to attract our attention one by one, and to delay comprehension of the fact that the two little paintings, taking them as a pair, depict *The Adoration of the Magi*. Here again we see how very Gothic is the work of the Gothic illuminator. The effect of the page is not instantaneous, as in classical and Renaissance art. We proceed cumulatively, noticing one thing at a time, and ultimately construct for ourselves an organic whole.

In strict logic, we should probably reserve the word *illumination* to describe pages like the one just reviewed, and to signify that the painter accepted a scheme of subordination in which the picture (a part) was made intelligible by its decorative relation to the page (a whole). So understood, the little *Adoration* bears the same relation to the entire composition as the *Beau Dieu* (Fig. 12.11) bears to the Cathedral of Amiens. Such a conception of the function of pictures continued until about the middle of the 13th Century, up to which time the full-page *illustrations* (i.e., separate pictures that belong to books merely because they are bound in) were rare even in very handsome manuscripts.

It was only natural, however, that the Gothic painters would, like the sculptors, find themselves working away from standards which, while excellent, tended to curtail the independence of individual artists. The first stage in the process is well illustrated in the work of Jean Pucelle (Figs. 13.10-11), an artist who attained special prominence as early as 1320, and ran the best shop in Paris for about 25 years. The word *pucelle* was then used for a dragon-fly, and the master used to sign with that insect. His assistant Chevrier, for a similar reason, signed with the bagpiper.

In the matter of style, Pucelle maintained an approximation to the Gothic ideal of page composition as outlined above, but he gave the pictures much more room and prominence. He and his men devoted their delicate technique to butterflies, squirrels, birds, plants, grasses — all of which appear like embroidery in the margins. The tiny things in nature have never seemed more joyous, nor more joyously drawn; and the demonstration, if florid, is altogether beguiling.

As time went on, it appears that the internal logic of painting asserted itself more and more. Pictures tended to break away from the text, and the end result was to make the full page illustration the standard thing rather than the exception. That state of affairs was achieved by the end of the 14th Century, at which time the easel pictures (ever since the most popular and prevalent European art form) began to appear in ever larger numbers. To illustrate the transition at its halfway mark, we cannot do better than inspect the illustrations of the *Pontifical of Metz*, one of which we reproduce in Fig. 13.12. The book is a volume of services to be read by a bishop, or pontiff, and we find it open at the pages which give the order for the dedication of a church. By comparison to our earlier examples, the size of the main picture has been considerably enlarged. A proportional enlargement of the lettering enables the latter to keep its visual importance in the composition, but the spray and other details necessarily remain about their former size. The art of painting had, in short, stolen the show, and illumination no longer existed in its 13th-Century sense.

A notable minor feature of this and innumerable other Gothic pages is the addition of an element of humor. In the present instance, it amounts to no more than a caprice of the imagination; but on other pages of the same manuscript, there are examples of impudent grotesques who indulge in outright satires of the principal scene.

While the figures in the dedication scene are, if considered singly, good examples of moderate mannerism, the scene in which they appear shows an effort at realism when taken as a whole. There seems to have been some intention of representing space, and indicating the relative placement of different persons within it. At the date when this work was done, there was probably not a single master in France who could have carried the enterprise off successfully. The requisite techniques of drawing and of tone relations were not yet understood; but the die had been cast, and the next great effort in the history of painting was destined to gain mastery of those very skills.

THE LATER HISTORY OF GOTHIC MANNERISM, AND THE ARRIVAL OF THE INTERNATIONAL STYLE

The first half of the 14th Century witnessed the complete divorce of sculpture from its previous inseparable relation to architecture. Free-standing statues became common. The most popular subject was the Madonna and Child, and the new fashion seems to have appeared at about the same time in both France and Italy (see below, pages 546-547). Of the numerous French examples, the most famous is the so-called "Notre Dame de Paris" (Fig. 13.6), a figure which happens to have been set up in the choir of the cathedral in the year 1330. Its sobriquet explains the content: the statue has always been rather loosely construed as a symbol for the city, the more superficial aspects of which it so perfectly personifies. No one ever thought of it as being religious except in the most technical way; and it survived intact during the wholesale destruction of religious art that took place during the French Revolution. It is notable that the costume is almost identical with the gown of the Virgin Annunciate painted three years later by Simone Martini (Fig. 10.20), and the exaggerated pose and canon of proportions are likewise much the same — illustrating once again how literally French taste was accepted all over Europe.

Although there are a great many of them, full-size stone statues were not the typical product of 14th-Century mannerism. The Madonnas that best sum up the spirit of the period are the exquisite little statuettes done in gold, silver, or ivory (Fig. 13.13). Such things, it is important to mention, were never in-

tended for public exhibition. They were made for private patrons — a class of person hitherto rare, but beginning in the 14th Century to assume a controlling position with relation to art of all kinds. Because the little figures were intended for private devotions, the artists who did them worked away from the solemnity typical of High Gothic cathedral sculpture. They sought to establish between onlooker and statue a relationship more personal and intimate than might be appropriate for public monuments. In that endeavor, they enjoyed varying degrees of success. Some statuettes are no better than cute; others seem lovely and satisfactory beyond description.

The Popes came to Avignon in 1305, and the papal court soon became a cultural center. Artists and men of letters came there from all points, sojourned, and returned home stimulated and refreshed by intercourse with their peers from other lands. Petrarch, the reputed inventor of the sonnet, made his first trip to Avignon in 1326. In 1339, his friend Simone Martini (see above, pages 367-369) also came. Giotto having died three years before (see below, pages 550-563), Simone was at that moment the most prominent Italian artist alive, but his special ability to influence the style of other artists rested upon grounds that were ulterior to painting.

Siena, from which he came, was and still remains the most self-consciously aristocratic city in Europe. Simone, who was himself a knight, appears to have moved in the upper circles of Siennese society. No northern artist earlier than John Van Eyck (died 1440) had anything like the same social position. In order to assess the importance of that fact, certain medieval prejudices must be recalled.

Medieval society was obsessed with the notion of propriety. Certain functions and activities were honorable. Others were venal. In the former, an aristocrat was proud to engage; the latter he would not touch. As applied to our special interest and the matter of Simone's influence at Avignon, we must deal with a particular ramification of such conventions. The *liberal arts*, in their original Greek meaning, had been the arts open to free men who were free in the sense that they might depend upon the work of slaves to provide them with all the necessities of life. During the Middle Ages, the list of liberal arts was frozen; only seven studies were so recognized: grammar, logic, rhetoric, arithmetic, geometry, music, and astronomy. Those arts were "liberal" because the mind of the student was "free" to go where it would in the realm of pure reason, without being impeded by the recalcitrance of matter. Carpentry, by contrast, was not liberal; it was *adulterine* because the thoughts of the carpenter were adulterated by the necessity of using his hands to force his tools against the stubborn wood. Artists, because they worked with their

hands and used tools, had traditionally been classed as laborers. There was noticeable discrimination against them for that reason long after the period now under consideration. Michaelangelo himself once felt compelled, for example, to ask a correspondent to address letters to him by his surname Buonarroti — if addressed to Michaelangelo the Sculptor, communications might suggest to careless people that he belonged with the bricklayers. It was, however, true that the prejudice referred to had been substantially undermined in Italy early in the 14th Century. We may remember Simone as the man who introduced northern Europe to the concept of the artist as a gentleman, and we cannot exaggerate the added effect it gave his influence.

Simone stayed at Avignon five years, and died there. He did a good deal of painting, almost all of it irrevocably lost. He brought to Avignon the peculiar linear genius of Siena, and he found in France a Gothic linear predilection almost as accomplished as his own. As to whether he was the teacher or the collaborator, we need not argue; the fact is that the style of Sienese painting combined at Avignon to produce a new version of the Late Gothic which was enthusiastically received by every lord and lady in Europe. From Avignon, artists returned home. The result was that schools sprang up in numerous places and that the style was much the same everywhere. Hence the name *International Style* for the delicate art of the people who move through the pages of Sir John Froissart — the society that crossed the great divide at Agincourt in 1415.

The greatest monument of the International Style is the manuscript known as the *Très Riches Heures* (Figs. 13.14-15). For a reasonable comprehension of that most sumptuous book, the reader is referred to the good colored plates published as a separate monograph in *Verve* for April-July 1940 (Vol. 2, No. 7). The work was done for John, Duke of Berry, the younger brother of Charles the 5th of France. The political and social theories of the Duke of Berry are shocking by modern standards; no one was more savage in reducing those who opposed him, or more merciless in bleeding those whom he had in his grip. But the fabulous wealth thus accumulated made it possible for him to spend most of his 76 years in unceasing patronage of the arts. Toward the end of his life, he conceived the project of making himself the owner of the handsomest book ever produced by the hand of man.

He first commissioned a Book of Hours known today by the popular name of the *Très Belles Heures de Notre Dame*, but he became dissatisfied before the work was finished; and about 1412, he disposed of the leaves which were divided, as we shall recount in the next section (page 541). The reason for his change of plan seems to have been his discovery of some artists known today

as The Brothers Limbourg, who had come to France from Gelderland, south of the Zuider Zee. He set them to work on a new manuscript, the *Très Riches Heures*; and they ceased work when the Duke died in 1416. By that time the Limbours had completed 39 of the larger pictures, two of medium size, and 34 little ones. Between 1485 and 1489, the manuscript was completed with the addition of 61 more pictures by an artist named Jean Colombe.

It will be evident that the *Très Riches Heures* is not a monument in the ordinary sense; it is a major museum in portable form, and a treasure trove for anyone who wants a glimpse of the world as it was 500 years ago. The name *book of hours* derives from the *hours canonical*, the schedule used by monasteries for the daily routine of religious exercises. As ordinarily used, the phrase describes a book of readings intended for a similar round of private devotions on the part of a lay owner. For his convenience, extra material was often bound up with the religious sections: a calendar, for example, and tables for finding the date of Easter. Because services devoted to the Virgin were popular, the illustrations often included some very lovely Late Gothic Madonnas.

In the case of the *Très Riches Heures*, the most interesting pictures are the full-page illustrations for the calendar, each arranged with a semicircular tabulation of dates immediately above a rectangular picture showing a scene typical of that time of year. In each instance, the vista includes a castle owned by the Duke, or one of his favorite views. A great favorite is the page devoted to February (Fig. 13.14) which represents a farmyard in winter. The sheep are crowded in their fold, the beehives are covered by a light fall of snow, a two-wheeled cart lies idle, the casks are upended to keep them clear. Indoors, a man and two women are warming themselves before a fire. Another person comes shivering across the yard. In the middle distance, a man is cutting wood, and another man leads a donkey off toward a village. Nothing could be more quaint or pleasing, but the work is almost as clumsy from a representational point of view as the execution is delicate. The artists had only the vaguest knowledge of either anatomy or perspective, and their attempt at *genre* has often been characterized as "realism without any science." The little picture is nevertheless notable as one of the very first which completely excludes religious subject matter or ecclesiastical overtones of any kind.

If we turn to the miniature for August (Fig. 13.15), the chill of winter is long forgotten, and so is the damp green of early summer. The grass has reached its honey-colored stage; and in the middle distance before the castle of Étampes, peasants are busy haying. Some of them have taken time off to go swimming. Across the foreground, a cavalcade of ladies and gentlemen come by, bound for a leisurely afternoon of hawking. They wear clothes in the ex-

tre of later Gothic elegance; and lest the jewel-like elegance of the rendering beguile us, it would be well to inspect the anatomy with a critical eye. The figures of the nobility have been elongated to fit contemporary notions of grace, in the name of which some preposterous distortion has been indulged. The lady riding pillion on the darker horse to the right furnishes a conspicuous instance. Her head and neck are within the realm of possibility, but her bust, waist, abdomen, and thighs are bizarre — an excellent lesson in the extremes to which the mannerists were prepared to go.

It is important to remember that the illustrations of the *Très Riches Heures* — to us quaint and naïve — were more than up to date in 1416. The novelty at that time lay not so much in the degree of representative accuracy attained as in the content. The pictures are evidence of a kind of awakening. People were beginning to open their eyes to the face of nature. They found the earth surpassingly full of wonder and delight, and they felt no need to interpret at all. What landscapes make a more direct appeal to the senses than these? Where can one find pictures more adequate to evoke the feeling of temperature and the seasonal differences in the texture of the air? The smell of the ground at various times of year is also called to mind, and the experience of muscular activity all the way from heavy labor to easy promenade.

The International Style appealed to the families favored by the feudal system, and there is much nostalgia as we look back upon the lords and ladies who moved through daily life with a cadence and gentility comparable to the dance. But in the light of events they shine with the lustre of an overblown rose, and their pageantry was in truth a sublimation of the coarse realities of the past. The sun of chivalry had already set, and the color of their display was the iridescence of its afterglow. We cannot survey in detail the numerous local schools of the International movement, and we must be content with a few statements that will prove useful in other applications.

At Cologne, the greatest Internationalist was Stefan Lochner (1400–1451), who made a specialty of painting ingénue Madonnas with corn-colored hair (Fig. 13.16), usually in a setting of roses or violets. By making Mary into a sweet child asking our love and protection, he brought her closer, perhaps, to humanity, but he opened the door to a reduction of her status.

At Barcelona, a certain Master of Saint George (he may have been named Martorell) was at work from about 1430 to about 1450. His title is taken from a large altarpiece showing *Saint George and the Dragon* (Fig. 13.17) which combines within itself all the good and all the weakness of the entire movement to which it belongs. As representation, it is too insistently naïve. As danger, bravery, combat, and deliverance, it is closer to the dance floor than to

Robert the Bruce at Bannockburn or the sound of the Campbell pipes at Lucknow. Nevertheless there is much that brings back to life for a moment the authentic beauty that once attached to the profession of arms. The saint swings his horse and poises the lance with a wonderful inevitability, the superb motion of a connoisseur in dynamics to whom violence itself was subject matter for artistic cadence and timing.

In Italy, the International movement was somewhat more strongly affected by local conditions. During the 14th and 15th Centuries, Italian painting tended to form itself on the basis of local schools identified with one of the provinces of the peninsula, or with a single city. Each of the Italian schools started with painting of the International kind, and rapidly matured as the Renaissance itself went forward. The painters cited here might well find a more comfortable place in Chapter 15, but it is important to point out the extent to which Late Gothic Mannerism survived in spirit for a very long time even in Italy.

In Lombardy, Pisanello of Verona (Figs. 13, 18-19) was the most important master, his activity extending from about 1430 to 1455. He was the greatest medalist who ever lived and the only sculptor to produce first-class work within the general limits of the International Style. His medals were not intended to be worn at the end of a ribbon, but were conceived as relief sculpture in portable size — a class of art object all too little cultivated, and especially appropriate for personal presentation. Most of Pisanello's medals are discs of bronze about four inches in diameter, with an extreme thickness of about a quarter of an inch. The obverse usually has a profile portrait in bust length; and on the reverse, there is ordinarily a symbolical, historical, or mythological scene related in some way to the sitter. Pisanello did not strike his medals from a die as we do today. He preferred to cast them, a process that permitted him to bring out all the gentler qualities of the bronze, including the marvelous lettering which is so soft and yet so sharp.

As a painter and draftsman, Pisanello (in keeping with the somewhat later period of his career and his residence in Italy) was an immensely competent technician, but his outlook remained as direct and enjoyable as the Limbourgs. The most notable drawings form a series of animal studies in which Gothic Mannerism is strengthened by an acute observation. It was his custom to depend upon the notebooks for material to be combined into paintings, and such an example is the *Saint Eustace* (Fig. 13, 19). The narrative, in which the saint while hunting saw a vision of Christ in the form of a stag, was highly congenial to Pisanello; but while sharing his delight in the beasts he so lovingly shows us, we may politely wonder whether he was equally interested in the conversion of Eustace as a result of his strange experience.

Gentile da Fabriano (about 1360-1427), the first notable painter born in Umbria, was an artist of much greater importance than one might suppose. Luck has been unkind to him, and most of his bigger commissions have perished. The pictures that remain are distinguished by gentleness and sweet reverence, a quality which endeared him to Michaelangelo and caused that most unsparing of critics to write a cogent appreciation of Gentile's work. He loved him for the softness of his touch and for his sweet and reflective content, both qualities being almost the opposite of the turbulent force which marks almost everything Michaelangelo himself touched or did.

Most people remember Gentile for the good-sized *Adoration of the Magi* now in the Uffizi, finished in 1423, but the picture is, as a matter of fact, one of his rare failures. The composition is ruined by an unsuccessful attempt to swing the interest to the left, where the Madonna sits; and the whole show is stolen by a crowded plethora of fancy costumes and trappings. Even so, nobody has ever managed to dislike the picture.

As an artistic achievement, there is much more to excite our serious interest in a little panel from the predella of the same *Adoration*, showing the barnyard of the inn at Bethlehem (Fig. 13.20). It is the middle of the night, and the friendly beasts lie out behind, shifting a bit in half wakefulness as animals do in the dark. Saint Joseph sits in deep sleep at the right. In the middle foreground, Mary kneels in adoration over the Christ child, from whose person there comes a gentle but brilliant light, transfiguring her maternity. There is reason to believe that the little picture may be the first nocturne in modern painting, and its existence establishes Gentile, conservative though his idiom may be, as one of the leading experimental artists of his generation.

The general average of his work, insofar as we can assess it from existing examples, is well summed up in a series of small Madonnas in which Mary appears alone with the child. Most are in half length, and it would seem that Gentile borrowed his formula from the Sienese School of the 14th Century (see above, pages 365-369), but disregarded the Byzantine characteristics thereof. He substituted a sublimated Italian femininity, as seen in Fig. 13.21.

We ordinarily associate influence with extroversion, and we therefore tend to overlook the far-reaching effect of Gentile's career. He was a man of reputation, and his work was in demand all over Italy. About 1409, he went to Venice, where he spent five years doing some frescoes in the Ducal Palace. He then worked at Florence and Orvieto and was subsequently called to Rome by Martin the 5th, who was anxious to restore the dignity of that city after the interim at Avignon. Fire destroyed the frescoes at Venice and also those in Saint John's Lateran at Rome, but we can nevertheless make an excellent guess that Gentile's Venetian sojourn accounts for the atmosphere of the great Ve-

netian School of High Renaissance painting. Jacopo Bellini (1400-1474) was the first Venetian painter of consequence; his half-length Madonnas are very like Gentile's. Giovanni Bellini (about 1430-1516), his son, might be described as a High Renaissance Gentile (Fig. 16.31). The style of Venice pursued, of course, the usual evolution from the earlier Renaissance to the later Baroque; but stray as they might into other channels, the great Venetians habitually returned to the soft tempo and lyric gentleness suggested by the work of this early master.

Gentile was the last Italian master who might properly be classed as an actual member of the International Style, but the spirit of Late Gothic Mannerism decidedly did not cease with his generation. We shall therefore find it convenient to mention at this point several other artists whose work has some times been misunderstood. The men to whom we refer belonged to the Renaissance in the sense of understanding and using its broader and more realistically accurate techniques. The aspect that is often overlooked is the equally important fact that the content of their work differed very little from that typical of the International Style.

The sculptor Ghiberti (see below, pages 638-643) stands in history as one of the research artists who discovered our modern methods for representing infinite vistas of space, but his figure-style and spirit are the most elegant kind of Gothic. Ghiberti's assistant Benozzo Gozzoli (1420-1497), also a superb technician, is notable largely because neither his taste nor his ideas had advanced in the least beyond the light and easy content we associate with painters like the Master of Saint George. His *Journey of the Magi* (Fig. 14.3) seems, in fact, to be nothing more profound than an excellent record of one of the pageants that took place in Medici Florence. Fra Angelico (1387-1455) belongs more thoroughly to the Renaissance, and thus finds a place in our treatment of that era. It should never be forgotten, however, that the Gabriel of his celebrated *Annunciation* (Fig. 15.31) might actually replace one of the smiling angels of Reims without attracting any comment whatever.

Paolo Uccello (1397-1475), a painter whom nobody entirely understands, has often and carelessly been dismissed with the comment that his place in history was earned by his investigation into the geometry of sight and the principles of linear perspective. Such a view is not entirely incorrect, but it is surely incomplete. Uccello's battle pieces in the Uffizi and in London (Fig. 13.22) are among the most vigorously decorative paintings ever executed. In every particular of subject matter, they fit the style that started at Avignon, with the simple but profound difference that sure technical knowledge and a measure of classical monumentality have fetched the International manner up onto an entirely new plateau. The perspective for which Uccello was noted,

he employed, moreover, to simplify contours in a manner that comes very close to the strong abstraction of analytical cubism (see below, pages 925-928). A fair and final estimate of this fascinating artist must, it would seem, make him at once a conservative and a radical — and certainly an immense success.

THE LATER HISTORY OF GOTHIC REALISM AND THE ESTABLISHMENT OF THE REPRESENTATIVE CONVENTION

While Late Gothic Mannerism was running its course as outlined above, the artists who were interested in realism continued their work. By 1350, or thereabouts, they had set in motion the convention which was destined to govern European art, almost with the force of law, from the beginning of the 15th Century to our own day. We refer to the *Representative Convention*, by which we mean that something very close to the philosophy of objective realism (page 20) became the fixed and only theory of art acceptable to the public.

The representative convention has amounted to a tacit understanding by all parties that the human figure, when it appears in painting and sculpture, must conform closely to the proportions that are normal for the average living model. The convention assumes also that details of anatomy will be scientifically accurate within very narrow limits of tolerance. It further assumes that linear perspective must approximate very closely the actual geometry of sight, and it assumes in addition that the tonal relations employed for atmospheric perspective ought similarly to correspond with the colors observed in nature.

Every artist has trespassed against the rules of the representative convention, and every competent historian and critic knows it. The truth is that strict adherence to the convention is technically quite impractical, but the liberties taken have always been cautious minor infringements calculated to escape casual attention. The experts, that is to say, have conspired to cheat the system, but always with the sure knowledge that the public would get angry enough to fight if confronted with anything in art not instantly recognizable as "true to life." The widespread distaste for 20th-Century painting and sculpture has had its genesis in the fact that the leading artists have refused any longer to be governed by representation. The public, on the other hand, continues to insist that the convention be respected.

The advent of the representative convention may be associated with the personality of King Charles the 5th of France (1337-1380), sometimes called

Charles the Wise. With greater particularity, it may even be thought of as having to do with that monarch's nose, a large one with a distinctive shape. Hardly a handsome feature, the royal proboscis might graciously have been altered a bit in the interest of Gothic grace; but with the arrival of the then new convention which has now lasted so long, every fact of appearance put an obligation upon the conscience of the artist even if it happened to be an unfortunate accident. For that reason, the various portraits of Charles (Figs. 13.23-24) are handled with a realism approaching the brutal.

The words *portrait* and *representation* seem first to have come into common use during the second half of the 14th Century. The two were used as near-synonyms, and were most often applied to the tomb monuments which became increasingly popular at the time. The purpose in view was to give people a more personal immortality than they hitherto had asked, a hope which by its very existence betokens the waning of the Middle Ages. To illustrate the severe enthusiasm with which realistic truth was insisted upon, we may turn to the tomb of Bertrand du Guesclin (Figs. 13.25-26). After a long and brilliant military career in the service of France, and after gaining the profound respect of friend and foe as much for his character as for valor, that superb gentleman spent the last decade of his life as Constable of France. The 14th Century produced no greater hero, but his tomb portrait is true to life in the sense of telling us merely that his person was insignificant.

With respect to the representation of anatomy, it is likely that the credit for the earliest achievement of complete competence must go to the sculptors of Burgundy, and probably to Claus Sluter, who died in 1406. His greatest monument was the so-called *Moses Well* in the Carthusian monastery of Champmol near Dijon. More accurately described as a well-head, the composition originally consisted of a hollow pedestal surmounted by a Crucifix. The general conformation of the pedestal itself (Fig. 13.27) appears to be a conscious reflection of the classical Corinthian capital. Around a hexagonal core, six male statues are arranged under an overhanging abacus, with angels bending out under its corners in place of the familiar volutes. The larger statues all depict elderly gentlemen; they are prophets (Fig. 13.28), and supposedly they are engaged in explaining the necessity of atonement for the sacrifice of Jesus. All of them are notable figures, but the Moses is the most impressive of all — hence the name of the well. As Michaelangelo was later to do, Sluter followed an incorrect translation of the Bible which describes Moses as having horns on his head after his long sojourn with God on Mount Sinai.

Earlier realists had been quite as unsparing as Sluter in the matter of anatomy. The extra power of his work derives from a more incisive rendering of

momentary poses. The most trivial and even the most ill-advised gestures and expressions were made permanent in his sculpture, as the unlovely little angels under the abacus amply demonstrate. The accuracy of such figures is precise; no artist needs to know any more about anatomy than Sluter did. In only one particular was he still the prisoner of medieval conventions: he still conceived sculpture to be an art of drapery, and he lost the action of torso and legs (and hence the expressive power of the body's complete surface) beneath a superfluity of cloth. Voluminous drapery became, in fact, a special feature of Burgundian sculpture, and it was destined, as we shall see, to have an overly long history in all northern painting as well.

For the establishment of the representative convention in painting, we must return to the manuscript called the *Très Belles Heures*, discarded by the magnificent Duke of Berry in 1412, as mentioned on page 533. The scribes had done their work and a number of the miniatures had been painted in the going Franco-Flemish-Gothic style when the Duke made up his mind to start again with the Limbourgs. The leaves were never bound up as a book and were soon divided. Some of them, complete with the pictures just mentioned, ultimately found their way into the Rothschild collection; they are known as "The Hours of Paris." Some of the unfinished pages, complete only as to text and foliate borders, were bought by William of Bavaria, Count of Holland, who was the Duke's nephew. Part of them ended up in the library at Turin, where they were lost in the fire of 1903. Fortunately photographs had been made in 1902, and a handsome monograph was published by the French scholar Paul Durrieux, under the title *Heures de Turin*. Several other pages from Duke William's part of the book eventually arrived in the library of Prince Trivulzio at Milan. Those latter leaves are usually referred to as "The Hours of Milan"; but they rather recently passed to the library at Turin — a destination that hardly simplifies a nomenclature already vexing enough.

Why did William want to buy the unfinished leaves of the manuscript? The best guess seems to be that he wanted to commission a piece of work by a particular artist. If so, his judgment was more than good. The small number of miniatures done before his death in 1417 rank among the chief wonders of European art.

One of the pictures shows Duke William landing on the beach at Veere in Holland (Fig. 13.29). The date was June 1416. The Duke had been to England to assist in making peace after the campaign of Agincourt, and he had sailed home in the remarkable time of twenty hours. The picture shows his happy daughter Jacqueline there to meet him. She was then seventeen years old, but within a year was destined to lose both her father and her husband

and to spend the rest of her life in an unequal struggle with betrayal and intrigue.

On another page Duke William had his artist paint a *Birth of Saint John the Baptist* at the top; and across the bottom, he had a river view put in (Fig. 13.30). The stream is placid; it goes past a castle in the middle distance, and curves off around a tree-grown bluff. Far away, we can see some magnificent hills. In the immediate foreground, Saint John is performing the baptism, a ceremony that goes almost unnoticed against such scenery.

When the historian looks at these tiny pictures and reflects that they were done before 1417, he loses his breath. He loses it every time, no matter how often he has seen them. It takes no expert to know at once that they are the work of a man who knew things completely beyond the imagination of the Limbourgs. This artist diminished the size of distant objects systematically, and he did it with marvelous precision. He handled shadows and atmosphere with a similar ease. He understood, moreover, how to make his space convincing by providing a linear continuity from the foreground into the distance. In the *Baptism*, for example, the eye picks up the shore line at the lower left-hand corner, and follows the river bank into the far away. A similar device was used for the beach at Veere.

The effect of all this was to produce pictures where the space, air, and light strike one with the force of physical experience. One feels the puffy northwest breeze blowing over the Dutch estuary; and in the *Baptism*, one almost expects to hear the sounds that carry so far in the still air of a perfect day at sunset. By comparison, the landscapes of the Limbourgs seem reduced to mere backdrops. Duke William's painter knew how to put things *in* the space he represented.

We need to remind ourselves that his work was done at the very moment when the Limbourgs were considered the best artists in northern Europe, and were enjoying the most lucrative commission; but the contrast between their work and his is the difference between ingenuous trial and the ease of learned mastery. We are confronted, in short, with the arrival of a phenomenal genius who was able, in one act of creation, to lift medieval painting to the Renaissance level. His name has naturally been sought with every resource of scholarship, but conclusive proof of his identity is sadly lacking. Without entering into argument about the evidence, let us simply say that the master was probably Hubert Van Eyck, who died at Ghent in 1426. His younger brother John Van Eyck (see below, pages 609-615) was the first major painter of Flanders and the founder of the northern Renaissance.

THE SCULPTURE AND PAINTING OF ITALY
DURING THE GOTHIC ERA:
THE PROTO-RENAISSANCE

Italian Gothic was always a reluctantly imported fashion; and like the architecture of the same period, Italy's sculpture and painting was often Gothic more in date than in style. The classic tradition never entirely died out, and neither did the Byzantine. Humanism did not appear earlier in Italy than in the north; but it hit harder and moved faster. It filled the familiar Byzantine and Gothic figures with life, and made them vibrate in a new key. Individualism — if we can conceive it as separate from humanism — was more pronounced among the Italian population, and became overt at an early date. Most French and Flemish artists retained the outlook and attitude of craftsmen until well after 1400; but Nicola Pisano's marble pulpit (see below, page 545), the very first work of art conceived as the personal expression of a great man, dates from the year 1260. It begins, moreover, a section of art history destined to last more than four centuries, the whole of it being for the most part an account of the activities of single artists as distinct from schools and movements. All of these considerations have led certain writers to designate the art of Italy during the era about to be reviewed as *Proto-Renaissance*, by which they mean that the style might still be Byzantine or Gothic, but that the content was often distinctly modern.

Art in South Italy and Sicily at the Time of Frederick the 2nd

The Proto-Renaissance began during the first half of the 13th Century. The locale was South Italy and Sicily, and the moving spirit was the Emperor Frederick the 2nd, who had been born of a Norman mother and a German father in 1194, and who died in 1250. Medieval history contains no more brilliant figure. With an almost diabolical genius, Frederick's every impulse and virtue impelled him toward attitudes radically modern, but intolerable and monstrous to the medieval mind. Instead of faith, he openly professed audacious doubt, and actively pursued investigations in search of objective evidence. As a king whose principal city was Naples, he was more concerned with the Church-as-a-state than with the Church-as-a-mystery, and his agnosticism was supplemented by political opposition to the Vatican. Naturally, such a man was more than the Popes could endure. A less powerful personage would have been snuffed out at once, but Frederick maintained himself and his throne in spite of several excommunications. After he died, the Papacy made short work of his heirs and did to death the kind of art he had started.

Frederick made two different moves toward the Renaissance, each immensely important in its own way and all too little known. His patronage brought into being the first modern sculpture and architecture in a truly classical style; and the earliest massive and lasting enterprise of representative art is to be found in the illustrations, about a thousand in number, for Frederick's own treatise on falconry — itself an unsurpassed piece of biological research.

The antiquarian phase of the enterprise seems to have centered on the South Italian mainland. There are a good many monuments in the general vicinity of Naples. At Salerno, there is a stone pulpit veneered with colored marbles, but surmounted by a robust classical head very much in the style of the Greek 5th Century B.C. In 1234, Frederick undertook the sculptural decoration of a now-ruined building at Capua, perhaps a fort of some kind. The principal feature was a gateway like a Roman triumphal arch. The gate carried a good many statues. The list included a portrait of the emperor dressed in a senatorial toga, busts of his ministers (Fig. 13.34), and a fine head personifying the city of Capua (Fig. 13.35). It was remarkable that anyone then alive had the independence of taste to conduct so frank a negation of the current artistic style, and it was even more remarkable that artists could be found to do it so very well. Their work is sensitive and alive, nothing like the clodden carving of men who try to copy something classical without having the vaguest idea what it means.

Still another monument, and in surprisingly good repair, is the Castel Santa Maria del Monte, dating from 1240, on a bare and rocky hill about a dozen miles south of Barletta. It was the main building of what today we would call a breeding and research station, one of the several centers where Frederick conducted his passionate exploration of ornithology in general and the falcon in particular. The main block of the building is a pentagon; and it has a fine doorway that might momentarily be mistaken for work of the High Renaissance.

In projecting a treatise on falconry, the emperor was acting not only as an ardent sportsman, but as a responsible monarch. The reader must make an attempt to recapture the idea of game as a reliable staple of food. Old gentlemen still live who can tell of clouds of ducks and other water fowl, and the quail in whistling millions. Medieval Italy must have presented something like the same opportunity, but Frederick's endeavor took on a more intense modernity, hardly to be explained by reference to practical problems alone. The scope of his inquiry was exhaustive. He wanted to know and include everything, and to refine his understanding of what he had found out. He wanted to pass his knowledge on to the whole world. His impulses, in short, were identical to those of pure science; and for his achievement, no excuses are necessary.

Known generally by its Latin title, the *De Arte Venandi cum Avibus* (The Art of Hunting with Birds) exists today in some sixteen manuscript copies, which vary considerably in the quality of their illustrations. The best one is in the Vatican Library (Cod. Pal. Lat. 1071). Written in splendid Italian Gothic script, the text is illustrated by marginal illustrations covering the subject of falconry in general. In all, more than 900 birds appear.

It would be hard to exaggerate the acumen with which the birds are painted (Fig. 13.31). Many of them appear in flight; they are so vivid and convincing that we must postulate a corps of artists specially trained in the technique of instantaneous vision and in the most precise kind of visual memory. Modern photographs do not reveal the essentials half so well; and Audubon's pictures, mostly painted at leisure from specimens he shot and hung up, are hopelessly inferior.

The manuscript is interesting, also, as an illustration of the way convention operates during a period when the forces of transition are active. The birds, as stated, were freshly studied from the life. The servants and huntsmen are less satisfactory than the birds (Fig. 13.33) but there can be no doubt the artist meant to depict something alive. Whenever a member of the court appears (Fig. 13.32), the style relapses into Byzantine slavery.

The Pisanesque Tradition in Sculpture

The first man of modern times to use art as the vehicle for expressing his own character, ideas, and feelings was Nicola Pisano (about 1205-1278). During the period of his important achievements, he made his home at Pisa, and was probably a citizen there. It seems likely that he was born and trained in South Italy and in the classicizing school of sculptors established by Frederick the 2nd. For that reason, many scholars prefer to call him Nicola d'Apulia.

His greatest monument is the marble pulpit still in use in the Baptistry at Pisa. The pulpit is a hexagonal box raised on top of Corinthian columns, with a stairway up from the floor. Every other column comes down on the back of a lion, and cusped arches swing from capital to capital to make a little arcade. The pulpit was completed in the year 1260.

Five panels of high relief form its walls, of which we reproduce the one illustrating Luke 3:22-28, ordinarily entitled *The Presentation of Christ in the Temple*, and sometimes *The Circumcision* (Fig. 13.36). Certain defects impress themselves immediately. In the first place, no photographs at present available give an adequate impression of the superb technique and finish; the reader must defer judgment until he can study the original. As in so many other reliefs of medieval date, the composition is painfully crowded, and the

excellence of the artist makes itself manifest only in the single figure, or in a couple of figures seen together — which the observer must separate out by making a special effort, much as one isolates an aphorism from the text around it. If we make that compromise with Nicola Pisano, he emerges as a sculptor of unexcelled force.

The figure of Saint Simeon will serve to illustrate the point. Like several other figures on the pulpit, its classical source has been specifically identified. It is an adaptation of the Bacchus on an ancient marble vase decorated with a scene showing that god in company with the Maenads. Perhaps no figure in art history ever received an equal adjustment of spiritual status in the upward direction, but Nicola's Simeon differs from its classical source as the alpha of civilization contrasts with its omega. The personal force of the artist seems to have entered with explosive pressure into the marble, and the figure inspires an admiration not untinged by fear. The same epic and even wrathful quality was destined to occur again in Italian art; Jacopo della Quercia had it, and so did Michaelangelo. To neither sculptor was Nicola inferior, and we may confidently give this early master a place in that select company of artists who have in fact achieved the heroic.

Nicola Pisano started a tradition in sculpture which lasted until the beginning of the 15th Century, at which time it was rather suddenly replaced by the style associated with Donatello (see below, pages 617-626). Historians have formed the habit of referring to all such sculpture as *Pisanesque*, but the designation is somewhat misleading. Except in a very general way, few of the sculptors involved followed Nicola's style.

The most important of them was Giovanni Pisano (about 1250—after 1317), Nicola's son. The importance of the commissions entrusted to him has strangely escaped the emphasis of many writers. He designed the Campo Santo at Pisa, and the façade of the Cathedral at Siena; those are perhaps the finest bits of Gothic in Italy. In 1305, he was called upon to supply a standing Madonna for the altar of the Arena Chapel at Padua (see below, pages 555-558). Giotto, as all the world knows, probably designed the building, and painted therein the greatest cycle of religious frescoes Christendom had seen up to that time. It seems obvious that Giotto considered Giovanni the best sculptor in Italy.

In the course of art history, Giovanni's special importance is the fact that he nipped his father's classical renaissance in the bud. He had in all probability sojourned in France between 1266 and 1277, which is to say at the moment when elegant statues like the north portal Madonna of Paris (Fig. 13.4) were the very latest thing. Giovanni was so impressed with the type that he took it back to Italy with him — standing Madonnas having been rare on the penin-

sula up to that time. Of his many versions of the subject — one of which we show in Fig. 13.38 — it may be said that he avoided the linear virtuosity of his French models, and made the expression more plastic. He also eschewed the *cbic* of Paris, substituting for it a serenity both human and classical, of which only an Italian could have been capable. It should also be noted before we pass on that these sweet and stately figures are among the earliest modern statues conceived as semiportable sculpture, complete in itself and without necessary reference to an architectural composition.

Like his father, Giovanni was fond of marble pulpits, and did several. The most elaborate was done for the Cathedral of Pisa, and completed in 1310. Damaged by fire late in the 16th Century, it is no longer in use, but part of the sculpture is preserved at Pisa, and part in Berlin. The *Crucifixion* panel (Fig. 13.37) illustrates exceedingly well Giovanni's radical departure from the style of his father. He seems to have been affected not only by the French Gothic, but by such Romanesque tympana as that at Autun (Figs. 11.11-12), where the figure-style is different, but the crowded composition and the surcharge of feeling much the same. It is impossible, in fact, to cite a more emotional *Crucifixion* than this one. Restraint is almost literally absent. In order to carry the import or religious passion at fever heat, the artist has resorted to startling devices. Many of the figures exhibit a pathological emaciation, and distortion has been freely used to bring out the macabre details. Attitudes and gestures are violent, only to be explained by hysteria. The total effect can hardly be called tragedy; it is close to abandonment and despair. Highly subjective on the part of the artist and demanding the intimate participation of the observer (as distinct from his contemplation and reflection), it establishes its author as an important exponent of the philosophy of Expressionism (see above, pages 624; 933 ff). Nothing could be more different from the serenity of his Madonnas, and it may fairly be said that Giovanni's emotional range was outstanding not only during the 14th Century, but for all time.

The higher incidence of individualism in Italy even during the Gothic period is well demonstrated by the special type of tomb which suited the taste of the della Scala family of Verona, whom Dante immortalized in the 17th Canto of the *Paradise*. For several generations, the Scaligers, as they are often called, amused themselves by erecting fanciful Gothic canopies high into the air over their sarcophagi; and on top of the canopies, they perched humorous equestrian statues of the respective decedents, each as he had appeared in life (Fig. 13.39). The whole proposition was witty in the extreme, and made the best use of both mannerism and realism to achieve results that fit none of the conventional patterns of Gothic or any other art.

Still another special and notable Italian achievement of the earlier 14th

Century was the design by Lorenzo Maitani of Siena (about 1275-1330) for the façade of the Cathedral of Orvieto. Wide pilasters decorated in low relief separate the three western portals, and mosaic pictures fill the gables and upper wall spaces. Seen from a moderate distance, Orvieto is one of the finest sights in Europe. There is reason to think that Maitani himself carved some of the scenes from the narrative of Genesis (Fig. 13.40), which are remarkable as an early and not altogether unsuccessful attempt to recover the Roman art of pictorial sculpture (see above, pages 163-170). More startling still, when we remember the date, was the use made of the nude.

It is an untruth to say that the nude went out of use during the Middle Ages; there are plenty of them even in Romanesque sculpture. But in medieval society, the nude was not liked. Nakedness was a state of shame. As a form of penance, it was sometimes imposed in extreme cases when all other discipline had failed, and it was by intention that most of the nude figures in medieval art appear as the damned in the *Last Judgment*, the blessed usually being handsomely dressed. The seminudity of Christ in the *Crucifixion* was, according to medieval sentiment, a statement that he had suffered the ultimate insult when the Roman soldiers stripped him.

Maitani's sculpture was startlingly radical in its day; he was perhaps the very first artist to reverse the medieval point of view, and to offer aesthetic pleasure in the human body. The soft texture and smooth grace of his figures would have been charming at any period; but during an era when voluminous drapery was the regular thing, it is amazing that his designs were not suppressed. Except in Italy, they probably would have been.

The Career of Saint Francis

The start of the superb Italian tradition in painting was closely connected with the great and modern religious impulse inspired by Saint Francis of Assisi (about 1182-1226). Biographies of that wonderful man are available everywhere, varying in tone from careful history to sloppy appreciation; but one and all, they tell of a personality full of love for God, for nature, and for humanity, and loved by all people in return. It is necessary to point out that Francis looked out upon nature with eyes different from those of the later humanists. He enjoyed it because it was related to God; they enjoyed it more directly, and because it was beautiful. Even so, Francis was the first man of definitive influence to declare an identity between the worship of God and joy on earth. "Praised be my Lord and God," he sang in his glorious *Canticle of the Sun*, "for Mother Earth who governs and sustains us, who gives birth to all the many fruits and colored flowers."

It is doubtful whether any other human being had a like capacity for pro-

found affection. Francis loved God, and he loved everybody and everything with a passion and openness only less intense. His point of view was typical of the complete reorientation between man and God then in progress, and may even have caused it. The *Pantocrators* of Byzantine art, and the *Last Judgments* so popular in the Romanesque and Gothic, had reflected an authoritarian church. Such art was spiritually elevating in the sense stating the just claims of religion, and the consequences of delinquency. The method implicit in Francis's teaching was different. He asked people to serve the Lord because the Lord loved them, and they could learn to love him. Our entire concept of the fatherhood and kindness of the Almighty seems to have been extraordinarily rare if not altogether unknown before the balance was swung by Francis's point of view on the matter. It is obvious that God and man would be brought closer together by such thinking; but in order to understand the practical effect upon art, we must say more.

One tendency of the Franciscan doctrine was to increase the respectability of representative art by endorsing the legitimacy of joy in the natural world. That was immensely important at the time, but the new idea of love for God proved even more important. Francis established the idea that the love of man for God, and of God for man, was similar to the affection felt by one person for another. More profound and important, to be sure, but the identical emotion in different degree. The important point to grasp is the assertion that God himself has feelings like our own; it is the essential concept in the humanizing process by which art was about to be transformed, and the saints to become better understood.

What was accepted as true of love, it seemed to follow, might be true of the other emotions. Granting that much, people found the Holy Family and all the saints endowed with sensibilities like their own. It began to be possible to understand the sacred narrative as a series of events illustrative, in principle at least, of certain types of experience, both exalted and terrible. What had happened before was bound to happen again and again, and the great men of the church became important not because they were unique and remote, but because they too were human. While susceptible of cheap misunderstanding, the effect of such concepts was on the whole good: one had some chance of emulating persons like himself, and none of following in the footsteps of those who were supernatural.

It is the presence of such ideas that makes the great difference between northern art of the later Middle Age and the Italian. Homely realism was in-cipient in the north at the very period we are discussing, but neither the French nor the Flemish artists were capable of revealing the grander mysteries of faith in the language of common feeling. They possessed accuracy of representation,

but they lacked the emotional authenticity which made it possible for certain Italians to express all the power of religious conviction with the warmth of an event occurring at home.

"Let the brethren have care," wrote Francis in one of his colloquies, "not on any account to accept churches or dwellings that may be built for them unless they are in accordance with the rule of Holy Poverty." In another place, he visualized the proper Franciscan buildings as poor little churches, preferably abandoned by others. The negation of property was central to his rule, and he must have been aware that great monastic orders had, more than once in the past, made architectural and artistic investments during periods of spiritual laxity. But the admonitions of the founder were destined to have only a moderate effect upon the policy of the order.

The grandiose double church of Saint Francis at Assisi, really two Gothic naves built one over the other on the side of a hill, was started in 1228. Because of the excessive Italian sunlight, the builders walled up most of the space available for windows, leaving only a moderate area for glass. By the same act, they provided an excellent field for fresco painting. Toward the end of the 13th Century, painters began to come to Assisi to decorate those walls. In the course of time, virtually every important master had a commission there until there was no space left. There was extra reason for hurrying such work along during the final years of the 13th Century. The year 1330 was a Jubilee year; and the monks wanted to make their church attractive to the pilgrims who would inevitably stream through the town on their way to and from Rome. About 1295, therefore, a cycle of 28 frescoes from the life of Francis was commissioned for the Upper Church. The series runs all the way around the nave, constituting its lowest and most advantageously placed tier of pictorial decoration. The incidents depicted were apparently drawn from Saint Bonaventura's life of Francis, then a new book dating from 1261. The handling of the subject matter is completely different from anything of earlier date; plainly, a number of the pictures reflect the operation of a mind with an exceedingly forward looking approach to human problems. Although no one cares to assign all 28 frescoes to him, although no impeccable evidence even places him at Assisi at the time, and although certain prominent modern critics are convinced he was never there, tradition is probably correct that the painter was Giotto.

Giotto

Giotto was probably born in 1266. Vasari, whose *Lives of the Most Eminent Painters, Sculptors, and Architects* first came out in 1550, wrote the date ten years later, but he was almost certainly wrong. Giotto, according to tradition,

was apprenticed to Cimabue, a strong master in the Italo-Byzantine Style and the leading painter at Florence. Assuming that the boy went into the shop when he was about twelve or thirteen, and served his seven years, he would have left Cimabue's employment at the age of nineteen or twenty. It would then be customary for him to spend several years as a *journeyman*.

Journeyman were the graduate students of art. They went from town to town doing odd jobs. When a journeyman-painter walked into a town, he called upon the first master-painter whose shop he came upon. The master was under obligation to give him work if he had it, to help him get work with someone else, or to furnish him with food and money for the trip to the next place. After several years as a journeyman, the young man would settle down somewhere, but he was not permitted to do business in his own name and right until he had gained admittance to the local guild. Admittance was granted upon the presentation of a painting or a statue which the masters of the guild were willing to endorse as sound work; hence the word *masterpiece*, which now has a slightly different meaning. After acceptance of his masterpiece, the new member's name was recorded in the archives of the guild, and he was ready to accept commissions.

The guild not only protected his interests from that point on, but exercised a positive discipline designed to protect the quality and dignity of art itself. The only tools, materials, and methods an artist might use were those formally endorsed by the guild. In matters of dispute as between patron and painter, the guild acted as judge, and was often as ready to punish an erring member as to tell off the other party to the bargain. Admittedly such a system was likely to restrain experiment and to freeze art in a pattern of one kind or another. That actually happened in Flanders during the 15th Century (see below, pages 615-616), but the greater independence of Italian artists minimized such an effect in their part of the world. The virtue of control by the guild is all too seldom stated: it actually succeeded in quarantining the world from really bad art.

No one knows for certain where Giotto went during his *wanderjahre*; but from various indications, we can make a shrewd guess. Everything in his mature life describes him as a man who liked travel, was stimulated by new places, and went whenever he got the chance. Are we to imagine he stayed home when he was twenty? Or did he slip his collar and dash off to see the world? And what part of the world would draw like a magnet upon the curiosity of a young artist from Italy — a place which had not yet begun to make the reputation it built up during the centuries to follow? The answer is France, which was still the cultural capital of the Western world. The chances are that Giotto made the best of his way in that direction, and it is in France that the

sources of his new style will be discovered if it ever becomes possible to identify them specifically.

The view just put forward contradicts the traditional assumption that Giotto knew no art except the Italian. It means nothing, of course, that there are no notices of him before his arrival at Assisi; graduate students leave no mark in the places they sojourn. The important thing to remember is that he had time enough to cover all Europe on foot during the years that remain unaccounted for. There would be nothing unusual in his having done so, for travellers were at all times in movement on the roads and along the rivers.

Giotto's style was a complete negation of the Italo-Byzantine manner which had dominated Italian painting for 700 years, and in which tradition he must have been educated by Cimabue. On the assumption that Giotto never left Italy, it has been conventional to explain his work by reference to Giovanni Pisano's sculpture, to some frescoes painted at Rome by a master named Cavallini who is himself a shadowy figure, and by further reference to the special powers with which men of genius are endowed. Inasmuch as it is very hard to conjure up Giotto from either Giovanni Pisano, Cavallini, or both, an unreasonable function must be assigned to his creative powers unless some other factor may be introduced.

The suggestion of a sojourn in France is provocative, to say the least. It makes sense of elements in Giotto's art that otherwise remain unexplained. He painted heavy, thick-set people dressed in extremely simple clothes. The principal feature of his technique was a vivid and meticulous definition of contour — a declaration, as it were, that no fact of the natural world is more important than the existence of mass (see below, pages 558-560). The sculptural nature of his figures has long been recognized, but few writers have attempted to draw the obvious conclusion that Giotto, a painter, was imitating statues. It is obvious from his mature work that his taste predisposed him toward the monumental and permanent, and away from the finesse and virtuosity for which the French miniature painters were justly noted. We may therefore hazard the guess that the kind of thing which most interested him in France was the latest French sculpture, some of which included narrative groups in very high relief. An example is the tympanum of the so-called "Red Door" of the Cathedral at Paris (Fig. 13.41). By comparison with the people who appear in any painting by Giotto, the actors in that little scene are without the spark of life, but it does not take great art to put ideas into the head of a great artist. It would not be too farfetched to imagine that when Giotto went back to Italy, he undertook to adapt such compositions to the ample wall spaces that were so rare in France and so plentiful and so empty in Italy.

Giotto must have been nearly thirty years old when he arrived to start work at Assisi, and it seems unreasonable to think he had prolonged his wanderings that long. It is equally unlikely that he spent his time doing something totally divorced from painting; and in that connection, it is important to remember that artists of his day did not specialize as more recent artists have done. They stood ready to design buildings, carve statues, paint pictures, make furniture and weapons, weave textiles, or cooperate in the production of pageants and plays. Men with special talents naturally received more commissions of one kind than another, but the watertight compartmentation of the profession, as we see it today, simply did not exist.

The theatre looks like the place where Giotto worked as a young man. His special power, as will appear below, was to make the entire figure expressive. It is not the face, the hands, or the pose, but the absolute totality of the person that he filled with meaning. In part, we may assign his rare ability to the operation of genius, but it has all too often been explained by reference to his "study direct from nature." About study from nature, it should be pointed out that the anatomy of the average human being is not an expressive vehicle. Giotto might have watched ordinary citizens move and gesture for years without learning a single useful thing. It is necessary to believe he studied the more lucid action of experts. Had he studied dancers, it seems likely he might have learned to represent motion much better than he did on the few occasions he tried it. Thus the theatre — of which there was a great deal in both France and Italy — remains the obvious place where he learned how to paint human beings utterly perfect for the parts they play, and to compose them into pictures that strike home with a truth and vitality not only beyond the capacity of any earlier artist, but beyond that of all other artists to date. To the hypothesis of a long experience in acting and production, we may add a minor point of corroboration. How else to explain the miniature architecture that appears as background in so many of his pictures, often odd and impractical in design and so unreasonably out of scale with the people? As portable stage scenery, intended merely to symbolize the existence of buildings, such constructions not only make perfect sense, but are known to have been used in the medieval drama.

The best-known picture at Assisi is the *Saint Francis Preaching to the Birds* (Fig. 13.43). Francis was one of those persons to whom all sorts of animals respond with complete trust. The tale is told that one Sunday morning, he called some birds to him, and they sat quite still while he preached them a sermon. Delicate sentiment is somewhat outside the realm of Giotto's usual interest; but it is significant to see that when he undertook it, he produced a painting not

only popular but worthwhile. The daring of the performance can hardly be overstated. Success depended upon the willingness of the public to accept the picture in the spirit of a little child. In such matters, there is no middle ground; success is absolute, or failure is maudlin — and there can be no excuse for the artist.

The *Saint Francis Renouncing His Father* (Fig. 13.42) shows Giotto in the field where he stands alone. The narrative behind the painting runs as follows: After he had returned home from military imprisonment at Perugia, Francis indulged in religious activities of an evangelical kind. His acts and utterances seemed in bad taste, and proved embarrassing to his parents — especially his newly formed theories against property. Presently an open break occurred. Relations went from bad to worse, culminating in the shocking incident chosen by Giotto for his point of time. The enraged father has undertaken to beat his grown son. The son has run for sanctuary to the cathedral, only to be overtaken and publicly denounced on the steps outside. The father has just issued a demand for obedience by virtue of the material support hitherto provided by his money, including the very clothes on Francis's back. In response to that reasoning, Francis immediately stripped himself naked, and made a statement of renunciation covering both his earthly father and the clothing.

The picture is remarkable for the states of mind and shades of emotion contained within a single frame. The father, a much put-upon man according to the best of his own judgment, may even be said to be pleading for the best interest of his son. Most youthful evangelists are merely disturbed and unstable young men; who could then have predicted that Francis would be remembered as a saint in glory? As Giotto understands him, this parent is to blame for nothing.

Another kind of feeling is being experienced by the Bishop of Assisi, who covers the boy's middle with his own robe, and mutters instructions to an assistant. As all Bishops must, his task was to compromise with Mammon so that the work of God on earth might proceed. An intransigent rebuke to an influential citizen can at times be the only course; but as an administrative technique, it has always been strong medicine. Bishops ever hope to find another way first; but at the same time, could this Bishop on this occasion deny his protection to a church member coming hotfoot to claim it as a right, and declaring in a loud voice the precise sentiments the church publicly recommends to all? Surely there has never been a more expressive picture of a man who wishes he could be somewhere else.

As a foil to the important figures, Giotto provided us with the minor actors so typically present at embarrassing moments. We see the tensely impassive faces of those who dare not commit themselves one way or the other. There is

also the fool who thinks his whisper can't be overheard, and who passes a snide remark. There are the inevitable children who don't know whether it would be safe and interesting to throw stones, or better to seek associates more in their line.

Almost every critic has commented adversely upon the composition, which is divided. It is of course fair to contend that the division corresponds with the gulf of misunderstanding between the parties represented, and may therefore be justified on dramatic grounds. Still another guess, and one that seems most likely of all, is simply that Giotto came to Assisi comparatively fresh from the theatre. Scenes of confrontation are common on the stage, and very forceful. But the play moves on, as pictures do not, and what is appropriate on the boards may be less so in the more static and permanent art of wall painting.

Giotto's greatest surviving monument is the fresco cycle in the Arena Chapel at Padua. The name comes from the ruins of a Roman arena, still visible on the site. The donor was Enrico Scrovegno, who had been anxious to atone in some measure for the evil memory of his father, a notorious usurer whom Dante (*Purgatorio*, Canto 17) places in the seventh circle of Hell. Circumstances make it look as though Giotto himself designed the building. Architecturally, it is a mere brick shed about 95 feet long, but the tunnel vaulted interior, with a perfectly flat expanse of wall surface and carefully arranged windows, offered the best field for fresco painting ever provided an Italian painter. Work began in 1303, and the consecration took place on March 16, 1305. It is evident that Giotto had made himself the head of an exceedingly well-organized shop. There was some restoration in 1869, but the work was well done, and for all practical purposes the pictures may be cited as originals.

Both side walls were covered with narrative frescoes, rising in three registers of rectangular pictures over a lower row of personified Virtues and Vices. A Last Judgment fills the space over the entrance doorway, and there are still more pictures on the arch. It is instantly apparent upon entrance that the numerous paintings were planned from the beginning to go together in a grand scheme.

Color is perhaps the most expressive element of the synthesis. No photographs yet available even suggest it. Most of the black-and-white negatives were made before modern films and color filters were invented. Thus generations of students, educated on plates like those reproduced here, have formed the impression that Giotto worked in severe gray monotonous as depressing as the winter sky. Nothing could falsify the reality more unkindly. The experience of seeing the chapel for the first time may be compared to entering a

greenhouse full of spring flowers. Only the very best of our present colored reproductions give a hint of the truth.

A guiding thought runs through the subject matter of all the pictures. Giotto's purpose was to give us a meditative exposition of the mysteries of Incarnation and Redemption as demonstrated by events in the life of Mary, and of Jesus. The narrative commences with the experiences of Joachim and Anne, the parents of Mary, largely as set forth in the *Protevangelion*, or *Book of James*, from the *New Testament Apocrypha*, with the help of which the student may follow the earlier part of the history. The series then carries on through the earthly career of Mary and the Saviour, and culminates in the *Last Judgment*.

An unbroken flow of narrative was no more available to Giotto than to any other painter. Narrative painting must of necessity be episodic unless one is willing to abandon the simultaneous mode of presentation (see above, pages 59-65). The significance of the episodes chosen thus becomes the first test of artistic judgment, and the matter was one in which Giotto did not demonstrate uniform success. A full-scale study of the chapel would perforce include a few rather dull and superfluous pictures; but if we restrict our attention to the best, as we must in so short an account, we shall find ourselves dealing with drama of supreme range and penetration.

It is hard, for example, to see how the dignity and beauty of faith might be better expressed than we find it in the *Meeting at the Golden Gate* (Fig. 13-44). Joachim and Anne had been weighed down with grief because they had arrived at old age without children. Some days before the event depicted, Joachim had taken himself off on a lonely trip to visit his shepherds in the mountains. An angel came to both the elderly husband and his wife, to say that a child would be born. Joachim hurried home, and Anne went out to meet him. Half a dozen bystanders appear with the principle actors; they gossip as they pass along, giving only a casual glance at the old couple who kiss as they meet. But Giotto's power to tell a tale with the briefest means is summed up in those two crucial figures. They move with the deliberation of age. Their stance remains unchanged, and their embrace is a bending from the waist only. The whole tempo of the scene reflects the peaceful masculine and feminine of the long married. Transfigured by the divine grace and lost in the privacy of their special knowledge, they express their joy not overtly as children might, but in quiet confidence.

The *Nativity* is likewise a picture where Giotto made supreme use of the single figure. Most of the surface is occupied by inert material intended merely to supply the necessary quiet of midnight: the sleepy donkeys, a somnolent Saint Joseph, the quiet shepherds with their sheep, and some angels flying with

mutated wings in the sky above. At the extreme left (Fig. 13.45) we see the Virgin. She rises slightly on her elbows, and obviously with some pain, to receive her baby from a gentle nurse. It is doubtful whether an equal force of passion has ever been communicated to the world by so small an area of painting. The imagery is almost painfully vivid — so real, indeed, as to banish from memory every other version of this popular subject. Not only did Giotto paint the *Nativity*; he painted maternity itself.

For the *Flight into Egypt* (Fig. 13.46) Giotto chose to set the event in a rocky pass of the mountains. Cliffs hem the Holy Family in. Movement is curtailed in every direction except forward, and the urgency of the situation is heightened by the impenetrable, massive, material limits to action. An angel in the sky gestures angrily for more speed. Mary sits stiff, erect, tense on the back of the donkey; she can only hold her child and await the outcome now beyond remedy, for nothing more can be done. More in frustration than hope, Joseph turns to urge the driver to go faster, and the man pulls forward on the halter. But it does no good. The donkey merely cocks his ears the other way. Thus in a picture that strains the human spirit with anxiety almost beyond endurance, we are given to understand that the fate of Christendom once hinged upon the intractable temperament of an ass.

Another very penetrating picture is the *Judas Receiving the Thirty Pieces of Silver*. As so often happens, the Biblical narrative is very brief, and most of it is left to be inferred. The conventional understanding of the affair puts all the blame on Judas. He was a monster, that is, motivated by avarice, and he sold his loyalty for a price. But Giotto, with an insight worthy of Rousseau, fastens upon the greater complexity of the truth, and the broader implications of the story.

He makes Judas a sensitive, handsome man tempted by a devil real enough to be seen in the picture, thus bringing up the mature ethical concept of a necessary relationship between the offense and the pressure upon the offender. Upon the High Priests, Giotto also turned the awful eye of a man who could not be fooled. It was they who had manipulated the situation with conscious policy. They picked the right time for Jesus' arrest, and made the arrangements for inciting the rabble who ultimately came "with swords and staves." They provided the bribe calculated to impell an unstable personality toward a deed too risky for themselves. It is manifest that they do not even like to appear in the picture, and would not if they dared trust each other. An instant hence, once sure that events have been put in course, they will separate, each rushing off in a different direction.

But Giotto was not ruthless even in his treatment of the High Priests. Such men exist in numbers in every society. Many are pillars of the State, the

Church, the armed services, and every other sort of institution. Publicly, they elucidate high principles with real eloquence; and in practice, they do the right rather than the wrong almost all the time. But every so often, such men find their position and interest really threatened. Then they stoop to crime, but they move secretly, put nothing on paper, get someone else to assume the onus of initiative. Giotto knew the High Priests were swine, but he realized that there will always be some of them in every community.

Enough has been said to illustrate Giotto's ability to interpret human experience as an illustration of permanent truth; no one compares with him in that respect. The same cannot be said of the personified *Virtues* and *Vices* of the lowest, or dado register of the chapel. They are dull and inadequate to a degree, which seems extraordinary when one considers his manipulation of the single figure elsewhere. One might expect him to handle allegory not worse than other painters, but better. Possibly he was unsympathetic to the subject matter, and turned it over to one of the many assistants he brought with him to Padua.

The same guess may account for the occurrence of good and bad compositions in approximately equal measure throughout the series of frescoes. The pictures representing the birth, courtship, and marriage of the Virgin may be cited among the perfunctory and even careless arrangements, while the *Flight into Egypt* is one of the most distinguished essays in formal design to antedate the High Renaissance. Pictorial means were used to integrate that picture. It needs no frame to define its beginning, middle, and end. The limits are established by the three persons entering from the left, and by Joseph's backward and inward gesture on the right. The Madonna fits into a stable and lucid triangular space, and provides a powerful central axis. The rocks behind have a pyramidal shape, harmonious to the triangle just mentioned.

Arrangements so subtle and complex do not occur by chance. We must assume that Giotto had turned his attention to the problem of composition, and had given the matter much thought. The method he arrived at is identical to the one we have elsewhere named the *Greek organic composition* (see above, pages 65-66), and it is probable that Giotto had seen and studied enough classical work to have deduced the principle once again. If the reader will turn back, however, and compare his work with such examples as the pediments of Olympia (Figs. 3.15-16), it will be evident that he had carried the art of arrangement further forward than the Greeks — or at least further forward than we see it in any preserved work from Greece.

As compared with all earlier pictures and with most paintings of any period whatever, the whole power of Giotto's art may be summed up in the state-

ment that one is instantly convinced that everything he painted was true. No one has ever had a moment's doubt that he vigorously intended to depict something real. The objects are actual, and the people are solidly alive. What is the special secret of Giotto's method?

In the first few pages of his *Florentine Painters* (first published in 1896), Mr. Bernard Berenson gave an answer which has given satisfaction for over fifty years. He said that Giotto painted in such a way that retinal impressions attained *tactile values*.

That is to say, he painted his figures as though they occupied space in three dimensions. No earlier painter had attached anything like the same importance to the spatial displacement of masses. In order to get the effect desired, Giotto had to paint as though his figures existed in an ample but diffused light. By grading his shadows with precision as they modeled from light into dark, he described the surface of every contour accurately. So exact are the specifications of convexity and concavity that a competent sculptor might with ease translate one of Giotto's people into stone; there would never be any doubt about how the carving should be done. Giotto's painting is intensely plastic, that is to say; and the effect is enhanced in no small measure by his original choice of a ponderous canon of proportions and his grand taste for simplicity.

With a psychological penetration considerably in advance of the time, Mr. Berenson correctly declared that Giotto's figures, although inspected through the eye, caused the observer to experience a powerful excitement of the sense of touch. He contended further that a representative painter is always wisest when he concentrates upon tactile imagery. If the observer can be convinced that the painted figure has tangibility, his imagination will supply all other necessary phenomena: space within which to stand, ground to stand on, the action of gravity, air to breathe, and light to see with. The tactile values, he concluded, are what make Giotto's pictures seem so real that memory sometimes plays tricks, leaving us with the impression we have witnessed actual events.

Mr. Berenson may have erred in concentrating his argument too exclusively upon the plastic element in Giotto's work, but there is no doubt that tactile values are a powerfully operative factor in the result. It is interesting to realize that Berenson's essay came out at the very time when Cézanne was turning his back upon French Impressionism (see below, page 912), and directing the course of modern art back toward the very definition of mass that Giotto had inaugurated five centuries before.

The reader must not make the mistake of assuming that Giotto's technique was derived from natural fact. Like most other medieval and many Renaissance painters, Giotto painted in the *Mode of Relief*, for which an analysis will

be found in the next chapter. It will suffice here to point out that the method entails certain purely arbitrary assumptions about the action of light as it falls upon the masses of the human figure and its setting. The lighting of form as seen in the paintings is almost never duplicated on any shapes we are in the habit of seeing; and the whole scheme, while intelligent and perfectly lucid, is in fact an abstraction.

The world has produced an immense amount of painting since 1305, but Giotto's work at the Arena Chapel remains unsurpassed by any subsequent monument of Western civilization. During the 14th Century, there was nothing with which it might even be compared. Giotto was a famous man and a first citizen. Opportunities beckoned wherever he looked. In addition to notices that place him off and on in his native Florence, we know that he worked on important commissions in Rome, at Rimini, at Verona, at Ferrara, and perhaps also in Avignon. About 1318, he was again working at Florence, doing wall paintings in the Bardi and Peruzzi chapels of Santa Croce. The two commissions occupied most of his time for about four years.

Pictures from both chapels are often reproduced with the label "Giotto"; but we can accept them as such only in a very restricted sense. Like every other early artist, Giotto lost his reputation during the High Renaissance, and never regained it again until the general historical research of the 19th Century brought his work out in the open once more, with resulting comparisons. At some unknown date, the frescoes at Santa Croce were covered with a coat of whitewash. They were then quite forgotten. In 1841, they were rediscovered, but the date was still too early. The pictures were of course dilapidated, and a painter named Bianchi was engaged to renovate them. He did more harm than the whitewash. His over-painting looks more like a 19th-Century German greeting card than it looks like Giotto; but even if the hand is no longer his, the compositions must be.

Restored as they are, the paintings are still adequate to justify several statements about the course of Giotto's thought and art during the period of his full maturity. By comparison to the work at Padua, the psychological climate is less intense, the tempo grander, the intention less actual and more majestic. There is a breadth of view and a dignity of arrangement hitherto not observed. The pictures are not equally successful; and as before, we may take the liberty of citing only the best, which is undoubtedly the justly celebrated *Death of Saint Francis* (Fig. 13.47).

To students familiar with the later history of Italian painting, no picture could possibly be more full of suggestion. Giotto's later work may in general be said to foreshadow "the Grand Style" of the High Renaissance; and in this

instance, he has produced a formal design not only as good as 16th Century work, but equal to the best of Raphael or Leonardo.

The point of time is the moment of death. Across the middle of the picture, the ponderous corpse of the saint lies in utter stillness. All eyes are directed toward the dead man except for one brother who is granted a vision of the soul's ascension. In wonder too sudden for ecstasy, he looks upward toward the sky, where angels may be seen lifting the immortal element heavenward. Dramatically speaking, we may say that the picture eloquently compares the static incubus of death with the freedom and transcendency of the eternal.

The formal means used by Giotto to present this unforgettably stately spectacle depend fundamentally upon a slow harmony of ponderous verticals and horizontals, upon the contrast of these with diagonals, and upon the dynamic and directional power inherent in the glance of the eye.

The composition is framed in on either hand by several figures who stand like statues, all of them motionless but intent upon the dead man. The verticality of those figures is echoed in the paneling of the wall behind; but even that emphasis is insufficient to overbear the predominating motive of stability and the horizontal.

The grouping opens up in the middle to bring the bier into full view. It is notable that the recumbent figure is very large, and the bier very long. Across the top of the enclosing wall runs the most powerful linear device in the picture, likewise horizontal.

Across the rectilinear elements just outlined, we may discern the existence of a superimposed triangular figure. To the right, one leg thereof is established by the inclined shaft of the cross and banner. To the left, by following the line of sight of the monk who sees the vision, we construct the other side of the figure. Both lead the eye to the celestial incident above, and thus serve to integrate an arrangement which otherwise would exist in separate registers.

Bare statements like those just made must not be construed by the reader as an adequate description of Giotto's composition. At best, plain language can only suggest the visual activity by which one comprehends pictorial form, and it is legitimate for an author to point up his meaning by occasional resort to superlatives. The *Death of Francis*, repainted as it is, remains one of the very greatest essays in formal design. It is as lucid as any known composition by the Greeks, and there is no extant Greek work of the same complexity. It is free from the erudition which so often lured even the best painters of the High Renaissance into sophisticated display. At the date when Giotto finished it, there had been no one since the fall of Rome who could even have attempted a similar performance; and after his death, there was, for about a hundred years, no one who so much as comprehended the secrets of his method.

Giotto died in January 1337. He had been once more to Assisi after finishing his work at Santa Croce. He had executed a fresco commission in the Bargello at Florence, which contains the familiar portrait of Dante, restored by an insensitive hand after having been damaged in a fire. Giotto did work also at Milan, and he spent three years at Naples, where in 1330 he was named a "familiar" of the court of King Robert — an incident of some significance because it illustrates the comparatively early date when Italians began to feel disposed to accord artists high social standing by virtue of their achievements in art. In 1334, Giotto was named chief architect to the city of Florence; and in that capacity, he made plans for the bell tower of the Cathedral which is still called "Giotto's tower."

Such were the honors heaped upon a man whose merit and scope give him rank as a world figure. It would not be difficult to contend that Giotto had the most profound intelligence yet to express itself in art. His work is marked throughout by an absence of mysticism and morbid ecstasy. He applied robust good sense to the sacred story, and everything he did demonstrates a determination to realize the objects of faith as facts. Subtleties and details never delayed him, even the detail of beauty. His people are without intellectual or physical distinction. They are often unlovely, and sometimes vulgar, but no contemporary had to walk even outside his own door to imagine the setting and atmosphere where Giotto made the great events occur: they occurred at home.

After Giotto's death, Italy produced no artist of the first rank until the 15th Century. Every year continued to produce a substantial amount of painting, however; and to fill in the history, a paragraph or two may be justified.

The School of Siena (see above, pages 365-369) continued to maintain a good over-all level of quality, and kept its special character throughout the 14th Century. At Florence, painting took two different directions. One group of men, of whom Bernardo Daddi and Spinello Aretino were exemplars, tried to combine the style of Giotto with that of Siena. They painted mostly on panel, and their formula was to clothe one of Giotto's large and plastic figures in ultramarine blue, and silhouette it against a blank ground of gold. The other group at Florence made an attempt to extend to panoramic proportions the narrative techniques that had made Giotto famous. The *Allegory of Church and State* in the Spanish Chapel at Santa Maria Novella in Florence, probably by Francesco Traini, is a good instance of their work. As wall decoration, such frescoes delight the eye with color, but not one of the Giotteschi appears to have had the slightest notion of the elements that made Giotto great.

With a certain naïve realism, things are presented in all the confusion of their original disorder and without a bit of the lucidity which enabled the master to tell the truth. Unpopular for centuries, such painting nevertheless had enough merit to serve as the principal source for the style of the modern Mexican artists Rivera and Orozco.

*

14

COLOR THEORY AND
THE MODES OF PAINTING

Giotto's career stands as a historical landmark in more ways than one. Over and above the merit of his work, he holds the distinction of having been the first *painter* to achieve the rank of a world figure; but since his time, great painters have been common. It may be stated, in fact, that with Giotto, painting became the primary vehicle for artistic expression in Europe. The history of art for the past five centuries is predominantly a history of painting. We do not mean to imply that there has been a lack of great sculptors or of great architects, much less that the best of them occupy a position secondary to the painters. We merely mean to say that the majority of men capable of significant creation have turned, for reasons that defy analysis, to the production of pictures. The phenomenon has been so obvious that it usually escapes comment, but it is nevertheless an important matter to note the readiness with which the average citizen of today (unless we take pains to warn him otherwise) understands us to mean *painter* whenever we use the word *artist*.

Inasmuch as the chapters to come will be very much concerned with pictures, it is wise at this point to forget historical narrative for a space, and turn to certain physical and theoretical considerations that govern all painting of whatever place and date.

Let us first consider the fundamental differences which put any painter in a situation quite unlike that of the architect or sculptor. An architect might build a good building (though certainly not a great one) merely by drawing up a brief list of practical requirements, and making common-sense use of the materials and labor at hand. A sculptor might carve a satisfactory portrait bust simply by measuring the sitter's head with calipers, recording the dimensions, and reproducing them in wood or stone. None of the great artists, of course,



ALINARI

Fig. 141 Andrea del Castagno, *The Last Supper*, Florence, Sant' Apollonia, 1445-50. An interior painted in the Mode of Relief.

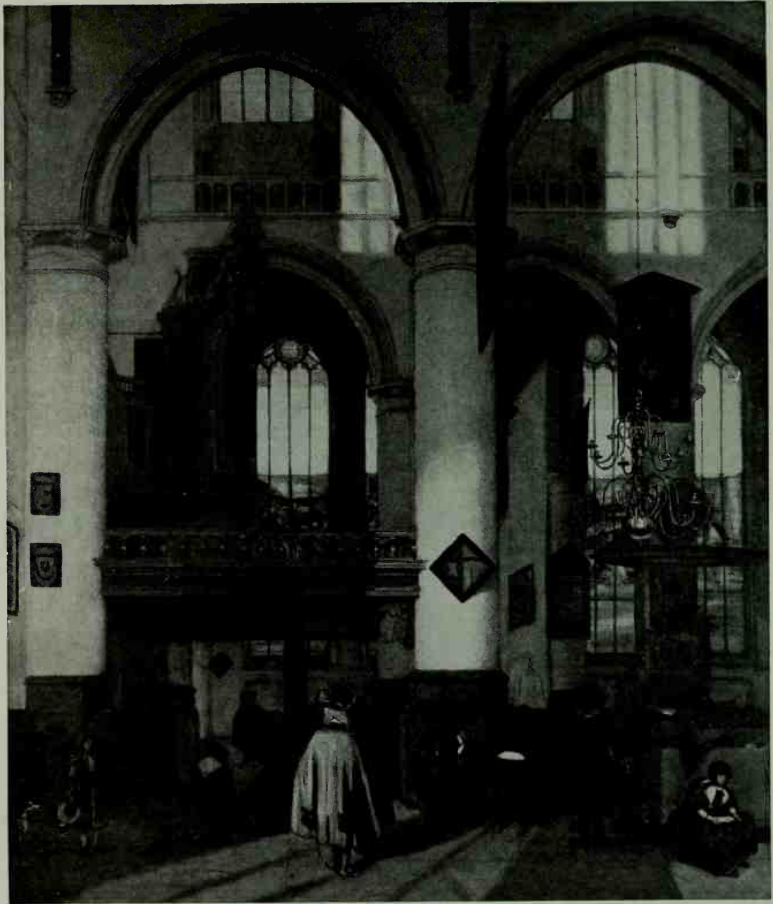


Fig 14.2 Emmanuel de Witte. Interior of a church at Amsterdam during a sermon. 1686. Detroit, Institute of Arts. An interior scene painted in the Mode of the Total Visual Effect.



Fig. 14.3 Detail from Benozzo Gozzoli's *Journey of the Magi* in the chapel of the Medici Palace, Florence, 1459. A landscape painted in the Mode of Relief.

ALINARI



Fig. 14.4 Van der Heyden (1637-1712). *A Street in Cologne*. London, National Gallery. An outdoor scene painted in the Mode of the Total Visual Effect.

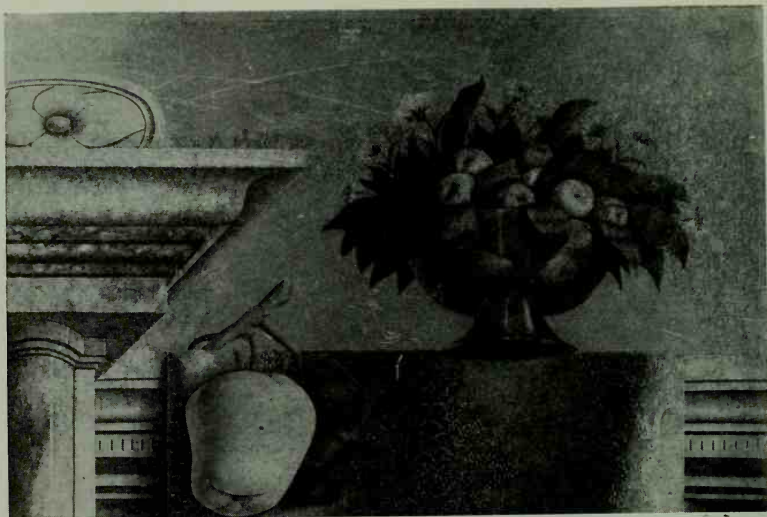


Fig. 14.5 Crivelli. Detail from a *Madonna* in the National Gallery, London. 1476. Still life painted in the Mode of Relief.

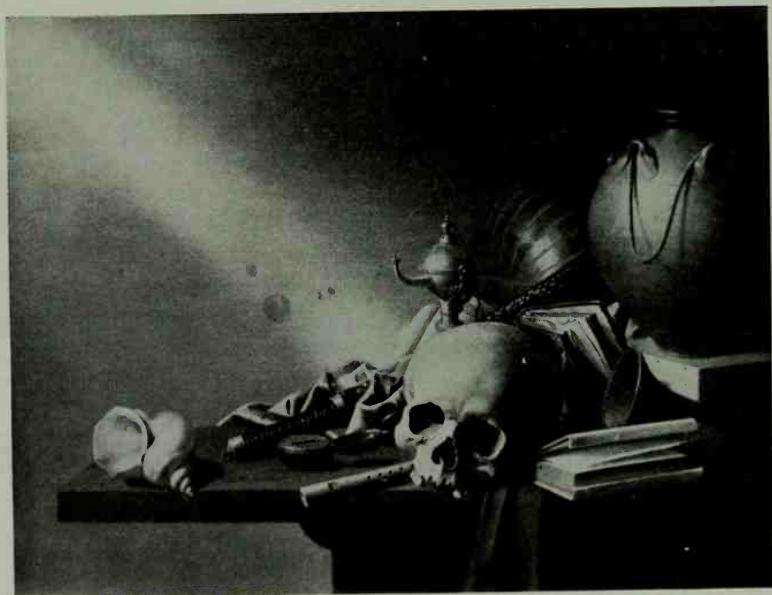


Fig. 14.6 Steenwyck (1612–after 1656). Still life. London. National Gallery. Still life painted in the Mode of the Total Visual Effect.



Fig. 14.7 Vermeer (1632-1675). *Young Lady at the Virginals*. London, National Gallery. The human figure painted in the Mode of the Total Visual Effect.



Fig. 14.8 Carlo Crivelli. Detail from a Madonna in the National Gallery, London. 1476. The human figure painted in the Mode of Relief.



Fig. 14.9 The Value Scale.

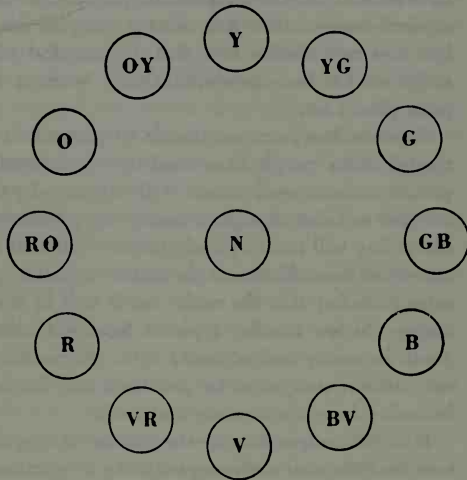


Fig. 14.10 The Scale of Hues.

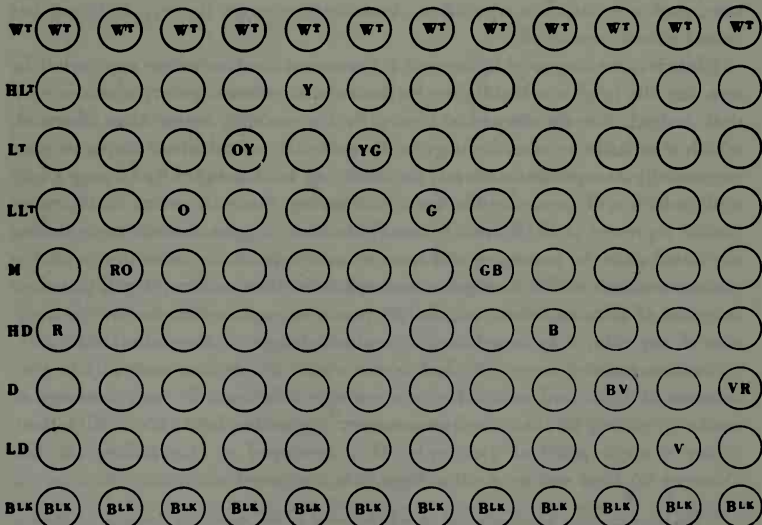


Fig. 14.11 Abstract diagram to indicate the construction of a chart demonstrating the particular level of value at which each hue comes to its highest possible intensity. From Arthur Pope, *The Language of Drawing and Painting*. Harvard University Press, 1949, pp. 7, 8, 14.

have been so naïve and unreflecting as those we suggest here. Abstract and theoretical considerations have always occupied the minds of the leading masters, but it is nevertheless true that a great deal of acceptable architecture and sculpture has been produced almost without thought of the philosophical principles of art.

Painters, however, are unable to proceed in the same intuitive way. Although many people have tried it, it is impossible to produce an acceptable picture without some notion of the theory of painting. It is, in the first place, essential to know enough of descriptive geometry so that perspective and foreshortening will not be grossly in error. Of that fact, almost everyone is fully aware; we have alluded to the matter at various points above, and we shall assume hereafter that the reader has it well in hand. Our present business is to discuss the less familiar topic of light and color, the modulations of which (both in nature and in paint) force the painter to make a more complicated and rational analysis of his problems, and demand a higher measure of intellectuality from the observer and critic.

It is quite impossible for the painter to copy the tonal relations seen in nature, and the overwhelming majority of pictures demonstrate a manipulation of light and color altogether out of correspondence with the modulations existing in the visual world. In a society committed to the representative convention, such a situation is a paradox. Amazingly enough, its very existence has passed almost unnoticed.

Paint is not a source of light; that is the reason no painter can copy what he sees. For the brightest highlights, he has only his whitest paint, which is very dark indeed. For the deepest shadows, he has nothing better than charcoal, which is actually a rather light gray. If materials so inadequate are to be used successfully in representative art, the trick can be done only by having a formula which will prove legible for the observer. Since, in strict truth, paint cannot represent at all, it must be manipulated to suggest or even to symbolize the visual data the painter would have us comprehend. In order to discuss the various methods which have been invented from time to time, it will be necessary first of all to establish a vocabulary precise enough so that the several qualities of any color may be referred to without danger of misunderstanding.

Various authors have published books which attempt to analyze the phenomena of light and color. There is enough difference in their findings to render anything like a complete summary impossible here. We shall follow, rather, a single point of view only: that developed at Harvard by the late Denman W. Ross and by Arthur Pope.* As compared with other theories, the

* The latest and most complete exposition will be found in Mr. Pope's *The Language of Drawing and Painting*. Harvard University Press, 1949.

system of Ross and Pope is lacking in certain refinements which may upon occasion be of interest to the scientist; but, for our purposes, it has the incomparable advantage of simplicity and practical accuracy. Both Ross and Pope were themselves accomplished painters. Their thinking originated with the actual problems of the medium, and the structure of their analysis fits the needs of those who wish either to paint or to understand pictures. Furthermore, and in substantial contrast with other authors, Ross and Pope proceeded to apply their theory of color to definitive examples from the work of the greatest masters of painting, with the result that such may now be explained in a way that renders all other explanations inadequate and capricious.

The most important concept entertained by Ross and Pope was the idea that the facts established by optical physics were, within the field of artistic expression, decidedly secondary to the facts of human psychology as they operate whenever one sees and reacts to a color. The reader should appreciate at the start, therefore, that every assertion made below depends for its validity not upon measurements made with instruments in the laboratory (none of which as yet approach the subtle accuracy of the well-trained eye) but upon the considered judgment of men with an incomparable experience of color in its most accomplished practical application.

THE THEORY OF COLOR

Proceeding upon the basis indicated, Ross and Pope worked out the following vocabulary. It was unfortunate that some of the words they decided upon were and remain in common use with quite another meaning, but it would be inappropriate to attempt a correction here. If each term is accepted in the technical sense given below, and if the reader will make an effort to forget for the moment all contrary senses together with their connotations, he will find himself in possession of some very efficient tools of thought.

The word *color*, although all of us continue to employ it conversationally in a more particular sense, had best be understood generically. It is the name for the study which embodies and contains all the phenomena mentioned herewith. The word *tone* is often convenient as a near-synonym.

The different "colors" like red, blue, green, yellow, and violet are best referred to as *hues*. The difference between red and blue, for example, is a contrast of hue; and the similarity between blue-violet and red-violet is a harmony of hue.

Grays are tones which we recognize as being more or less light or dark, but which lack any recognizable hue. For that reason, grays are usually referred to as *neutrals*. The darkest neutral is named *black*, and the lightest neutral *white*.

The difference between white and black is referred to as a contrast of *value*, and we shall presently find it convenient to construct a *value scale* in even steps between black and white which will enable us to name particular *value levels* with the expectation of being understood.

In addition to possessing hue, any tone that gives us the sensation of red, green, orange, etc., obviously possesses the quality of value also. If we wish to name a particular tone approximately, we simply call it a "dark red" or a "light green" as the case may be. If we want to name it exactly, we must name the precise hue, the precise value level, and the degree to which the hue is in contrast with the neutral gray at the same level of value. The latter quality — the amount of contrast with the neutral of equivalent value — is referred to as the *intensity* of the hue.

To recapitulate: *We may name any tone by naming its hue, its value, and the degree of its intensity.*

It is obvious that intensity varies in much the same manner as value. It is possible to imagine that every conceivable hue might be produced at every conceivable level of value, and in all degrees of intensity at each level. Possibly painters may find that true in heaven. On earth, they have to accommodate themselves to the action of pigment materials. One of the most important limitations thereof is the tendency of any paint to lose its hue (i.e., to neutralize) the minute one attempts to darken it or make it lighter. To put it another way, for every recognizable hue, there is but one value level where we may have that particular hue at its maximum intensity, usually referred to as the *biggest possible* intensity. Yellow, for example, can be had at highest possible intensity only when the tone is very close at the value level of white. Absolute violet, neither reddish or bluish, is most intense only when nearly as dark as black — a fact upon which the technique of the French Impressionists depends (see below, pages 866–874). Red-orange comes to highest possible intensity at about the middle value, and the other hues behave as indicated diagrammatically by Fig. 14.11.

Hues at their highest possible intensity were, as a matter of historical fact, very rarely used in painting at any date earlier than about 1870, when the French Impressionists assumed the identity of a school and style. It therefore becomes a matter of interest to have an expression which indicates the degree of intensity of any hue at whatever value level we care to name. If we want to use red-orange (which comes to highest possible intensity at about the middle value) at a value level halfway between middle and black, the strongest intensity *available at that particular value* is best called *full intensity*; but the term *full intensity* is meaningless unless we simultaneously name the value level to which we refer. At any given level of value, a tone may of course be

used, and often is, at considerably less than full intensity. As convenience indicates, we then refer to it as "half neutralized" or "at half intensity" — or any other degree of intensity or neutralization — as the facts demand.

Naming the Values

We can save much laborious explanation in the pages to come if at this point we establish a system for naming a reasonable number of values between black and white. Fig. 14.9 indicates in abstract fashion how such a scale may be constructed. The reader may rightly wonder why the diagram does not appear in successive stages of gray, but it is still unfortunately true that only the most painstaking work of the best printers (at an expense prohibitive for a book of this sort) can accomplish anything better than approximate reproduction of the tones as they might appear in a carefully executed water color or oil. Let the reader, therefore, take his own box of paints, and proceed as directed below. If he has an instructor to help him, so much the better; and if not, he is bound to learn much if he is willing to be severe with himself and use his eyes.

Nine levels of value will prove sufficient for all practical requirements. If using water color, one begins by laying successive coats of charcoal black over the lowest circle in the diagram until it becomes as dark as the pigments in use permit. The top circle may be left without paint, the white of the paper standing for white.

The next thing to do is to establish the middle value. Upon the manner of doing it, one's entire understanding of color depends, and the next few sentences have a special importance.

The middle value is defined as the value which contrasts equally with both white and black. We must find a gray, that is, which compares to black precisely as it compares with white. As indicated earlier, the judgment must be made with the eye. It is a subjective judgment, but experienced observers working with the same pigment materials tend to arrive at identical results. In any case, we must remember that paintings are never sent to the physics laboratory for analysis. They are hung on the wall for people to look at.

Once the middle value has been satisfactorily arrived at, the rest of the scale may be constructed by following the same method. *Dark* is defined as the value which compares to middle precisely as it compares with black. *Light* has a similar station between middle and white. *High light*, *low light*, *high dark*, and *low dark* must likewise contrast equally with the grays immediately above and below them. In theory, an infinite number of steps might be worked out; but, as stated, nine are sufficient.

The reader doubtless has already been bothered by the thought that a value scale executed in water color, as suggested, would not and could not demon-

strate the full range of values available in all the pigment materials on earth. Black enamel, for example, is much darker than any black we can produce with water color, but the circumstance is of no artistic importance whatever. One does not shift from water color to enamel in the course of painting a single picture. For the artist, the important thing is to know the range that is possible within the limits of his chosen medium. Thus, the useful chart is the chart that is consistent with itself, and which demonstrates what can be done with the materials in hand.

The value scale, while laborious to construct and tedious to read about, is vitally important because it demonstrates in conclusive and unmistakable fashion the chief reason why the painter cannot possibly copy what he sees. As it appears on these pages, the diagram measures about three inches from black to white. Were we to symbolize the value relationships of nature in the same way, using vertical length to indicate the difference between black and white, we would require a scale as high as a house. The blackest darks of a sunlit scene, that is to say, contrast with the brightest lights so violently that the difference between white paint and black paint is insignificant by comparison. If the painter is to describe such a scene at all, he obviously must have a well-conceived system for making the feeble medium of paint suggest, symbolize, hint at, or otherwise recall to the observer the imagery of the natural world. The chief technical endeavor of the past 500 years has been addressed to the problem just stated; and a major part of our effort hereafter will be to trace the several solutions attempted, and to assess the merit of each.

Naming the Hues

The desirability of a systematic way for naming the hues is suggested by the annual crop of tricky names invented in the dress trade and for the colors of motor cars: Sahara yellow, rose beige, Glengarry green, *Endeavor* blue, safari brown, faded denim, acqua — and the list goes endlessly on. Admittedly, some of the names are attractive and a few may even be poetical, but the serious student will require something more reliable.

The hues are best named by laying them out on a circular diagram like Fig. 14.10, usually called the *color circle*, or the *color wheel*. Such diagrams have often been published without much explanation, and perhaps with small understanding of the method of construction or the significance of the result. The principles involved are the same used for the construction of the value scale; namely, the governing conception is to maintain an equal contrast between each hue and the two on either side of it.

The circular diagram permits us to range the so-called "warm colors" on one side, and the "cool colors" on the other. In order to maintain mutual con-

sistency between our diagrams, it is worthwhile to keep the graduations of the color circle in step with the value scale, an operation that demands slight departures here and there from theoretical accuracy but one that involves no practical inconvenience. All hues are produced at the highest possible intensity. Yellow and violet fall on the central vertical axis because yellow comes to full intensity at high light, and violet at low dark. The contrast between them is not only a contrast of hue, but the strongest value contrast available as between any two hues. In order to define yellow and violet, we resort to the familiar notion of the warm and cool colors. Absolute yellow must not contain a hint of orange or a hint of green. Absolute violet is the hue that tends neither toward blue nor toward red.

When actually constructing the twelve-hue color circle indicated in Fig. 14.10, one does not establish yellow and violet first. In order to avail ourselves of the principle of equal contrasts, and at the same time to produce a color circle that corresponds with the value scale, we start out by laying in yellow, red, and blue — which fall at equal angular intervals around the circumference and are defined as having equal contrasts, each with the other two. Violet, orange, and green then fall in place, each once more being defined as the hue in equal contrast to the two on either side of it. Orange-yellow, yellow-green, green-blue, blue-violet, red-violet, and red-orange may then be put in as intermediaries between the hues already located.

It takes skill to construct a reasonably accurate, self-consistent color circle. The beginner will continuously be vexed by mistakes and adjustments; but if he perseveres, he will be in a position to make on his own authority some very cogent observations about the operation of colors. Perhaps the most important of these is the interaction of value and hue, as set forth above and as indicated by Fig. 14.11. It will also be found that the color circle has a beneficial and sharpening effect upon one's colloquial vocabulary. Almost every "red" in common use is in fact a red-orange. Practically all the "browns" are neutralized oranges. Most of the "pinks" are tints of red-violet.

It will still further be noted that every hue, as laid out on the color circle, falls on the same diameter as its *complementary*, which we define as the color that gives the maximum possible contrast with respect to hue. From physics we know that pigment materials obtain their capacity to exert the force of hue because they act like filters when light falls upon them. A blue pigment, for example, absorbs every part of white light except for the blue rays, and an orange pigment releases only the orange rays. Theoretically, blue and orange (or any other two complementaries) ought to cancel each other out if mixed, producing a neutral as indicated by the small circle labelled *N* in the middle of the color wheel. That matter requires considerable explanation, however, be-

cause mixtures of paint do not produce the same results as mixtures of colored light (see below, page 870). It will suffice here to point out that the hues at opposite ends of each diameter in the color circle may be thought of as approximate *pigment complementaries*. When mixed, any two give a gray. The diagram seems also to suggest that every neutral formed by the mixture of any two complementaries will also be a neutral at the middle value. Such, however, is hardly the truth. Paints are capricious more often than not. No one can predict within narrow limits what any two pigments will do when mixed. Trial and error is the only way to learn.

Another defect of the color circle also requires mention. By direction and definition, each hue on the circumference is at its highest possible intensity; but as laid out on the diagram, each hue is also equidistant from the center, which is to say from neutral. The inference would seem to be legitimate that every hue makes an equal contrast with its neutral gray of equivalent value. The notion is contrary to fact. In general, all the warm tones seem to differ from neutral more than the cool tones; and every hue in the lighter ranges strikes the eye as being less like gray than any of the darker colors.

For ordinary purposes of making ourselves understood, it is extremely important to have command of the principles outlined above; but only occasionally does one find it necessary to name a tone with the precision suggested. Once one has comprehended the idea of hue, value, and intensity (and considerable training of the eye is requisite before one can be sure of himself), approximate language is often plain enough for the needs of the moment. In that connection, it is well to mention several words which will prove especially convenient.

For all hues above the middle value, *tint* is an expressive designation. Everything darker than that is a *shade* of orange, violet, blue, or green, or whatever else the hue may happen to be.

Two other terms are similarly useful. A *field* is any area within a painting which constitutes a natural unit of a single hue. A grass plot, for example, would form a field of yellow-green. A red dress would be a field of red, smaller in area; and a sapphire set in a finger ring would be a tiny field of blue. In each instance, the yellow-green, the red, or the blue would be designated as the *local tone* of its field.

THE MODES OF PAINTING

Having provided ourselves with a vocabulary that permits intelligible discussion of the tonal relations in painting, it becomes possible to deal with the

relation between the painter and his subject matter. From the advent of the representative convention onward, European painting has ostensibly been an attempt to find expression of one kind and another by means of pictures which purport to show visual facts in plausible fashion. But what is visual truth?

The reality of the visual world is by no means easy to define. Certain phenomena are variable; sunlight and darkness, for example, alter the world on a daily cycle that is never quite the same. Hills that look soft as pillows when seen from an aircraft prove viciously hard when we slip on the ice and fall flat. We comprehend nature, moreover, not by the eye alone, but with all the senses. The action of the senses, to make matters still more difficult, is not uniform. When out hunting pheasants, a man does well to observe every bush and grass plot with alert intensity, but he may be forgiven for savouring a more easy and general flavor of the same landscape as he sits on the porch smoking his pipe after supper. Certain details impress us about people and things as well as scenes; such remain vivid in the memory when all the rest is forgotten.

We have said enough to indicate that painting a picture amounts to much more than the direct application of technical skill to something the artist wants to paint. Confronted with subject matter, he cannot proceed unthinkingly even if he wants. The complexity of the human spirit forces choice upon him; and he must decide what he is driving at before he begins. Numerous styles have come and gone since the time of Giotto, and innumerable personalities have left their mark on the history of art. Insofar, however, as painting stands as a reflection of a relationship between the artist and the visual world, virtually every picture in the immense catalogue conforms in its technique to one of four fundamental systems, known as the *Modes of Painting*.

It was the greatest achievement of Messrs. Ross and Pope to draw the sweeping conclusion just stated. The validity of their findings has been attested by a significant absence of challenge. The modes they recognized are as follows: The Mode of Line and Flat Tone, the Mode of the Total Visual Effect, the Mode of Relief, and the Venetian Mode. We shall discuss the first three herewith. The Venetian Mode — in which, as a matter of fact, the great majority of paintings have been and still are executed — we shall postpone until Chapter 16.

The Mode of Line and Flat Tone

The Mode of Line and Flat Tone was mentioned in connection with Paleolithic painting (page 17) and needs little additional explanation here. The silhouette of each field is indicated by delineation, and the local tone of the area is then painted in without any attempt to indicate modeling by means of

graded shadows. The technique is simple; children often paint that way because they do not understand how to model. Good results (if adequate representation is a desideratum) depend upon skill in the use of line. In that specialty, artists of the Far East, taking them as a class, have been the best the world has ever seen, and they produced in this mode some of the greatest painting ever executed. They appear to have taken pride, in fact, in using line so well that other and less elegant means were superfluous. Except for Antiquity and a few occasions when Western art came under Eastern influence, Line and Flat Tone has been rare in European painting.

The Mode of the Total Visual Effect

As indicated in the captions, the illustrations for the present chapter are an attempt to juxtapose examples of painting in the Mode of Relief (those bearing odd numbers) with comparable examples executed in the Mode of the Total Visual Effect (the even numbers). The series includes typical instances in each mode of an interior, a landscape, still life, and figure painting. Because most of the statements made below are generalizations which apply with almost equal weight to all the plates, we shall only occasionally make specific reference.

There was no painting in the Mode of the Total Visual Effect until the Flemish oil technique was perfected by the Brothers Van Eyck, as described below on pages 613-614. Up to the beginning of the 15th Century, that is to say, most European painting, including that of Giotto, had been in the Mode of Relief. Ease of explanation dictates the present order of discussion; for while earlier in date, the Mode of Relief is harder to comprehend.

With respect to tonal relations, any painter who uses the Mode of the Total Visual Effect puts himself in the position of the objective realist (see above, pages 20-21). As the name of the mode indicates, he accepts the light and color of nature in the same spirit which makes the realistic sculptor accept the structure of the human body. Whatever he sees, he construes as an artistic rule, and the first thing to look for in pictures that conform to this mode is a specific indication of the source or direction from which the light comes. Something of the kind is almost always included, as though to tell us the painter has obeyed the rules.

Objects and parts of objects are made to cast their shadows in a fashion that is orderly and consistent with the light source indicated, but a word of caution is necessary lest the reader apply that criterion too literally. Reflected light sometimes plays hob with what seems at first to be the simple logic of illumination, often reversing the shadow pattern that might be predicted for a particular field. The principle involved is nevertheless as stated.

Examination of the human form, or any other object of complex shape, when seen in a good light, will reveal that the normal eye under normal conditions does not, and indeed cannot, see everything that is there. It is difficult or impossible to follow the contours within the areas of shadow; and if we are honest with ourselves, we must admit that our knowledge of shape within the darks rests more upon inference than upon perception. The effect just mentioned is somewhat enhanced by the instinctive tendency of the eye to accommodate itself not to the darkest areas in view, but to the brightest. Pictures executed in the Mode of the Total Visual Effect take account of the phenomenon just described. In the darker areas, detail is made increasingly vague, and sometimes blacked out altogether.

Because of the pitifully short value range available in paint, it is obvious that some rational way had to be discovered for rendering the tonal relations of nature on the surface of the canvas or panel. Those painters who have made best use of the Mode of the Total Visual Effect seem to have looked upon the contrast between the natural value scale and the painter's not as a disaster, but as a proportion. Unable to make direct use of the former, they could nevertheless transpose it into paint by an act of just and systematic compression. Thus, the pigments in the pictures do not and cannot contrast with each other as the local tones do in nature, but it was possible to maintain their lesser contrasts in much the same relation. To see what is meant, the reader should examine the reproductions illustrating this chapter. It will be noticed that when modeling a field of white, the painters did not allow themselves the full range of values, but kept the darker shadows of the field up as high as the middle value, or thereabouts. Conversely, when modeling a black drapery, the convexities of the folds (which receive the strongest and most direct illumination) hardly go above the middle value unless, in a special situation, a bright highlight needs to be indicated as reflecting from an otherwise dark surface.

It is necessary to stipulate that the remarks just made apply with strict literalism only to the greatest exemplars of the mode now under review: to Van Eyck, to Vermeer, to Antonello of Messina, and to various Dutchmen of the 17th Century who deserve to be more famous than they are. A great many pictures which otherwise follow the same rules do not exhibit anything like the same fastidious care in maintaining a just proportion between the value scale of nature and that of paint.

Take the case of Vermeer, for instance (Fig. 14.7). What separates his work from that of the other "little masters" of Holland who painted pictures that look very much like his, but never give the same satisfaction? The answer is that Vermeer modeled each field in accordance with its own internal logic, but he also made every field bear a precise relation to every other area of color,

well-lighted or not, in both the near and the distant parts of the picture. Many of the other masters allow themselves the full range of the available value scale for modeling every field, light or dark though the local tone may be. They accordingly fail to achieve the extraordinary effect of genuine daylight which makes Vermeer's technique a marvel.

With respect to the modulation of hue, pictures in the Mode of the Total Visual Effect are consistent with the action of colors as observed in nature. The paints are brought to strongest intensity where the illumination is strongest, and the shadows are made gradually more neutral as they become darker. That particular detail of technique has a representational usefulness more important than might be supposed. One hears a great deal, especially in the art schools, of colors that "come forward" and colors that "recede." It is surely true that certain tones are more useful than others for the indication of spatial displacement forward and back, but it is suggested that intensity has failed to receive its proper recognition as an operative factor in the representational scheme. In the opinion of the author, it is the more intense tones (regardless of hue) which are most useful to the painter when he wants us to read one part of a mass as nearer than another.

It will be seen that the Mode of the Total Visual Effect depends upon an unbroken chain of logic through which the mechanics of a painting may be referred back to the data of visual experience. It is the only kind of painting which even attempts to maintain a one-to-one relationship between the picture and what the eye actually sees in nature. As such, it is representative painting *par excellence*.

Such being the case, it will perhaps surprise the reader that there has been very little of it. Only a handful of the best masters have used it, and pictures so rendered are something close to a rarity. Admittedly it is the one and only straightforwardly "natural" way to paint, but any attempt to render the total visual effect necessarily binds painting to a number of rules which, if true of the actual world, need not be true of painting. The greater popularity of the other modes has doubtless been due to the fact that, while sufficiently accurate to satisfy the taste for representation, they offer much greater freedom in the realm of emotional expression.

The Mode of Relief

Berenson was profoundly right in recognizing the sculptural quality of Giotto's painting (see above, pages 559-560), and his vivid phraseology has served to make almost everybody conversant with the matter. It is important

for the reader to understand, however, that Giotto's system of painting was not unique. His work is simply a vigorous application of the method Messrs. Ross and Pope have designated as the Mode of Relief. Almost every medieval painter used that mode, and it continued as the standard scheme in Italian Renaissance painting until the very end of the 15th Century. Even later than that, Michaelangelo painted his superb pictures in much the same way, although it may be helpful to think of his work as painting having affinities not so much with relief as with sculpture in the full round.

The key to the Mode of Relief is its special system for handling light and color. We must understand at the start that the scheme disregards some of the observed facts of nature as comprehended through the eye, and actually reverses some others. These matters will become clear if we inspect Andrea del Castagno's *Last Supper* (Fig. 14.1).

Ostensibly, the light in the picture comes from two windows pierced through the wall to our right. If so, the persons near the windows ought (in nature) to be more strongly illuminated than the figures remote from the windows. Similarly, the figures located toward the source of light should cast shadows on those next removed. A general darkness, moreover, would necessarily obscure everything underneath the table.

But none of those things are true of the painting. The lower extremities of the figures, which we might expect to find lost in a great shadow, are revealed beneath the table in exactly as much light as everything else. There are no cast shadows anywhere; and all the way across the scene, each person is illuminated as generously as those right next to the windows. In a word, the light is the same everywhere, a condition possible in nature only under the rarest circumstances. Even then, Castagno's uniform diffusion is approached, not duplicated.

Such a painting cannot be a transcription of a scene the painter saw, for it is impossible to see anything of the kind. What we have, rather, is a synthesis of many separate observations, each detail and each field of drapery having been studied under selected conditions of light. It goes without saying that the principle of selection depended upon the accurate revelation of shape and form. The light that suited best was the light that made most conspicuous the convexities and hollows which give us the most positive sensation of mass. The system is abstract and arbitrary, but it has the special virtue of permitting the greatest possible emphasis upon tactile values.

In their desire to realize figures and objects as entities displacing three-dimensional or cubic space, many Italian painters deliberately overlooked the effect of atmosphere, which even on a clear day and even over moderate distances tends to soften outlines and reduce contrasts of hue. A glance at our detail from Benozzo Gozzoli's fresco (Fig. 14.3) will illustrate the point. Dis-

tant buildings are diminished in size more or less accurately according to the rules of linear perspective, but each and every one is modeled out with almost the same vigor and precision as figures in the foreground.

The central purpose of the Mode of Relief is illustrated perhaps even more vividly by Figs. 14.5-8, which undertake to compare typical examples of still life and figure painting with cognate examples executed according to the rules of Total Visual Effect. Instead of darkening the shadows in accordance with the action of shadows in nature, the lighting of Figs. 14.5 and 8 is maintained at a level sufficient to reveal the precise curvature of every contour in which the painter is interested. No amount of rationalization will explain, in terms of actuality, the light effect used by Crivelli to model the head of the Madonna shown in Fig. 14.8; it is obvious that the artist cared nothing for the visual laws of nature, and everything for the expressive power of shape.

The Mode of Relief probably originated as an attempt by painters to imitate the work of sculptors. Giotto, if our surmise is correct, got his figure-style either from French Gothic sculpture, or from Giovanni Pisano, or both. The sculptor Donatello (see below, pages 617-626) was the creative leader for the entire Italian 15th Century, and the same Benozzo Gozzoli we have just mentioned learned his trade as assistant to the sculptor Ghiberti (see below, pages 638-643). In addition to such direct influence from another medium, the availability of pigment materials played a very important part in establishing and maintaining this particular way of painting.

The oil vehicle was not available anywhere until invented in Flanders about 1400, and it remained almost unknown in Italy for another 75 years after that. Before oil came into general use, wall paintings were executed in fresco, and panels were done in tempera. As compared with oil, both vehicles are subject to a very sharp loss of intensity whenever darkened in the least. Any attempt, therefore, to neutralize the shadows when modeling (as in the Mode of Total Visual Effect) was bound to result in broad areas of gray. The darker the local tones, the greater the proportion of neutral — which is to say that the picture would be almost without the appeal of color.

It became habitual, therefore, with workers in the Mode of Relief, to put the full strength of the hues wherever a dark tone was required. From there, they modeled up toward white. Sometimes they merely added more and more white to the original pigment. Sometimes they shifted first to a lighter hue, and then to one still lighter, arriving somewhere near white only at the very end of the gradation. Value-wise, the sequence conforms to the arrangement of tones in nature by putting the tints on the convexities of drapery, and the shades down in the hollows. But with respect to intensities, the system quite

reverses the order we observe in the world around us; and the legibility of such pictures depends not upon tonal relations, but upon the drawing.

The system of modeling just described has some advantages that deserve emphasis. With vehicles incapable of producing vivid color at low values, it made possible the production of pictures which if not opulent in hue, are at least blonde and gleaming. A more subtle matter has to do with the spatial implications of intense and neutral tones. In paintings of the sort we now discuss, the drawing of drapery and other details demands that we read certain parts as being farther away than others, but the intense hues are seen in just those places. Our habit of feeling that intense colors "come forward" tends, that is to say, to soften the indications given by the drawing. But what at first might seem to be a method of design at war with itself turns out to provide an added charm. The net result is to emphasize the flat surface of the painting, an effect in distinct harmony with the truth that all paintings exist in fact upon a vertical plane.

Lest the reader mistakenly construe the Mode of Relief as primitive (and the Mode of the Total Visual Effect as a more enlightened way to paint), we may well conclude with some additional remarks to reinforce what has already been said in our discussion of Giotto.

By disregarding some of nature's optical laws, the Mode of Relief did not curtail the expressive power of painting; it increased it. In that connection, it is worthwhile to list some of the disadvantages and inadequacies of human vision. Even the keenest eye gets a muzzy view of things; and if the reader will look ahead to Chapter 18, he may see for himself that French Impressionism (which took its philosophy from the physical experience of vision) ended up by producing some very clever and very insubstantial paintings. Instantaneous vision, moreover, is bound to suffer from the faults inherent with any procedure that is done in a hurry. If painters choose to make a law of that brief kind of view, they may boast that their work is "true to life," but one may complain that their notion of life is slight.

Visual observation is one thing, visual experience is another, and comprehension of both is something yet again. The person seeking a full measure of comprehension can never be satisfied with the single and rapid view of a human model or landscape vista in which he may happen to be interested. His examination involves one observation after another. He discovers something every time; and in the end, he knows the thing he has studied.

Among other lessons, he has learned that light conditions are never the same twice, and that colors change with them. The silhouette of a mass changes, also, with each new station taken up by the observer, but the identity of the mass

remains constant. It is that element of permanence which has repeatedly drawn European painters back to methods of painting in which the definition of mass is the central purpose. One goes too far if he contends that only mass is true and real, simply because mass alone abides. It is nevertheless easy to see how many excellent artists came to believe that unique and special virtue inhered in the sensation of mass, and it is such a belief that accounts for the existence of the Mode of Relief.



GIRAUDON

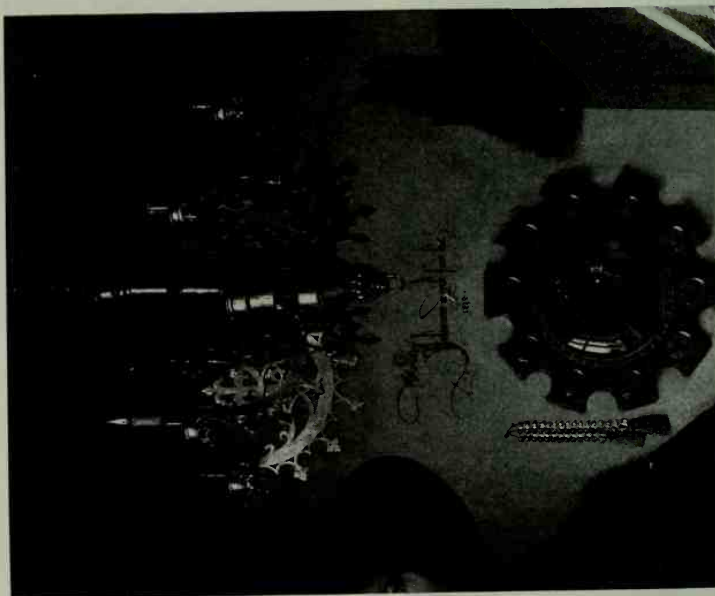


STOEDTNER

Figs. 15.1-3 John Van Eyck.
The Madonna with Chancellor Rolin (to the right and above). Paris, Louvre. Upper right: *Santa Barbara*. Antwerp.



GIRAUDON



Figs. 15-4-5 John Van Eyck. *John Arnolfini and His Wife*, 1434. London. National Gallery.



Figs. 15,6-7 Desiderio da Settignano. *A Princess of Urbino*. Berlin. Kaiser Friedrich Museum.

CLARENCE KENNEDY



CLARENCE KENNEDY

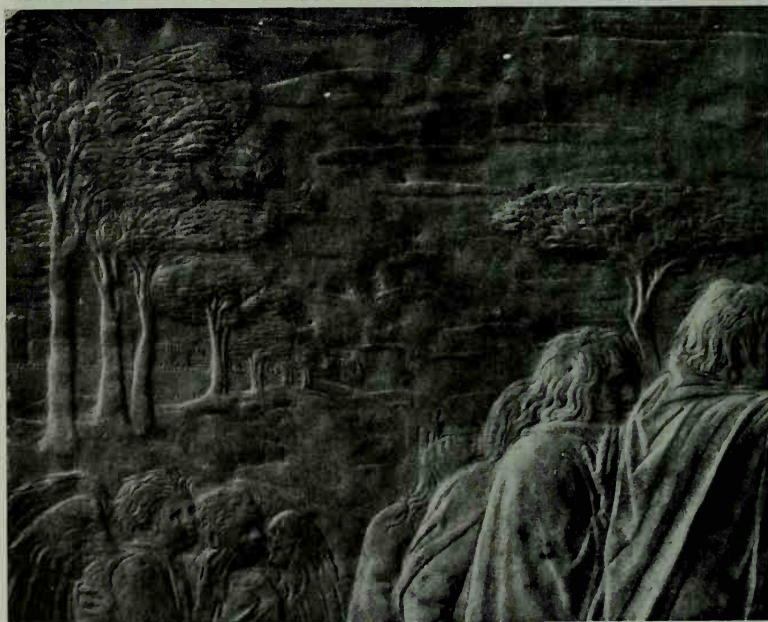
Fig. 15.8 Desiderio da Settignano. *Madonna and Child*. Turin. Pinacoteca.



Fig. 15.9 Donatello. Detail from a Madonna in the Victoria and Albert Museum, London.



BROGI Figs. 15.10-11 Donatello. Details from *Lo Zuccone*. Florence. Giotto's Tower.



Figs. 15.12-14 Donatello. Upper left: *The Head of John the Baptist Being Presented to Herodias*. Siena. Baptistery. ANDERSON. Upper right: Detail from the frame of *The Annunciation*. Florence. Santa Croce. About 1433. BROGI. Below: Detail from *Christ Presenting the Keys to Saint Peter*. London. Victoria and Albert Museum.

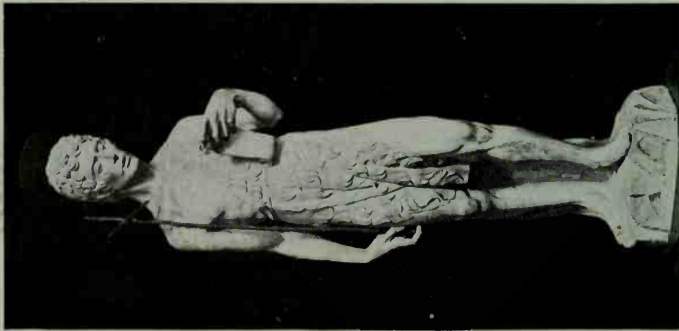


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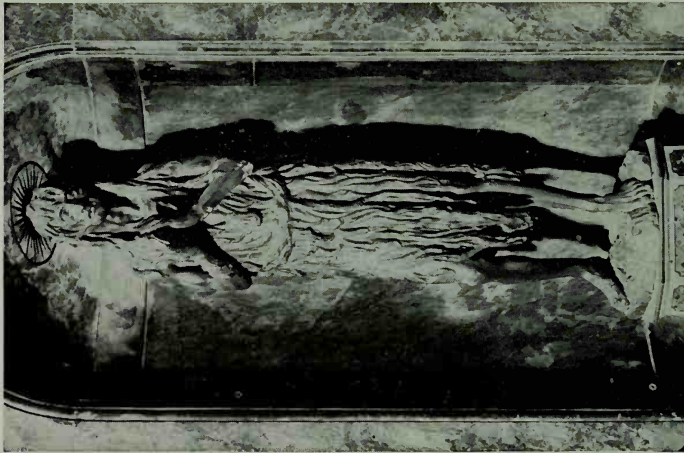
ANDERSON

Figs. 15-16 Donatello. *Gattamelata*. Padua. Piazza Sant' Antonio. 1446-1453. Height of horse and rider about 9 feet.



ANDERSON

Fig. 15-17 Donatello, *Saint John the Baptist*. Florence, Bargello.



EROGI

Fig. 15-18 Donatello, *Repentant Magdalen*. Florence, Baptistery.



ALINARI

Fig. 15-19 Masaccio, *Expulsion of Adam and Eve from the Garden of Eden*. Florence, Church of the Carmine. About 1427.

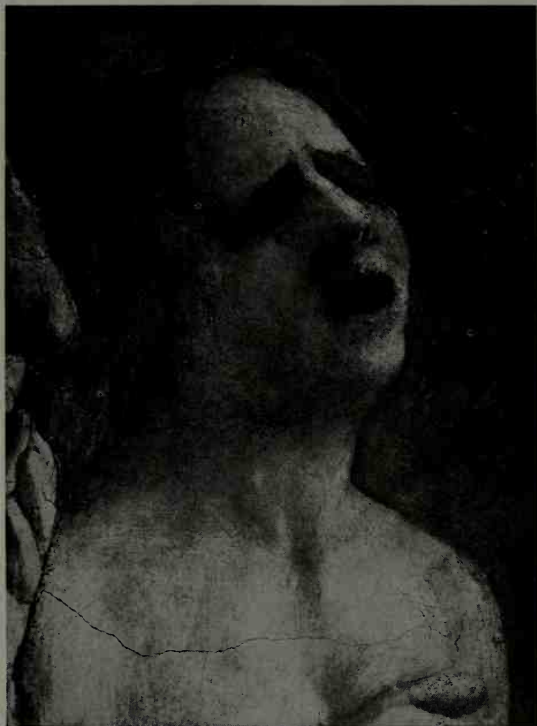


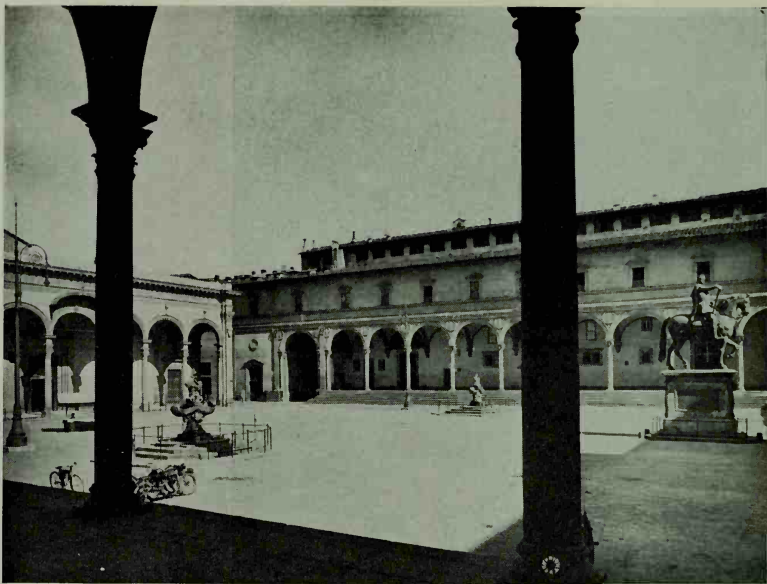
Fig. 15.20 Masaccio.
Head of Eve. Detail of
Fig. 15.19.

ALINARI



ANDERSON

Fig. 15.21 Masaccio. *The Tribute Money*. Florence. Church of the Carmine.
About 1427. Figures life-size.



ANDERSON



ALINARI

Figs. 15.22-23 Brunelleschi.
Florence. The Foundling
Hospital (above). Started in
1421. The Pazzi Chapel (be-
low). About 1430.



ALINARI

Fig. 15.24 Florence. Pazzi Chapel. Detail of Fig. 15.23.



Figs. 15.25-26 Panels submitted in the competition of 1401 by Brunelleschi (left) and by Ghiberti. Florence. National Museum.

ALINARI



Figs. 15-27-28 Ghiberti. Eastern Doors of the Baptistery at Florence, 1425-1452. Panel with *The Sacrifice of Isaac* (left) and detail showing *The Creation of Eve*. BROGI.



BROGI

Fig. 15.29 Jacopo della Quercia. *Creation of Eve*. 1425-1438. Bologna. San Petronio.

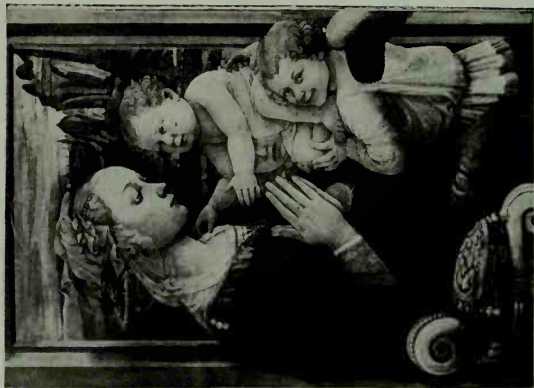


ANDERSON

Fig. 15.30 Fra Angelico. Detail from *Death and Assumption of the Virgin*. Before 1430. Boston. Isabella Stewart Gardner Museum.



Fig. 15.31 Fra Angelico. *The Annunciation*. About 1440. Florence. San Marco. Fresco. $7\frac{1}{2}$ by $9\frac{1}{4}$ feet.



ANDERSON

Fig. 15.32 Fra Filippo Lippi. *Madonna*. About 1455. Florence, Uffizi. Tempera on panel 25 by 36¼ inches.



ANDERSON

Fig. 15.33 Antonio Pollaiuolo. *Hercules and the Hydra*. Florence, Uffizi. 4¼ by 6⅜ inches.



ALINARI

Fig. 15.34 Botticelli. *Madonna of the Eucharist*. 1470-1474. Boston, Isabella Stewart Gardner Museum. Tempera on panel 24¾ by 33 inches.



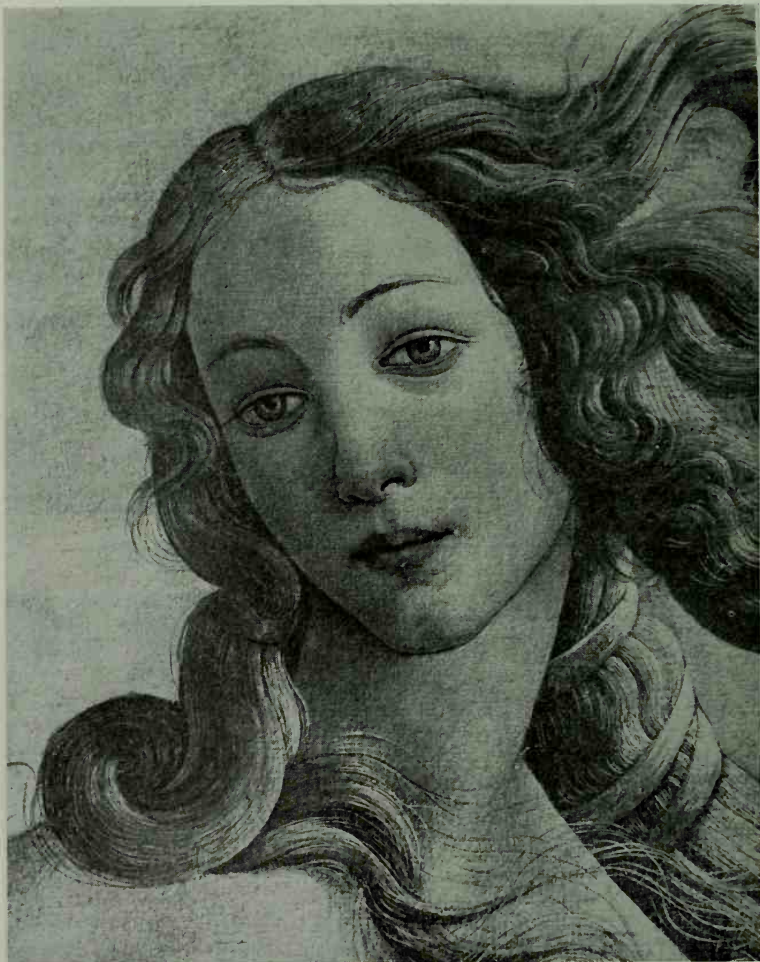
ALINARI

Fig. 15.35 Botticelli. *Allegory of Spring*. Florence. Uffizi. About 1478.
Tempera on panel 6 feet, 8 inches high.



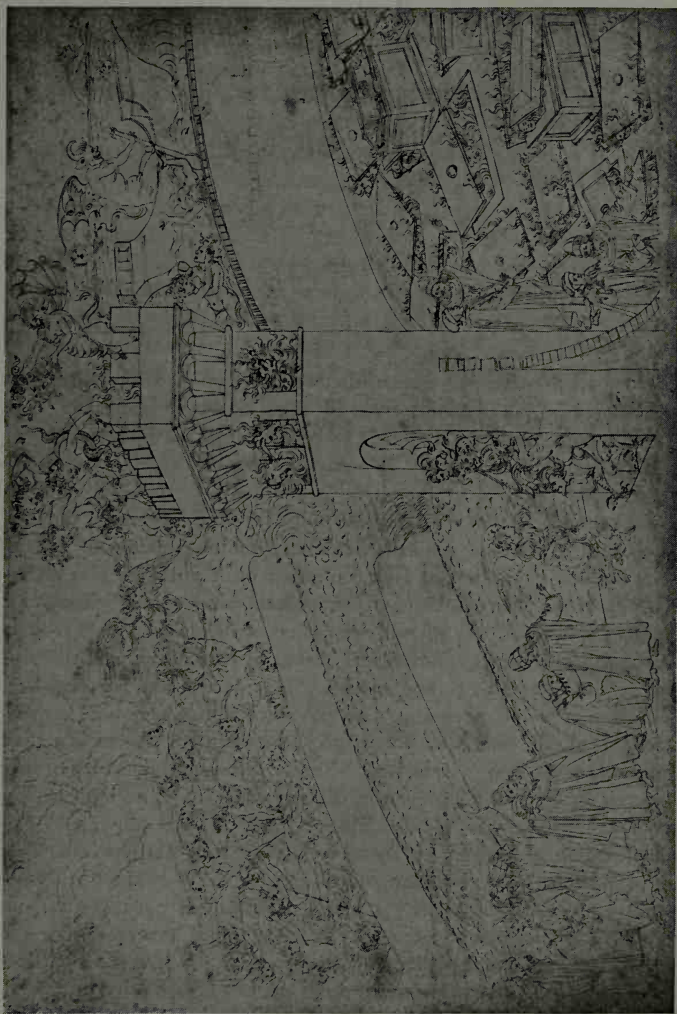
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Fig. 15.36 Botticelli. *The Birth of Venus*. Florence. Uffizi. About 1485.
Tempera on canvas 8 feet, 11 inches by 5 feet, 3/4 inches.



ANDERSON

Fig. 15.37 Botticelli. *The Birth of Venus*. Detail. Head of Venus. Florence. Uffizi.



ANDERSON

Fig. 1538 Botticelli. Illustration for Dante's *Inferno*. Canto 9. Rome. Vatican Library. Pen and ink on parchment.

"Where in a moment saw I swift uprisen the three infernal Furtes

stained with blood, who had the limbs of women and their mein, and with the greenest hydras were begirt; small serpents and cerastes were their tresses, wherewith their horrid temples were entwined."

15

THE EARLY RENAISSANCE

The start of the Renaissance marked the beginning of modern civilization. The new era may be said to have arrived by 1400, or shortly thereafter; and we shall find it convenient to recognize two subdivisions: the 15th Century is appropriately known as the *Early Renaissance*, and the 16th as the *High Renaissance*.

The cause of the Renaissance was not the revival of classical studies; the ferment of classical enthusiasm which so dominated the imagination of several generations did not, as a matter of fact, commence until all the decisive philosophical decisions had been made and all the modern values generally accepted. The Renaissance, in short, was not what the name seems to say: a mere rebirth of classical culture. It was a fundamental change in human nature. All society joined in the belief that certain specific things were worth working for, worth having, and worth defending. The very same things have been central in our motivation ever since, and give a specious validity to the old saw that "human nature is the same everywhere." Grossly wrong if applied to all humanity and all history, the notion is approximately accurate if we limit its application to the inhabitants of Western Europe during the past 500 years.

As demonstrated in Chapter 13, the new point of view did not come as a sudden burst of light; there were signs of it as early as the West Porch at Chartres (pages 522-524). The actuality of the Renaissance did not depend upon the existence of its fundamental concepts in a few minds, however; it was a matter of the universal acceptance of those concepts as self-evidently true. The ideas to which we refer are summed up in the words *humanism* and *individualism*, and in the phrase *belief in the value of the world*. Because all the art we are still to survey amounts, in spite of its great variety, to a single celebration of the beliefs just named, it is time to explore the philosophy of the Renaissance more thoroughly than we have yet done.

The emergence of human nature in its modern form coincided with the period when the medieval church was declining from its former position of dominance in European society. While outright paganism was conspicuous in the behavior of certain individuals, it would be a mistake to infer that religion lost all its meaning, or even most of its meaning. Many of the most brilliant leaders of the period, the very men whom we remember as actual builders of the modern world, were profoundly sincere in their faith: Pico of Mirandola, for example, and Marsilio Ficino. The change should be thought of less in terms of a negation of the religious values, and more as an awakening to the worth of things of which the medieval mind had been comparatively unconscious, or of which medieval society had been taught to be ashamed.

More was involved than the mere act we attempt to describe as the opening of eyes to the wonder and beauty of the world. Even more was involved than the actual placement of hope and belief in our life here as mortals. The Western world crossed the great divide, it would seem, when people began to feel confidence in the possibility of human achievement. The thing that best characterizes the attitude typical of the Renaissance is the feeling that one holds a map in his hand which shows the road to fulfilment of the heart's desire. Seeing life as an equation between himself and the environment, Western man has undertaken to subdue nature and make it work for him. The actual exploration of the globe coincides with the period we now study — also, the beginnings of modern science. Since the 15th Century, the resources of the planet have been mapped in circumstantial detail, and the physical laws of nature have been codified by methods increasingly and stupendously precise and refined.

The artistic counterpart to the age of exploration and research was an increased realism. With respect to the human anatomy, the realists of the Renaissance cast off every vestige of medieval prejudice. Nudity lost its connotation of shame. Anatomical investigation of the entire body became a routine part of artistic training. Dissection presently extended the knowledge of artists beyond the limits of surface examination. As an artistic vehicle, the nude regained something like its ancient usefulness; but as distinguished both from the classical nude and from Gothic realism, the anatomy in the average Renaissance statue or picture is more intensive in its correctness. More than adequate for their immediate purpose of carrying content, such figures might often be mistaken for biological studies — which in fact they are.

With respect to the representation of space, a working knowledge of perspective and foreshortening was replaced by stricter standards. The convergence of lines to a vanishing point, and consistency therein with regard to

every object in the picture, was insisted upon in art as severely as it might be demanded today in an engineering school. The result was to call into being standards of draftsmanship the like of which the world had never seen before. The second- and third-rate artists of the Renaissance, if we may for the moment judge them only by their capacity to represent accurately, had a technique beyond praise. As for the great men, we need merely to recall that Michelangelo felt he might sneer at Titian because "Venetians cannot draw." Everyone, then and now, concedes that the remark was his privilege, but no one else can have the same privilege.

Atmospheric perspective was hardly susceptible of the same reduction to rules; conditions of light and atmosphere permit too many variations. Although often disregarded as superfluous by artists who preferred to paint in the Mode of Relief (pages 582-586), the subject nevertheless received thorough investigation. When precise linear perspective was combined with a scheme of tones calculated to induce the sensation of space and distance, representative painting attained an unprecedented power to convince. Pictures began to assume a verisimilitude that is often startling even today when the world has had a long time to get used to it.

The convention of exact representation was only one way by which art reflected an acceptance of the world. The cognate idea of man's place within the environment found an outlet in various manifestations which, in one way or another and from this angle and that, expressed and recorded a new consciousness of the self. We have summed up that new consciousness with the phrase *human dignity*, which is an abstraction. Without denying that the grand abstractions run the show at all times, what of the particular notions which served during the Renaissance as impulses to govern action — including the creation of the works of art which stand as monuments to the hope and belief of that time?

Power is one of the values that came in with the Renaissance. Beginning with the 15th Century, a certain measure of personal power, hitherto reserved only for the great, began to be looked upon as a human right. Since that time, every man might be counted upon to seek at every opportunity an increase in the power he already possessed. In the overwhelming majority of instances, the forces of public order have compelled people to seek power in the milder form we call wealth, and to use it with varying degrees of moderation. The forces of public order have never in themselves reflected a disbelief in the value of power, even though they have restrained it. They represent, rather, the collective effort of lesser individuals to protect their own sphere of anarchy. To restrain individualism, that is, in the interest of human dignity.

The urge to power has often been in conflict with human dignity, since

power so commonly implies the subjection of others to a single will. The co-existence in the same mind of the divergent impulses is one of the paradoxes of modern civilization, but the two ideas have nevertheless often functioned as one, with results propitious to the culture of the race and especially to its art.

In order to live as befits his dignity, the individual must have power to regulate the circumstances of his daily routine. During the Renaissance, countless persons began to ask for more than mere protection from the elements and a diet sufficient to keep them alive. They felt entitled to comfort and to health. Having that, it was taken for granted that a man would strive for still further improvement of his lot on earth: for a house that provided beauty in addition to comfort; for food that was pleasurable as well as nourishing; for clothes that were handsome over and above being adequate; for tools, utensils, and weapons which were articles of choice; and for a code of behavior that lent ceremony to the conduct of business both at home and abroad. Carried to an extreme, the process described results in display, a vice all too often illustrated in the history of art. In a more genial form, the combination of power and dignity has demonstrated elements of nobility, and has certainly affected art for the better.

In order to understand the art we are to study, we must appreciate that it most often expresses the feelings of persons who believed that man can realize his highest good by being true to himself. That, essentially, is an artistic concept. Everything hinges upon the individual's confidence that his body, his mind, and his personality constitute an artistic medium, potentially responsive to the creative imagination. The activities of his life are, by extension, a work of art also. His home and possessions logically become a setting. As a doctrine consciously held, the concept of life as a work of art awaited overt expression until the High Renaissance, when it was stated in words as plainly as we state it here (page 713). The incipient force of the thought may be discerned, however, much earlier. How else are we to account for the more vital quality of personality, as imponderable and as actual as an electric shock, which literally stares out at us from even the slightest objects of Renaissance art (Figs. 15.6-7)?

Success in the humanistic endeavor, as just described, has never been universal; but whenever a man of special powers extended himself to the full potential of his personality, the event was conspicuous and the man became famous. Because fame, coming soon or late, almost always arrived for those who approached the common ideal, humanity leapt to the assumption, perhaps an illogical one, that fame itself was a reward and a fulfilment. Even power came to be thought of as a mere steppingstone to the higher good of fame; few men

have been content with the reality of the former if denied the prominence that ordinarily goes with it.

Fame has probably been the closest thing to an absolute known in the workaday world. "In my mind's eye," once wrote Lord Nelson, "I ever saw a radiant orb suspended which beckoned me onward to renown!" The same statement might have been made by any other successful man during the past five centuries; and in saying what he did, the great admiral gave expression to the point of view the modern world has substituted for the medieval beatitude of salvation. Unable to live very long, people have projected themselves toward eternity by doing something to get remembered by. As death approached, how many a man has laid down with comparative equanimity all that he ever had in the comfortable thought of leaving a reputation behind him!

The general acceptance of fame as a desideratum has been amply reflected in the history of art. The remarkable thing to contemplate is the complete success enjoyed by those wise enough to employ first-rate artists for the purpose of making their names and personalities immortal. The reader needs merely to page through the earlier illustrations of this book to find numerous examples of men and women who would be totally forgotten except for the existence of statues and pictures; and in the periods to be covered below, let him note the increasing incidence of personal monuments. We refer not only to portraits, but to the identification of great enterprises with personalities, culminating in the colossal extravagance of Versailles (Fig. 17.1) built by Louis the 14th because his minister Colbert shrewdly propounded the policy that "a king is known by his monuments."

Another aspect of the belief in fame was the way in which works of art gradually became something more than a reflection of the desires of the patron, however great he might be. Giotto's frescoes are not remembered in the name of the donor Scrovegno; we think of them as the personal monument of the artist. Giotto was an early instance of what has been commonplace since. In this chapter, we embark upon an era when artists insisted upon signing, recording, and even boasting of their artistic achievements. Recognition has been necessary or they could not breathe.

In that latter connection, it is important for the reader to understand that most of the good artists got prompt and generous recognition. Giotto and Simone Martini, we have already mentioned; both lived and died as esteemed citizens of Italy and the world. Fra Angelico (pages 645-649) found it difficult to keep free from the unsought honors and responsibilities which were thrust upon him. When Raphael died in 1520 and when Michaelangelo died in 1564, the whole world mourned and the bodies lay in state like those of emperors. Rubens (pages 815-817), remembered by us as a painter, was esteemed

in his own time almost as much for his sagacity as a diplomat. Sir Joshua Reynolds (1723-1792) associated on terms of friendship with royalty, and with the intellectual élite around Dr. Johnson. He also accumulated a very large fortune.

For something over 400 years, the profession of artist held out to ambitious young men a glittering hope for the future. The artists cited in the paragraph above were typical; any number of others might be named to draw the same illustration. It is important to appreciate that in every instance, the foundation of fame and fortune was neither birth nor luck, but good art; and it is specially important before we turn to specific matters to realize that the situation just summarized changed radically for the worse during the 19th Century. Not until then, did any good artist find himself compelled to sacrifice a single comfort or decency of life as the cost of doing the work he wanted to do. Not until a hundred years ago, more or less, did any great artist lack for money and friends. Because neither the present author, the present reader, nor any living artist has witnessed anything like the conditions of art during the Renaissance and later, the human tendency to judge from our own experience must be sternly governed.

As he considers what we have set forth above, the reader must be forcefully reminded that wherever we have referred to *man* we have meant not the human race, but the population of Western Europe and its derivatives in North and South America. The philosophy of humanism was peculiarly a European product. It was often debased into materialism, and has acted in that form as a sanction for the worst kind of behavior. In innumerable instances, however, humanism has brought about the results visualized by its most ardent advocates.

During the past few centuries, European culture has been permitted to maintain an autochthonous growth. The products and the customs of Europe have often moved outward to affect other regions; but there has been little influence, and until World War II certainly no impact, from the other direction. The present indications, if we may be permitted a guess, are that the Renaissance ended in 1914. Certainly 20th Century art betokens a change in the standards described above; but to that matter, we must return in Chapter 19.

FLEMISH PAINTING DURING THE EARLY RENAISSANCE

Realism was the most important feature of all European art during the 15th Century. There were two main centers of production, Flanders and Italy.

Donatello (pages 617-626) was the dominant figure at Florence, and that city was by far the most important center on the peninsula. Almost exactly contemporary with him was John Van Eyck (about 1380-1441), who with his brother Hubert founded the Flemish School and set the style for all the art north of the Alps. Because his work continues without a break the tradition of Late Gothic Realism (pages 539-542) we shall deal with it first.

The most famous monument connected with the name Van Eyck is the altarpiece of *The Adoration of the Lamb*, colloquially known as *The Ghent Altarpiece*, set in place in the church of Saint John (now Saint Bavon's) at Ghent during the month of May 1432. The work is a very large triptych, with two side panels hinged to open out in panoramic fashion, or to close from either hand and thus cover the middle section. Paintings appear on both sides; and, depending on how we count them, some twenty subjects or more are depicted. It will be seen that the monument is not a picture, but a collection of pictures. For that reason, and because the handling of detail is meticulous and minute, the illustrations so often published in books of normal size are intolerable. Large colored plates are necessary in order to give any notion of the whole, and numerous details at full size are requisite if the student is to construct an adequate visualization of the original. Such being impractical in this volume, we refer the reader to several monographs where he will find them.* Herewith, we will merely set down a few directions which will tell him what to look for.

The main face of the *Ghent Altarpiece* is an arrangement of panels in two registers. The upper register consists of seven separate panels, of which five are tightly filled, each by a large single figure seen in close-up. It is doubtful whether the upper seven panels were ever intended to go together, and much more unlikely that they were meant to be shown in their present juxtaposition to the single panoramic composition in the lower register.

The lower register consists of five panels; but, as indicated, a landscape background runs continuously across all five. In considerable contrast to the paintings above, the lower composition shows a great many small figures within a deep space. How are we to account for its incongruous and unfortunate position in relation to pictures which, if equally good of their kind, are patently quite a different and incompatible type of painting?

* Leo van Puyvelde, *The Holy Lamb*, Paris and Brussels: Marion Press, 1947.

Ludwig Baldass, *Jan Van Eyck*, Phaidon, 1952.

Emile Renders, *Jean Van Eyck*, Brussels, 1950.

See also a forthcoming work by Erwin Panofsky, presently to be published by the Harvard University Press.

Life Magazine, Vol. 26 No. 16 (April 18, 1949), has a short explanatory article accompanied by good colored plates.

On the assumption that the original designer intended to have the pictures as we now see them, the suggestion has been made that the upper register may be considered as heaven. Thus, the bearded Christ who fills its center panel can be understood as sitting directly above the lamb of the lower register, which would be his symbol on earth. Such an idea smacks of borrowing from Raphael's *Disputa* (pages 730-731), and imputes to an accomplished master an unusual lack of taste in the matter of artistic harmony.

The simplest explanation is probably the true one. According to tradition and to an inscription on the original frame, the work was begun by Hubert Van Eyck (pages 541-542) and finished by his younger brother John. Hubert appears to have died at Ghent in September 1426, at which time John was in Spain on a mission for the Duke of Burgundy. Upon his return, John was probably pressed by the donor, Jodoc Vydt, to complete the commission as best he could, but his official duties prevented his giving the matter full-time attention. We may therefore make the further guess that John finished up whatever panels he happened to find in his brother's shop, and assembled them into an arrangement that has a certain iconographical coherence. He probably realized as well as we do that artistic unity was lacking, but he also knew perhaps better than ourselves that he was giving the donor a small museum of the finest representative painting in the world.

The iconography of the picture in the lower register is of special interest, and requires explanation. There is no agreement among scholars as to particulars; but the imagery certainly has something to do with the following sources. Some of it apparently reflects John I:29, and the 7th, 14th, and 19th Chapters of the Book of Revelation. It seems also to have been influenced by Jacobus de Voragine's *Golden Legend*; and the reader will do well to peruse his chapter on the Feast of All Saints, where he describes a vision seen by the sacristan of Saint Peter's. Certain details thereof appear to be reflected in the picture.

Insofar as the meaning may be summed up briefly, the theme has to do with the idea of redemption through the Blood of the Lamb. An altar and a fountain are placed on the central axis of the main panel. The Lamb stands on the altar. From his breast, a stream of blood flows into a chalice; this, presumably, becomes (by a mystic process) the water issuing from the fountain below, upon the base of which we find an inscription adapted from the 22nd Book of Revelation: "This is the water of the river of life proceeding out of the throne of God and of the Lamb."

Angels kneel on the grass around the altar; some swing censers and others carry the instruments of the Passion. Four processions converge toward the sacred area. From the left come Prophets and Gentiles, followed by Knights of Christ and Just Judges. From the right, Apostles and Confessors, followed by

Hermits and Pilgrims. A group of Virgin Martyrs is seen approaching from the right-hand middle distance; and a group of male martyrs from the left. Out behind, a superb landscape opens up into the vastness of the sky, the horizon line being broken by fanciful buildings in the Late Gothic style.

Among the seven pictures of the upper register, the *Adam* and *Eve* are the most important. Neither is in the least a pleasant figure, but either or both may be said to constitute a historical landmark of the greatest importance. For the first time since Antiquity, the public found itself confronted with two human nudes rendered on a large scale with meticulous accuracy by an artist who was technically competent to do it. It may be contended that neither figure demonstrates any significant use of the revealed muscles as a vehicle for the communication of an emotion or state of being (as the Greeks had done, and as the Italians were almost immediately to do), but no one can quarrel with Sir Martin Conway's passing remark that the work literally bristles with intelligence.

The special flavor of John Van Eyck's work is best discerned in his single panels of simpler iconography, of which the *Madonna and Chancellor Rolin* (Figs. 15.1-2) may be taken as typical. The figure of the Madonna is somewhat heavier than average, but is otherwise typical of the type that remained popular in Flanders for a hundred years thereafter. The peculiar arrangement of the hair (tight across the head and caught back from the ears, but hanging free in a long bob over the shoulders) remained constant for a very long time. Likewise the high-waisted costume, with a voluminous over-mantle which spreads out over the floor and gives the whole figure a more or less triangular silhouette.

The two most important features of the Flemish style are well illustrated by Fig. 15.2. It was apparently a matter of pride to describe every detail with an intensity which recalls the Irish manuscripts (pages 305-310) and fits the northern tradition in general. The smallest wrinkle in the skin, even the stubble of the beard, received an analysis reserved by most painters for the tonal modulations of a mountain or a valley. The work must have been done with the aid of a lens, and we may therefore name the Flemish convention in that matter as *microscopic*. For the equally meticulous description of distant landscape, the Flemish custom is more expressively referred to as *telescopic*. As technical terms, both words will be found useful whenever we wish to have an antonym for *impressionism* (page 168). Call it microscopic or telescopic as the case demands, the more closely we examine detail in Flemish paintings, the more we see.

For the rendering of space, the Van Eycks originated a color convention

that remained standard in northern painting for a century and more. Most of the pictures have natural boundaries which divide the setting into a well-defined foreground, middle ground, and distance. Warm tones and strong contrasts of hue are reserved for the foreground. The middle ground usually contains a mixture of warm and cool tones; but in the distance, warm tones are avoided, and everything is pulled into a common tonality of rather strong blue-green. Often stated to be in accordance with the observed arrangement of color in nature, the sequence described appears in actual landscape only under special conditions. In particular, the intense blue-green of the distance is rarely observed except when the sun is obscured by pure white clouds immediately after a rain storm. In New England and New York, especially during the months when leaves are on the trees, the effect may be noted at such times, but only for a brief period before blue sky emerges again.

No one can say whether the tradition is correct which names the Brothers Van Eyck as the inventors of oil painting, but they were surely the first important masters to use that vehicle extensively and explore its possibilities to the full. The precise nature of their medium still defies analysis, although several modern researchers have arrived at similar results. The process was nothing like the linseed oil painting in common use today, for which reason a brief summary of the method will prove illuminating.

Most Flemish paintings are on wooden panels. First, the surface of the panel was covered with a ground of fine cement (called *gesso*), which gave a smooth surface to paint on. The entire picture was then drawn in ink, and the modeling carried out in neutral monotone. The appearance at that stage would be very much as we see it in the little *Saint Barbara* (Fig. 15.3).

The next step was to apply color. Most of the Flemish paints were transparent; properly, they should be referred to as *varnishes*, or *glazes*. They were apparently used not in a liquid state, but thick and stiff like glue. After each field had received its glaze, the viscosity of the latter permitted prolonged work with the brush. The glaze could be made thinner here and thicker there simply by stroking it with the bristles in the right way, and the result would be to refine the tonal modulations already established by the monotone painting below.

The system was very long drawn out. Today, when there has been so much recent emphasis upon the value of spontaneity, the Flemish oil technique often seems unbelievably tedious, but it had certain virtues that deserve emphasis. It produced pictures which still gleam like jewels; the problem of preserving them is not a problem of preserving the paint, but a problem of maintaining the wooden panels. Correction, which is so easy and so much abused when

painters use opaque pigments and linseed oil, was so difficult as to be impractical; that fact made it necessary for the painter to visualize the completed picture in minute detail before he began. As compared with methods which permit him to be more easygoing, the Flemish procedure was admittedly severe, but it induced a thoroughness and maturity of consideration which makes the pictures seem "right" in a way that is all too rare. For those technically interested, moreover, there is a special beauty in the precision with which every surface, however small, is intimately expressive of the master's intention.

In addition to the virtues just cited, Flemish oil offered still another quality of the utmost interest to painters and patrons who were literally inspired by the idea of representation. With respect to making strong intensities of hue available at low values, the new vehicle was and remains second only to mosaic and enamel. When using oil, it was no longer necessary to reverse the tonal sequence of nature (page 584) in order to get pictures that were colorful. The properties of the medium seem to have invited painting in the Mode of the Total Visual Effect (pages 580-582); and John Van Eyck, if not inventor of that mode, was the first great master to make full use of it.

The picture which most perfectly exemplifies his accomplishment in such endeavor is the *Portrait of John Arnolfini and His Wife* (Figs. 15.4-5). There was no earlier and there still is no more remarkable demonstration of the proportional compression of nature's value scale into that of paint. The subject was extensive. Many fields were involved, each with its special relation to the source of light. The play of light was greatly complicated by reflections, and by the capacity of various surfaces to reflect. The technical problem was, in fact, too ramified and difficult to permit adequate description in words; but even as seen in our small book plates, it is immediately plain that the subtlest variations of value and hue were rendered with an unbelievable consistency and accuracy. The figures and objects seen in the picture give no suggestion of colored sculpture. There is also no suggestion of light controlled in some unnatural way. The picture stands as perhaps the first instance in the history of the world where a painter was able to arrive at a complete realization of existence in air and space.

At the moment when this is written, most of our leading artists have set aside the principles of realism. Their reasons form part of the business of Chapter 19, but the publicity attendant upon their effort has brought about in art circles something resembling a bias against the kind of painting upon which John Van Eyck expended so prodigious an amount of energy, intelligence, and technique. What merit and value did he see in representative painting? What made him undertake the effort?

It is hardly enough to point out that representation challenged artists during the 15th Century because so few of them could do it. It is true that the creative mind thrives on the zest of a new thing; but experiment for its own sake, while stimulating to the technical imagination, has never in and of itself produced any great art.

Certainly the Arnolfini portrait cannot be called great because of its subject matter. Arnolfini was the Medici agent at Bruges. Presumably he was financially shrewd or he would not have held that position; but it would be hard to find a more hateful face, figure, or spirit in the entire history of art. His young wife, about to have her first child, is insignificant. There is, in short, no nobility or profundity of character to be interpreted or expressed; and the value of the picture, if any, must be sought on some basis completely different from the approach which leads us, for example, to an explanation of Giotto.

Perhaps the best way to suggest the greatness of John Van Eyck is to point out that he lived at a time when modern science was just beginning, and when there was as yet no distinction between the painter, the philosopher, and the scientist. He devoted himself to visual observation in all its ramifications because it seemed to offer one road toward understanding the environment, a desideratum which in that generation looked identical with wisdom and meaning. His northern background suggested that such investigation must be intense, omitting no detail, for all northern art from the beginning had been conceived as a synthesis of infinite detail. But lest the student dismiss such work with the epithet "photographic" and lest he imagine that the painter was a bore who got that way because he tried to tell everything, let him stop and consider the exhaustive nature of Van Eyck's accomplishment. Such painting is completely beyond the capacity of any ordinary realist. It reflects an investigation so thorough and intelligent as to transcend the mere facts of appearance; it sprang from a knowledge of light and color (and of methods for recording knowledge in paint) which partakes not of ordinary life, but of celestial physics. A realist of that magnitude may be said to have lived on a lofty plateau. It is true that Van Eyck denied himself personal and even human expression, but his exposition of visual truth betokens a singular and reverent humility. If his unlovely pictures have beauty, they have the beauty of infinite law.

Followers of the Van Eycks

The work of the Van Eycks started a tradition that lasted over a hundred years. Important not only in Flanders but everywhere else, their style may be said to have dominated the taste of Europe until the end of the 15th Century,

and in some places even longer. Only in Italy was there enough independence of mind to produce artists who did not attempt to imitate the Flemish style; but even there, future research is likely to reveal more influence from the north than we commonly suppose.

The endurance of the style established by the Van Eycks was to a great extent a function of the guild system (pages 550-552), which was more strict and efficient in Flanders than elsewhere. It prevented the production of bad pictures for a century, but one has to concede that as a monument of the human intellect, the work of the founders stands alone.

The most important master in the period immediately following the Van Eycks was Roger van der Weyden (about 1400-1464), sometimes called Rogier de la Pasture. A more introspective painter than the Van Eycks, he was peculiarly concerned with the element of tragedy in the Christian story, and with interpretive portraiture.

Hans Memling (about 1433-1494) and Hugo van der Goes (about 1430-1482) stood out as leaders in the next generation. The latter has a special if fortuitous distinction because he was the author of the *Portinari Altarpiece*, a large panel depicting the *Adoration of the Shepherds*, now in the Uffizi. As the name implies, it was done for an Italian patron. He shipped it to Florence, probably about 1477. One sometimes hears it said that its arrival converted the Italians to oil painting, a statement which is untrue by about one generation. It is no exaggeration, however, to mention that the wonderful Flemish colors, to say nothing of the magnificent way in which space was represented, made a sensation in the town which was then the cultural capital of the world. For the next two generations, the student-painters in Italy studied Hugo van der Goes with almost the same care they accorded to the work of their own Masaccio.

The latest master who can be described as a Van Eyck derivative was Gerard David (about 1460-1523). If we take any earlier Madonna from the Flemish School and compare it with his *Rest on the Flight into Egypt*, now in the National Gallery at Washington, it will be easy to draw up a long list of similarities. There are a few differences, but they are not immediately obvious.

It was not until the arrival of Hieronymous Bosch (about 1462-1516) that the north produced a master of sufficient force to make a significant change in the style set by the Van Eycks. His work is dealt with in the next chapter.

Between the art of 15th-Century Flanders and that of Germany, there existed the most obvious parallels. The sculptors Veit Stoss, Adam Kraft, and Tilman Riemenschneider all used a figure-style similar to the Flemish painters. The same thing may be said of Conrad Witz, a remarkable painter of light and space, who worked at Geneva and Basel. Because there is some doubt about

direct contact between Switzerland and Flanders, Witz's career serves to strengthen the probability that 15th-Century realism rose like the tide, being caused by no man. Martin Schongauer, who did his best work in black and white prints, continued the Van Eyck tradition until the very end of the 15th Century. He spent most of his life at Colmar.

France, during the 15th Century, was likewise an artistic province of Flanders. Nicholas Froment, Enguerrand Charenton, and the unknown Master of Moulins can be distinguished by the expert as French; but the learned often overlook the obvious: in all essentials, those masters were provincial Flemings. The anonymous artist who painted the famous *Pietà of Villeneuve-les-Avignon*, now in the Louvre, and the painter Jean Fouquet were men of a different stripe. Their Flemish affinities are evident, but both were capable of strong abstraction in a startlingly modern manner.

The recent researches of Chandler Post have furnished the world for the first time with an authoritative and reasonably complete catalogue of Spanish painting of the 15th Century. From that great effort of scholarship, one of the most extensive ever undertaken singlehanded, the most important conclusion to be drawn is that Spain, like France and Germany, was largely dependent upon Flanders for the style of its painting. John Van Eyck had been there in 1428-29. He came not to paint, but to negotiate for a royal marriage; but his visit established the prestige of Flemish art in Spain. Paintings and tapestries from the Low Countries were continuously imported; and even Isabella, an enthusiastic collector of Roger van der Weyden, preferred to hire Flemings rather than Spaniards. It was no accident, therefore, that native masters like Fernando Gallego and Bartolommeo Bermejo, both active toward the middle of the century, imitated the northern style.

THE EARLY RENAISSANCE IN ITALY

Donatello and the Style of the Early Renaissance

Realism was as strong in Italy as in the north during the 15th Century. To a surprising degree, any attempt to characterize Italian realism of that period tends to evoke the very same words and phrases we have already used in our treatment of the Flemish masters, but every person of ordinary emotional sensibility feels and knows that there was a great difference between John Van Eyck and Donatello. The difference is not easy to locate or describe; but if the reader will make a general examination of the work of both schools, it is likely he will arrive at the conclusion that humanism and individualism were more vital in Italy. Donatello's *Zuccone* (Figs. 15.10-11) is not the statue of a handsome man. Indeed, the sitter was quite as homely as Van Eyck's Arnol-

fini (Fig. 15.4). But the Italian figure seems far less to be the subject, and much less the victim of the world. Every muscle is instinct with life and power; and if the face is wrinkled with the struggle of an intense life, one feels that the effort still goes on. The difference between the Italians and the northerners seems to be that the Italians expected to get somewhere. Progress was the standard assumption, and victory was freely entertained as likely.

In the matter of style — and let us consider it for the moment merely in its mechanical and physical aspect — there was also considerable difference between Italy and Flanders. Flemish realism originated with painters, and the Flemish artists explored in thoroughgoing fashion the tonal relations of nature and the representative possibilities of paint. The Italian painters, as briefly indicated in Chapter 14, continued to use the Mode of Relief throughout the whole 15th Century and in some individual instances much later. The reason is not far to seek.

In Italy during the first generation of the 15th Century, we may recognize two distinct styles: that of the sculptor Donatello and that of the painter Masaccio. Masaccio, while always revered, had little direct and practical influence on art until the High Renaissance, when his epic manner came into its own. It was Donatello who fathered the style that became typical of Italy during the Early Renaissance. It may have been a mere matter of chance that he happened to be a sculptor. Or his choice of medium may itself have been an instance of emulating the ancients, for it is a fact that most of the visible ancient monuments which represented the human figure were pieces of sculpture and not paintings. At any rate, Donatello was the artist who, more than any other man in his generation, had the peculiar power of impressing himself upon his contemporaries. Where he led, the other artists followed. Although demonstrated some forty years ago by Chandler Post and Arthur Pope, and although the fact has been and is known to every art historian, the priority of Donatello, and its effect on Italian art, have rarely been emphasized with the proper vigor.

From the standpoint of one who wants to understand, the crux of the matter is to appreciate that the Italians of the 15th Century considered sculpture and painting as being interchangeable. Recent criticism has been concerned, and probably too much so, with the internal logic of the several media. One reads much of the inherent possibilities of painting, from which sculpture is foreclosed, and vice versa. Discussion of that type seems not to have interested or delayed the artists we now consider. The reason seems to have been the existence of a general belief, perhaps a belief inculcated by the classicism that always hung in the Italian air, that mass and the shape of mass constituted the

ultimate and permanent reality of visual truth. Consciously or not, sculpture was therefore assigned a philosophical priority over painting. The result was the production of innumerable pictures, excellent of their kind and excellent with reference to any other kind of painting, where the artist's chief purpose was to make the paint simulate the plastic modeling with which sculptors dealt directly.

The style of Italy during the Early Renaissance is epitomized in the numerous half-length Madonnas of Donatello. Introduced by him at an early date in his long career, the conception became a formula repeated with minor variations by almost every artist in Italy, sculptor and painter alike. Fig. 15.9 shows a detail from one of Donatello's own Madonnas of the type mentioned; but in order to illustrate his influence upon others and because Professor Kennedy's peculiarly sensitive photograph is available, we choose to summarize the features of the type from Fig. 15.8, a Madonna in similar style by Donatello's close follower, Desiderio da Settignano.

Whether we find it in sculpture, painting, or architecture, the style of the Early Renaissance was always conceived as low relief. We possess, of course, many free-standing busts and statues; but even upon those, details of every kind were rendered with a minimum of projection and often by what amounts to a linear method (Figs. 15.6-7). The work, that is to say, was felt as an interplay of line and surface, with very little movement in and out, and with a careful avoidance of broad, dark shadows. As expressed in sculpture, the delicate modeling characteristic of the period often became a tour de force of slightness. In Desiderio's Madonna and in some of Donatello's pictorial relief (Fig. 15.14), the subtlety of surface is prodigious. Ideal conditions of light are necessary even for a decent reading of such modeling, a truth indicated by the extreme rarity of satisfactory photographs thereof.

More than one writer has correctly declared that the world was young in Italy during the 15th Century, and there could be no better proof of it than the figure-style to which painters and sculptors habitually turned when left to their own devices. The typical Madonna of the period was always a girl. Sometimes, they made her as young as seventeen; and until the time of Leonardo (pages 722-725), it is surely hard to name any Mary who might possibly be older than twenty-five. The canon of proportions was tall and slender. Such women might stand 5 feet, 6 inches tall, and weigh 110 pounds. Lithe rather than thin, the type is an active one; flesh and muscles were always shown in good training, and the texture of the skin, while often delicate, suggests the natural bloom of youth rather than any special effort to idealize.

Donatello and his followers gave these youthful Madonnas contemporary

costumes. It is very evident that 15th-Century realism governed even the sweetest subject, for the artists were mechanically accurate in the representation of clothing. One can always tell what garments were being worn, how they were made, and where they buttoned or tied. This is worth mentioning for later contrast with the customs of the High Renaissance, when clothing of the ordinary kind gave place to generalized undulations of drapery.

It is notable, also, that the favorite costumes of the 15th Century seem to have been of rather light, soft material. Most artists rendered them with innumerable small hollows and ridges, much as lighter and looser stuffs tend to wrinkle. Perhaps a concession to realistic accuracy, the effect is often far from rhythmic and in some instances unpleasantly busy.

Such were the physical conventions of the style of the Early Renaissance in Italy. Gentler than sculpture in the round, low relief gave greater relative clarity to linear passages in the hair, the drapery, and elsewhere. It also invited the most dainty differentiation of surface texture. It therefore lent itself, as a style, to a sensitive kind of painting in the Mode of Relief, which depends quite as much upon linear expression as upon color and modeling. Thus, a long series of pictures by a great many artists are, in effect, the painter's version of a sculptor's style (Figs. 15.32,34).

With remarkable uniformity, a long series of artists adhered to the formula described above; but within the limits thereof, a great variety of personal expression was possible. The high intellectuality of Donatello's Madonnas (Fig. 15.9) was peculiar to him. So was the intensity with which he so often imbued them, as though the whole tragic narrative were foreknown and too distressful to bear. Other artists, while producing Madonnas substantially the same in every physical particular, ran through an immense range of spiritual content or the lack of it. Filippo Lippi (Fig. 15.32) makes the Virgin a lyrically pretty girl who turns out, upon long acquaintance with the picture, to be nothing else. Mino of Fiesole virtually defined the word *dainty*, and Desiderio (Fig. 15.8) the word *winsome*. The learned and introspective Botticelli (Fig. 15.34) penetrated to the truth like Donatello, but made it a holy mystery rather than a human tragedy.

It is necessary to add a word about a common quality of content which remained constant in Italian art during the entire Early Renaissance, regardless of the shallowness or profundity of the individual master. 15th-Century Italian art was *intimate*. Pictures, statues, and reliefs were almost never above life size; most of them are comparatively small. Almost all were designed to be shown at the eye level. When looking at them, the natural impulse is to walk up within three or four feet, and often to come closer for the inspection of

special areas. The persons seen in painting and relief are brought forward in the frame, as it were, on that assumption, and the statues are similarly easy to construe as persons in the same room with us. Attitudes, postures, costumes, and facial expressions lack self-consciousness; the guarded dignity of a ceremonial appearance is absent. The cumulative effect of all these things is to give the impression that one has come into personal relation, and has been permitted to share the private feelings of the sitter for a portrait, the Madonna, a saint, or anyone else who may have appeared in the art of the period. Such an experience is peculiarly endearing, and it is no wonder that the Early Renaissance in Italy is specially popular with American students, themselves born with a taste for informality. As a historical phenomenon, the quality just reviewed should be kept in mind as an element of contrast between the work of the Early and that of the High Renaissance.

Donatello was born about 1385 and died in 1466. His accomplishments were greater and more varied than those of any other 15th-Century artist. Only by a stern reduction to categories is it possible to convey within the available space an idea of the art of such a man. Leaving much to the future studies of the reader, we shall have to content ourselves with a few examples selected to illustrate the numerous ramifications of his work.

Like the Brothers Van Eyck, Donatello was a prime mover in establishing the representative convention, but it would appear that classical inspiration of a special kind, absent in the north of Europe, helped him on his way. As a youngster, he took a trip to Rome with Brunelleschi (pages 631-638); and there, at a formative period in his life, he was confronted with the achievements of Roman realism. That proved to be the most cogent inspiration he received, for realism runs like a guiding theme through all his immensely varied production. No one ever explored the subject more thoroughly or completely. His catalogue includes at least one example of everything that might be related to the term.

In the ordinary use of the word, his realism is perhaps best illustrated by the *Zuccone* (Figs. 15.10-11), one of several statues made to fit available niches on Giotto's Tower. Probably intended for a Job or a Habbakuk, its official title has never been used. The Florentines simply called it "pumpkin head," and so it is known. As mentioned above, the penetrating glance, the terrific arms, and the muscles tensed in readiness for the mind's next order all separate the statue from the workaday figures of Roman portraiture, and from the northern art of its own period. Physically speaking, the representation could hardly be more unsparring; but a concern with spiritual meaning — frequent in all Florentine art — permits the most unlovely body to participate in God's image.

The range of Donatello's subject matter is well demonstrated by the contrast between the *Zuccone* and a number of other works equally scientific in physical fact, but radically various in content. The well-known *Saint George*, in a niche on Or San Michele, is one of the world's best expositions of man in his twenties, the time maturity asserts itself just as the body is strongest and most responsive. Dating from 1416, it may be cited as the first modern work of art to demonstrate complete mastery over the body as an artistic vehicle. No one else could have done it at the same moment, and few would even have understood the method.

Some years later in date, but equally original from the standpoint of anatomical research, is the sandstone *Annunciation* in Santa Croce. The Mary is a feminine counterpart for the Saint George, but even more particular attention should be directed to the infants who stand as acroteria above the pedimental frame (Fig. 15.12). They are among the very first to be accurately rendered since Antiquity; and they are devastating when compared to the sublimated children of some other artists — Sir Joshua Reynolds, for example — which fact suggests that the truth can charm as cogently as it sometimes chides. The architectural frame of the *Annunciation* is notable in itself. All the details are of classical origin, but their relative size and combination is original and free, a situation generally characteristic of the period.

Not satisfied with studies of the single figure, Donatello extended his researches to embrace the entire field of pictorial sculpture. An early and important example is the relief showing *Saint George and the Dragon*, originally the predella for the statue of Saint George. Now sadly weathered, its date of 1416 certifies Donatello as Ghiberti's peer in the specialty upon which Ghiberti's entire reputation rests (pages 638-642).

Better for study, because better preserved, is the *Salome at Herod's Feast* (Fig. 15.13), a rectangular bronze panel attached to the font in the Baptistery at Siena. The monument is specially interesting as an instance of representative strategy. The displacement of things into the distance is rendered by four stages in the lowering of the relief, each stage being assigned a particular remove from the foreground. Architectural barriers separate the several vertical planes suggested by the arrangement, making the spatial relationships not only legible, but also inevitably convincing.

The *Saint Peter Receiving the Keys* (Fig. 15.14) may be cited as typical of the master's more mature and confident productions in the field of spatial representation; but as stated, the modulations of surface, upon which the legibility of the subject matter depends, are so elaborately cunning that the work is a failure unless given the benefit of special lighting.

Monumental works of art were, as already mentioned, rare during the 15th

Century, but there were a few. It was natural and even inevitable that Donatello, the world's leading sculptor, should have received the commission for the most ambitious undertaking contemplated during the entire period. We refer to the *Gattamelata* (Figs. 15.15-16), the first full-scale bronze equestrian statue since Roman Antiquity, and still the greatest on earth. The statue is at first very puzzling, for it lacks the great crashing drama which, in work of the High Renaissance and the Baroque, seems to lift us toward the sublime. Although it is a very large statue indeed, the whole method and purpose fit the wonderful perception of the Italian Early Renaissance rather than the heroics characteristic of the so-called "Grand Style" of the next century.

It may even be said that the *Gattamelata*, when seen for the first time, is not even impressive. Everybody begins by wondering why a man on so high a horse cannot put on a better show; but by that erroneous first impression, we gain an insight into the mind of the author. It presently becomes evident that the significance hinges upon the incongruity of scale between horse and rider; and that the apparent absence of any performance by either is in fact the meaningful situation with which we are presented. The general sits his mount with a stiff grace, a lifetime of military horsemanship behind him. Obviously his pose was merely habitual, and he himself unconscious of it. The bridle rein lies slack from the left hand, while the right raises the baton in a quiet, conventional gesture. The great horse underneath is tense with nervous power, a volcano of energy ready to explode into terrific action at any instant.

By what authority does the man sit so calmly in the saddle, directing, controlling, and containing strength so much greater than his own? A look at the face will give the answer. It is full of rational intelligence: the memory, the experience, and the judgment the horse lacks and no animal can have. In general terms, the statue may be described as a profound demonstration of humanism; but with greater particularity, we should point out that the content is neither formal, idealized, nor ceremonial. It would be hard to find a more public place than the Paduan square where the pedestal is raised; but even so, almost as doctors are admitted into the affairs of their patients, we are shown the private, inward character of a man.

The work so far considered will give the reader a sample of Donatello's realism in its more judicial and naturalistic aspect. Differing as they do in detail, all the examples cited above show us the artist more or less governed by the normal manifestations of anatomy and scenery. But from time to time throughout his extended career, Donatello projected his theories far beyond the ordinary limitations. In a number of his most powerful productions, he extended realism well past anything that may be construed as objective analy-

sis either of character or of form. As distinct from his rational faculty and his judgment, he permitted his feelings to enter into the act of creation. He crossed, that is to say, the vague boundary line which separates realism, or any other type of art, from *expressionism*.

Two statues of the youthful *Saint John*, both of them now in the Bargello and one shown in Fig. 15.17, are among the milder demonstrations of the tendency just described. Both are emaciated. How are we to reconcile such things with the fact that it was Donatello himself, and nobody else, who started the Renaissance tradition of the human body emerging in glory from its medieval mortification? And yet these are on the whole popular statues; the average observer finds himself fascinated by them along with the expert.

The explanation of their exotic appeal may perhaps be found in reasons that account for the state of the anatomy. Spiritual energy often drives high-minded men to exertion utterly beyond physically prudent limits. Such exertions leave their mark. A similar idealism, although a less lofty one, is part of the American fashion at the present moment; an absence of soft flesh is cultivated by male and female alike, presumably because an equation is rightly or wrongly drawn between a spare body and a good character. The reader will also recognize in this class of work by Donatello the principal inspiration for the cult of emaciation in modern sculpture, of which Lembruck (Fig. 19.27) is the leading exponent.

The two *Saint Johns* are but a halfway station on the road Donatello traveled. At some indefinite date toward the end of his life, he carved the *Repentant Magdalen* (Fig. 15.18), a wooden statue in the Baptistery at Florence. It is impossible to deal with that piece of work in moderate terms. Beauty, in any ordinary denotation, is a word quite out of place. For the casual observer who usually associates art with relaxation and entertainment, a view of the *Magdalen* is equivalent to the whip of an insult. Even the serious student is likely to find the imagery shocking. The work is not genre. The intention is foreign to the grotesque. All the familiar formulas fail to explain it, including the one which makes realism a research enterprise. Try as we will to escape facing the question, the savage fascination of the statue forces us to account for the legitimacy of the hideous in art. Without suggesting that the following words solve so vexed a question, they may at least be helpful.

An artist of Donatello's experience must have been conversant with the nature of his medium. He would appreciate, for instance, that the poet asks the reader to supply most of the images, and that the reader may escape the poet by choosing his own psychological distance when threatened with shock and offense. It is, on the other hand, the privilege of the sculptor to choose his own imagery, and his medium delivers it to the eye of the public in the most tan-

gible manner available. For that very reason, Lessing urged in the *Laocoön* that sculptors apply the whip gently and discreetly, with a courtly regard for the sensibilities of human beings. Why then did Donatello smash down all the standards of artistic decorum? Successful, honored, and admired — and knowing we cannot escape — what vengeance did he seek? Why does he make us look, holding us there with all his power, disgusted as we are and in pain? For it is evident that the model for the *Magdalen* was a female cadaver, and that with a technique few sculptors could equal, Donatello chose to confront us with a walking death apparently capable of question, answer, and ethical responsibility.

In searching for the truth within the revolting spectacle, we may make something of the fact that the *Magdalen* was chosen for placement in the Baptistery. It was there that infants were first admitted to society, to begin the career inevitably ending in physical decadence and death, and quite as certainly including the crucifixion of sin and repentance. There is a certain propriety, as it were, in predicting the end at the beginning, and a spiritual realism in so grim a reminder at the ceremony where all is innocence and joy.

But the desperate extreme of the *Magdalen* was not unique in Donatello's later work, and some more general motive must be sought for what amounted to a policy of getting after us to inflict upon hearts and nerves a ruthless exacerbation. If a satisfactory explanation is ever forthcoming, the reasons will probably be found in the subconsciousness only now being revealed by psychological research. Among those findings is the proposition that the will to die, like the more familiar will to survive, is latent in the population. Suicide, it has been suggested, results not from impulse but from a pattern of desires traceable far back into the childhood and heredity of an unfortunate minority. Viewed in the light of such ideas, it becomes evident, pending a definite explanation, that Donatello's *Magdalen* may be assigned to needs more profound than morbid. Once again, it would appear that we have an example of artistic insight penetrating centuries ahead of science, and finding an expression beyond present understanding.

After such a citation of major achievement, short though it is in relation to the subject, a summary of Donatello's standing in history would seem redundant. It is nevertheless true that certain important aspects of his genius are inconspicuous and need to be remarked upon.

First, our sense for dates must be kept unusually on the alert or we shall forget that, in point of historical fact, Donatello was a "primitive" artist. His original efforts, that is to say, had to begin with technical problems. To appreciate the state of Florentine sculpture during Donatello's youth, the reader will

have to investigate archaeological byways ordinarily entered only by specialists in the field. Suffice it to say that ignorance is hardly too strong a word for describing Donatello's starting point. In the presence of supreme skill, as shown in the incomparable *Gattamelata*, it is almost impossible to believe that the competence before us commenced with primary research into such elementary matters as anatomy.

We expect a certain crudity in the work of pioneers, but its absence in Donatello is hardly so great a wonder as the variety of his output. He worked on every scale. He used every technique and material in which sculpture can be executed. He had no style in the usual sense of the term (i.e., the repetition of some personal formula or mode of expression, however good). Instead, he varied and adapted different human models to suit his immediate purpose. His freedom of selection in that respect remains unapproached by any other artist in history, and the shifts in technique are of equal variety. Similarly, there is no habitual tone, spirit, or content to which we can tie him down; his work puts the student through almost every kind of response the art of sculpture might conceivably call up.

Indeed, the only constants in the art of that great man were his intellect and his restraint. A high seriousness emanates even from his prettiest things. A great modesty enabled him to avoid parade.

Masaccio

Masaccio, the first great painter of the Renaissance in Italy, was one of the most remarkable characters in history. Born in 1401, he was killed at the age of twenty-seven. As a master in his own right, he painted for approximately five years. On technical grounds, it is possible to associate his hand with about twenty pictures, but there are critics who will challenge some of those. In any case, only three or four are useful in their entirety as a demonstration of the powers that make Masaccio significant.

An infinite number of men have left a larger corpus of material behind them, only to pass into oblivion as soon as they died, but Masaccio instantly became a historical figure. His present reputation is greater than ever, having been enhanced by the sober methods of modern history. The reason for all of this is that his painting contained within it the germ of almost everything realized by the full tide of the High Renaissance. Masaccio, to put it colloquially, was virtually the inventor of the "Grand Style." Inasmuch as the "Grand Style" has remained the tacitly accepted ideal and criterion of all European art, regardless of excursions in other directions, until the advent of Post Impressionism (pages 908 ff), it may be said that Masaccio's ideas remained implicit in European taste until 1900 or thereabouts. But the reader must not

confuse such long-term influence upon history with an immediate effect like that achieved by Donatello. It was the latter, as explained above, who set the pace for most 15th-Century work; but the personality of Masaccio was always brooding over Florence, waiting for the day when the humane and intelligent art of the Early Renaissance should give way to conceptions more God-like and sublime.

Masaccio's greatest work was done during the period of his association with the fresco decoration of the Brancacci Chapel at the Church of the Carmine in Florence. There is an unfortunate amount of confusion about the authorship of the pictures there. The original contract was set in motion by Brancacci's will in the year 1422. The commission was apparently awarded to Masolino, a master who painted in a late version of the International Style (pages 531-539). Probably he was the head of the shop in which the youthful Masaccio worked. Before the work at Florence can possibly have been completed, Masolino was at Buda in Hungary, working on another contract. Was Masaccio left in charge at Florence? Did he take the contract over in his own name? How much work had been completed when the direction shifted? Who did what? What are we to look for in the pictures? When he visits Florence, the reader can spend a profitable day attempting to answer those questions for himself by studying the originals. What we want here is the mature work of Masaccio, uninhibited and undiluted. We very probably have it in two frescoes: the *Expulsion from the Garden of Eden* and the *Tribute Money*.

The *Expulsion* (Figs. 15.19-20) is ostensibly a simple picture, but one can exhaust his knowledge and judgment before he really understands it. Traditionally, the subject had been popular because it gave artists a socially acceptable reason for studying the nude. Masaccio, as we shall see, examined into the visual reality of the figures, but his primary purpose had little to do with facts. His overwhelming concern was with the initial act of original sin. Hopeless remorse is personified by his Adam. The convulsive Eve sums up every cry of shame and despair utterable by a woman. Over Earth's disillusionment, the severe and pitying angel flies on sublime wings. The picture embodies a higher drama than any other work of art we have had occasion to survey since the chapters on Greece. The event itself was crucial in the moral history of the race; and the action, as shown, has heroic overtones. It was such a subject, and such a treatment of the subject that separated Masaccio from his contemporaries of the Early Renaissance. When successful, the "Grand Style" at which he aimed achieved epic status.

Having perhaps gained some entrance into the august and gloomy spirit of the painter, we must turn to a list of technical matters of great importance to

the serious student. Masaccio originated his own theory of art, which produced pictures seemingly less attractive than those we think of as typically Florentine and of the period. There are no pretty costumes, no jewels, no pleasant furniture. There is none of the linear calligraphy we love to see in the hair, and none of the smooth, youthful contours of the body. The pretty white light that so softly and so certainly illuminates everything has given way to broad, dark shadows; and the shadows in turn have taken away the bright colors, so that a sombre tonality dominates the whole.

Masaccio, as all those things indicate, was the first important Italian painter to turn away from the Mode of Relief (pages 582-586). While his technique departed therefrom in the direction of the Mode of the Total Visual Effect (pages 580-582) he never went all the way down the line to that result. His work may be understood as a halfway station between, partaking of both modes.

When we move close to the paintings, to examine them minutely (Fig. 15.20) we find none of the usual finesse. Details are absent. The construction of the bodies is declared largely by an arrangement of shadows; and as shadows, those painted by Masaccio lack the elegant gradations other artists cultivated. One may be forgiven, at first, for thinking him a slovenly painter.

The matter is to be explained by reference to the way in which the eye actually receives visual data. Unlike his contemporaries, Masaccio refused to employ an artificial lighting. He also declined the use of the telescope to reveal the distance and the microscope to bring up local details. He appears to have accepted as artistically valid a process of seeing that is in some ways less satisfying, but which is correct with reference to human experience: his painting corresponds very closely with the fuzzy imperfection of the single view, as it is actually available to the unaided eye, from a single station at a specified remove from the object of sight. It has sometimes been suggested that his philosophy of vision remained standard in all European painting until driven into the ground by the French Impressionists (pages 863-874), but such is hardly the case. Certain schools of painting followed his precept; others did not.

When he chose to take the human optical powers, limited as they are, as the first frame of reference for his art, Masaccio did not by that act deny the validity of tactile values or turn his back on the Mode of Relief. He merely added a new and complicating element, the physiology of sight. It was that which seems to have made him blend the forms insensibly into one another, fogging the definition of contours, and denying linear edges to the silhouettes. But the shapes and masses are nevertheless forcefully described, as though that were what he would have us see through the screen. The comparative difficulty with which we perceive them does not militate against the artist's belief in

their special validity. Qualified though they are, tactile values remain the operative factor in Masaccio's painting.

Even so, an important difference separates Masaccio's version of the Mode of Relief from that of his Italian contemporaries. Most of the latter took their idiom from the delicate low relief of Donatello. Masaccio's painting, with its more generous range of shadow, finds its natural counterpart with sculpture in the round. It is entirely probable that the amplitude and darkness of his shading reflects a synthesis of observations direct from nature, but the forms he represents by that method still unmistakably suggest sculpture. The particular kind of sculpture they recall, moreover, is the grander and more serious material among the monuments of ancient art; and the question suggests itself: was there in Masaccio's background some ancient monument, as yet unidentified, that inspired him as the *Belvedere Torso* (Figs. 6.21-22) was later to inspire Michaelangelo?

Years ago, when the history of Italian painting was all too often presented as an evolution in representative technique, Masaccio was labeled as the man who invented atmospheric perspective. No one takes so limited a view today, but it is still necessary to point out that he used that device more obviously and with greater effect than any other Italian painter of the 15th Century. By dimming the tones and outlines of the angel in the upper background of the *Expulsion*, he succeeded in making us read that figure as behind the Adam and Eve. It is worth noting that the ordinary effect of atmosphere was exaggerated for the purpose; only a bad London fog can curtail details to such a degree within the space of two or three yards. The boldness of the manipulation suggests not mere representation, but drama. Adam and Eve attract attention because they alone are rendered in something like a full range of values; the focus upon them seems to suggest an intention to contrast the all too present nature of worldly pain against the dim way in which we discern the divine justice of events.

The *Tribute Money* (Fig. 15.21) was a much more ambitious undertaking. Immediately recognized as Masaccio's testament, it received the minute study of every young artist who lived or sojourned at Florence for the next hundred years and more.

The subject comes from Matthew 17:24-27. Having arrived at Capernäum, the Holy Company was asked to pay a small tax; but they were without funds. Acting on instructions from Jesus, Peter went to the shore, caught a fish, found a coin in its mouth, and handed the coin over to the collector. The Gospel gives that narrative, together with a certain amount of dialogue between Jesus and Peter. The meaning and intent of the talk is extraordinarily vague, however;

and it is difficult to make anything important from it. As for specific information, Masaccio's picture adds little to what we can read in the Bible.

Perhaps under the influence of some Roman monument, he arranged the picture according to the continuous method of narration. Three successive events are combined within the same composition. In the middle, we see the collector accosting the Holy Company. At the extreme left, Peter takes the coin from the fish's mouth. At the extreme right, he hands it over to the same collector. Obviously, the impressive monumentality of the painting can scarcely derive from so trivial a set of events; to explain it, we must venture boldly forward into the mysterious realm of the imponderables.

It would seem that Masaccio here took up the problem of mural painting where Giotto left off at Santa Croce in the 1320's (pages 560-561). Large figures are accommodated in an ample setting, in juxtaposition with architecture in scale with themselves. The governing principles of the composition are the same as Giotto's, and the atmosphere is one that seems to be reaching out toward grandeur.

Masaccio's use of space is probably the most important single element contributory to the majesty and solemnity of the conception. Prodigious mountains loom up in the distance, more cogent in their venerable dignity because far away. In that setting, we find a race of men equally prodigious. Their bodies are Herculean, their strength gigantic. Their faces betoken vast intellect, and their mood is fierce with righteous purpose. Even their clothing has the heave of the mountains in every fold. No one else even attempted such pictures at the same date. Although many have tried to do so since, Masaccio's is one of the very few authentically heroic styles in the history of art. Who else can so convince us that he deals not with people, but with men whom God intends shall subdue and possess the earth?

Had Masaccio been able to continue his career, the High Renaissance would very probably have arrived earlier, with consequent changes in the schedule of Italian painting and the entire history of European art. But in 1428, he abandoned the unfinished commission at the Carmine. The work was brought to an inconclusive completion fifty years later by the younger Lippi. Masaccio went off to Rome, probably as much to escape creditors as to seek glory. He got into trouble there. He died either from poison, or from a knife wound received in a drunken brawl; there is gossip both ways. He left no school behind him to establish a tradition. He simply stepped off the stage, having achieved eminence in the space of a single scene. No other artist so overwhelms the observer. His power is unadorned, uncomplicated, sheer.

Brunelleschi

Daring was the outstanding characteristic in the personality of Brunelleschi, the first great architect of the Italian Renaissance. But that impetuous virtue was remarkably combined with a capacity for precise calculation, and with austerity of taste rarely associated with an unbridled imagination.

Brunelleschi at first intended to be a sculptor; and he achieved sufficient success in that line to be Ghiberti's closest competitor in the famous contest of 1401, to the winner of which the Florentines awarded the commission for the new bronze doors of the Baptistry (see below, pages 638-639). Disgusted with his failure to excel, Brunelleschi took himself off to Rome in company with the youthful Donatello (page 621), and never thereafter engaged seriously in the sculptor's art. In 1418, he was back in Florence; and in that year, he won a competition — this time, the commission for the design and construction of the great dome over the crossing of the Cathedral at Florence. He had no reputation as an architect at that date, and certainly none as an engineer. His temerity in entering the competition was exceeded by the courage of those who put the project in his hands. The situation was one where both parties to the bargain overreached themselves; and although it is a famous monument, Brunelleschi's dome leaves much to be desired. For details, we may refer the reader to the appropriate chapter in General Parson's excellent work,* commenting here only as follows.

The city of Florence had voted the new cathedral as early as 1294. The original plans are said to have been made by Arnolfo di Cambio, who died in 1302. The church as it now stands is one of the biggest in Europe. Not satisfied with scale alone, the citizens projected an architectural novelty. Instead of using the conventional Gothic east end, they decided to open up the crossing into an immense octagon. Presumably, a dome was visualized from the beginning to cover that area. There was some conference about details in 1366, and the present walls of the octagon must have been approximately complete by 1405 or so.

It is here that the modern reader must pause in wide-eyed amazement: no one on earth had any definite idea how to build the required dome. The span measured about 150 feet. The last dome of that scale had been the dome of Hagia Sophia (pages 346-351). Brunelleschi was thus undertaking a task unparalleled for eight centuries, and from that we may judge the spirit of the times and the temper of the man.

The winning design got the prize, it is said, because Brunelleschi had figured

* W. B. Parsons, *Engineers and Engineering in the Renaissance*, Baltimore: Williams and Wilkins, 1939.

out a way to build the dome with a bare minimum of centering (pages 187–189); he made the pitch so steep that the sides approach the vertical. Historically speaking, the design is important because it amounted to something like a manifesto of the philosophy of Renaissance architecture. In order to get the most benefit from the shape, the architect abandoned inert abutment and made the dome spring from the top of a high drum. The thrust is of course contained by chains under tension, as described in Chapter 7. Practically every other dome built during the Renaissance, and since, has conformed to the same general type, the popularity of which signifies a belief in the value of pure form even at the expense of risky construction.

The construction decided upon was Gothic rather than classical in method. Eight large segmental arches were raised like ribs, converging at the oculus. The eight main ribs formed the guiding lines for a network of smaller ribs and connecting arches, very much in the manner of Gothic tracery but in a different application. The smooth surfaces visible within and without are superficial covering. They exist to serve the Renaissance ideal of form, and it will be noted that Brunelleschi, when he decided to conceal the working framework beneath, indulged thereby in a complete negation of the Gothic theory that structural fact might be made to suggest aesthetic design (pages 411 ff, 472 ff).

The dome soars 308 feet into the air, and it is a mighty landmark. The curve of the exterior silhouette, however, is weak and uninteresting. The interior appearance amounts to a most unfortunate hole in the ceiling, something that harms rather than aids the effect of the nave. For such reasons as those, we may turn with some relief to the smaller churches in the design of which Brunelleschi established himself among the immortals.

The façade of the Foundling Hospital (Fig. 15.22) was probably designed in 1418. Its most conspicuous feature was an open loggia of nine delicate arches springing from slender Corinthian columns, and approached by a broad flight of shallow steps, also nine in number. Above the arcade, we see a subtle entablature, and above that, a second story pierced at intervals by windows, each centered over an arch. Circular medallions in terra cotta, the work of the Della Robbia shop, fill the spandrels.

How rare it is that a notable work of art can be described in so few words! But the hand of this designer was sure. His brief expression was perfect, like an Elizabethan lyric. Everything fits everything else, but still remains pure and separate. The entire composition is like a creation of springtime, a new life, an indication that the world was young.

Of the styles antedating the 15th Century, one instinctively recalls the Greek as the closest to Brunelleschi's work, but there is almost no chance he

had ever looked at anything we would call Greek today. His inspiration probably came from a combination of sources. He had, of course, been to Rome; and the separate parts of his architecture are classical in form but a great deal lighter in proportion. He also retained much of the feeling of the Romanesque of Tuscany, as exemplified by Sant Miniato, a church in plain sight on a hill over Florence, and by the grander buildings at Pisa (Figs. 111.1-2). And yet there seems to be more in the superb elegance of his style than we may account for by referring to Roman and Romanesque inspiration. We cannot prove that he had visited Paris and Amiens; neither can we prove he did not. It seems likely, however, that in some way he formed a taste for the high Gothic of France, and if we are to characterize his work in a phrase, we would not be far wrong to call it Latin handled with a French accent.

In blending and fusing those disparate elements, Brunelleschi was evidently extremely conscious of the taste for low relief by which contemporary painters and sculptors were governed. His architectural style was primarily an expression in terms of line and surface. The entablature, the window frames, and the mouldings might well be described as more drawn than modeled. Their relief is radically slight; were it less, the individual parts would be indistinct. It is obvious that the designer was deliberately avoiding the plastic mass characteristic of Roman work; at the same time, by keeping every projection close in, he narrowed the cast shadows and prevented them from interfering with the flow of artistically invaluable lines.

But over against all the specific and physical sources he so marvellously made into a new style, it is plain that Brunelleschi understood and accepted certain classical principles of design. Viewed as a whole, the façade of the Foundling Hospital is a horizontal rectangle enclosed by substantial architectural boundaries. Symmetry governs the arrangement of parts, even though the symmetry is not paraded as it was in most Greek and Roman composition. Each part, moreover, is an artistic unit, a small composition which conceivably might stand alone. The system in use is plainly the organic scheme of composition, which originated with the Greeks (pages 65-66).

While we must repeat again that it seems very unlikely that Brunelleschi had ever studied any Greek art, his work has one virtue common in Greek design and almost invariably absent from the Roman. We refer to the employment of blank spaces, often called "functional voids" in the composition. His interest in that device seems to have invited its use with daring liberality. The proportion of empty wall is altogether out of the ordinary. Each fastidious motive is widely set off from its neighbor, compelled to stand on its own chaste merits like a theme stated by one instrument. It is the ostensibly vacant areas which give the whole façade its unexcelled gentleness, its perfect grace and

quiet tempo. We ordinarily do not associate risk and daring with tranquility, but the extreme simplicity of the design was almost preposterously bold. A single error, even a hint of imperfection in the smallest detail, would have been enough to ruin the whole.

The Pazzi Chapel (Figs. 15.23-24) seems to have been started in 1429. The date of completion is less definite; it is generally believed that some of the work, at least, went on after Brunelleschi's death in 1446. For that reason, some scholars have worried as to whether the present edifice is purely his, or not. Dodging such argument and assuming that the original architect dictated the major dispositions, the little building is of peculiar interest because it gave the designer an opportunity to demonstrate whatever theories he may have entertained. The functional need was uncomplicated. The scale was miniature. There were, in short, almost none of the usual considerations which interfere with impulses that are purely artistic.

The little church has only three component parts: a handsome tunnel-vaulted loggia across the western and entrance front; a nave chamber running parallel to that, with its long axis north and south; and a dome centered over the nave. The type seems to have been borrowed in a free way, as was to be the case with many another Renaissance church, from the four-column central churches of the Byzantine Second Golden Age (pages 353-356).

For the entrance front, Brunelleschi seems to have wanted a monumental façade on the miniature scale. He drew up what amounts to a screen of low-relief architecture carried by six columns with an entablature over them. He broke the entablature in the middle to raise an arch over the entranceway, much in the manner of certain Hellenistic and Roman temples (Figs. 8.8-9). To the right and left of the central arch, he put sections of paneling enframed by paired pilasters. The entire composition was closed in at the top by a second entablature.

Having thus completed the composition for the façade — and, in effect, it amounts to one classical temple on top of another — Brunelleschi seems to have felt no need to relate the western screen to the mass of the building behind. As we see it today, the front elevation of the chapel seems, artistically speaking, to break in two. Behind and above the exquisite screen, there rises the dome over the nave. The latter was made high, in order to produce the proportions desired for the interior. The screen could not conveniently be made higher because the horizontal nature of classical architecture (pages 82-83) had already been strained to the limit. Thus, there was no good way to make a connection between the façade in front and the building behind it. With his usual boldness, Brunelleschi simply accepted that fact. He made the exterior of the dome

as plain and inconspicuous as possible, and he put a stilted lean-to roof over the vault of the loggia, where it hardly fills the gap very well.

It is unreasonable to suppose that what we see was the result of carelessness or improvisation; Brunelleschi was the last man to be easygoing. The lack of coherence between part and part, to say nothing of an absence of definite relation between every part and the whole, must have had its genesis in a philosophy of design. It seems evident that Brunelleschi considered it enough to make each element, taken by itself, a perfect thing in terms of its own internal logic. As to making every part fit the next, and as for maintaining throughout all parts a consistent sense for the entirety, we must assume he thought it not worthwhile. It is difficult to accept his point of view, especially when one considers the innumerable buildings since constructed, as the wag said, "with a Queen Anne front and a Mary Anne behind."

As to the interior of the Pazzi Chapel, the walls and ceiling admirably carry out the principles of expression by line and surface already characterized above. The atmosphere is therefore much less ponderous than that of a Roman interior, but it will be noted that the world is shut away as definitely as it was in the Pantheon (Fig. 7.1). Brunelleschi had discarded, that is to say, the Gothic theory of interior design (pages 469-472), and he had returned to the modeling of air and space which had been popular during classical Antiquity (pages 220-221). The choice was of course but another instance of the resurgence of Roman taste in Italy at the time. It is also important because the taste reflected has, on the whole, been dominant in the design of interiors from that moment until steel and glass became available during the latter half of the 19th Century.

Brunelleschi was one of the men who searched for the secret of classical art, and who believed they would find it by mathematical analysis. Although remembered as an architect, it was he — or so many scholars are coming to think — who was largely responsible for working out the theory of perspective which so greatly advanced the art of representation. He also researched into the mystery of proportion, having doubtless been influenced by the cryptic remarks of the recently recovered Vitruvius (pages 124-127). In his later work, he seems to have made an attempt to apply such conclusions as he was able to draw.

He had occasion to design two basilican churches at Florence, San Lorenzo in 1419 and Santo Spirito in 1435. The choice of the basilican type was in itself significant, because the Early Christian basilicas (pages 277-292) were then thought of as classical churches. Both the buildings mentioned show Brunelleschi's free classical detail at its superb best, but we need not reiterate

praise that has already been given. Our chief concern here is with the serene spatial expression at which he arrived, particularly in the interior design of Santo Spirito. Difficult to comprehend by way of drawings and photographs, the effect is almost tangible when one enters the building. If not able to reproduce the experience by describing it, we can at least suggest in part the method the architect himself seems to have followed. Like the Greek sculptor Poly-

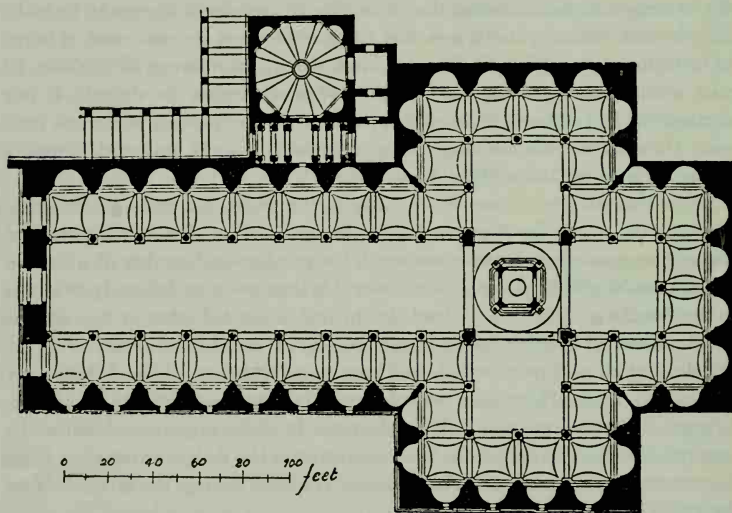


Fig. 15.39 Florence. Santo Spirito. Plan.

kleitos, he evidently believed there was magic in the use of a *module*, or unit of measure which would divide evenly into every important dimension of the whole.

As Santo Spirito now stands (Fig. 15.39), the ground outline is incomplete. Brunelleschi intended to continue westward a little further; it was his purpose to run the aisle entirely around the building without a break at the façade, thus providing a narthex at the entrance and a western range of interior columns reminiscent of certain pagan basilicas, like the Basilica Julia in the Forum Romanum.

The design of the east end was also an innovation. Discarding the time honored semicircular apse, he opened up the crossing into what we may call three arms of a Greek Cross. The arrangement seems to yearn for the condition of the central church, one of which Brunelleschi had actually designed in 1434.

It was to have been known as Santa Maria degli Angeli, but construction was abandoned before the building was halfway up. We know it today from the ground outline and some apparently reliable engravings. The central church may be associated in a curious way with humanism (pages 704-706); and as a type, it was destined to have a strong span of popularity later in the Renaissance. Indeed, it looked for a time as though the basilica would pass out of use altogether.

With the unaided eye, it is easy to see that the plan of Santo Spirito depends upon a harmony of commensurate elements. The apse duplicates either transept. The open floor inside the columns is a square, and the nave consists of four and a half such squares — or an even five had the designer's intention been carried out. All the items mentioned are in turn reduceable to multiples of the intercolumniation, as one may prove with the help of dividers.

Were drawings of the elevation available, it would be possible to show that the principle of commensuration was applied in similar fashion to the vertical dimensions; and if one appreciates that the linear dimensions merely define cubic modules of space, it seems plain that some rather complex and definite formula was being applied. While serious doubts must assail the man who cares to assert that strict multiples of the same unit make good proportions, or indeed that any proportion is inevitably better than any other, there can be little question that Brunelleschi was experimenting along such lines. Let the reader decide for himself whether the great architect thereby explained the secret of his own success.

Brunelleschi's style established the norm for the Early Renaissance architecture of Italy. At Florence, other architects used detail similar to his, especially for the arcaded courtyards in the great palace-forts, each a hollow square, which they built for the powerful families of the city. In Florentine painting, especially in the work of Fra Angelico (pages 645-649), we find buildings of a similar type. The remarkable truth of the matter is, however, that not one other architect was able to rival the spiritual authority of the man who originated the style. The Palazzo del Consiglio at Verona might at first seem a brilliant exception to that statement, but familiarity will soon settle the question. The distinction of Brunelleschi's gifts may also be estimated by the caution with which his manner has been used in modern times. Even in America during the 19th Century, when every kind of historical imitation was being drawn up helter-skelter, most firms steered clear. Only McKim, Mead, and White — an office peculiarly anxious to establish its artistic superiority over all others — made any serious attempt to emulate Brunelleschi. They had comparative success with the Morgan Library in New York, and with the Art

Museum at Bowdoin College. Both structures are graceful enough, but no one wants a watered drink from the fountain of youth. As yet, Brunelleschi stands alone.

Ghiberti

Ghiberti's signal importance in the art of the Early Renaissance has already been attested by the various times we have found it necessary to mention his name. He first became famous when he won the competition of 1401; and as the prize for winning, was awarded the commission for the new and second set of bronze doors of the venerable Baptistry of Florence. It is important to understand that the Baptistry already had the finest bronze doors in the world, the work of Andrea Pisano, a sculptor strongly influenced by Giotto and the best of the Giotteschi. The building had three entrances, so perhaps three sets of doors were in order, but it was typical of the time and the place to want something better than the best, to expect to get it, and to be willing to pay for it.

Some interesting rules governed the competition. It was stipulated that the competing works of art should be in relief, and that they should conform in size and shape with the Gothic medallions that made up Andrea Pisano's doors. The subject matter was likewise specified. It was *The Sacrifice of Isaac*, a story demanding the use of landscape, animals, and human figures both clothed and nude. Inasmuch as the rules must have reflected an attempt to embody the latest taste, it is evident that the representative convention was taken for granted.

Ghiberti's nearest competitor was Brunelleschi (page 630), and the two competing reliefs are preserved (Figs. 15.25-26). Few modern critics would disagree with the verdict. The composition of Brunelleschi's panel is inferior. He appears to have conceived the area of the frame as a plane surface, to be covered by figures and objects much as checkers lie flat on the board. The arrangement seems marked by something close to hysteria, as though the artist were filling in a modern tax form and felt obliged to put something in every part of the difficult medallion shape. The important figures he merely put in the middle, and the rest of the area received here a detail of setting, there a figure. The broad side of a donkey takes up most of the lower register, while the subordinate persons of the drama thrust their elbows and butt their posteriors across the boundary lines.

Ghiberti's superior performance is patent at first glance. With respect to composition, he felt as much at home in the third (and represented) dimension as he did with the length and breadth of the panel. As though to declare the existence of air and room, he deliberately made his foreground figures

overlap those further removed, and he gave the anatomy an elegant *contrapposto*, so that each pair of shoulders became, in effect, an axis diagonal to the plane of the background. In the right arm of the Abraham and in the entire body of the angel, we see a formidable demonstration of foreshortening.

Taken as a whole, Ghiberti's drama was infinitely more skilful than Brunelleschi's. The operative group of Abraham and Isaac, he placed high and to the right, its intensity being balanced by a bulk of more quiet material filling all the remaining (and larger) area of the frame. Attention was directed toward the crucial action by directional impulses from the left.

It would be hard to overstate the extent to which such a composition was forward-looking at the very beginning of the 15th Century, although a similar interest in the formalities of arrangement became common enough during the High Renaissance. As already mentioned above (page 538), Ghiberti's ordinary figure-style, although scientific with respect to anatomical structure, continued the physical types and the costumes typical of Late Gothic Mannerism. His practice in that respect has dimmed many an eye to the truly classical nature, also rare and advanced for the date, of some other figures. The nude Isaac was taken directly from a classical torso, still preserved in the Uffizi and at the time in Ghiberti's personal possession. Taken by itself, it might well be confused with Hellenistic work of unusually high quality, and it was perhaps the first figure in modern art to demonstrate an obvious honor for the body.

The very urbanity of the performance has betrayed many writers into an understatement of Ghiberti's immense originality. The genuinely Gothic elements of his style are so familiar from earlier art that one tends to overlook the profound — and at that time new — knowledge of representative science. The interpretation of the subject tends to corroborate the same impression. Brunelleschi made Isaac writhe in an agony of physical fear; the angel of a supposedly kind and omnipotent Lord is seen to arrive in a hurry, making it only just in time. But Ghiberti's classical Isaac shows in every placid muscle a truly Gothic confidence in the complete wisdom, mercy, and competence of God. What are we to say of such a combination of things? Was Ghiberti a paradoxical character, looking backwards and forwards like the Roman deity Janus? The true answer, rather, seems to be that he was the ideal conservative. We use the appellation to mean what its derivation says; namely, a man with something worth guarding and preserving. He kept what he thought good in the Gothic style and in the Christianity of Gothic times. To suggest that he therefore opposed progress would be preposterous.

Having received the formal commission for the new bronze doors, Ghiberti devoted the next twenty-one years of his life to the project. The general

character of those doors is well suggested by the competition panel; they consist of small scenes in pictorial relief, enclosed in the same Gothic medallions. So well did the work satisfy the Florentines that they immediately commissioned Ghiberti to do another set of doors. When the latter were finally hung in the main portal of the Baptistry, facing the cathedral, the date was 1452. The doors of 1403-24 went to the south entrance, where they still are; and Andrea Pisano's had already been placed in the northern one, where they also still are. It is doubtful whether any municipal government ever expended more money for sculpture, or made a better investment. There are those who still claim that Andrea's reliefs are the best of the lot; and there is certainly no building on earth where first rank sculpture is on view in equal concentration.

The present east doors of the Baptistry (the second set by Ghiberti, and for the building the third) fulfil in rich measure the promise of the artist's earlier career. He abandoned the scheme of Gothic medallions used before, and he laid out a plan consisting of only ten large rectangular panels surrounded by an elaborate border of foliate ornament interspersed with tiny human busts and exquisite statuettes in niches. For the door jambs, he composed a pattern of fruits and flowers modeled in full relief. The principal panels contain stories from the Old Testament, presented according to the continuous mode of narration (page 630). The little busts and statuettes ostensibly comprise sybils, Hebrew worthies, and notables of the past in general; but from the sharply individualized faces, we may guess that contemporary portraiture was involved.

The ten large panels of which one is shown in Fig. 15.27 present the sacred narrative at a tempered pace which is still not without dramatic moments. The figure-style, as seen in the detail given by Fig. 15.28, is more wonderful than ever before; it combines the acme of Gothic grace with an ease of anatomical science most uncommon at an earlier period. Over all and everything, we feel the magic spell of an unequivocal desire for beauty which was in part the gift of the classical revival, in part a heritage from the Late Gothic, and in part Ghiberti's own. But none of those excellencies, nor all of them together, constitute the central interest of the work; at that time and in history, Ghiberti's great accomplishment was the sculptural conquest of space.

In his earlier sculpture he had, to be sure, undertaken to represent depth, but he had been cautious about it. An inspection of the competition panel (Fig. 15.26) and of the earlier doors will show that he generally brought his figures up front, with a setting behind them, more or less in the manner of the Alexandrian division of ancient pictorial art (pages 164-167). Displacement out into the beyond was indicated clearly enough in such earlier work, but the

vistas were often closed by architecture or landscape, and successive steps further away were commonly marked by some barrier or hurdle of setting. The infinite and unlimited sky rarely was permitted to occupy any substantial part of the available area.

The reliefs of 1425-52 (Fig. 15.27) were incomparably more bold. There was no further suggestion of action near the front of the stage. The represented space does not begin, in fact, at the lower border of the panels; it seems to start some yards this side of it. The nearest figures stand, that is to say, in the middle ground; and the atmosphere sweeps out into the furthest limits of the firmament. In several panels, architecture was required to fulfil the requirements of a setting within city limits; but even then, one has no sensation of masonry presented broadside to announce definite vertical planes of spatial removal. The perspective is both precise and elegant, making the buildings fade off gradually. The living air, moreover, seems to pass freely in and out the windows and doors. There are, in truth, no conventions or rules we need keep in mind to understand the sculptor's purpose; it is emphatically plain he meant to furnish us with an illusion so perfect that we would read the scenes as real.

The inspiration for so magnificent a demonstration is probably to be sought in a variety of places. Maitani's reliefs at Orvieto (pages 547-548) come to mind at once as predicting what Ghiberti achieved with the aid of science unknown a century before. In addition, it seems probable that he had studied some examples of Roman painting, and the cognate relief, of the general type we have elsewhere named the Latin Style (pages 167-170); a general description of one of the *Odyssey Landscapes* will duplicate in circumstantial fashion a general description of one of Ghiberti's panels.

Those ancient sources seem to have combined with a concept of space that is distinctly more Gothic than Roman. As an accomplished composer, Ghiberti must have been familiar with every trick for establishing visual coherence between figures and details within a panel; but by comparison to the Greeks, to Giotto, and to his own earlier work, the compositions of 1425-52 are remarkable for an absence of directional gestures as between figure and figure, and for an absence of geometrical methods in general. The great over-all principle of coherence was the represented space itself. The air penetrates everywhere and envelopes everything. Space is the pervasive fact which makes it seem reasonable for Ghiberti to have abandoned the Graeco-modern convention of the unity of time (page 60); we accept the continuous method as natural because the space goes on and on, including and containing the successive events. The artistic unity to which the reliefs appeal is not the self-contained internal economy made familiar by Greek art and so often described as organic (page 65).

It is the vaster unity of the infinite to which the particular thing is connected by the continuity of space (page 469). So conceived, each panel is a glimpse and a beginning, and there is no necessary end.

Ghiberti's reliefs, if we had nothing else to prove it, are evidence enough to demonstrate that the Italian artists of the Early Renaissance wasted very little energy over certain questions with which modern criticism has been strenuously concerned. We refer in particular to the idea that there is an intimate relationship between medium and design. The tools and the stuff with which the artist works, that is to say, are held to possess a special nature, distinct from the nature of other tools and other raw materials. It follows, if we choose to accept such a theory, that whenever a man decides to become a sculptor, he should reconcile himself to the internal logic of sculpture. He should strive only for the kind of expression of which sculpture is capable, and he should eschew any attempt to cultivate effects that are not directly in line with the nature of his chosen medium.

On the basis of such thinking, Ghiberti has been made the target for some of the best-calculated derogatory comment in the annals of art criticism. The contention against him is that he endeavored to accomplish with sculpture that representation of distance which painting, with its modulations of tone (pages 612-613), represents so easily, so directly, and so adequately. That Ghiberti had superb technique, no one dares to deny; but technique, or so says the argument, is beside the point. Or, if not beside the point, is there not an actual complaint that Ghiberti had to make a parade of his skill in order to succeed, thus attracting more attention to the manipulation than to his meaning?

The cogency of the contentions just mentioned is to some extent substantiated by the greater satisfaction one gets from Ghiberti when single figures are seen in close up, as in Fig. 15.28. Such a view brings out the plastic merit of the shapes (i.e., the quality "natural" for sculpture). A more distant station, far enough away to include an entire panel within the frame of sight, denies the eye a chance to follow the minute graduations of contour by means of which the beauty of forms and of draperies may be communicated and received.

Without attempting to settle the argument, it is necessary to point out a further fact. The critics who object to Ghiberti's panels base their objection upon experience of the originals. Most students find it difficult to sympathize with their point of view. The reason is that students usually know the panels only through photographs, and the photographs appear to sustain Ghiberti. As a matter of fact, they sustain those who complain against him.

Any photograph is necessarily a picture, and subject to pictorial imperatives

analogous to the imperatives allegedly imposed upon sculpture by its own nature. In studying a photograph after Ghiberti, our knowledge of spatial representation depends little upon qualities inherent in the relief itself, and much upon the light and dark that belongs solely to the picture. Every photograph clear enough to be published was taken under special conditions of light; but at another moment of the day, or on a different kind of day, the pictorial qualities of the bronze may not show up nearly so well. In truth, they usually do not. Cast shadows fall the wrong way. Value relationships become confused. Textures are more obtrusive. All too often, it must be confessed in spite of our admiration, we find ourselves reading solid plate metal where Chiberti intended us to read the soft blue sky.

Jacopo della Quercia

Circumstances have conspired to cloud our estimate of Jacopo della Quercia (about 1374-1438); but even though we have little from his hand, it is plain that his contemporary reputation was well founded.

The *Tomb of Ilaria del Carretto*, in the Cathedral at Lucca, has long been attributed to him by word of mouth tradition. Unquestionably it is one of the loveliest monuments from the entire Renaissance. No other work of art so perfectly demonstrates the capacity of the Italian temperament to understand everything in terms of beauty: death seems merely to have given that exquisite lady a more perfect sleep. Because the poetic quality there expressed seems very different from the tone and content of Quercia's documented works, serious doubt has been cast upon the authenticity of the attribution, but the inconsistency involved in accepting it is hardly so great as the contrasts included within the sure work of Donatello. Without attempting to settle the question, it may be observed that the burden of proof is upon those who doubt.

Quercia's most important commission was for the *Fonte Gaia* at Siena, a sculptural ensemble involving numerous figures in the round, and some panels of narrative relief. Only battered fragments remain, now stored for safe keeping in the Palazzo Pubblico.

We are fortunate enough to have one important commission in a good state of preservation. In 1425, Quercia began a series of reliefs for the jambs of the main portal at San Petronio in Bologna. They go together with some statues of the Virgin and the Saints, and comprise subject matter from Genesis and from the infancy of Christ. From the standpoint of style, the panels (Fig. 15.29) fulfil almost to the letter the recommendations of those who would quarrel with Ghiberti. Landscape settings were used; but where Ghiberti tried to include everything, Quercia could hardly eliminate another detail without canceling the pictorial effect entirely. With a similar severity of purpose, he

eschewed the crowds of people cultivated by both Donatello and Ghiberti, and he handled the narrative with only two or three figures to a panel. The latter were rendered in much bolder relief than was common at the time, and they fill the foreground.

It is evident that Quercia adjusted the balance of elements very differently from Ghiberti. Instead of making represented space the operative component, he depended almost entirely upon the figures. His formula corresponded closely with the Alexandrian division of Hellenistic art (pages 164-167). Without much doubt, the derivation was direct and intentional, but the figure-style incorporated within that familiar scheme of composition could hardly be more different from the elegant weaklings who people those bucolic yearnings from waning Antiquity. Quercia's people belong to the recurrent tradition of central Italy, a taste which appears to stretch back and back into the remote Etruscan past, accounting for the repeated appearance — without proximate cause — of an anatomy heavy enough to be called gigantic. Giotto and Masaccio belonged to the same tradition, which passed on from the earlier Renaissance into the work of Signorelli and Michaelangelo.

There is much in Quercia to recall, also, numerous sources closer in date. The passion with which he imbued both face and body finds its closest resemblance in the work of Nicola Pisano (pages 546-547). The hip-shot poses recall the S-curve that was popular in French Gothic art of the mannerist persuasion (pages 531-539), but he employed the device as an expression of heaving power rather than of grace.

To his heritage from the past, we must add the items which were new, personal, or both. The burning actuality of his narrative might be duplicated in the work of Donatello, but narrative of that special kind was new with the 15th Century and peculiarly Italian. Quercia's endorsement of the nude was more absolute and emphatic than that even of Donatello. The fierce power, potentially dangerous and devastating, which he literally breathed into his figures, was personal; it proved to be the strongest single influence upon Michaelangelo during his formative period (page 737).

While there were good artists in every Italian town during the first half of the 15th Century, Quercia was unique among the great originators in not having been a Florentine. Incongruously, he was a citizen of Siena. His monumentally plastic art was the direct opposite of the local tradition (pages 365-369), and it is interesting to note that Francesco di Giorgio, who projected Siena's mystic and delicate painting right through the 15th Century, was not born until the year after Quercia died. In view of those facts, it is legitimate to understand Quercia's art as self-expression. That his personal choices and purposes were generally respected even by the extremely conservative so-

ciety of his native city is a circumstance that speaks volumes for the atmosphere of the times.

Fra Angelico

Fra Angelico was a nickname. The painter universally so called was christened Guido, and took the religious name Fra Giovanni of Fiesole when he entered the Dominican order at the age of twenty. He came to be called Angelico in affectionate recognition of the pretty angelic types (Fig. 15.30) that fill his earlier pictures.

As a painter and a personality, he has been secure in the affections of scholar and public alike for several centuries. It therefore requires an act of stern historical self-discipline to say that he was an artist of the second rank, separated from the Donatellos and the Masaccios by a demonstrable difference. Theirs was stupendous genius, big enough to open up a new era. Angelico's gifts and capacities may be summed up by saying that he combined the best of the old with a sound grasp of the new, and originated neither. But even in a century opulent with greatness, that was enough to make him a considerable figure.

In a book where space is necessarily curtailed, the introduction of such an artist is necessary in order to round out the contemporary picture. Everything we know of Angelico makes him out as a thoughtful, intelligent man. As he calculated his chances for success in art, he may well have estimated that Donatello and Masaccio represented the speculative wing of the profession. Their work was of interest to forward looking patrons who were willing to take a chance. The volume of established business was going elsewhere. Angelico's formative years coincided with the latter part of the maturity of Gentile da Fabriano (pages 537-538), who died in 1427. At Florence, moreover, there was still a great deal of painting in the same Late Gothic and International Style of which Gentile was merely the most famous Italian exemplar. The most prominent Florentine artist of the kind was named Lorenzo Monaco (about 1370-1425). He ran one of the largest establishments in the city, with numerous apprentices and assistants. Angelico may have been one of them.

Monaco's art was intelligently eclectic. Probably born at Siena, he surely was trained by some enthusiastic follower of Simone Martini (pages 367-369). Coming to Florence, he picked up a thing or two from the later Giotteschi (pages 562-563). At the time Angelico knew him, he had an International Style tinged with Florentine monumentality. Florid and poetical in about equal measure, his pictures were notable for prodigies of linear calligraphy. On the basis of proven performance, general popularity, and financial record, Monaco's art was the safer thing.

Still other thoughts must have gone through Angelico's mind as he chose

his road. In an age distinguished for the rapid decline of the religious sanctions and the onset of actual corruption within the Catholic polity, Angelico was a sincere Christian. He did not enter the monastery by chance or under duress, but freely as a young man who must already have been able to support himself well in his profession. When Angelico made his choice of a style, the classical revival in art had not yet become associated in any direct way with the neopaganism of the Renaissance, although such an association was made later in the century (pages 662-663). His choice, then, was in no sense a negation of the trend of the times. He probably felt that Gothic art, which had never been used for anything else but Christian subject matter, was the art of the church. He seems to have accepted the style as loyally as he embraced the dogma. For that reason, as cited on page 538, his earlier work belongs plainly to the International Style.

The Death and Assumption of the Virgin, of which Fig. 15.30 shows a detail, is ample illustration of Angelico's earlier style. It is one of four panels done for the account of a single patron; the other three are in the Angelico collection now housed at San Marco in Florence. The casual observer might be forgiven for dating such pictures a hundred years before their actual time.

The frames are florid Gothic. The figure-style and costume are about the same as those seen in Gothic manuscripts (Figs 13.10-11). The average angel painted by Angelico at this period of his career looks, indeed, like a miniature rendition of one of the smiling angels at Reims (Figs. 12.15-16). There is much gold, and the colors are dainty and glitter like jewelry. Everything at first seems like a mystic's view of heaven, but a closer examination shows that the world had been discovered. The anatomy is too well constructed to date earlier than the 15th Century, and there are other indications that the painter understood very well the disciplines of the new representative science.

From that point on, the general development of Angelico's art shows a judicious absorption of the findings of his contemporaries at Florence. The *Madonna of the Linen Guild*, dating from 1433, was given no Gothic frame, but one in the form of a simple round arch, and the gentle Mary was more plastically described than before. Two pictures of the *Coronation of the Virgin* also come from the middle 1430's. The one in the Uffizi has its setting in a blaze of glory, and the one at the Louvre provides a raised dais of solid steps. Both of them, however, demonstrate a regard for the mechanical realities familiar on earth: gravitation, the displacement of bodies in space, anatomical construction, and so on. And yet none of this may properly be construed as an acceptance by Angelico of the worldly values discovered in his time and accepted as governing principles by so many artists of his era. We probably

come close to the truth when we say that he attempted to harness realism to religious expression, and that from his point of view accurate representation was worthwhile only as a technique for demonstrating the reality of Christian truth mystically apprehended.

The suggestions set down above are well borne out by the greatest commission of the painter's career, which we are lucky enough to possess almost in its entirety. We refer to the extensive fresco decoration of the convent of San Marco at Florence. The monks went into residence there in 1436. Most of Angelico's painting dates between 1439 and 1445. The property had been given to the order by Cosimo de Medici. The architecture is a hodgepodge of Italian Gothic, but extensive rebuilding, alteration, and some additions were put in progress. The architect in charge was Michelozzo, a man who collaborated for a period with Donatello and who ranks second only to Brunelleschi as a designer in the style of the Early Renaissance. Within the convent, Angelico and his shop executed nearly half a hundred frescoes. Some were very large, and others were as small as panel pictures, being painted on the walls of the individual cells. With notable exceptions such as the badly repainted *Crucifixion*, one of the largest of them all and once a great painting, the general state of preservation is excellent.

Among the larger pictures is the familiar *Annunciation* (Fig. 15.31) which for generations has been a favorite monument of Italian art. It came as the culmination of a long period of rehearsal. Angelico had made a specialty of the subject. He always used the same figures in approximately the same costumes and poses. We must point to his cautious development of a single theme as one of the differences separating him from the prime movers of the Renaissance; but at the same time, few paintings embody so many elements of diverse interest. It is all but impossible to put down everything that the reader might legitimately demand to be told about it.

In response to the nature of wall painting, Angelico changed his style substantially. The tiny glittering details so appropriate for little panels (which presume an intimate inspection by eyes only a foot or two away) are absent. Instead, we see wider, simpler, stronger areas of tone. Linear calligraphy is still much in evidence, but it is disposed in big swings of line, as contrasted with the elegant complexity of the painter's earlier rhythms. The composition as a whole has been opened up; there is more distance between the figures, more room everywhere, and a convincing amplitude of air. All of those measures combine to produce a painting suitably viewed from a station across the room; and one capable of giving the broader effect generally wanted for architectural decoration.

Certain aspects of the setting have a special significance. The garden, as such, was in the direct tradition of the International Style; but there is good reason to believe that Angelico meant it to refer to the imagery of the 4th Chapter in the Song of Solomon, where a lady is metaphorically referred to as "a garden enclosed . . . a spring shut up, a fountain sealed." The passage was peculiarly appropriate in association with the Annunciation because it had often been construed as a symbolic prediction of Mary's perpetual virginity.

The patch of ground opening up to the left is of course a mere detail in a more important subject; but a closer view will reveal a side of Angelico's personality for which the reader is unlikely to be prepared. We might expect a gentle, lovable painter to excel at painting flowers; but exactly where, at this date, can we find blossoms, leaves, and grasses like these? The representation is incisive, penetrating, authentic — in the strictest sense, the work of a scientist. Botany has never been served by a higher talent.

The little loggia is another feature we might dismiss as nothing remarkable, a standard bit of setting unconsciously included by the painter. The reverse is actually the case. At the moment of painting, such an arcade was the last word in Renaissance architecture. In fact, it would be more accurate to call it the prediction of the next move; a study published some years ago by Langton Douglas makes it seem highly likely that the architects learned more from Angelico than he from them. Only a man with a professional interest would experiment with the capitals as he did here. The demonstration as a whole is beyond the capacity of the casual student, and it compels us to believe that the painter, old-fashioned though he was in some respects, was completely familiar with every detail of the classical revival.

The figure-style is yet another thing that becomes more profound than we expect. Ostensibly a mere reliance on old formulas and repeated by Angelico rather monotonously from picture to picture, it nevertheless was something unique. He actually produced a Madonna both holy and humane. The ethereal face is at once actual and ideal; the personality that of a saint, but a saint possessed of personality. It is obvious that neither humanism nor individualism had passed this painter by; and once again, we are made to realize that hardly any man of the era was more completely informed about the progress of the times.

The literal sense in which the last statement is true makes it necessary to pass on from the *Annunciation* to an accomplishment not demonstrable within the limits of the imagery of a closed garden. Angelico was a magnificently competent landscape painter, conversant in every detail with the skills developed by Masaccio, Donatello, and Ghiberti. A great many of his pictures have deep landscape backgrounds, of which the *Deposition from the*

Cross at San Marco (probably finished in 1440) may serve as an instance. It is doubtful whether any other painter except the dead Masaccio could have equaled the performance at the same date.

The work at San Marco was a great success, and Angelico found himself pressed with important commissions thereafter. Two of them took him to Rome, once in 1445 and again in 1447. The first was for Eugenius the 4th. It involved a series of scenes from the life of Christ; by an act of extraordinary obtuseness, the paintings were destroyed during the 16th Century by Paul the 3rd. The second Roman commission was for Nicholas the 5th, and it survives.

The pictures give various scenes from the life of Saints Stephen and Lawrence. For the settings, Angelico painted rich and ponderous complexities of heavier Renaissance architecture, and he filled them with dignified figures solidly rendered. No one who has felt the sweetness of his earlier painting can possibly be happy about the change, but the change in itself signaled an important transition in Italian art. Firstly, it may be remembered as the complete end of anything that even looked back to the Gothic. Secondly, the new pictures were well ahead on the main road; although dating only in the middle of the century, they predicted the end of the Early Renaissance.

The difference, if we may anticipate for a moment, had more to do with content than with style. The frescoes in the chapel of Nicholas the 5th are formal and ceremonial pictures; and through the medium of ceremony, Angelico was apparently reaching out for greater solemnity. The desire for it came as the result of deeper ruminations about the nature of man and his dignity. Such ideas were to be made generally manifest fifty years later (pages 711-715), and it is plain Angelico felt them only vaguely — certainly by no means clearly enough to paint them. Primitive and tentative as they are, the reader might nevertheless do well to remember his last works as an essay toward the High Renaissance.

FLORENTINE NEO-PLATONISM, AND ITS INFLUENCE UPON THE ART OF THE RENAISSANCE

When, in a general way, we want to contrast the art of the Early Renaissance with that of the High, we find ourselves saying that the 15th Century was a century of realism, and the 16th one of idealism. The distinction is coarsely made and too briefly stated to be true, but the statement is on the right track. The cause of the change is to be sought in the intellectual life of Florence, and it can be localized in the thought of a circle of erudite and powerful men. We refer to the members of the so-called "Florentine Acad-

emy," sometimes referred to as the *Platonic Academy*, and more strictly described as the *Neo-Platonic Academy*.

The Academy was considerably less institutional than its name might suggest. Actually it amounted to a circle of intellectuals under Medici sponsorship. At the period of our present interest, the group was more or less dependent upon the philosopher Marsilio Ficino (1433-99). The organization, if we may call it that, had grown up rather naturally as the result of Cosimo de Medici's personal interest in Plato.

That avocation, so far as we know, dated from the Council of Florence and Ferrara (1438-39), to which John Paleologus (pages 363-364) had come from Constantinople, bringing in his train a number of distinguished Greek scholars. In their arguments at the Council and in private discourse, those latter opened the eyes of Italy to the importance of Plato, a philosopher who had been out of use in the West since the time of Saint Augustine.

According to the testimony of younger contemporaries, Cosimo soon conceived the idea of a Florentine academy devoted to Platonic studies. An obvious part of the program was to make Plato accessible to Italian readers. Because only a small portion of the material existed in any language an Italian could easily handle, a full-scale effort at translation was requisite. For that, Cosimo made some long-headed plans. He apparently picked at once Marsilio Ficino, then seven years old, and arranged for his education. In 1462, he set the young man up in a villa at Careggi, a spot in the hills a couple of miles north of town. From that event, we may date the only formal organization the Academy ever had.

For the next generation, the villa at Careggi was the spiritual home of the most brilliant men alive. Ficino had a most endearing personality. His greatest pleasure was to call his friends around him, and they would sit listening while the master expounded the dialogues. In addition to direct contact with every leader of thought who lived at Florence or might pass through, Ficino maintained a large correspondence. His letters, friendly in tone but prepared as though for publication, circulated all over Europe; a few we happen to know about were received in France, Germany, Poland, Hungary, and the Low Countries, to say nothing of all the cities in Italy.

As a translator, Ficino finished his work with Plato in 1477, and committed it to print in 1482. Hardly comparable to our modern renderings, his text nevertheless remained in wide use until superseded during the past century. He then turned his attention to Plotinus, and finished a translation of the *Enneads* in 1492. That second effort of scholarship proved to be immensely important. It colored Ficino's interpretation of Plato; and thus, it slanted his influence upon art and poetry. Plato died in 347 B.C. Plotinus was born about

205 A.D. The dates give modern students a signal to look for differences, but Ficino got no such signal. Thus the distinction between Platonism as of Plato and the Neo-Platonism represented by Plotinus largely escaped him. Having recorded that circumstance, which will explain why the academy should be called Neo-Platonic, we need pursue the matter no further at the moment. Our concern is with the influence of the Academy upon the history of art, especially as it is reflected in the work of Botticelli (pages 654-663) and Michaelangelo (pages 734-750). We shall try, that is, to recapture the environment and to understand art by reference to the spiritual food of the artist. That will involve us in much that may first seem far removed from painting and sculpture, but we shall connect it up in the end.

As the central figure of the Florentine Academy and the acknowledged first philosopher of the century, Ficino put his mark on every educated Italian for a hundred years. By so doing, he placed himself at the focus of the immense influence Italy exerted upon world culture. The Platonism of Spenser and Goethe came to them by way of Florence; and we can follow the effect right on into the 19th Century in the writings of Wordsworth, Emerson, and Thoreau — to mention only a few names at random. Every student of history must pause in reverence at so bountiful a harvest, but every student of ideas must at the same time feel a strong sense of paradox in the phenomenon. Ficino, if we compare him with the great men of philosophy, makes a poor showing. Of original and creative material, he gave us little that is first class. His energy seems to have been consumed trying to understand and explain ancient ideas, and even those were modified more than he knew himself by the society of which he was a member. The world, however, was hungry for the kind of food he had to offer; and he was there in the act of offering it. Because of that historical chance, a thinker of the second order opened the eyes of great artists and set them on their way.

Among the various theories developed by the Florentine Academy, two had a direct and unmistakable effect upon art. The first was the theory of creation, by reference to which the work of Michaelangelo becomes intelligible; and the second was the theory of love and beauty, which tends to explain certain artistic developments which first became important in the painting of Botticelli.*

The Florentine theory of creation had perforce to take account of the existence of the Christian Church. Ficino's central purpose, indeed, was to reconcile the traditional European religion with the classics. He himself became a priest in 1473, and canon of the Cathedral in 1487. Appalled by the irresistible tide of the new civilization, he hoped that Plato would prove a means, as Aris-

* See P. O. Kristeller, *The Philosophy of Marsilio Ficino*. Columbia University Press, 1943.

totle had for Saint Thomas, of saving the world for the Church. For a time, he even sympathized with Savonarola when that great and bigoted preacher took over Florence in the name of ideas that damned Ficino's Medici sponsors, and would have done his own work to death had they permanently prevailed.

Ficino's confusion with Plotinus helped him to reconcile Christianity with the ancient standards, for much of that philosopher's thinking had already been absorbed into our dogma by such early fathers as Augustine. Plotinus followed Plato in his general conception of the creation, and man's present situation. The difference may perhaps be summarized as a greater readiness to invoke the supernatural. According to the narrative as understood by Ficino, mankind had originally lived in glory. In some primeval disaster, man got separated from the divine. We need not investigate how such a thing happened; the significant fact is that people now find themselves in a condition somewhere between the unhappy and the intolerable. Obviously, the strongest human instinct must be to seek reunion with the glory from which we have been banished; to do otherwise would be to declare one's self insane.

A course of self-purification was recommended as the best procedure, and it was part of the psychology of the Renaissance to assume that much might be accomplished even during a mortal lifetime. It will be seen that the idea is cognate to what we have elsewhere (page 696) referred to as the artistic concept of life, and the effect was to add a Christian sanction to the ideals of humanism and individualism. By directing and refining the impulses already very evident within themselves, men might hope, even during life, for temporary reunion, a state defined as *ecstasy* — literally to stand outside one's self. Perhaps Thoreau meant somewhat the same thing when he spoke of drifting on Walden Pond, and experiencing moments when he "ceased to live and began to be."

We may now turn to the idea of beauty as it came to be understood at Florence under the spell of the Neo-Platonic studies. Beauty, as those men conceived it, was a component of creation. When men had lived in glory, they also had lived in beauty. For that reason, the notion became current that people knew beauty whenever they saw it. They simply remembered it. The yearning for beauty, it will be seen, was thus given a meaning closely equivalent to the soul's yearning for reunion with the divine. Not only did the idea make it a permissible thing to want beauty; it virtually labeled the desire as a religious impulse.

The reader may also have observed that the definition of beauty, as given above, was more noble than distinct. It assigned to beauty a function that had to do with the more elevated and spiritual impulses of mankind, but it made

beauty a matter of intuition nevertheless. At the practical level of ordinary life, the definition furnished small guidance. In fact, it invited men to settle such questions their own way, and to name as beautiful anything they happened to fancy. To the particular kind of beauty which in fact proved favorite among the men of the Renaissance, we shall presently turn our attention. The matter was inseparable from the Neo-Platonic theory of love, which we must now review.

Love had been made necessary by man's fall from grace. It was understood to be the instinct which impelled him to seek reunion with the divine. In instances where that had actually been accomplished (the saints in heaven, for example) love had served its purpose. There could be no more desire, nor any intelligible reason for desire. The state of glory would presumably be the state of complete fulfilment and continuous satisfaction into eternity.

In order to make such ideas useful, it was necessary to place love and beauty on earth. That was done by saying that beauty emanates from its locus in heaven, permeating nature and dwelling in many places. It was therefore made reasonable to find beauty in trees, rocks, bodies, and for pictures and statues to be beautiful. They all got their beauty from above. Much, indeed, as the lines of force from a mighty magnet give life to iron filings, and pull them toward itself.

As Plotinus put it in the 5th part of the 3rd *Ennead*, "Everyone recognizes that the emotional state for which we make love responsible rises in souls aspiring to be knit in closest union with some beautiful object; and it is sound, I think, to find the primal source of love in a tendency toward pure beauty, in a recognition of it, and a kinship with it." On a cognate theme, Ficino himself wrote, "Love unites the mind more quickly, more closely, and more stably with God than does knowledge, because the force of knowledge consists more in distinction, that of love more in union." In plain words, the Florentines believed that love started to operate whenever beauty was noted, and that love, when it came, was to be welcomed because it moved one toward God.

The Neo-Platonic theory of both love and beauty was wonderfully popular with the Italians. Ficino's friends were doubtless competent philosophers, and as such they would be interested in following out the Platonic machinery into the more and more abstract levels of idealism. The citizenry at large wasted no energy on so impersonal and impractical an endeavor. They thought they knew what Ficino's words meant, and they thought they knew what to do about them. With chivalry (page 458) in the immediate background and still a living thing, it seemed obvious that nobody would have been crazy enough to put forward at Florence a philosophy suggesting that ladies step down from their pedestal. The Florentines were delighted to have all kinds of

beauty made thoroughly respectable, but the kind that came most often to mind was the beauty of women. Ficino was understood to say that the experience of this beauty, and the consequent onset of love, amounted to a discipline for the soul, virtually an act of worship. His conscientious attempts to distinguish between higher and lower forms of love, and beauties greater and less, were construed in gallant applications. Men saw visions of fair women, but fair women now symbolized the yearning of the soul toward eternity, and the pathos of man's separation from the divine.

As we look back upon what happened, it is evident that Florentine Neo-Platonism opened every eye to the complexity of the human emotional system, and to the advisability of its refinement. First in Italy and then elsewhere, a considerable literature of love and beauty came into being. Ridiculous popularizations of course occurred, but it is remarkable how strongly Ficino's subtle and elevated teaching resisted the intrusion of vulgarity. Even the publications intended to guide ladies in beauty culture at least suggested that beauty was a subject not to be understood without a reasonable effort at discrimination. For some of the more important documents, no praise can be too high. There is no more eloquent discourse than the speech of the Cardinal Bembo, to be found toward the end of Baldassare Castiglione's *The Courtier* (1528), where the reader will find the tradition of chivalry most gracefully combined with the sentiments of Plato's *Symposium*. The same might be said for Spenser's *An Hymne in Honour of Love* and his *An Hymne in Honour of Beautie*, both marvels of much in small compass, and both derivative from Ficino.

Botticelli

The painter Botticelli (1444-1510) was the first important artist to be deeply affected by Neo-Platonism. His profound and baffling nature may not immediately make itself apparent. No artist ever made sentiment more lyric in its soft loveliness. He appeals by being winsome and wistful at the same time. It is easy to think one loves his pictures; but after some little acquaintance with them, there comes a consciousness of the conflict and frustration that existed within him, strangely like the conflicts and frustrations of our own day.

We must understand at the outset that the inner beauties of Botticelli's art are not for everybody. Even in 15th-Century Florence, he was not a popular artist in the sense of appealing to the public at large. He worked for a small circle of erudite persons who had the knowledge and taste to appreciate his exotic genius. Most of them were directly associated with the Florentine Academy, as indeed the painter himself may have been. It was his special role in history to create the visual imagery that expressed and commemorated the

idealism newly introduced to Italy by the Neo-Platonic movement. His career also included an episode connected with the conflict between the life of the Renaissance and the views of the Church; of that, we shall say a word at the end.

With respect to style, Botticelli need cause us no problems. To the day of his death, and long after the manner of the High Renaissance had been introduced to the world by Leonardo and others (pages 722-726), he continued to paint in the low relief manner inaugurated by Donatello at the very beginning of the 15th Century (pages 617-621). He got his fundamental training in the shop of Filippo Lippi (1406-69). A comparison between Fig. 15.32 and Fig. 15.34 will show how much the pupil owed to the master. It will also indicate the radical difference in the nature of the two men.

Lippi, like many another man of strong appetites and coarse behavior, maintained throughout his spectacular career an almost reverent taste for the daintier, more virginal aspects of feminine beauty. In his picture, we get little else; but in Botticelli's version of the same subject, we instantly feel overtones and connotations. The sentiment is of the same kind, but of loftier order. The faces are more finely drawn. The youthful muscles of cheek, eye, and mouth have already been stretched and modeled by thought and feeling. The grapes and the wheat, symbols of the Last Supper, drive the meaning home. Botticelli's picture is both an idyl and a tragedy.

As a young man, Botticelli worked for a time with the sculptor and painter Antonio Pollaiuolo (1429-98). Pollaiuolo was a famous anatomist; and as an artist, he made a specialty of putting the human body into unusual and even contorted positions. What he liked best was a powerful figure in violent action (Fig. 15.33). His studies were at times academic; but in all cases, they were saved by the zest of the man. Everything he touched is vital. In his detailed demonstrations of nature's complex and ingenious machinery, one feels the intellectual joy of fruitful research; and at the same time, there is an animal fulfilment of action for its own sake.

Violence in any form, even the harmless vigor of athletics, was foreign to Botticelli's temperament, but his art nevertheless owed much to Pollaiuolo. It was that second master from whom he learned how to make his figures move, something which many artists of the time could do passably well but not one with the same superb authenticity.

Botticelli's two most famous pictures are the *Primavera* of 1478 (Fig. 15.35) and the *Birth of Venus* of some six or seven years later (Figs. 15.36-37). It is certain that both were done for Medici patronage, but there is a minor confusion as to which Medici gave the order. In 1503, the two were in a villa at

Castello, a house owned by the illegitimate branch of the family. It seems likely, therefore, that the original owner was Lorenzo di Pier Francesco Medici, natural second cousin to Lorenzo the Magnificent.

In part, both paintings constitute a direct attempt to bring Antiquity back to life. As we shall see, the painter knew that certain Greek artists had painted similar subject matter, and that certain classical poets had used similar imagery. A more proximate cause, however, was the Neo-Platonic theory of love and beauty (pages 651-654), which was enough in itself to account for the choice of Venus as the central figure and for the ethereal idealization of the feminine which forms so striking a feature of both works.

The *Primavera* (Fig. 15.35) consists of nine figures seen against the background of an orange grove. Spring flowers thrust themselves up in delicate profusion from the earth. In the middle, and removed slightly toward the background, stands a lady whom we may identify as Venus herself. A blind Cupid is in the air above her.

At the extreme left, a male figure reaches upward with a wand, apparently engaged in dispersing a cloudlet. Behind him, three girls move in the rhythm of a slow dance. Each wears but a single garment of the most diaphanous white, and their femininity is the more apparent therefore.

On the other side, we see two female figures and a flying male. The one in front is dressed in an elaborately flowered gown. She tosses flowers from a bunch held in the fold of her skirt. The girl behind wears a gauze drapery like that of the dancing figures, but her costume is in disorder. She appears to be running as best she may from the flying male who grabs for her with outstretched hands and puffed-up cheeks.

As a demonstration of formal design, the composition is notable. One is at first conscious of the color, now sadly dimmed by time and by treatment of the panel to rid it of worms. If less bold than they were, the tones are still exciting to the sensibilities. The effect may be compared to tapestry, except that where tapestry is rich the painting is keen and dainty. Warm spots vie with cool for possession of our feelings, and tints with shades. As between one category and another, there is little to choose. The principle in use is that of tonal balance, and the result is to spread color interest almost evenly over the whole surface. In the matter of using intense hues to reestablish the flatness of the panel (page 585), Botticelli was an expert. Although space is represented to the depth of thirty feet or more, the picture surface gives one a peculiar sense of smoothness, a characteristic extremely attractive in paintings intended (as this one probably was) for permanent incorporation in the paneling of a wall.

As to the content, the spirit is Platonic, but the details of iconography have proven elusive. A small literature exists on the subject, from which we shall

draw only a few of the more obvious bits of analysis. The picture appears to be a great mixture of allusions, all of which were undoubtedly instantly recognizable by the learned gentlemen for whom the painting was intended.

The general theme seems to come from the *De Rerum Natura* of Lucretius (1st Century B.C.). Venus, in the ancient world, had also been Goddess of Gardens; and in his opening invocation, Lucretius hailed her as the great generative force of the world. Such a notion was carried out by Botticelli in almost every detail of his painting. The earth produces flowers. The trees give fruit. Each woman is carrying a child. Cupid shoots his arrows every which way. The time of year may have been suggested by another passage in Lucretius. "Spring comes," wrote he in his 5th Book, "and Venus. . . ."

As to the Flora at the right, strewing flowers, she also appeared in the *De Rerum Natura*, but the lascivious puffing Zephyr seems to have been taken from a passage in the work of Poliziano, a contemporary Florentine poet. We may also set down that Horace spoke of spring as the time when Venus led forth her band, and of the naked Graces dancing with measured tread before Mercury, who would presumably be the young man at the left.

For reasons made obvious by the paragraphs just above, strictures have often been leveled at Botticelli for being the originator (as he very nearly was) of the fanciful picture derived from literature. The practice, it is contended, tends to put the art of the painter in a secondary position. At best, or so we are told, the picture becomes a mere extension of the book; and at worst, a slavish illustration thereof. In either case, the painting would necessarily derive whatever merit it might possess, not from itself, but from the authority of the literary source.

There is much weight in the argument, and it can be applied with damning effect at various points in the history of art. It cannot, however, be used successfully against Botticelli. Living in an atmosphere of enthusiastic classicism, he took his inspiration where he found it. The crucial point is that the inspiration was genuine, by which we mean to say that the literary sources (none of which he followed closely, much less mechanically) merely set in motion feelings that were the painter's own. His affinities with the poets were real and deep, but he shared rather than borrowed their imagery.

Nothing we have yet said even begins to account for the sadness which fills the soft air of the picture. That nostalgic overtone, which lingers more in the memory than any other quality of the work, probably derived from contemporary persons and events, of which the reader will now require a recitation.

In 1469, Marco Vespucci had brought his bride home to Florence. She was Simonetta Cattaneo, a Genoese, sixteen years old; and so sweet and charming, said a contemporary, that all men praised her and no woman blamed her. In

no time at all, the girl became the acknowledged belle of Florence. Giuliano Medici, the younger brother of the Magnificent Lorenzo, was specially her friend. It is a waste of time to speculate whether she was also his mistress; it can make no difference now, one way or the other. The important fact was that she was affectionately included within the intimate life of the Medici circle. In 1475, she was Queen of Beauty in a great tournament held in Giuliano's honor. That publicly established her, in a ceremonial sense at any rate, as the lady to whom Giuliano pledged his knightly devotion.

In 1476, Simonetta died after a short illness. Lorenzo the Magnificent, then absent at Pisa, kept his personal physicians in charge. He insisted upon daily bulletins. On the evening of her death, he went walking with a friend. Pointing up to a star of special beauty, he suggested that it might be a new star and "the soul of that most gentle lady."

Simonetta died in April. She went to her tomb with face uncovered in the sunlight. There was much remark, it is said, about the flowers that covered the earth like a blanket; always lovely in the Italian spring, they must have been specially so that year. The death of one so young amid so much beauty made dignified citizens cry in the streets of Florence. Everyone was reminded that spring cannot last.

In 1478, the Pazzi conspirators murdered Giuliano Medici. By coincidence, the date was April 26, the second anniversary of Simonetta's passing.

Those events, so brief in the statement, cast a pall over the intellectual life of Florence. Contrary to what we hear of domestic relations in some other families, the Medici brothers had been unselfishly devoted. Lorenzo was the older and more respected, Giuliano the more handsome and charming. The affection between Giuliano and Simonetta appears to have been a living symbol of the love and beauty which, for older and more serious persons, necessarily remained an intellectual ideal. It has long been a tradition that the *Primavera* was intended as a memorial for the two. With respect to Simonetta, that is probably true. Part of the tradition has it that the six female figures, all alike enough to be sisters, are each and all portraits of her. The Mercury at the far left is similarly suggested as a portrait of Giuliano; but if a memory of him was also involved, the timing was very close indeed.

Unhappily, the facts cannot be determined. Several portraits of the right kind and period have been labeled with Simonetta's name, but they depict several different women. None of them correspond satisfactorily with the women of the picture, or with the Venus in the *Birth of Venus*, which is even more likely to be Simonetta. Lack of positive evidence is no good reason, however, for denying the tradition.

The nature of Florentine Neo-Platonism, and its close involvement with the Medici family, make it seem likely that Simonetta was in fact Botticelli's model. Her reputation gives us a woman of fragile beauty, strangely powerful in physical allure. Her temperament must have been, if we read the signs correctly, an appealing mixture of the mind and the intuition. Such women do not attract the common man, but their singular wisdom keeps the wiser male in constant wonderment. Simonetta alive had been the darling of her erudite friends, a walking example of femininity raised to a higher order. Simonetta dead easily became, it would seem, almost the definition of pure beauty. Happily, the supernal image was not nameless, but warm and personal. What better instance could there have been of the ideal within the thing? Of earthly loveliness as an emanation from heaven? Of the way in which the beauty of women might, upon occasion, turn the soul toward God?

The *Birth of Venus* (Figs. 15.36-37) was ostensibly a direct attempt at classical revival, a veritable school figure for the literal definition of the Renaissance. The imagery derived originally from Homer, who described the newborn goddess as being blown ashore from the Aegean Sea by the soft breath of the zephyrs, while the Hours waited to spread a star-strewn robe over her white body, and countless flowers sprang from the grass her feet would tread.

The very same imagery had been used for one of the most famous paintings of the ancient world, as Botticelli well knew. That was the *Aphrodite Rising from the Sea* by Apelles, the most famous painter of the Greek Fourth Century B.C. and a figure closely associated with the court of Alexander. Apelles did his famous *Aphrodite* for the temple of Asklepios on the Island of Kos. Augustus brought the picture to Rome, and put it on exhibition in the temple of the Divine Julius in the Forum. The beauty of the nude figure, especially the flesh tones in contrast with the cooler hues of the water, was the subject of much admiring remark. The supreme skill of Apelles was negatively made plain during a later reign when the painting was damaged in its lower parts, and no Roman artist could perform a restoration.

Like many another popular masterpiece, Apelles's *Aphrodite* had inspired imitations, of which a good many were statues more or less closely reproducing the appearance of the central figure in the painting. By chance, one of the latter was at Florence: the Hellenistic *Medici Venus*, today on view at the Uffizi. Rightly or wrongly, people then thought it close to the style of Apelles, and Botticelli used it for the pose but not the form of his own *Venus*.

So much for the sources from which Botticelli worked. It would be hard to imagine a more straightforward, pedestrian narrative; but fortunately, we have only reached the point where Botticelli came in.

Rather than confuse the right-hand side of the composition, he used only one personified Hour where the poets had mentioned three. In the matter of color, however, he was wisely governed by the reputation of his model; he tried to emulate what he knew of Apelles. The cool hues of the water modulate through the pearly tints of the shell, and transpose into the pink flesh tones. The sequence from cool toward warm culminates in the hair, which is a field of golden bronze. The highlights are brought out in pure gold, a circumstance that lends the event a supernatural aura and, incidentally, makes the painting unsuitable for hanging in a direct light.

It is doubtful whether Apelles, or anyone else, ever handled colors with greater delicacy. Surely no Greek ever used line better than Botticelli. Always sensitive to the movement of light and delicate things, his line here became a celebration, as it were, of the soft breeze over the ocean. With a sure cool strength, it lifts the draperies and moves the goddess's hair, and it blows her floating figure surely and gently toward the land.

According to the ancient sources, Apelles's *Aphrodite* derived her loveliness from a living model. Two ladies, Phryne and Pankaspe, survive in name because one or both posed for the great Greek painter. It is difficult to know whether Botticelli may have been cognizant of the story or not; if so, he had classical authority for deriving an ideal figure from a mortal woman.

We have a special reason for making a shrewd guess that Simonetta was the model. She had been born at Porto Venere, the little harbor at the very tip of the peninsula closing the Gulf of Spezia on the west. The place gets its name from the Roman tradition that Venus stepped ashore there — and not on the Island of Cythera, as the Greek myth tells it. There was material for a pretty compliment in the circumstance, and it is inconceivable that the gentlemen of Florence would have missed so obvious an opportunity to combine the chivalric tradition with classical lore.

It is a pity that Simonetta's association with Botticelli has been marred by an appalling narrative widely credited in English-speaking lands; namely, that the chaste Simonetta, for love of art and beauty, sacrificed her modesty to pose in the nude for this painting, her protection from Botticelli's potential lust being solely the abstract harmonies observable in her form. With those, we are told, the artist instantly became so engrossed as to preclude indelicacy. There is no early record to sustain such a story. It appears first to have been printed by Ruskin as a footnote to his *Ariadne Fiorentina*.

Ruskin's suggestion demonstrated an unpardonable tendency to read the Victorian proprieties into a situation where they could not possibly be made to apply, but Ruskin was nevertheless a great critic. Often narrow, frequently mistaken in matters of detail, he was never without penetration and depth. No

matter what he said, there is usually truth to be found in it somewhere and in some measure. In this instance, he made a fundamental observation about Botticelli's Venus, even if he advanced the wrong reasons for it.

Her nudity is an unusual and special case. Ruskin was wrong in attributing it to the hysteria of violated convention, but he was right in knowing that Botticelli's Venus feels the touch of our eyes. Others have been equally mistaken in suggesting that we see a holdover from the medieval sense of shame; at the date of painting, the nude no longer had that connotation. Neither does Botticelli predict the coming of the High Renaissance; there is simply no suggestion of the refined sensuality so greatly cultivated in the art of that period. Similarly, the very sense of nudity separates the figure from every classical nude, because freedom from consciousness of the body had been the prime appeal and chief lesson of naked figures in Greek art. We must look further, evidently, in order to understand what we see. The following hypothesis may offer a line of thought, and help toward an explanation.

Whether he knew her intimately or not, Simonetta's death must have made a permanent impression upon the painter. To understand the Venus for which she served as an inspiration, we must interpret the incident of her passing as an illustration of more general principles. The beauty of her body had proven transitory, as physical beauties must be. Even the love directed toward her complete personality, body and soul together, was now denied an immediate object; such is the inevitable fate of all love that is personal. Forgetting Simonetta as a woman and realizing that she merely furnished the starting point for a sublimated figure, we may think of Venus much as Lucretius did. The love Venus brought to the earth was the gift of life, but life is hard to explain. As a great generative force, it carries forward toward eternity. Inexorably, the race survives and increases, but the individual men and women suffer loss, sadness, heartbreak, and death. For them, there is no permanence and no deliverance on earth. Such thoughts are full of pathos; they suggest why Botticelli gave Venus no joy in her birth, and why he filled her face with compassion.

Late in his career, Botticelli undertook to do one hundred drawings to illustrate a copy of *Dante* which was projected by one of the Medici. Most of the drawings survive; there are eighty-five in Berlin and eleven in the Vatican Library. As they now stand, all but a few of them are totally innocent of both hue and shading. Everything was rendered by unaided line. Fig. 15.38 was selected for reproduction not because it is essentially more attractive or important than any of the others (which, in fact, it is not) but because it offers a great variety of material: fire, water, stone, figures nude and figures clothed, things in the foreground, and things further away.

Technique, as such, rarely interests us in the history of art; we merely take excellence for granted. But Botticelli's linear accomplishment transcends all ordinary standards. Considered merely as demonstrations in the field of representation, the Dante drawings constitute a great monument. The texture, weight, and shape of objects were specified as precisely as a sculptor could do it. Within the represented space, the relative placement of things forward, right, left, and back was stated as unmistakably as any painter might indicate with the full resources of hue, value, and intensity. Botticelli's descriptive powers were so highly developed that he had a linear device for every situation; the most esoteric necessities seem scarcely to have delayed his pen. He painted in the Mode of Relief (pages 582-586), but the Dante drawings illustrate the often-repeated statement that all color and all modeling might be subtracted from the paintings while still retaining perhaps three quarters of their expressive value.

Insofar as insubstantial words can describe an artistic experience, we may say that as the eye follows the movement of Botticelli's hand, the line itself comes alive. It swings, sparkles, and dashes. It sleeps and wakens. It becomes sad, or lifts like a song. Similar in nature to Far-Eastern calligraphy, Botticelli's line nevertheless belongs to the representative tradition of the west. As in Chinese work, every smallest mark is an angle or curve of abstract beauty; but where the Eastern artist sought also to find an abstract motive which would still be legible as representation, Botticelli kept to what we may, for the moment, call the *working line*. His touch was everywhere governed by the structure of the object described, and his special merit was to raise such line above its office of physical description. He made it also an expressive vehicle; and so understood, it will bear close comparison with the tones of music.

The most complete exposure of Botticelli's introspective sensitivity was furnished by his connection with the Savonarola episode. That affair had its start in a variety of matters; but in a broad way, we may interpret it as the violent reaction of the popular mind to the neopaganism of the Medici era.

When the great Lorenzo died in 1492, he left sons who lacked his ability. Their incapacity soon ended in disgrace, the occasion thereof being the investiture of Florence by the French in the course of their expedition of 1494. All Italy was humiliated, and the Florentines were ready to mend their ways.

Girolamo Savonarola was prior at San Marco. He was a man of extraordinary force and dignity, and of completely independent mind. He had made it a practice to preach against the new worldliness; and in 1494, he pointed to the excesses of the Medici as the direct cause of his country's mortification at the hands of Charles the 8th of France. He presently assumed dictatorial power

at Florence. His enemies, not the least of whom was the notorious Borgia Pope Alexander the 6th, at once began to intrigue against him. At length he was brought to trial, repeatedly tortured, and finally condemned. Sentence was carried out by hanging and burning in front of the Palazzo Vecchio on May 28, 1498.

There is a strong tradition that Botticelli came under the influence of the great Dominican preacher. He is said to have abandoned his Renaissance ways in a passion of guilt and remorse. He is further said to have assisted Savonarola's agents in collecting his own classical nudes for the Burning of the Vanities, a perverted ceremony of religious carnival staged in 1497 and again in 1498.

Some critics, probably with more caution than judgment, claim that the evidence sustains no such positive assertions. It is surely true, however, that a marked alteration in both the subject matter and spirit of Botticelli's painting coincides with the period of Savonarola, and it is perfectly plain from his latest work that his nervous stability had suffered a traumatic strain. Among the works that reflect the tumultuous state of his being, we may cite first the *Mystical Nativity* (1500) in the National Gallery of London, which has a Greek inscription referring to the Apocalypse and to the troubles in Italy.

An even more desperate expression is the violent *Crucifixion* now in the Fogg Museum. A Magdalen fiercely embraces the foot of the cross. An avenging angel holds by its left hind leg the heraldic lion of Florence, and whips it with a rod. Smoke and flame fill the right background, while to the left we see Florence lying under a sinister light. Admittedly obscure and possibly without specific denotation, the picture has with some justice been interpreted as predicting the doom of the city in punishment for Savonarola's death.

Botticelli was the last artist who belonged to the Early Renaissance, and the extreme conservatism of his style may be assessed if we make a comparison of dates. Botticelli was actually forty years younger than Leon Battista Alberti (1404-72), whose career marked a new phase in the history of European culture. In fact, it was Alberti whose thought laid the foundation not only for the art, but for the entire outlook of the 16th Century. With the introduction of his name, we appropriately pass on to the next chapter.

*

16

THE HIGH
RENAISSANCE

LEON BATTISTA ALBERTI

Leon Battista Alberti, the founder of the High Renaissance, was born as early as 1404. By the time of his death in 1472, the new movement was underway; and by about 1500, both its style and its philosophy were generally accepted.

Alberti was born at Genoa, the illegitimate son of a very notable Florentine family then banished to the north after losing a political fight at home. The Alberti were rich, and their ample funds made natural and easy the best education available, an opportunity which the young man followed up with incredible brilliance and acumen. His Latin was good enough to enable him, during student days, to write a comedy that was mistaken for the work of Terence. He was also an accomplished musician. After graduating in canon law at Bologna, he later spent two years in the same place learning all there then was to know about natural science.

His name was enough to make him welcome anywhere; and that circumstance, in combination with personal charm and extraordinary ability, opened up splendid opportunities when funds failed at the death of his father. In 1428, he went to France and Germany as secretary to Cardinal Albergati (of whom there is a picture by John Van Eyck). In 1431 he was invited to Rome as Cardinal Moulin's secretary. From there he went to a position on the learned staff of the Vatican. His routine duties left him plenty of time to acquire an expert knowledge of the antiquities, and for creative work. On several occasions, he accompanied the reigning pontiff on diplomatic journeys. He was with Eugene the 4th at Florence, for example, in 1434, and with Pius the 2nd at Mantua in 1459. The trip first mentioned brought him into contact with Brunelleschi, Donatello, and other great Florentines, and the second resulted

Fig. 16.1 Alberti, Self Portrait. Washington. National Gallery. (Previously in the Dreyfus and the Kress Collections.) Bronze. $7\frac{29}{32}$ inches high by $5\frac{11}{32}$ inches wide.



ALINARI

Fig. 16.2 Rimini. San Francesco. South side, as remodeled 1446-1455 according to plans by Alberti.

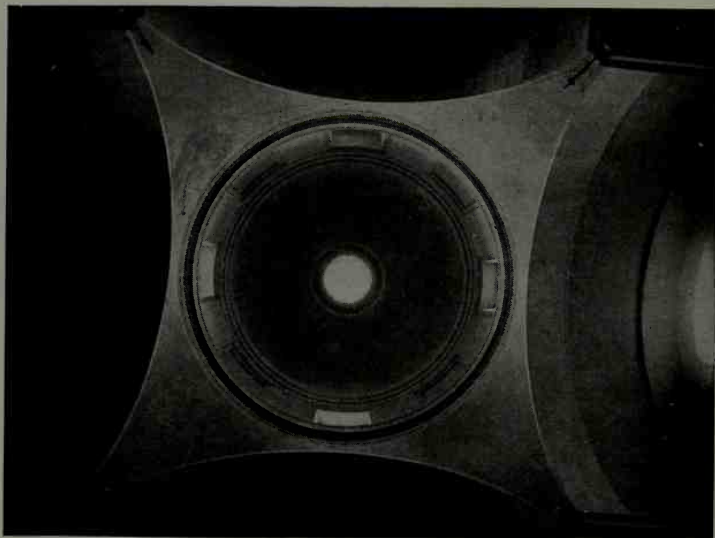
Figs. 16.3-4 Mantua. Sant' Andrea.
Built from plans drawn by Alberti.
Started 1472.



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ALINARI



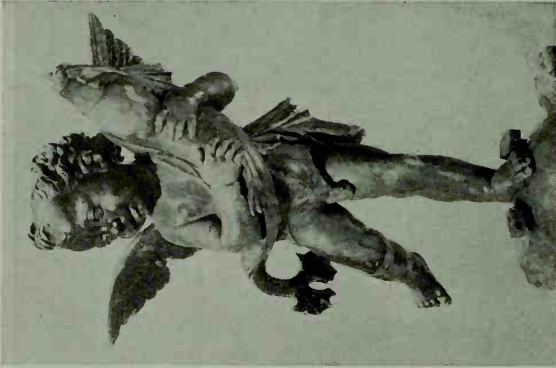
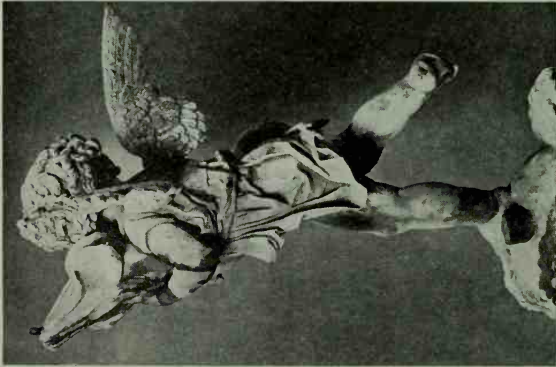
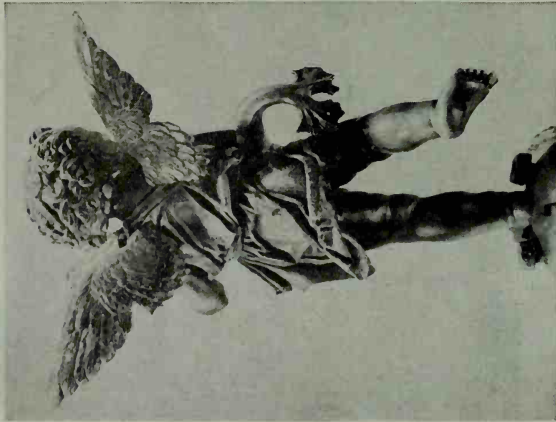
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Fig. 16.5 (above) Rome. Sant' Eligio degli Orefici. 1509. Designed by Raphael.

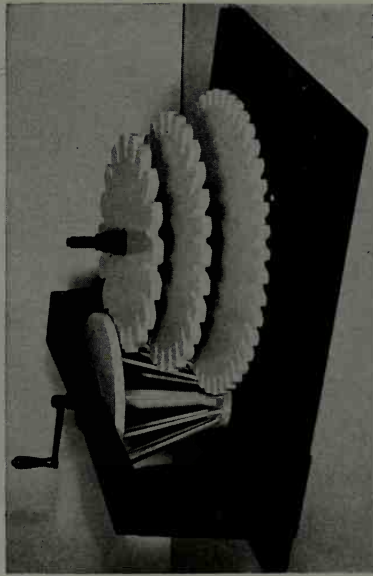
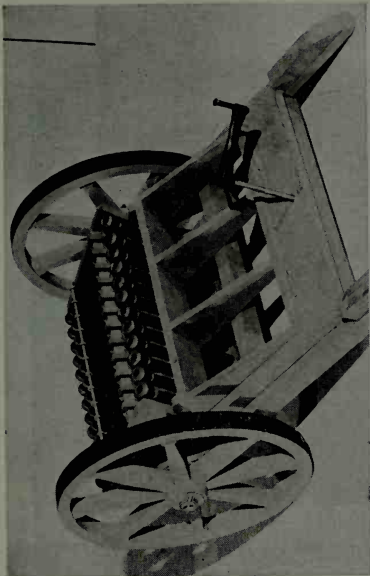
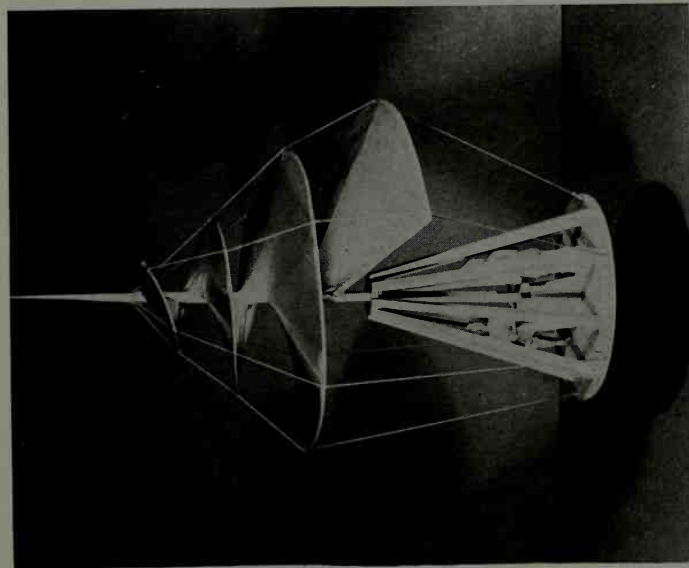
Fig. 16.6 Todi. Santa Maria della Consolazione. Church 1508-1524; dome 1606. Height about 165 feet. Width about 145 feet.



ALINARI



Figs. 16,7-9 Verrocchio, *Boy with Dolphin*, Florence, Palazzo Vecchio, 1465. Bronze. PHOTOGRAPHS BY BROGLI.

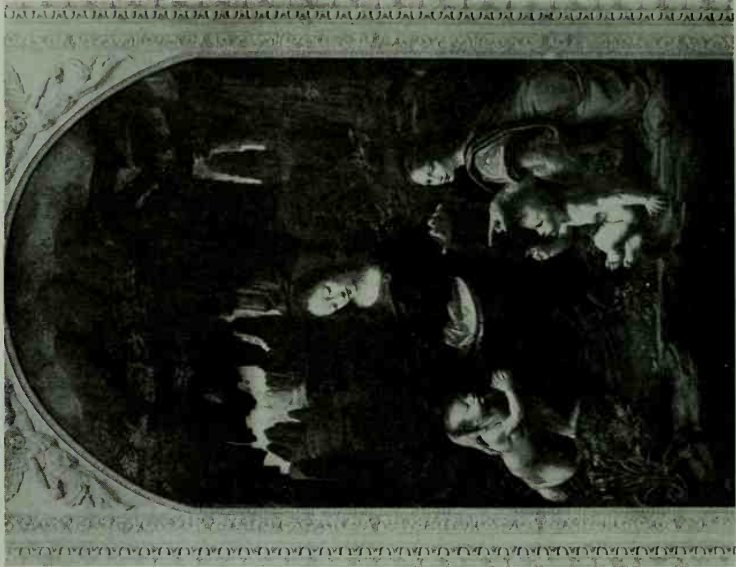


Figs. 16.10-12 Leonardo da Vinci. Helicopter, Fieldpiece with 36 Barrels, and Variable Speed Drive. Collection of the International Business Machines Corporation.



Figs. 16, 13-14 Leonardo da Vinci. *Madonna of the Rocks*. About 1482. Paris, Louvre. Oil on wood, transferred to canvas. 6 feet, 6½ inches high.

ALINARI



GIRAUDON



ALLINARI

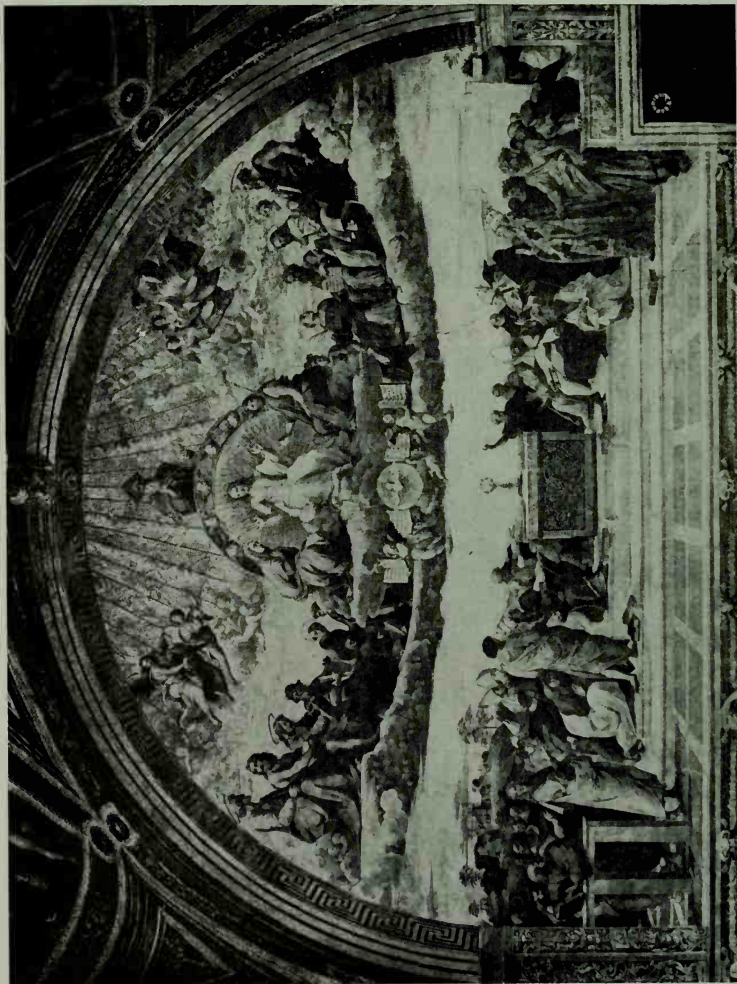
Fig. 16.16 Raphael. *Madonna of the Goldfinch*, 1507. Florence, Uffizi. Fig. 16.15 (left) Leonardo da Vinci. Cartoon for a painting of the Madonna and Child with Saint Anne. London, Burlington House, Museum of the Royal Academy.



Fig. 16.17 Raphael. *The Disputà*. Rome. Vatican.

Fig. 16.18 (opposite page) Diagram to indicate the identity of the various persons shown in *The Disputà*.

The composition is arranged in three registers. At the top, we see God the Father (27) raising his hand in benediction and holding the globe. To either side of him (23-26, 4-6) are angels and cherubim. In the middle register are Christ with Mary and John the Baptist (1-3) silhouetted against a glory; Christ raises his hands to show the stigmata, which are symbols of redemption. Immediately below (13-16) are four small angels, each with a Gospel Book, and the Holy Spirit descending in the form of a dove. The twelve figures to right and left are prophets, apostles, and confessors; note that representatives of the old dispensation alternate with representatives of the new. Reading from



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the left: Peter (22), Adam (21), John the Evangelist writing the *Revelation* (20), David playing the harp (19), Stephen or perhaps Laurence (18), Jeremiah or perhaps Martin of Tours (17). Reading from the right: Paul (7), Abraham (8), Moses with the Tablets (9), James the Greater (10), Laurence (11), George or perhaps Judas Maccabeus (12). The bottom register has an altar in the center, with the Host exhibited in a monstrance. The persons round about cannot all be identified; predominantly, they appear to be Christian writers who presumably find a common ground in faith. To the left of the altar is Gregory the Great (47) holding his treatise on Job and looking heavenward. Next to him is Jerome (48) meditating on the Scriptures. To the right are Ambrose (53), Augustine dictating *The City of God* (54), Thomas Aquinas (55), Innocent the 3rd (56), Bonaventura (58), Sixtus the 4th (60); Dante (62), and Savonarola (63). At the extreme left are portraits of Fra Angelico (30) and of Bramante (31).

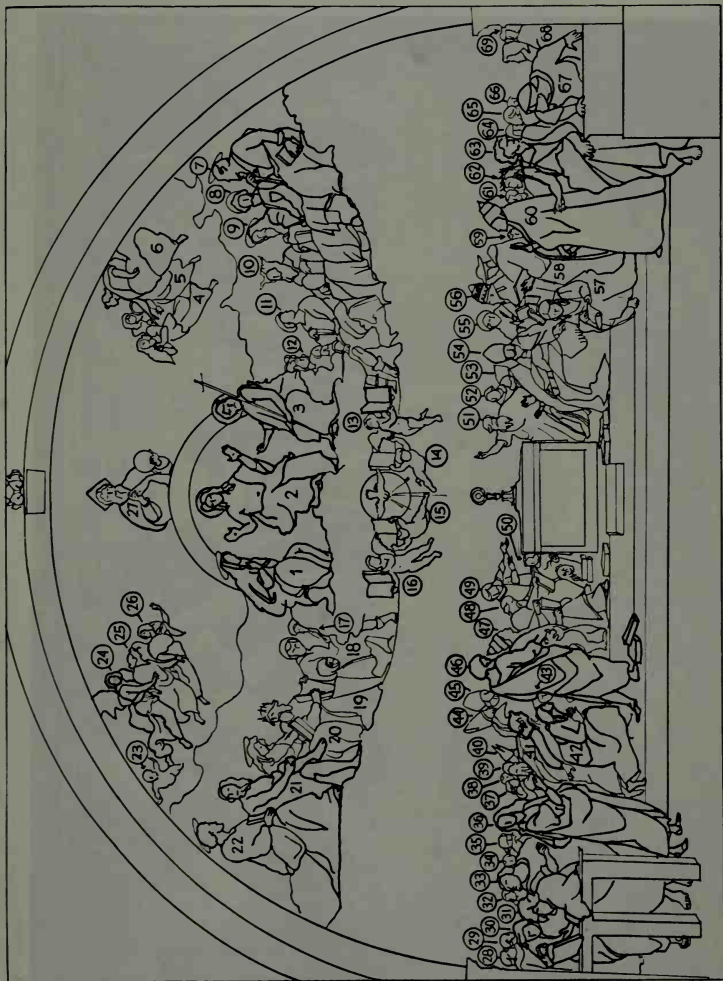
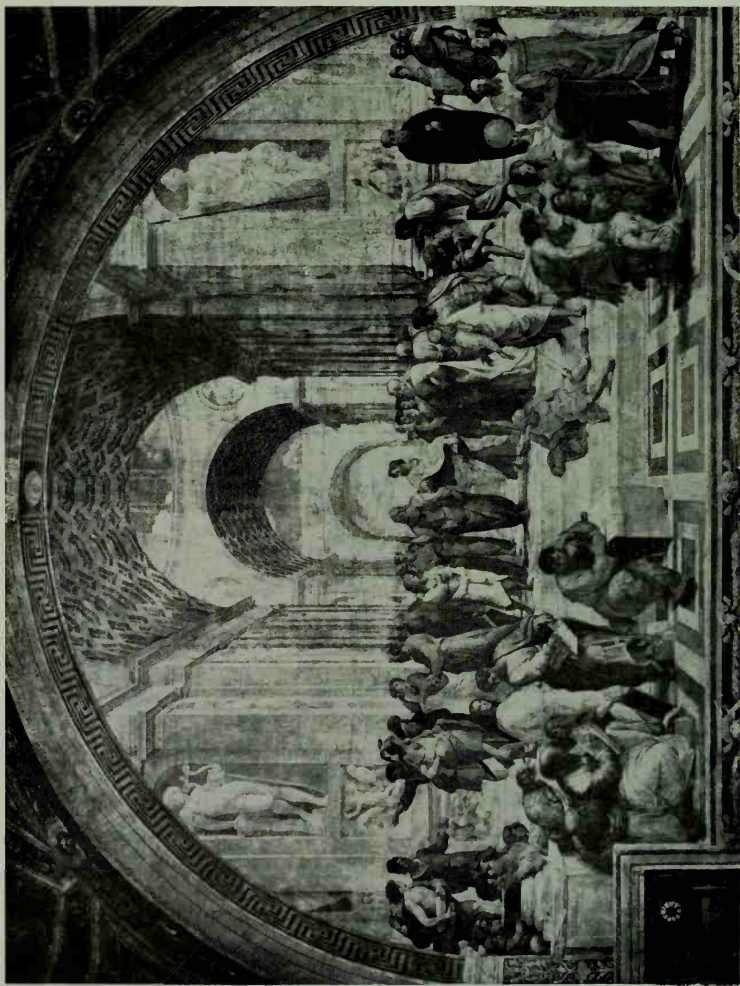


Fig. 16.19 Raphael. *The School of Athens*. Rome, Vatican.

Fig. 16.20 (opposite page) Diagram to indicate the identity of the persons who appear in *The School of Athens*.

On the platform, in the middle, stand Plato (1) and Aristotle (2). To the left of them we see Socrates (49) and some of his famous pupils, Xenophon (48) leans against the pilaster. Alcibiades (45) is the young man in armor. The old man (46) listening so intently is probably one of the artisans with whom Socrates loved to talk because their minds were not cluttered with false ideas. From the far left, a young man (42) comes running in, eager to join the discussion. He is delayed by a Sophist (43), while Aeschines (44), the sausage seller who later became a famous orator, raises his arm in protest. The figures to the immediate right of Plato and Aristotle are difficult to identify. Further on, there are some Eclectic philosophers. One of them (13) is busy taking notes, while a Stoic (15) looks at them in contempt. Alone on the steps is Diogenes (28), and to the left Heraclitus (30) and a first-



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ite (30) variously identified as Anaxagoras or Xenocrates. The old man writing (33) is Pythagoras. A pupil, kneels beside him with the harmonic tables. The man crowded in behind Pythagoras (34) may be Terpander, who had also investigated musical scales. The Arab (35) is probably Averrhoes, who wrote a famous commentary on Aristotle. The jovial man with a wreath around his head (37) is probably Plotinus, to whom an old man (40) brings a pupil (39). At the lower right, we see Bramante (23) playing the part of Archimedes. Ptolemy (21) and Zoroaster (22) stand holding globes. The two young men at the extreme right are Raphael himself (19) and his colleague Sodoma (20). The statues in niches to the upper right and left (not shown in the diagram) are Athena and Apollo. Several contemporary portraits were included, more or less gratuitously with respect to the subject and probably by order of the pope. The boy behind Plotinus (36) has been identified as Frederick of Mantua, who was brought up at the court of Julius the 2nd. The handsome young man (31) is said to be Francesco Maria della Rovere, Duke of Urbino.





ALINARI Fig. 16.21 Michaelangelo. *Pietà*. Detail. Rome. Saint Peter's. Before 1500.



Fig. 16.22 Michaelangelo. *Holy Family*. Florence. Uffizi. About 1505.

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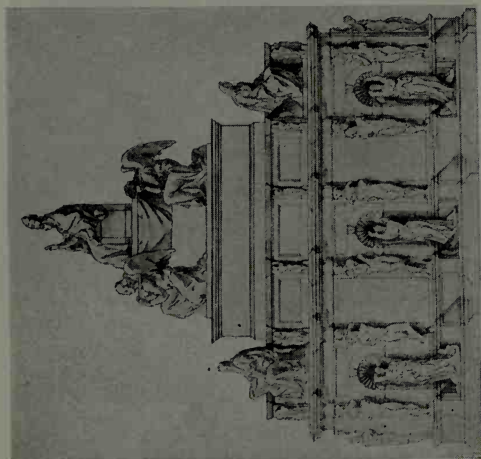


Fig. 16.23 The Tomb of Julius the 2nd as reconstructed by Erwin Panofsky; an attempt to visualize Michaelangelo's original plan.



Paris, Louvre

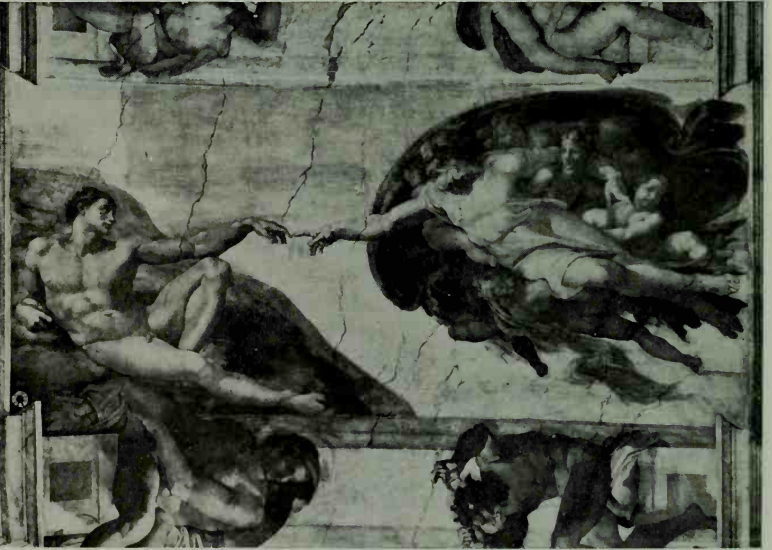
CLARENCE KENNEDY



Florence, Academy

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Figs. 16.24-25 (right) Figures intended for the Tomb of Julius the 2nd.



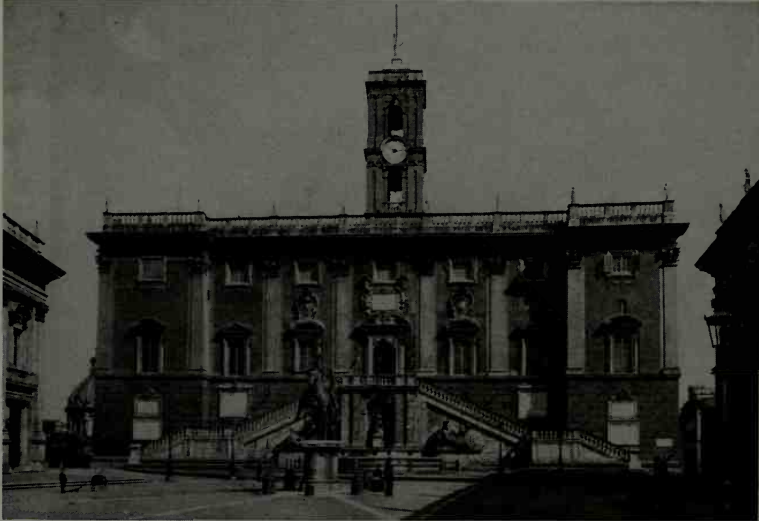
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Figs. 16.26-27 Michelangelo. Frescoes on the ceiling of the Sistine Chapel in the Vatican. 1508-1512. *Creation of the Sun and Moon*, and *Creation of Adam*.



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Fig. 16.28 Michaelangelo. Tomb of Giuliano Medici, Duke of Nemours. Florence. San Lorenzo. New Sacristy. About 1523 to about 1533. Marble. Approximately 20 feet high.



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Fig. 16.29 Rome. Palace of the Senate. Designed by Michaelangelo. Begun 1538.



Fig. 16.31 Giovanni Bellini. *Madonna and Child*. Cambridge, Massachusetts, Fogg Museum.

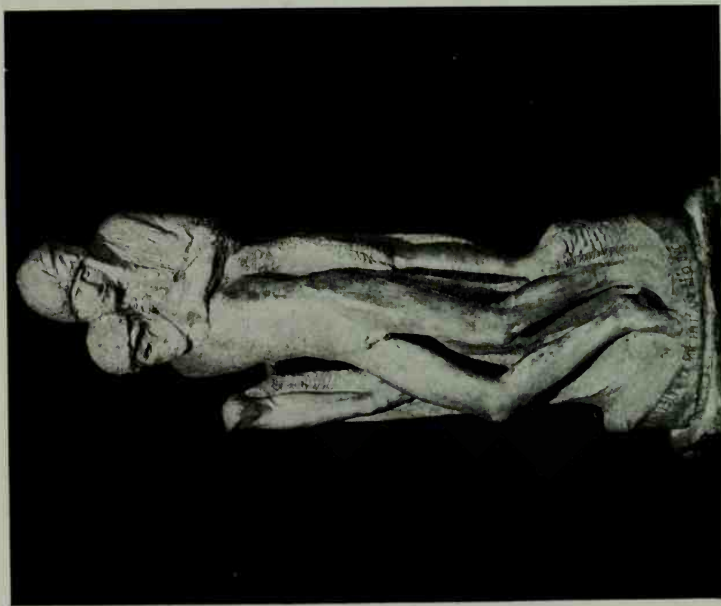


Fig. 16.30 Michelangelo. *Pietà*. Rome, Palazzo Rondanini.

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Fig. 16.32 Giorgione. *The Sleeping Venus*. Dresden. Gallery. Oil on canvas. 5 feet, 10 inches long by 3 feet, 7 inches high.



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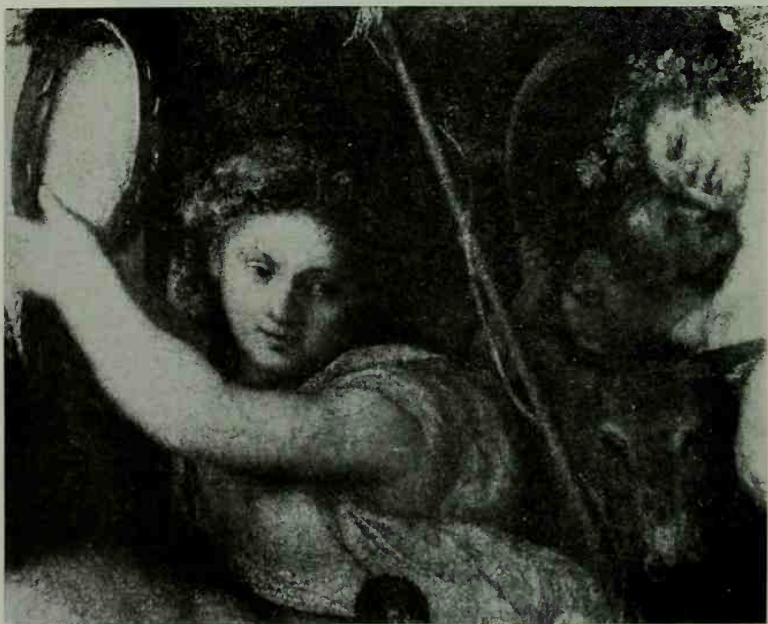
Fig. 16.33 Giorgione. *The Concert*. Florence. Pitti Palace. About 1510. Oil on canvas. 3 feet 6½ inches high.



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Fig. 16.34 Titian. *Sacred and Profane Love*. Rome. Borghese Gallery. About 1514. Oil on canvas. 8 feet, 7 inches long by 3 feet, 6 inches high.

Figs. 16.35-36 Titian.
Bacchus and Ariadne.
London. National Gallery.
1523. Oil on canvas.
5 feet, 9 inches
high.



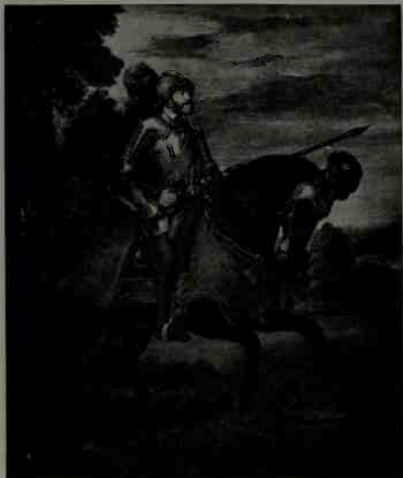


Fig. 16.37 Titian. *Charles the 5th*. Madrid. Prado. 1548. Oil on canvas. 10 feet, 10 $\frac{1}{4}$ inches high.

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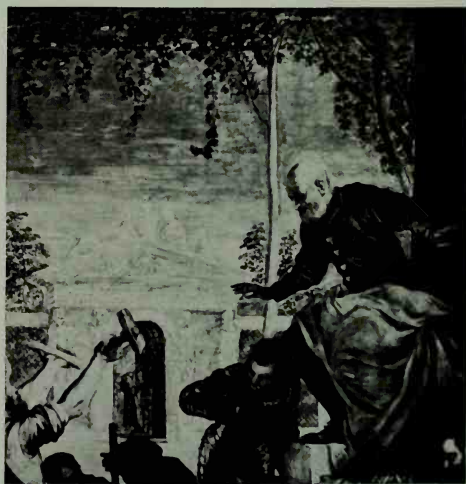
Fig. 16.38 (below) Titian. *The Deposition*. Venice. Academy. 1573-76.

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Fig. 16.39 (above) Tintoretto. *The Presentation of the Virgin*. Venice. Santa Maria del Orto. 1552-56.

Fig. 16.40 Tintoretto. Detail from *The Miracle of Saint Mark*. Venice. Academy. 1548.



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Fig. 16.41 Tintoretto. *The Last Supper*. Venice. San Giorgio Maggiore. 1594.



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Fig. 16.42 Veronese. *The Marriage at Cana*. Paris. Louvre. 1563. Oil on canvas. 32 feet, 5 inches wide by 21 feet, 10 inches high.

Fig. 16.43 Jan Gossaert, called Mabuse. *Adam and Eve*. Berlin. Kaiser Friedrich Museum.

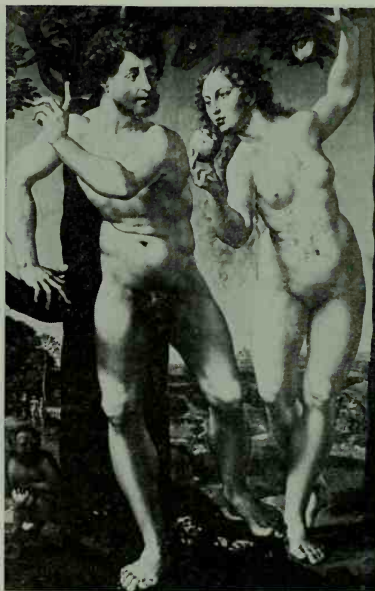


Fig. 16.44 (below) Bosch. *Christ before Pilate*. Princeton University Museum.

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Figs. 16.45-46 Bosch. Details from *The Temptation of Saint Anthony*. Lisbon, National Fine Arts Museum.



BULLOZ

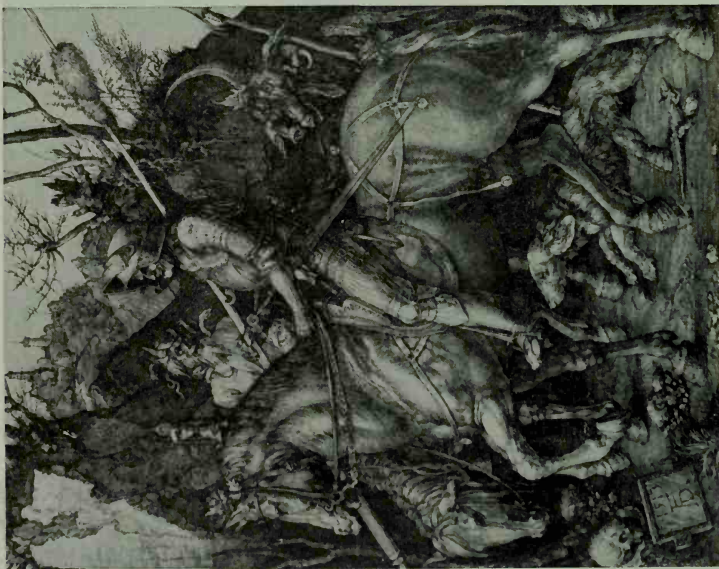


Fig. 16.47 Dürer. *Knight, Death, and the Devil*. Engraving, $9\frac{3}{4}$ by $7\frac{1}{4}$ inches. 1513. New York, Metropolitan Museum.

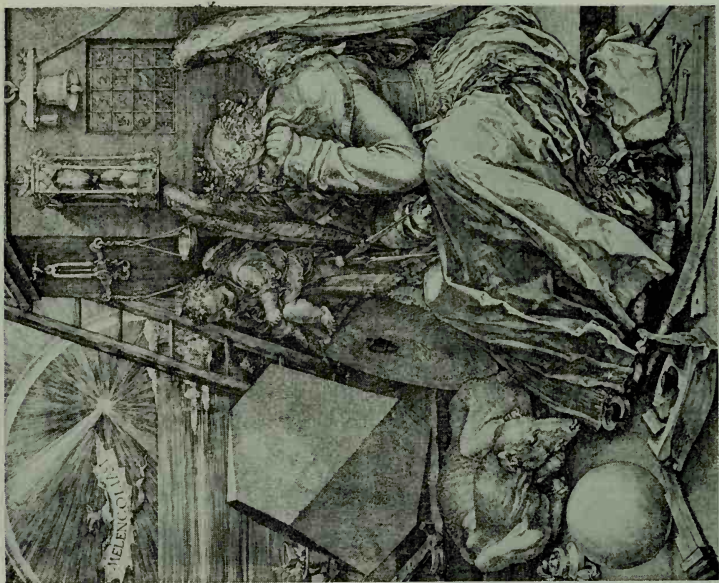


Fig. 16.48 Dürer. *Melancholia I*. 1514. New York, Metropolitan Museum.



Fig. 16.49 Dürer. *Saint Jerome in his Study*. Engraving. New York. Metropolitan Museum. 1514.



Fig. 16.50 Dürer. *Saint Anthony*. Engraving. New York. Metropolitan Museum. 1519.



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Fig. 16.51 Brueghel. *The Blind Leading the Blind*. Naples. National Museum. 1568.



Fig. 16.52 Brueghel. Detail from *The Wedding Dance*. Detroit. Institute of Arts. 1566.

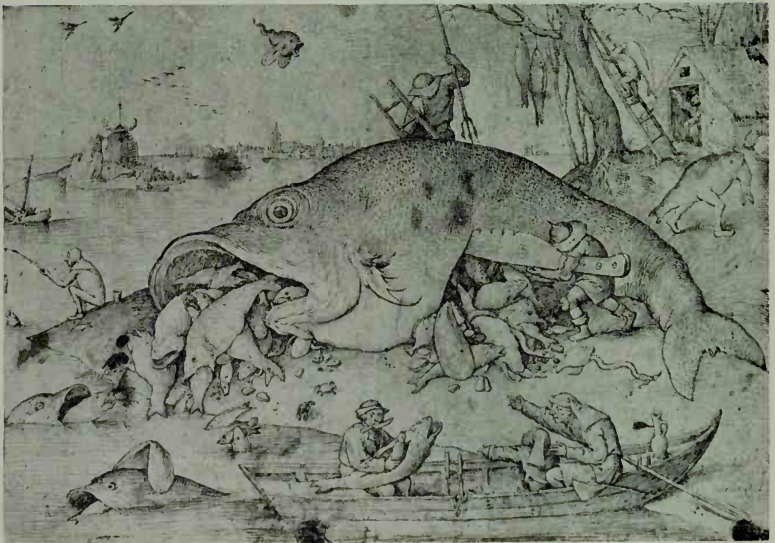


Fig. 16.53 Brueghel, *The Way to Golgotha*. Vienna. Kunsthistorisches Museum. 1564. Oil on panel, 66 $\frac{1}{4}$ inches wide by 48 $\frac{3}{4}$ inches high.

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BULLOZ Fig. 16.54 Brueghel. *The Magpie on the Gibbet*. Darmstadt. Museum. 1568.



GIRAUDON Fig. 16.55 Brueghel. *The Big Fish Eat the Little Fish*. Vienna. Albertina.

in his drawing plans for Sant' Andrea at Mantua (Figs. 16.3-4), an extraordinarily important church.

Alberti's presence on the papal staff made the papal visits themselves memorable. The high regard in which he was held at Rome was excelled only by the impression he made everywhere else. His physical attributes did much to make him conspicuous, and thus enhanced the brilliance of his mind. Unbelievable tales are told of his feats of strength and skill. Without repeating them, we can say that much is indicated by this: in an age entirely dependent upon the horse, he was a world-famous horseman. His advice about training and breeding, moreover, was sought far and wide. All in all, he seems to have been the complete embodiment of the Renaissance ideal: the perfect body, the mind of universal genius.

Alberti's Writings

Although usually mentioned as an architect, Alberti often spoke of himself as a painter and sculptor. He surely had a right to, if we may judge from the incisive self-portrait (which exists in three slightly variant versions) done in low relief on a medal (Fig. 16.1). Unfortunately, it is the only thing of the kind from his hand. The buildings he designed all date from his middle age or later, and they number but a handful. It is evident that his original works of art were simply too few to account for the immense respect the man commanded during one of the most brilliant periods of Western civilization. The fact of the matter is that Alberti spent most of his time writing. He wrote poems and plays. He wrote essays on ethics and sociology. But the great work of his life was a monumental exposition of artistic theory. It consists of three parts: the *Della Pittura* (On Painting) of 1435-36, with a dedication to Brunelleschi; the *De Statua* (On Sculpture), which dates from 1464; and the *De Re Aedificatoria* (On the Matter of Architecture), which appears to have been in hand from 1450 to 1472, and was posthumously printed in 1485.

As compared with the works of others who have from time to time written on the subject of art, Alberti's three books were uniquely successful. They are unique in being the words of a man who was himself a great artist — of a man, moreover, who lived in one of the great productive periods, and who knew numerous other artists of world reputation, what they did, how they did it, and what they thought. The value of practical experience has sometimes been overstated, but all highly trained technicians recognize by a kind of instinct the voice of a man who knows what he is talking about. Few of the greater philosophers have had the slightest influence upon the history of art, but Alberti stands as the paramount influence for the entire period between the middle 15th Century and 1900.

Insofar as the artists of the Renaissance were concerned, the most important thing of all was that he purported to furnish them with a philosophy. Artists had never been admitted to the upper orders during the Middle Age (pages 532-533); and with significant exceptions, they still deeply felt the need of a theory to which they might refer. Alberti seemed to explain what they wanted to have made clear; namely, that the manual work they did was directed, not by mere craft rules, but by principles comprehensible only through the intellect. In order to understand how they felt, the reader must try to imagine a society where conceptual thinking was given an altogether arbitrary, but very effective prestige. Respectability itself hinged upon the difference between the liberal and the adulterine — on whether, that is, a man's activities were honorable or menial.

We cannot follow Alberti's thought in detail within the space of the present volume; let the student read over for himself the material so well selected and so well translated in Mrs. Holt's convenient publication.* Those who do may be disconcerted, for Alberti's theoretical writings are by no means so lucid as they ought to be. In perusing any book of an earlier day, one expects to be delayed from time to time by terms which now have a different usage or even a different meaning; but with Alberti, the reader will find himself puzzled by more than vocabulary. As a literary man, he lacked the compositional power he displayed as an architect. As a philosopher, he often did not perceive the inevitable implications of his own ideas. The meat of his thought comes in small pieces, surrounded by a dressing of manners and replete with allusions to matters that are no longer interesting. Nevertheless, anyone who wants to understand the Renaissance will find illumination on every page. Many of the ideas illustrate verbatim borrowing from the classical. Others attack problems that have been in the air since Alberti's time, and still are. Sooner or later, there is an explicit statement of almost every belief, hope, and desire which made the Renaissance operate.

Perhaps the most important idea put forward by Alberti was the notion that beauty was a philosophical reality beyond the reach of taste and fancy. Throughout his writing, that seems to be the electricity which made the motor turn, the invisible power that kept the whole enterprise going. The thought was not far out of line with the Neo-Platonism presently to become popular at Florence (pages 649-654), a fact which gave it an extra chance for survival. Carried to its logical conclusion, such a concept might well have led Alberti in the end to a philosophy not unlike that of modern cubism. As it was, his favorite art was architecture, the nearest thing to complete abstraction socially acceptable in a world committed to representation.

* Elizabeth Gilmore Holt, *Literary Sources of Art History*, Princeton University Press, 1947.

It was imperative, of course, for him to reconcile his highly abstracted theories of beauty with the practical problems of art as he found it. It would have been useless to urge artists to abandon the representative convention (page 539), and ridiculous to suggest that a humanistic society find expression by way of some artistic vehicle other than the human figure (page 522). We do not say that Alberti ever wanted to bring about either; we merely say that the logic of his own philosophy would have forced him in that direction had he followed it out. As a matter of fact, his personal taste was altogether in keeping with that of his contemporaries, and not with his theories. Nature was his goddess. He loved her, and could blame her for nothing. He broke into tears at the sight of a noble tree or pleasant field; and once when sick, he cured himself by looking at a beautiful landscape. We cannot doubt the intensity or the sincerity of his feelings. They were an expression of the most profound faith imaginable, but they surely imposed upon him the necessity of resolving a conflict between his heart and his head.

The task was to find a way to make abstract beauty seem a natural thing. In doing it, he was helped by the recently recovered text of Vitruvius; as stated in an earlier chapter (page 125) it was Alberti who put on the first full-powered effort to arrive once again at the lost canon of proportions of the Greek sculptor Polykleitos. "We have taken the trouble," he said, "to set down the principal measurements of a man. We did not, however, choose this or that single body; but as far as possible, we tried to note and set down in writing the highest beauty scattered, as if in calculated portions, among many bodies. . . . We have chosen a number of bodies considered by the skillful to be the most beautiful, and we have taken the dimensions of each of these. These we compared together, and leaving aside the extreme measurements which were below or above certain limits, we chose out those which the agreement of many cases showed to be the average."

In the end, Alberti compiled a table of dimensions, but the passage just quoted is indeed a tricky one. Every idea in it is slippery. Obviously it says that the *type* is more important than the single manifestation, but what reason was there (except for an apparent classical precedent) to imagine that the arithmetical average would be identical to pure beauty? Such worries did not delay the research, however. Alberti simply declared that his system enabled us to discover nature's intention. He did not raise the question as to whether nature was, or was not, attempting to produce ideal beauty; he simply assumed that such must be the case. Apparently, it did not bother him, either, that calling in "the skillful" betrayed a disloyal bit of doubt on his own part with respect to the infallibility of nature's judgment. But what did not embarrass Alberti disturbed no one else. One by one, Italian painters and sculp-

tors went down the line, and the result was to give High Renaissance art an idealized figure-style (page 714) in considerable contrast with the realism which had remained standard almost until the end of the 15th Century.

Alberti's interest in ideal anatomy was a typical manifestation of his general belief in the perfectibility of mankind, a subject upon which his personal endowments foreordained an exceedingly optimistic view. Nowhere can we read more eloquent and emphatic statements as to what might be accomplished. It was axiomatic in his thinking that man must be impelled upward by the power of his own humanity. With the will for a driving force, he urged men to work upon the raw material of themselves. Because natural gifts are unevenly distributed, he told every man to assess his own, to perfect the good qualities, and restrain the others. Having done that, he told men to live. And what would be the end of such a life? As much, said he, as a man might want to achieve.

Those ideas, if we apply them to the history of the past five centuries, have an endlessly ramified significance. No social force has been more powerful than the belief (essentially an artistic one) that mankind can be improved. Temporary, and perhaps peculiar to the era of the Renaissance and to Italy, was the further belief that important results might be expected within the span of a lifetime. Boundless enthusiasm for boundless achievement was the engine that made Alberti go; and he, more than any other figure of the time, personified the impulse for the innumerable beautified bodies destined to appear in Italian art. He also gave voice to the motive behind countless ensembles of architecture the world over, their cost incalculable, and their purpose to provide a setting for man.

It was the last-mentioned topic — the alteration of the environment for the better — that furnished the pretext for Alberti's book on architecture, which was intended as the crowning achievement of his career. It circulated widely in manuscript before being printed in 1485, or only about twenty years after the very first press had been set up in Italy. In its pages we may read one statement after another having to do with the general theme of the dignity of man.

With an unusual insight into what makes people want to live, Alberti, in the 2nd chapter of Book VI, set forth certain ideas about beauty which deserve wider credence. Beauty, he said, is a great power in society. Not a luxury, not merely worth its cost, but an essential food for the good life. Alberti praised the Greeks and Romans for insisting upon beauty in their laws, their ceremonies, and even their military affairs. He fastened on architecture as the most conspicuous of the arts, indeed the only art whose imagery we cannot

escape, and he correctly pointed out that beauty was not an adornment of a building, but a necessity. Without beauty, he declared, the deepest resentments are fomented, and all classes of men get stirred up. There was an irony in his entertaining such a view at such a time, for in spite of the fact that beautiful buildings were continuously going up all over Italy, Italian society could hardly have been more continuously stirred to acts of private and public cruelty and violence. We must remember, however, that Alberti was thinking of the ultimate effect upon mankind of an environment completely made over by the creative achievements of art. His ideas have a curiously familiar ring, because we so often hear exactly the same kind of thing today — and with hardly less irony — whenever housing, city planning, or any other aspect of human welfare may be mentioned.

Alberti's architectural imagination followed out his train of thought into conceptions of epic grandeur. He never forgot the importance of refinement in matters of detail, but his greater vision embraced whole cities. He visualized a metropolis composed according to artistic principles, with each handsome structure an harmonious element in the general design. The government, he thought, should have buildings of the most imposing kind (a conception that looked forward to Versailles and every modern capital). He counseled the leading citizens to maintain establishments proper for their station, warning them at the same time to avoid overt display.

While his background and personality were aristocratic and while he plainly thought society depended upon a creative minority, he had the kindness and consistency to realize that the less gifted majority must also participate in the dignity of man. He carried that idea to its logical conclusion. Hospitals should be provided, he said, to keep cripples and beggars off the street. The relief of suffering, it would seem, was but a secondary motive; the central purpose was to save such persons from a degradation of their human dignity, and to prevent the sight of them from offending others. Going still further, he spoke strongly against contemporary prisons. Conceding that society must confine criminals, he declared that even the vicious were entitled to decent jails.

Sociological preoccupations of the kind just described inevitably suggest that buildings ought to be useful, a point to which Alberti closed the eyes and ears of many readers by his strong emphasis on the value of beauty. It cannot be said, however, that he was guilty of anything worse than faulty weighting of the subject matter. In a number of places, and in different ways, he made it plain that he had no patience with an inconvenient building, or with one that cost more than it ought. His error was to think that practical requirements were easily fulfilled. "The having satisfied necessity," he says in Book VI, Chapter 2, "is a very small matter. . . ." Elsewhere, he urges the archi-

tect always to focus his attention on beauty, merely keeping function somewhere in the back of his mind. That thousands have followed this advice is all too evident; but as we have seen, the difference between Alberti's theories and those of the 20th Century is far less than one might suppose.

One of the features which made Alberti's writings acceptable to artists was the fact that he never failed to point out how aesthetic theory might be applied to practical problems. With respect to the creation of an architecture suitable to the dignity of the race, he thought he had an infallible formula. He depended upon Vitruvius. The inelegance of the Vitruvian Latin was doubtless a matter for regret to a man who was himself a stylist in that language, but every word nevertheless seemed golden. Where other classical authors made allusions to art, Vitruvius told how he personally had gone about putting up Roman temples, and gave directions for doing the same. If we consider the temper of the times, it is no wonder Alberti thought he was reading the word of God. At any rate, it would seem that he never discerned a significant difference between the architecture Vitruvius described and the perfect beauty for which his heart yearned.

In addition to what he could glean from Vitruvius, Alberti had expended an immense amount of his own time studying the classical monuments. His observations must not be confused with the mere contemplation of scenery which happened to be enhanced by Roman ruins; it amounted to a thorough course of self-discipline. He examined classical architecture by measuring it, and the data he took home would have enabled a good workman to build the like anywhere. With utter confidence, therefore, he furnished his readers with precise specifications for the classical orders.

When he published his tables for the classical orders, Alberti threw the door open to a more literal interpretation of classicism, to the implications of which we must now turn our attention. The reader will keep in mind, of course, that as explained in another connection (pages 847 ff) a classical revival of any kind is never a simple matter of cause and effect. Because classical Antiquity was no single thing, it is always necessary to know what department of ancient art was, in any particular instance, operating as a guide for the modern artists. We also need to know how thoroughly they understood it, and how strictly they were attempting to copy.

In the case of Alberti, it was the orders as used by the Romans for which he furnished dimensions. He knew nothing of Greek architecture. Neither did anyone else. The entire Renaissance went its way and ran its course, in fact, largely upon inspiration from Rome.

Neither were Alberti's findings final. His book proved to be merely the first

in a very long series of similar publications. With respect to the orders, it was actually superseded rather soon by an even more minute analysis published in 1563 by Giacomo Vignola, who also worked for the popes at Rome. Nor was Vignola alone. In 1573, Andrea Palladio, whose country houses in northern Italy set the model for similar houses in England and America, published his monumental *Four Books on Architecture*. These books and others like them set an Italian and Renaissance precedent for similar publication in other countries. Fig. 17.14 is a plate from a typical English volume of the early 18th Century. The names cited are merely suggestive of many others, and the important thing to understand is that each and every one of the architects involved purported to furnish new and better information about classical architecture, plus the very latest ideas about how it might be adapted to the necessities of modern building. Penrose's work at Athens (pages 94-100) merely capped the climax of the custom initiated by Alberti. The origin of the custom, it ought to be added, was Alberti's belief that the good architect must also be a scholar. The extraordinary number of publications resulting is but another index to the fact that his ideas prevailed and endured.

But the full meaning of Alberti's classical research has not even yet been made plain. In the first place, he did not question the authority of the ancients. He assumed that their architecture represented perfection arrived at by centuries of intelligent trial and error. On the face of it, a modern architect would be a fool to repeat their drudgery when he might quite as easily capitalize on their findings, and take up where they left off. His attitude toward the Romans was still further colored by considerations of an imponderable but cogent kind. His classicism, like every other brand of classicism, depended upon the existence of a sincere belief that the ancient world and the men in it were better than the modern world may reasonably expect to be within the measurable future. It is to that faith we refer whenever we speak of classical authority, and it was Alberti who made classical authority all too accessible.

His tables made it easy to copy the Roman orders. In itself, doing so might have been an innocent activity had not the very same tables tacitly labeled as ridiculous any further experiment with the orders. It would hardly be too much to say that they laid the dead hand of the past on architecture itself, stifled the creative imagination, and begot the dullest five centuries in the history of the art. From here on, the reader may look for no more Brunelleschis — or at least not until after the Industrial Revolution of the 19th Century.

Alberti's Buildings

Alberti's travels on Vatican business took him now and again into north Italy, and it was there that he received the commissions for his most important

architecture. His relation to the buildings was new and different from what had been customary before. In part, the matter may have been decided by his responsibilities at Rome and by the impossibility of his remaining away for indefinite periods; but his procedure nevertheless reflected a modified conception of the function of the architect. Alberti merely drew the plans. He had a good knowledge of practical construction; but having furnished the design, he left the work to be carried out by others. His custom in that respect has remained the standard usage in Europe and America; and as a philosophical proposition, it will be noted that the net effect was to minimize the adulterine element in building (page 532) and to maximize architecture's role as a liberal art.

At Rimini, Alberti worked for Sigismondo Malatesta. It appears not to have concerned him that the man was the quintessence of Renaissance paganism, or that the commission was to remodel a church originally dedicated to Saint Francis but now intended as a kind of shrine in honor of Sigismondo's mistress Isotta. The fabric of the building was Gothic. Alberti merely undertook to conceal it with an overlay of Renaissance forms. The plans were carried out only in part; and the renovation remains incomplete today. In its day, it was — with reference to the future progress of style — well ahead of its time.

Across the façade, Alberti put a Roman Arch Order (page 219), the first of its kind in modern architecture. Instead of pilasters, he used columns, and he rendered the entablature in *ressaut* (page 220). The heavier proportions and greater relief of the members constituted an important indication of the way Renaissance art was to develop. The remark applies not only to architecture, but to sculpture and painting as well; for where the 15th Century artists tended to deal in line and surface, those of the High Renaissance worked with the mass.

Down the sides of the building (Fig. 16.2), Alberti designed a powerful arcade running the length of the nave. The arches are round. The soffits are very deep. Each arch might be described as a short bay of tunnel vaulting. The supporting verticals are substantial piers of masonry, with rectangular cross-section. The design appears to be derivative from the fabric of the Colosseum at Rome, but the proportions were more carefully studied, and the detail more elegant.

Under each arch, Alberti placed a sarcophagus. Sigismondo and Isotta were to have been similarly entombed on the façade, and these lateral arrangements were meant to accommodate illustrious members of their spectacular court. The custom of putting a sarcophagus under an arch in the thickness of a wall was a very old one, but Alberti's design opened up new vistas in mortuary architecture. His means for expression were completely abstract: mass, line,

proportion, light, shadow. Yet he was able to convey an impression as clearly and specifically as it might have been done in words, or by representative art. It is impossible to think of the sarcophagi he designed as coffins where lie the worn out bodies of more or less forgotten dead men. The place was built for heroes; indeed, it is a cenotaph for the concept of greatness.

Sant' Andrea at Mantua was Alberti's most characteristic and influential design (Figs. 16.3-4). He drew the plans for Ludovico Gonzaga, then head of

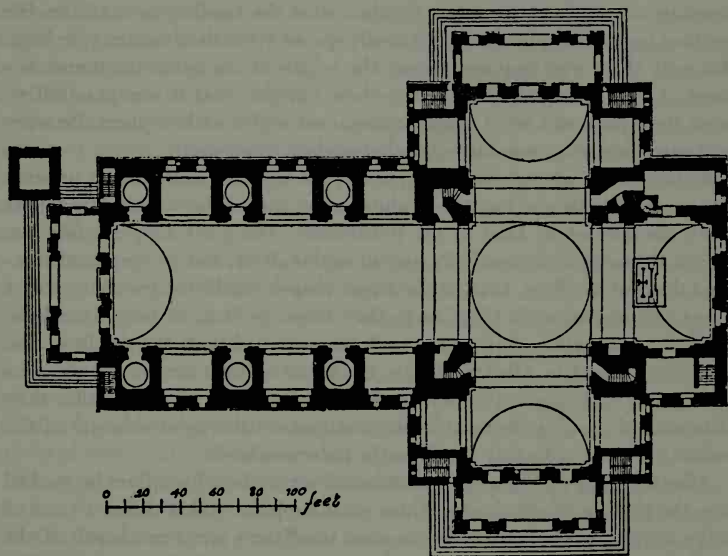


Fig. 16.56 Mantua. Sant' Andrea. Plan.

Mantua's greatest family, and he left the construction to be carried out by the local court architect. Most of the work was done after Alberti's death in 1472. The surface decoration of the interior, typical North Italian work of the period, was not designed by him; it is neither good nor bad. The arrangement of windows in the drum of the dome over the crossing was likewise no plan of his. Otherwise, the church is much as he intended it to be.

The plan (Fig. 16.56) had been predicted by Brunelleschi's Santo Spirito at Florence (Fig. 15.39), and also by the arrangement of several North Italian churches. Sant' Andrea is nevertheless the key monument. It brought earlier experiments to fruition; and while it conforms in a general way to the basilic-

can scheme, it departs therefrom in significant respects. The departure was enough to make it a new type, and the first really successful modification of the traditional Christian church.

Alberti's manifest purpose was to give full expression to the plastic impulse already strong in his earlier work. He wanted a more emphatic modeling for the masonry, and a greater gravity of effect. He also wanted a more definite, more simple, and more lucid moulding of the spatial volume enclosed. For such results, the traditional division of nave and aisles was unsuitable. He therefore canceled out the aisles. He eliminated the familiar nave arcade. He specified instead some immense and closely spaced verticals of masonry, so large that only three were required to run the length of the nave; the fourth belongs to the crossing. So ample were those uprights that it was practical to make them hollow; a small chapel is contained within each of them. Between each pair, there was room for a chapel of slightly larger area.

As seen in the normal view (Fig. 16.4), the nave of Sant' Andrea presents the eye with little else but the modulation of mass. The ceiling is a tunnel vault, the first of its kind in the Renaissance. The great supports face flat against the nave, broken only by a small oculus above, and by very moderate-sized doors at the floor. Each of the larger chapels recalls the passageway of a Roman triumphal arch (Fig. 8.6); they seem, in fact, to face inward toward the nave rather than to open off from it. Although the details of the decoration post-date Alberti's design, the broad outlines are his. As the governing motive, he chose the Roman Arch Order, using pilasters rather than columns and running the entablature continuously through the length of the building at what ordinarily would be the triforium level.

Alberti's study of Vitruvius was reflected in the play of numbers he worked into the rhythm of the design. Three great supports (odd) define a total of half a dozen chapels (even). At the same time, there are three chapels of the small size, and three of the larger (a harmony in terms of odd numbers). The three piers on either side of the nave come into contrast with the four verticals under the crossing; and the total of six piers in the nave is commensurate with four by reference to the module two. Without asserting that such numerical relationships account for Alberti's success, it is evident he was interested in them.

It would be difficult to name another interior so complicated as that of Sant' Andrea which has anything like an equal lucidity of arrangement. By using large members, Alberti was able to use very few of them. When one enters the western doors, the furthest piers stand out almost as clearly as the nearest. The plastic shape of the enclosed space is clear to a degree; and the same may be said of the carved masonry. Such features bespeak the inner spirit of classicism,

so perfectly a part of the architect's nature as to be the material of his intuitions. No amount of archaeological learning can tell one how to produce forms like those he designed. The argument from classical authority (furnished by Alberti to lesser men, and for them a narcotic poison) seems for himself to have been an aesthetic food. It would be incorrect to say that Sant' Andrea marked the recapture of Roman architecture. It follows Roman principles, to be sure, but there were never any architects at Rome good enough to design it.

The façade of Sant' Andrea (Fig. 16.3) was hardly less important than the interior. Much criticized because its height does not correspond with the height of the church behind, it is in reality a porch. As such, its function may be understood as simply to dignify the entranceway, and its artistic business is with the man in front, not with the nave behind. Within the limitations of such a scheme, Alberti's design may be considered a notable contribution in the vexed matter of adapting the classical orders to modern buildings (page 109). Originally worked out for temples of one story only, the orders fit nothing else perfectly. Modern architecture, however, almost invariably demands several floors.

Alberti's purpose seems to have been to give the world an academic demonstration to show how those disparate elements might be combined. Somewhat gratuitously (for there is no such division within), he gave himself three stories, and marked them with the aisle doors, and with windows at two levels above. Each window, it will be noted, rises from a horizontal that was kept low in relief. The central entrance is a tunnel vault. Its height is the same as the higher windows to either side, and its shape is marked on the front by a pair of pilasters and a classical moulding around the arch.

Above, around, and through the items of the ensemble, he ran the members of a complete temple front, also rendered in low relief. A pediment and entablature frame in the top of the façade. Beneath are four great Corinthian pilasters running unbroken to the ground. Those latter are of the proper classical proportion for their height. They are thus large in relation to every detail with which they are juxtaposed. Nothing is big enough to compete in any serious way with their vertical strength. They pass upward regardless of the delicate horizontals, and they pull everything together and tie the composition into one.

Any order that runs through several stories is technically described as a *colossal order*. The term has no reference to absolute size, and would be used for the colonnettes of a fireplace if the same fulfilled the condition of running through two or more horizontal divisions. By giving the weight of his authority to the colossal order, Alberti unquestionably furnished Renaissance architecture with a useful compositional resource. Almost any collection of

sculpture, openings, and what not can be brought into unity if a colossal order of sufficient strength is merely superimposed. But like everything else that is easy, the device has too often been relied upon to correct mistakes which never should have been made in the first place.

Sant' Andrea was too radical a building to become immediately popular; but in the long run, it exerted a great influence upon Renaissance architecture. Alberti was connected with the Vatican when Nicholas the 5th (regnal dates 1447-55) decided not to repair the ailing Early Christian church of Saint Peter (Fig. 9.21), but to tear it down and build anew. We may fairly infer that Alberti had much to do with swinging the decision against sentiment for the past, and forward toward a grander modern Rome. When at length, Bramante's first plans for the new building were approved by Julius the 2nd (1503), they were plans calling for a church more than a little like Sant' Andrea. Bramante died in 1514, leaving the work only begun. After various false starts with other architects, Michaelangelo was finally put in charge in the year 1546. He revised Bramante's plans to make the immense structure even more like Sant' Andrea (page 747). The example set at Saint Peter's laid down the style for almost all of the smaller churches built in Rome from that date forward. The Church of the Gesù, designed by Vignola and begun in 1568, may be taken as the typical example. The churches of Rome in turn set the type for Baroque and Rococo churches everywhere else. It may fairly be said, in fact, that Alberti's elimination of the nave arcade, with evident improvement in the floor space, very substantially modified the basilican tradition (pages 277-292) to which Europe had so long been unswervingly loyal.

Alberti, Bramante, and the Central Church

Alberti also drew plans for another and less celebrated church at Mantua, and the type he chose for that second building has a special significance. We refer to San Sebastiano, probably designed in 1460. Because Brunelleschi's Santa Maria degli Angeli had never been finished (page 636), San Sebastiano was the first good-sized modern church to be completed on the central plan. Experimentation with the central plan might seem to indicate nothing more than one more revival in an age given to revivals; but knowing what happened afterward, we can see that a considerable movement was underway, with Alberti among the leaders. The difficulty of adapting the central form to the ritual was no less than it ever had been (page 292). What, then, was the appeal?

The answer seems to be twofold. In the first place, as Mr. Nikolaus Pevsner has so well put it in his brief but profound history of architecture, the central building seemed to be the perfect architectural expression of Renaissance individualism.

By standing precisely at the floor's middle point, a man identifies his own body with the axis of the design. He and he alone — for only one man can be there at a time — becomes for the present the creature to whom the governing symmetry refers, the central integer that brings it significance. No other kind or type of artistic composition puts the single personality in a similar position. For the moment, one exists as the absolute focus of everything in view. If the church has nobility of design, the sensation is glorious. If the church is enormous as well, the personality gains scale in proportion with the architecture.

The basilican interior invited no such feelings. Because it embodied the ideas of progression and focus (pages 284–289), it always and inevitably suggested realities beyond the observer's immediate compass. By doing that, the basilica was likely to induce thoughts of man's insignificant stature and philosophical incompleteness — ideas which men like Alberti doubtless recognized as valid, but upon which they did not care to dwell. They preferred, rather, an architecture which corroborated man's confidence in himself. As to what that indicated about the then relations between man and God we need not explain; but as an expression of monarchy over the environment, nothing could excel the central building.

The second reason for the rather sudden popularity of central churches during the Renaissance had to do with a recrudescence of age-old ideas about the symbolic meaning of the domical shape. As made plain by evidence recently brought together and made accessible in Mr. E. Baldwin Smith's monograph on the dome, such notions may be traced back almost as far as the race. The precise symbolism has changed from time to time, but no race has ever become quite so controlled by its head as to disassociate itself completely from the impression that domes, as such, are animate with holy power. As soon as Florentine Neo-Platonism (pages 749–754) started to do its work in Italy, the dome began to be specifically identified with the heaven from which mankind had been banished, and toward which it aspired to climb back. Neo-Platonism also contributed the concept that beauty, especially the beauty of the primeval state of grace and glory, was an abstract and inaccessible ideal.

At any other time in the history of art, such difficult ideas might have received very indifferent treatment in the visual arts, but Italy was then literally full of artists who were thoroughly familiar with the expression of sublime concepts. A number of domes were designed with the deliberate intention of making the appearance, as seen on the interior, suggest heaven in all its transcendent, ineffable, and utter beauty. As a class, the domes of the period are distinguished by a deliberate separation of the dome from the drum (by one method or another) and of the drum from the pendentives beneath — in ob-

vious parallelism with the Platonic scheme of an existence arranged in graded categories, each higher and better than the one beneath. Without doubt, the most perfect realization of such ideas was the dome of Sant' Eligio degli Orifici (Fig. 16.5), which has the same ineluctable fascination as a crystal ball. It was designed by Raphael (pages 727 ff).

Alberti's endorsement of the central type set in motion a whole series of designs. Among the designers involved in the tendency, Bramante was the most important man; and among the centralizing churches he designed, we may mention the so-called "Tempietto" at San Pietro in Montorio, Rome, and Santa Maria della Consolazione at Todi (Fig. 16.6). When Bramante took charge of the works at Saint Peter's, he firmly intended to make the great new building a central church on the Greek cross scheme. When Michaelangelo succeeded Bramante, he had his own ideas about details, but he had no intention of changing the fundamental arrangement of the composition. He died, in fact, without ever imagining that Saint Peter's would not be a central church.

While all that was going on at the capital, sizable central churches were going up in the provinces, of which we may mention San Biagio at Montepulciano, designed by the elder San Gallo and dating from 1518-37. It looked, indeed, as though the basilica had been superseded and as though the central type would be remembered as the chief contribution of High Renaissance architecture.

The popularity of the scheme might, indeed, have endured a very long time had it not been for the Protestant Reformation. That movement, seemingly nonarchitectural in its implications, raised the question as to whether the ideals of the Renaissance had not been responsible, in part at least, for the Protestant defection. The general tenor of opinion at the Council of Trent, which sat from 1545 to 1563 and which was called to start the Counter Reformation, held that the Church should turn its eyes and methods back to the usage of earlier generations. Among those usages was the traditional basilican plan for churches, the appeal of which was strong enough to dictate a fundamental alteration in Saint Peter's itself. Carlo Maderna was therefore employed to ruin Michaelangelo's composition by adding the present extended nave (Fig. 17.9). The work dates from 1606-26; and with it, the central type crossed the great divide into oblivion.

THE ARRIVAL OF THE HIGH RENAISSANCE

While it is hardly possible to exaggerate Alberti's part in starting the High Renaissance, there was a substantial interval between the time his ideas were

made public and the time they took effect. We may think of him as a prime mover in calling the new era into being, but the fact is that he was dead before we can note any considerable frequency in the phenomena which marked the arrival of another cultural climate. The actual transition from the Early Renaissance to the High took place during the last quarter of the 15th Century, and we may pause here to note a few of the events and tendencies which made themselves felt, attracted approval, and finally changed the entire scheme of things.

For the art historian, the most conspicuous fact of all was the shift of the cultural capital of Italy from Florence to Rome. That had doubtless been inevitable from the moment when Nicholas the 5th (page 704) decided to build a gigantic new Saint Peter's, but various other happenings predicted the turn of the tide.

Among them was the construction of a new chapel at the Vatican, known as the Sistine Chapel. Aesthetically undistinguished, the room was nevertheless notable for being bigger than almost any other private or semiprivate chamber designed up to that time. It is a tunnel-vaulted oblong measuring 133 feet long, 43 feet wide, and 85 feet high. It was designed with high windows and large areas of wall, doubtless with the idea of providing space for mural painting. The chapel was ready in 1481; and there being no competent painters at Rome, the Pope summoned prominent masters from Umbria and Florence. They painted the pictures which are still there on the side walls, but not one of them had the breadth of style requisite for the task. Botticelli, for example, did three frescoes which are curiously busy with delicate passages, and utterly empty of the monumentality which was needed. Perugino's *Christ Presenting the Keys to Saint Peter* came closest to success; but it, too, merely reached toward the "Grand Style." Obviously, the habits of visualization peculiar to the Early Renaissance were out of keeping with the taste of the incoming era. A new and larger imagery was requisite to fit the scale of the big pictures which alone were appropriate in a more pretentious setting. The men who had grown up in the tradition of 15th Century realism were unable to make the change; but by a kind of instinct, the members of the next artistic generation knew just what to do.

The reign of Julius the 2nd (1505-1513) coincides with the actual achievement of artistic primacy at Rome. That energetic pontiff pushed forward the procrastinated project for the new Saint Peter's. It was he who appointed Bramante architect, with the result that construction commenced in 1506. He was the man who summoned Michaelangelo to Rome to design and build for him a tomb (pages 740-744) which, had it been completed, would have

outdone the Mausoleum at Halicarnassus. It was he, also, who commissioned the frescoes of the Sistine Chapel ceiling (pages 744-747). While Michaelangelo was working on that stupendous task, Julius kept Raphael simultaneously at work on the frescoes of the Vatican Stanze, the paintings which forever guarantee their author's place in history (pages 729-734).

The activity just described is to be put in contrast with the handful of commissions which had emanated from the Vatican during the previous two generations. When at length the popes had become artistically self-conscious, there was, as noted, scarcely an artist at Rome with calibre enough to undertake a major enterprise; but at the turn of the century, outsiders came there not to sojourn but to stay. Bramante, Raphael, and Michaelangelo are the most famous men who did that, but innumerable artists of lesser imagination but excellent capacity were also resident. Raphael, for example, constantly maintained a staff of at least fifty first-class technicians to assist him; without their help, he could hardly have begun to accomplish the work now known by his name. The men were recruited from all over Italy, and the very fact that competent persons could be found in numerous places is significant. It means that the local schools, always existing almost everywhere on the peninsula, had now become mature, and were closing the lead hitherto maintained by Florence.

The centralization of the Renaissance at Rome was concomitant with the spread of the Renaissance to the rest of Europe — for it was during the early 16th Century that Italy began to furnish the modern world with a cultural leadership similar and comparable to that exerted by Athens during later Antiquity. As indicated by Ficino's immense correspondence (page 650), there already existed a considerable tendency for northern intellectuals to turn their faces toward Italy; but, as compared with the 15th Century, the era of the High Renaissance is chiefly different for the appearance all over Europe of men who not only equalled the learning and genius of the Italians, but thought in just the same way and belonged to the same culture. The Dutchman Erasmus (1466?-1536), who published the first modern edition of Aristotle and worked on more accurate translations of the scriptures, has been remembered ever since as epitomizing in his person everything that was good in the humanism of the period. Copernicus (1473-1543), a Pole who knew Rome well but spent most of his life in East Prussia, may be cited as the author of the most influential publication of the entire era. His *De revolutionibus orbium coelestium* (1543) settled once and for all the perennially disputed question of whether the sun was or was not the center of the universe. Contemporary with such men and upon terms of personal friendship with them

were men of similar calibre and similar interests in other lands — Thomas More and John Colet, for example, merely to mention two names which will be familiar to the English-speaking student. By pursuing the subject further, we would rapidly find ourselves building up a picture of a Europe which more and more subscribed to a common philosophy of life with its creative center in Italy. For the matter of our present interest, it is necessary to add that Italian standards in art followed Italian standards of every other kind: the 16th Century was the period when almost all of the European world consciously cast off the Late Gothic and adopted the style of the Renaissance.

The first half of the 16th Century is the only time when Germany produced artists of world importance. The best of them retained a certain measure of northern taste, but all were strongly conscious of the Renaissance. As compared with the great Italians, Albrecht Dürer (pages 774-779) and Peter Brueghel (pages 779-785) stand out in history as men of similar mind and equal calibre.

France deliberately imported the Italian style as a result of the military expeditions into Italy, beginning with the invasion of 1494 (page 662). The wing added to the château of Blois in 1503 by Louis the 12th is generally mentioned as the first French monument in the new manner; but actually, it amounts merely to a sobering of the later Gothic. The same can be said with similar force for the more elaborate additions put up by Francis the 1st between 1505 and 1519, but it was that very same Francis who invited Leonardo to France (page 709). The great man died there in 1519 without having accomplished much, but his coming was reflective of a conscious policy. Francis imported other Italians, mostly second-string men, and some of them stayed. From that beginning sprang the exotic School of Fontainebleau, a conscious negation of the native and northern tradition.

Spain, like the rest of continental Europe, embraced the Renaissance during the first generation of the 16th Century. Her painters had hitherto been stylistically dependent upon Flanders (page 617). They now cultivated generalized forms and triangular compositions like those of Raphael (Fig. 16.16), and retained that habit until the coming of the Baroque. Even the exuberant Plateresque architecture, one of the great achievements of the Late Gothic, modulated its details toward the classical, and sobered down (Figs. 12.32-34).

Only in England did the tide of the Renaissance fail to sweep all before it. Henry the 8th (regnal dates 1509-1547) is frequently nominated as the first Renaissance king of England, but that is more nearly correct with respect to his orientation and outlook than it is of English art. Hampton Court (1515-40) and other buildings often catalogued as "English Renaissance" fit the characterization in date rather than style.

Thus in England — and especially in England because of the greater vitality with which native taste survived — we may note a major oddity of modern culture: the coexistence in the same society of a native and vulgar tradition beside an elegant and imported one. In Italy, the contrast is unknown, and its tensions never felt. Peasant and scholar alike inherit direct from Latinity. But in all northern countries, we are constantly confronted by a double standard. Chaucer on the one hand, and Milton on the other. Or Hogarth's truculent assertion of a British art resistant to continental standards as exemplified by Sir Anthony Van Dyck (page 764) and his followers.

The impression made upon Alberti by his long residence at Rome was symptomatic of the impression Rome now made on everybody. Florence had begun its artistic tradition with Giotto, and Florentine artists had continued in the progressive spirit, with an eye always on the future and a reputation yet to make. The shift to Rome was a shift to another world. Rome was and is overwhelmingly a city of the past. Ancient ruins of immense size loom up in every vista. To this day, no one can point to their equal; and the world hardly offers a similarly wholesale demonstration of scale combined with permanence. It was inevitable that artists would be affected by the spectacle. In subtle ways, their motivation changed from originality to emulation. A number of single incidents, none crucial or definitive in itself, contributed each in its own way to the state of mind described.

In 1506, the celebrated *Laocoön* group (Fig. 6.20) was dug up. Michaelangelo himself examined it with minute care. His admiration was boundless. The experience doubtless turned his attention to the Pergamene division of ancient art (pages 170–176 ff) from which he drew the inspiration for his later figure-style. The *Belvedere Torso* (Figs. 6.21–22), a less conspicuous example of the same kind, had been in the possession of the Colonna family as early as the 1430's, but first came to public attention when Clement the 7th (regnal dates 1523–34) brought it to the Vatican. To those monuments, it is perhaps worthwhile to add the name of the *Farnese Hercules*, which came to light in 1540.

Archaeological activity is always interesting; but in the flamboyant musculature of those particular antiquities, Italian artists sensed something lacking in their own art. Apparently they felt that the statues revealed man's most complete and perfect physical development. All artists with a taste for force and power were impelled toward experiments along the same line. Even those, like Leonardo and Raphael, who had no special liking for power as such, became profoundly interested in the elaborate twisting of the body, the *contrapposto*, which has become almost a synonym for the figure-style of the

High Renaissance — as, indeed, it had been a synonym for the particular class of ancient statue then brought so much to the fore.

If, in our imagination, we add the news of lesser finds to such famous bits of excavation, it is easy to see that the recovery of Antiquity was a lively topic at Rome, and kept on as a lively topic for a long while. Other things that were going on also contributed to the same effect, and gave men added reason to be conscious of Roman greatness.

When, for instance, it was desired to move the Vatican Obelisk from the Circus of Nero, where it stood, to its present position in the middle of the Piazza San Pietro, no one knew how to do it. A conference of experts was summoned from all over Italy. They talked for weeks. Finally, the scheme presented by Domenico Fontana was adopted. After impressively elaborate preparations, he brought the job off in 1586. An immense amount of public interest came to a focus as the work went on. Everyone who watched was doubtless impressed by the fact that the Roman engineers, acting under orders from Caligula, had in 41 A.D. brought the very same obelisk all the way from Heliopolis on the Nile Delta, across the sea, up the Tiber, and into its place about 250 yards from the spot to which Fontana had now moved it.

The events mentioned are but incidents in history. They will nevertheless suggest why so many artists of the highest personal accomplishment were willing to accept classical art as a guide. Some were even willing to accept it as a book of wise and just rules which, if faithfully followed, might be counted upon to yield success. Alberti had suggested such a course when he published his tables for the ancient orders (page 698), and the general nature of architecture made it easy for builders to follow his advice — especially those who wished to play safe. Painters and sculptors inevitably had problems which precluded so direct and precise a following of ancient rules, but they too became as classical as it was practical for them to be. In fact, one of the great over-all differences which signaled the advent of the High Renaissance was a turning away from nature, and a yearning for an idealized art comparable to that of Antiquity.

The increased classicism of the High Renaissance, cogent though it was, did not exist in its own right, but as an expression of certain spiritual needs which had become better understood and more openly asserted. The whole era had its genesis in a severe and more profound belief in the dignity of man. For that, the thought and writing of Alberti had prepared the way, but society had started early to move in the direction he seemed to indicate.

In spite of Alberti's generous concern for the masses of the population, one can scarcely find a page in his work which does not in some way or other sug-

gest aristocracy. For leadership, safety, and progress, it seems implicit in what he said that mankind must rely not upon all the people, but upon certain selected persons of superior powers.

During the second half of the 15th Century, Italian society had in fact tended to become more and more a court society — royal, noble, or ecclesiastical as the local conditions might require. In general, what was true in Italy was true everywhere; the famous Italian families merely furnished a pattern of life that was copied in other lands. The net result was to concentrate significance within the upper social orders, and the tendency to do so invited the expenditure of a prodigious amount of thought upon the general subject of superiority. What qualities gave a man a right to membership in the privileged circle? What behavior was appropriate for the members thereof as between themselves, and in their contacts with the world outside?

Machiavelli's *The Prince* (1514) was an attempt to set forth a political method. Baldassare Castiglione's *The Courtier* (1527) was the most notable among a great many books which attempted to explore the question of how responsible persons ought to act in social situations. Alberti himself, it will be remembered, had raised the question of propriety with respect to architecture (page 697) and other physical surroundings. Palladio's writings and his architectural practice were an even more thoroughgoing application of the same ideas. In every instance, it was not the generality to whom the discussion was directed, but the better man, supposedly in a position to make far-reaching choices.

The aristocratic mode of life in Italy became identical with the ideal of dignity, and produced the standards of decorum which have been stereotyped in Western Europe and all its cultural derivatives. Solemnity was the emotion essential to the new era; people began to take themselves and the progress of their lives with high seriousness. Movement of the body, if acceptable under the new system, was thought best and wisest when it partook of the cadence of a slow dance. The vocabulary, it came to be thought, ought to be carefully chosen, and the voice used like a musical instrument.

Above all, the new manners called for an impregnable adequacy on the part and in the person of the lady and gentleman. Grace of voice and of posture should, it was thought, be achieved without apparent effort. Ideally, such attributes existed within the character, were unconsciously possessed and employed, might even be instinctive. Overt elegance, either in dress, in bearing, or in one's belongings, logically became an offense; but the worst offense of all would be to prove inadequate to a situation, to be compelled to scramble for control of self and environment and thus to transgress the rhythm and tempo of the gracious life.

The Neo-Platonic elements in the new concept of the dignity of man will be evident without specific citation; the ideal man of the High Renaissance would be the man who had completed the course of self-improvement recommended by Alberti and Ficino. A few persons, in the opinion of their contemporaries, actually exemplified the ideal in their own persons. Alberti was such a man, Leonardo and Raphael were others; but the person most often mentioned as the quintessential gentleman of the era was Frederick of Montefeltro, Duke of Urbino, of whom there is a fine portrait by Piero della Francesca. It is notable, however, that the praise directed toward Frederick makes an identity between the excellence of the man and the consistency with which his actions might be explained by reference to a code of behavior. It would be unintelligible, of course, to suggest a code of behavior unless it be assumed that the innumerable situations arising in life are known, can be classified according to type, and the best action prescribed for each. Once that truth is comprehended, the causal connection between Neo-Platonism and the High Renaissance becomes obvious.

Unquestionably the people of the High Renaissance had good reason for self-respect. Equally without cavil, we must concede that they had a philosophy which moved the population of Europe far on the road toward achievement of humanity, and added much to Western civilization. But as reflected in the history of art, the increasingly elevated concepts entertained by the controlling members of society resulted in the elimination of certain points of view hitherto notable as fonts of creation. Direct delight in nature, the chief inspiration of 15th-Century art, tended to pass out of the emotional pattern. The visual facts of the world no longer evoked the same response, and shortly ceased to furnish an adequate reason for painting and sculpture. At first thought, Leonardo's notebooks (pages 716-720) might seem to contradict the statement just made; but in fact they sustain it: they were and remained entirely private; the work that made his reputation was typical of the new era.

Subject matter took on an increasing depth of significance as the High Renaissance developed and came into its own. Any theme that might be used for a picture, it presently appeared, had to be a theme of cosmic importance. An excellent example was Raphael's misnamed *Disputà* (Fig. 16.17), where the painter undertook no less than a visual demonstration of the truth of Transubstantiation, opened heaven before our eyes, and made Christ above the pictorial counterpart of the host on the altar below. It was a remarkable thing that such paintings were even attempted. Even more amazing is the fact that conceptions of similar magnitude were repeatedly and successfully brought off

during the Italian 16th Century. Most incredible of all was the magnificent clarity, both visual and intellectual, with which stupendous themes were presented. In the case of the Raphael just mentioned, it takes no wit to draw the inference that the wafer of bread is indeed Christ's body, and that the miracle of the Incarnation is repeated every time we perform the sacrament.

The grandeur of view which permeated contemporary society challenged and extended the artistic genius with which Italy was so generously endowed at the time. In the character of the 16th-Century Italian artist, nicety of distinction may be said to have supplied something like the motivation furnished by realism a century before. Having once chosen a theme with judicious consideration of its suitability and import, artists and patrons alike put forth a terrific effort toward the analysis and understanding of every detail. Within the drama and meaning of the subject, they sought to recognize the significant facts and actions. To the limit of practical possibility, artistic emphasis was reserved for such; and by the same logic, everything extraneous to the grand import of the matter in hand was sternly suppressed, even eliminated entirely, regardless of its truth in fact. The end product of the process was an iconography more complicated and elaborate than ever before. Easel pictures containing two or three figures are often inexplicable unless one has at his finger tips a great fund of erudite lore. As for the large wall paintings of the High Renaissance, it usually takes half a day merely to identify the characters depicted, and relate each in the briefest way to the central theme.

The tendency just described lent a lofty abstraction even to the smallest works of High Renaissance art (Fig. 16.22). As for the large ones, they often reached the level of the cosmic and sublime. The very same tendency was intimately operative in changing the figure-style, a topic we shall presently consider in detail, but certain general aspects of which are apposite for mention here. With respect to the human figure, Italian art, as of 1475 and after, found itself in much the same position as the art of Greece during the generation when the Transitional Period became the Great Age. Realistic studies were, of course, no longer an end in themselves. Personality was less interesting than certain more universal qualities of which the figure might be made expressive. Both realism and personality were therefore eliminated even in portraiture. Instead, the figure was refined, idealized, and generalized into a superior type. Nor was the idealization concerned with the body alone; almost every human being who appears in 16th-Century Italian art seems to be thinking an important thought, or to be under the spell of profound insight. For the expression of such content (and in keeping with the contemporary taste for codifying everything under the sun) an entire system of pose and gesture was built up for the use of painters and sculptors, and presently became very nearly

standardized. As was bound to happen, a writer ultimately appeared to set the matter forth in print. In 1593, a man named Cesare Ripa published a book called *Iconologia* — in effect, a quasi-official catalogue purporting to furnish artists with the right imagery for a great variety of situations and subjects. The headings were arranged alphabetically; and if the reader cares to spend an hour paging through, he will find brief articles, each illustrated by a clumsy woodcut showing an appropriate personification for *Ambition*, *Benignity*, *Confidence*, *Fecundity*, *Infelicity*, *Penitence*, *Tragedy*, and several hundred other rather abstract conceptions. It seems odd that such a volume, to our notions both dull and presumptuous, could have enjoyed any currency among creative artists of the first rank; but it appears to have proved useful. Otherwise, why were there a number of editions, published in several different places?

The increased formality in behavior and the more analytical study of classical art also and inevitably evoked extreme formalism in the arrangement of works of art. Except for instances here and there and noted from time to time in the chapters above, composition as such had received very little systematic study at any period prior to the later 15th Century. It then became a matter of general interest. By 1550 or thereabouts, the subject was as well understood as it ever has been, and nobody has added much to what was then a matter of general knowledge in Italy.

In keeping with their classical heritage (pages 109–110), the 16th-Century artists relied upon geometry as the governing principle of design. Buildings were almost always given a symmetrical plan on the Roman model (page 222). Pictures and groups of sculpture were universally composed according to the organic system of the Greeks (pages 65–66). As in Greek design, the geometry was (so long as the High Renaissance lasted) kept simple and lucid. Small paintings were generally arranged with reference to the vertical plane of the canvas only. Most of them compose on a triangular pattern (Figs. 16.13, 15–16). The circle and half circle came next in popularity (Fig. 16.22), followed in statistical frequency by arrangements of an elliptical nature. The immense wall paintings which were popular during the 16th Century often included a very large number of figures. Space had to be represented in order to accommodate them, and the problem of arrangement was complicated thereby. The typical solution is once again illustrated by Raphael's *Disputa* (Fig. 16.17). It was geometrical and organic; but the governing geometrical figures — in that instance, half circles — lie in the horizontal plane rather than the vertical, and refer more to the space of the picture than to its surface.

LEONARDO DA VINCI

Leonardo da Vinci (1452-1519) was the man who created the style of the High Renaissance as applied to painting and sculpture. His relation to the new period was analogous to the service performed by Donatello for the artists of the 15th Century; but in spite of his great influence upon European art, it is a mistake to think of him as an artist. He spent only a small part of his time painting, and the catalogue of his surviving pictures, according to Mr. Berenson's latest list, numbers only nineteen examples, some of which are challenged by other critics and several of which are not entirely by Leonardo's hand. A more accurate and fairer view of this great man's career would make it necessary for us to describe him as a scientist and engineer. Inasmuch as our business is with his art, we cannot explore his other achievements in detail. The reader will find them well described in General Parsons' book (page 631), the only one so far published by an author competent to follow Leonardo's scientific thought. A summary is appropriate here, however; indeed, without it, we could have no notion of the tremendous mentality behind the pictures.

In all its endless ramifications, Leonardo's genius seems to have derived from a single magnificent act of the imagination: he adopted, if indeed he did not invent, the experimental point of view. "If we doubt the certainty of everything that comes to us through the senses," we find him saying in his notes, "how much more should we doubt those things that cannot be tested by the senses. . . ." That position was probably unique at the time. It was not generally understood in a society devoted to the authority of the Classics, a fact which made some of the humanists consider Leonardo ill-educated, giving rise to a rather resentful note which says, "Although I may not, like them, be able to quote other authors, I rely on that which is much greater and more worthy: on experience, the mistress of their masters." Leonardo, that is to say, would accept nothing as fact until proved right by rigid experiment or sustained observation of a more general sort. In all his writings, the underlying thought was the existence of fixed and demonstrable law which, if known, would permit man to conduct his affairs according to sure rules.

Proceeding on such assumptions, he spent his life accumulating evidence. His powers of observation were perhaps the greatest ever vested in a human being, and his acumen was unbelievable. It was his habit to note things down, with or without illustrative drawings, and we have inherited a substantial part of his records in the form of the so-called *Notebooks*. They amount to about 5,300 pages, and more may well turn up when, if ever, the libraries and archives of Europe are adequately catalogued.

Considerable mystery of an artificial kind surrounds his methods for recording what he observed. Being more or less ambidextrous like any good painter, and naturally left-handed, he preferred to write backwards. The cypher can be resolved merely by reversing the text in the mirror, and by understanding the abbreviations systematically used. Some of the latter, it must be conceded, still defy the student, and many passages remain unintelligible. With the help of the drawings, however, we can be sure of enough to establish him as a man about two centuries ahead of his time.

In the field of physics, he understood the pull toward the earth's center which Newton later reduced to a formula and introduced as the Law of Gravity. He investigated the acceleration of falling bodies, the trajectory of projectiles, and centrifugal force. He was familiar with the theory of the conservation of energy, and he put down what we know as the formula for work. His thoughts embraced molecular attraction and the idea of the vacuum, and looked forward to the atom and the electron.

As a painter, Leonardo naturally took a special interest in optics. Discarding the fantastic theory of sight entertained from the remote time of Pythagoras, he correctly reasoned that vision amounted to a triple play between the eye, the object under view, and the light source. He established the law that the angle of incidence of a light ray is equal to the angle of reflection, understood stereoscopic vision and the other geometric aspects of seeing, and was close to the theory of wave-motion by which today we explain both light and sound.

His investigations of color, undertaken along with linear perspective as a basis for a projected *Treatise on Painting*, led him into direct spectral investigation. He made himself a spectroscope, and hoped to develop from his findings something like a scientific basis for the art of representation. He got far enough with the project to note down some minute directions for the control of graded-shadows in painting. In connection with his anatomical investigations (he dissected the human eye, and recognized the function of its parts), he discovered the so-called *negative afterimage*, now believed to be a photochemical reaction of the eye, and the phenomenon used as the starting point for all color-theories deriving from the idea of complementaries.

As a geologist, Leonardo understood the difference between the earth's geographical center and its center of gravity. He recognized the stratification of the surface, the existence of fossils, and the general alteration of topography by erosion and deposit. From this, he was able to correct the contemporary notion that the world was about 5,000 years old.

As to whether he came into personal contact with Copernicus during the latter's sojourn at Rome and in North Italy, we cannot say, but the notes make it plain he understood and accepted the Copernican theory of a helio-central

universe. He knew, moreover, that the earth's orbit was an ellipse and that its axis was inclined to the plane of its revolution. Although the telescope is commonly believed a Dutch invention of about 1608, we find in Leonardo's notes a singular and unexplained reference to making "glasses to see the Moon magnified."

His botany was, if anything, more remarkable still. He discovered the relation between tree-rings and the passage of the years, and noted their variation in response to annual tricks and changes in the weather. He also observed and explained the phenomenon known as phylotaxis, that spiralling of branches and leaves which so simply and marvelously arranges for the sunning and ventilation of each leaf, and the systematic delivery of rain drops from leaf to leaf all the way down.

Most of the findings so far mentioned have now been more adequately explored or left behind; but the same statement cannot be made with regard to Leonardo's anatomical drawings. They date a full generation earlier than the eminent anatomist Vesalius, and are the first accurate and competent illustrations of their kind. As the only ones ever made in quantity by an artist who ranks with the great, they are still among the best. It is a matter of record that Leonardo frequented the hospitals and performed autopsies. In the course of such work, he recognized hardening of the arteries and was very close to Harvey's ultimate explanation of the circulatory system. His greatest anatomical researches, however, would appear to be those of a mechanical nature: he was the first to explore and explain the true location of various bones and muscles, and the tensions and leverages of movement.

In these modern days, the impracticality of the pure scientist often furnishes the theme for humorous anecdote; few such men have the least idea how to make their findings of any use at all. By exception to what seems a rule of the game, Leonardo was both pure scientist and engineer.

He instinctively recognized the vital importance of bulk transport, thus anticipating the ideas of Admiral Mahan and Sir Halford Mackinder. Much of his active life, therefore, was devoted to the development of canals — until the railroad the one and only economical way to move freight across country. While working for the Sforzas he made a study of the hydraulic problems of the Lombard plane. He later did hydraulic engineering in the Arno valley, and one strong reason for his being called to France in 1516 was the hope that he might construct a canal to connect Tours, Amboise, and Lyon. He did not invent (as has been claimed) the lock, but he did improve it. Many locks in daily use today are mechanically inferior to those we see in his drawings.

As a mechanical engineer, Leonardo designed a great many machines. Most of them are the same in principle as modern machines, and many are better

than anything put into service at any date previous to the later 19th Century. It must be understood that many of them were built and operated, although most seem never to have got beyond the paper plans. A particularly interesting series are the rolling-mills. Leonardo appears to have designed them to roll out long iron bars which he then welded together to make barrels for cannon, a process necessary because of the unreliability of large castings. We have drawings for one of them. It was driven by a horizontal water turbine through worm reduction gears, one of two stages and one of three, thus giving a differential motion to rolls and bar. The notes say that this particular machine is his twenty-second of the same kind, and give formulas for determining the power required — the latter, he says, having been worked out after thirteen machines had been tried.

Smaller guns he was accustomed to cast, and developed new ways for keeping the bore central with the circumference of the barrel. His designs for fire-arms include multibarrelled weapons (Fig. 16.11), elevation screws, field pieces on wheels, and breach loaders. Mechanically, most of them are greatly superior to everything in general use up to the time of the American Civil War, and better than most in use then. A mere machinist never made a good piece, and those accustomed to weapons will recognize in Leonardo's work the touch of the master.

The drawings show that he was not only interested in the guns themselves, but in the long-term implications of gunpowder. The multibarrelled field pieces indicate a grasp of the principle of fire-power. There are drawings illustrating barrage fire, and plans for forts which include cushioning material for the walls — a principle used by Japanese engineers in World War II, and one that proved vexing for the American artillery.

Most famous of all are Leonardo's plans for an airplane. There can be no doubt that he would have been the first man to fly if, like the Wright brothers, he had possessed the gasoline engine. Less well known but equally ingenious are the drawings for a helicopter (Fig. 16.10) and several essays in the field of naval architecture. One of the latter is specially brilliant: a streamlined boat, shaped very nearly in accordance with William Froude's 19th-Century findings which established the principle that each following square foot of wetted surface causes less resistance than the one immediately ahead of it — hence the exaggerated length of our modern liners.

In attempting to comprehend the meaning of all this research, probably the greatest total of original work ever accomplished by one man, it is important to appreciate that Leonardo's methods were instinctive, direct, and by rule of thumb. He tried many times to settle upon formulas covering such matters as the strength of beams, the capacity of columns, the breaking strength of

wire and rope, and the pressure of water upon the surface of a lock gate. But in all such determination he was foreclosed from success by primitive mathematics. He could not figure out such comparatively simple variations, for instance, as those which come in terms of the square and the cube. That, perhaps, is one of the reasons why his immense and brilliant labors proved almost totally unproductive.

It is obvious that he contemplated a certain number of publications. For one of them, the *Treatise on Painting*, we have some parts that look like fair copy, but an incredible disorder is the only arrangement discernible in most of the material. The painful conclusion is forced upon us that Leonardo either lacked the inclination or the capacity to bring his work into a state of synthesis.

He kept the notebooks with him as long as he lived. No one knows how many there may have been originally; a man who called on him at Amboise in 1517 describes them as "an endless number of volumes." When Leonardo died in 1519, his will directed that all his papers go to Francesco Melzi, a friend and associate. Melzi took them to Milan, and cherished them until he himself died in 1570. Melzi's heirs had no notion of their value. After making one or two ineffectual attempts to realize small sums for them, the later Melzi consigned the collection to the attic, and gave individual volumes away to friends and acquaintances who happened to be interested. Thus the great collection of papers became divided. Many must have been lost. Those that remain are scattered among the various museums and libraries of the world, some private and some public.

Had Leonardo's findings become even moderately well known in the early 16th Century, world history would differ from the story we know. Among other things, it seems almost impossible that the Industrial Revolution would have delayed its arrival until the 19th Century. But although the value of the papers became recognized early enough for Napoleon to order some of them transferred from the Ambrosiana at Milan to the Bibliothèque Nationale, and for the Italians to demand them back in 1815, almost everybody who saw the material looked upon it as a curiosity — hardly art and hardly science. The stupendous nature of the research has been generally understood only very recently; and, tragically enough, only after the bulk of it had been repeated by successful but more plodding men.

With respect to his artistic education, Leonardo could scarcely have been more fortunate. He was apprenticed to Andrea Verrocchio (1435-88). Although enrolled in the painter's guild under his own name in 1472, Leonardo appears to have remained as a member of Verrocchio's establishment until at least as late as 1477.

Verrocchio's personality is known to us mostly by inference, but the inferences are unusually strong and clear. Only a few works can with certainty be attached to his name, but those few are among the best that ever came out of Italy. Most famous, of course, is the bronze equestrian statue of *Bartolomeo Colleoni* at Venice, on which the master was at work from about 1481 until his death. It is surely one of the two best equestrian monuments in the history of art, excelling the *Gattamelata* in force, dash, and drama while remaining inferior to it in connotations and overtones. The bronze *David* (1476) in the Bargello is another important example. Where can one go to find a better treatment of youth in all its unformed beauty, its lithe grace, and its gawky strength-wasting movements?

From the standpoint of stylistic evolution, an even more important and revealing work is the *Boy with a Dolphin* (Figs. 16.7-9), the diminutive fountain figure which for a very long time has impressed its gaiety upon the ponderous architecture of the courtyard of the Palazzo Vecchio. The little statue might be said to put its small foot squarely on the divide between the 15th Century and the High Renaissance. Nothing could be more definitively typical of the earlier period than so realistic an appreciation of the infant and his direct methods for enjoying life. At the same time, both the design and the technique exhibit a self-conscious, calculating aesthetics rare at the date of the statue, but altogether typical of the 16th Century.

The nature of the medium had evidently been much explored; the peculiar virtues of bronze have, in fact, been exploited with the utmost sagacity. The capacity of the material to render textures was worked to the limit. Its tensile strength permitted the artist to poise the tiny figure upon a single delicate support, and invited him to indulge in a tour de force of projections which, in a more brittle material, would have been folly.

More remarkable still is the composition. The pose, seemingly so innocent and spontaneous, is in fact a contrapposto no less studied and elaborate than that of the *Nike of Samothrace* (Fig. 6.16) and quite worthy of Michaelangelo. More interesting still is the fact that the figure, unlike the great majority of statues both ancient and modern, was designed not to be viewed from one angle only, but omnifacially. As our three views indicate, one may walk round and round it without finding a single station from which it does not compose with a subtle rhythm of statics and dynamics.

The entire performance explains why Verrocchio was at once the most admired and best loved master at Florence, and why his home was like a club for the leading artists and thinkers of the city. With respect to our present business of historical transition, the central point to be grasped is the academic nature of his outlook. To the direct and natural enjoyment of con-

tent and expression, he added a new interest: the aesthetics of method. In addition to all its other virtues, his *Boy with a Dolphin* is a learned experiment, an attempt to explore still further the possibilities of what can and what may not be done with sculpture, and to demonstrate whatever findings the artist was able to make. The conception of the work of art as a problem to be solved, and of its permanent value in terms of such solution, was new at the time. It has been commonplace since.

Leonardo's debt to his eminent master was immense. It was nevertheless reserved for the pupil to realize and declare, as it were, the style of the High Renaissance. For convenience of explanation, we may discuss his contribution under two headings, taking easel pictures as one department of activity and mural painting as another.

Among the easel pictures, the first that belongs unequivocally to the High Renaissance is the *Virgin of the Rocks* (Fig. 16.13). The painting exists in two versions. The one in Paris probably belonged to Francis the 1st, and is listed in an early catalogue of the pictures at Fontainebleau. The one in London came to England in 1796 as the property of Gavin Hamilton. Superficially in better condition and more attractive, the latter is considerably less refined in the matter of drawing. The supposition is that the London picture was executed by members of Leonardo's staff, probably to replace the one now in the Louvre, which the master seems to have taken with him to France in 1516.

The classical precedent used by Leonardo and other High Renaissance painters has too rarely been pointed out. It was the so-called Alexandrian formula (pages 164-167), one of the two recognizable divisions of Hellenistic pictorial art. The distinguishing feature was to bring the human figures forward on the stage, putting them in front of the landscape background, as it were, rather than within it.

Among the extant examples of classical painting, not one shows anything like the command over composition demonstrated by Leonardo. As seen on the surface of the panel, the figure group falls within a triangular outline. If we become conscious of the represented space, we begin to feel the design as pyramidal. In either instance, the principle of order is geometrical, and the form chosen, simple, lucid, symmetrical, and stable.

The lucidity of the arrangement is perhaps better than that achieved by any other method of design, but it comes at a price. The four figures shown form a compact, self-contained, organic group; attention is so thoroughly concentrated within its area that the setting seldom receives its fair share of inspection. But the setting is important. We may not dismiss it as a mere

memory of some young mother resting out the heat of the day in a cool spot. As usual with High Renaissance art, everything seen in the picture has a meaning.

In the opinion of Mr. Edgar Wind, the gloomy rocks, suggestive as they are of caves and dark chambers, stand for the rock of the Holy Sepulchre, and thus for the sacrifice of Christ. If that is so, we can make something of the gestures. The infant John can be thought of as symbolizing the human race for whom Christ gave his life. The Virgin's caressing him with her right hand endorses the sacrifice; her left hand, held like a halo over the baby Jesus, blesses him. The pointing finger of the angel to the right drives home the lesson.

The adult figures in the *Virgin of the Rocks* realize the standards of the High Renaissance less perfectly than some Leonardo painted later, which we shall discuss presently; but a comparison of the babies with those of Donatello (Fig. 15.13), or with Verrocchio's fountain figure (Figs. 16.7-9) will prove in itself a complete survey of the difference between the two periods. Both of Leonardo's children take poses indicative of mature religious feeling. John kneels in transfigured adoration. The little Christ is as full of authority as he is soft and young. He raises his right hand in a gesture of blessing of which the Pope himself might be proud. The motions represented are, in fact, utterly unlike the impulsive actions normal among children. So are the poses. The Savior, for instance, rests on his left hand, turns at the waist, and raises the right with an utter completeness of nervous and physical adequacy. On earth, we witness such things only when some great athlete has taken holy orders and risen to high office in the hierarchy. The ceremonial nature of High Renaissance art could hardly be exemplified better.

The *Virgin of the Rocks*, like the *Mona Lisa*, is overlaid with much dirt and varnish. Hence, we experience a submarine effect where a more brilliant luminosity once reigned; and for that reason, any remarks about Leonardo's employment of light and shadow must be made and accepted with extreme caution. It is safe enough to say, however, that he felt inclined to depart somewhat from the Mode of Relief (pages 582-586) typical of earlier Italian painting. He was among the first in Italy to shift over to the oil vehicle, which as we have seen (page 614) invited broader and darker shadows. As one of the most accurate observers of natural fact who ever lived, he must have been even more aware than we are that contemporary methods of painting did not in the least correspond with the action of light in the visible world; but it is difficult to entertain the notion that he intended either to abandon expression through mass and form, or to work toward the Mode of the Total Visual Effect (pages 580-582).

Leonardo's interest in light and shadow, we may fairly guess, was primarily emotional: he perceived that shadowy areas were in themselves mysterious, and illuminated areas revealing. In addition, he doubtless felt inclined toward the broader rhythms which could be developed with stronger contrasts. His method made each individual field of light (or dark) larger in relation to the total surface of the picture. Thus as convexities took the light and hollows fell into shadow (node or accent as the case might be) the alternation gained a scale and authority rarely encountered before. The eye was delayed longer by each successive obscurity and illumination, and the tempo of the rhythm was slowed down. In contrast with the dancing lights and darks common in 15th Century painting, the impression given was of something more splendid and imposing.

The lighting of any mass, human or otherwise, is of course inseparable from its modeling. Insofar as the new style depended upon the realization of mass, its idiom was mass in the full round. Left to his own devices, the architect of the High Renaissance expressed himself by plastic means, as we have seen (page 702). The sculptors of the same period turned as naturally to statuary in the round, rather than to the low relief of Donatello and his followers (page 619). Leonardo did the same. When we speak conversationally of "the broader effect" he cultivated, we mean not only the rhythm of the values as described in the last paragraph, but the sense that the figures are stipulated to exist free-standing in space.

All of the elements just cited came into synthesis in Leonardo's *Virgin and Child with Saint Anne* (Fig. 16.15). Not a finished painting, but a *cartoon* (a monochrome drawing prepared as a rehearsal for a painting), the work might at first seem unsuitable as a basis for generalization; but on second thought, the reader will see that nothing could be more useful for our purpose. The drawing doubtless put forward whatever the artist himself considered essential; and when he made it, he gave himself no chance to become distracted by secondary thoughts and accessory notions.

The cartoon is extraordinarily useful as a demonstration of the figure-style which was to become generally typical of the age. The two adult women are shown in the fullness of maturity. One would put Mary's age at 35 or older, and her weight at 140 pounds. A substantial layer of soft flesh underlies the delicate complexion; beneath its ample contours, the angularity of the skeleton is lost. The shoulders are large, and the bust deep.

Neither youthful nor active, such a woman would be incapable of sustained physical exertion, and yet her body is vividly alive. With the studied ease of a dancer, she twists at the waist, slightly lifts the left knee, and bends the torso gently forward. If not full of action, the pose is certainly full of

grace. We may rightly infer that the picture presents the Madonna as a lady of standing. Her life, unless appearances deceive, would be a judiciously tasteful routine, and a certain cadence and repose would mark every procedure in which she might engage.

To render the clothing of such a figure with the curious particularity of a century earlier would have been impertinent. The artist's intention in that matter is made more baldly plain in the drawing than it might be in a completed painting, but the trend of the style is obvious. Details are completely lost in the darks; and by contrast to the busy little folds so usual in Early Renaissance art, we are given nothing but the grander undulations of the drapery. As to the nature of the costume, one can say only that it must have been made of heavy material. The cloth responds to the movement of the limbs, but remains static until the wearer alters position again. There is no indication as to the construction of the garments, or how they were buttoned, tied, or otherwise held in place. As compared to earlier work, the difference is once again as between specificity and generalization.

The much celebrated *Last Supper* in the refectory of Santa Maria delle Grazie at Milan was unquestionably Leonardo's greatest achievement in the field of art, and the earliest complete and perfect realization of High Renaissance painting. Such pictures reflect better than anything else the ideals of the period. They were grand in size, grand in style, and grand in conception.

The work started, so far as we can tell, in 1495. Luca Pacioli, in a publication dating from February 1498, spoke of it as though it were complete. From that date onward, its history is sad in the telling. Because he was philosophically unable to accept the bold finality of fresco painting, Leonardo wanted a medium that might be worked and reworked. Most unwisely, he attempted to employ an experimental technique for this important commission. He tried to waterproof the wall behind the painting, and he then proceeded to work in some combination of tempera, oil, and varnish. The experiment proved a disastrous failure. As early as 1517, the picture was already in a ruinous condition. Vasari saw it in 1566, by which time it was a muddle of blotches. Some eighty years later, a visitor noted that one could not even make out the subject. Numerous restorations have taken place; there were at least four during the 18th Century alone. A cleaning of 1908 helped somewhat; but during World War II, the roof suffered bomb damage, and the picture was exposed to the elements. The harm then done can scarcely be a matter for mourning because every speck of paint in view was of the 18th Century at the earliest.

In spite of all such misfortunes and mischances, the great picture continues

to haunt the Western imagination. By reference to drawings by Leonardo and his staff, Mr. Edgar Wind and others have been able to visualize the original to some extent. We may not retrace their studies here; suffice it to say that the over-all effect of their findings has been to refine the drawing and to correct the facial expression of individual heads — both items being intolerably bad in all extant reproductions after “the original.” It will be obvious that the painting is unsuitable for appearance in any book plate of practical size. In the remarks below we shall confine ourselves, therefore, to comment of the sort which will prove useful for understanding the theory which governed the great wall paintings of the period.

The setting was indoors, with the table of the Last Supper parallel to the picture plane. Christ sat in the center, with the Apostles on either hand. Emphasis upon the central figure was insured in two ways. First, the head of the Savior was put in silhouette against an open doorway at the far end of the chamber. Secondly, his head was placed at the vanishing point, and the location of the vanishing point was emphatically pointed out by an extra measure of beams in the ceiling, and other architectural lines. The scheme of the composition, it will be seen, had more to do with the arrangement of things on the horizontal plane of the stage plan than with the vertical surface of the painting — a condition that was destined to become typical of every large picture.

As usual in High Renaissance art, Leonardo made a masterly choice of the point of time. He chose the instant when Christ said, “Verily, verily, I say unto you that one of you shall betray me!” At that moment, shock was made to run outward from the center of the table, being felt less and less violently by the disciples further away until the farthest of them felt the need to gesture back inward toward the center as though to make certain of what they thought they had heard. Judas alone did not gesticulate. Not isolated on the opposite side of the table as had been usual in earlier versions of the subject (Fig. 14.1), he was isolated by his guilty knowledge. Leonardo showed him as sitting in studied calm, almost with unconcern, dissimulating by a simple refusal to become excited.

The method of the composition also became strictly usual during the High Renaissance. It was the Greek organic method (pages 65–66); but no other demonstration thereof, either ancient or modern, more perfectly realized all the possibilities of that excellent system. The diversity was great, and the unity intense. The physical arrangement was complete in itself and inseparable from the drama by reference to which it had cause and effect.

RAPHAEL

The brilliance of Raphael's career is manifest from its brevity. He was born at Urbino in 1483, worked at Perugia from 1500 to 1504, at Florence from 1504 to 1508, and at Rome from 1508 until his death in 1520.

When he left Urbino, he was a boyishly charming provincial painter. The *Dream of a Knight*, now in the National Gallery in London, comes from that time. At Perugia, he worked on the staff of Perugino, a master the world had already passed by. It was nevertheless no small achievement for the youthful Raphael to gain, almost at once and almost without effort, a complete command over Perugino's methods for representing deep vistas of space, and Perugino's quiet excellence in the figure-style of the 15th Century. From that second period of Raphael's career come the *Marriage of the Virgin* in the Brera Gallery at Milan and the *Colonna Altarpiece* in New York.

Realizing that Perugia was also a small town, Raphael went to Florence at the age of twenty-one. He arrived just at the moment when Leonardo and Michaelangelo simultaneously put on public exhibition the full-scale cartoons that were intended to eventuate in some great frescoes for the council chamber of the Palazzo Vecchio. Lost, and known to us only by indirect evidence, each was to commemorate a battle in which Florentine arms had gained memorable distinction. All indications characterize the two battle pieces, singly and together, as a veritable apotheosis of what the High Renaissance had to offer: dazzling technique, epic subject matter, force and power communicated with dramatic clarity hitherto unheard of.

Raphael's natural gifts were lyric. Grandeur had to date been foreign to his art; but once again, he performed a spectacular act of assimilation. He set out to master the "Grand Style." By doing so, he illustrated both his genius and such weakness as can be urged against him. The willingness to make the change indicated a certain flexibility of temperament common among popular artists, and alien to the character of figures like Giotto, Donatello, and Michaelangelo. Raphael's error can best be illustrated by such pictures as the *Entombment* of the Borghese collection at Rome. He labored infinitely, it is said, over the composition, the gesticulation, and the musculature of the figures; but in the end, he produced a watered drink.

While admittedly requisite for certain themes, violence of action and feeling did not suit his temperament. Distinguished in his private life for loveliness and gentle manners, he was at his best when painting in a softer vein. It was fortunate, therefore, that he made easel pictures of the Madonna a specialty while at Florence. His work immediately became popular, and he had

a great number of orders. As a result, he produced a whole class of paintings which are known collectively as the *Florentine Madonnas*; one of them appears in Fig. 16.16. A description of one fits them all, though no two are alike. In fact, no other painter has ever maintained better standards of freshness and variety while continuing to manipulate a set formula.

The setting is usually out of doors. Neither cold nor heat obtrude themselves upon our attention. The air is still and salubrious. Nature, as Raphael presented her, was a tranquil, compassionate power offering much to love and nothing to fear. Landscapes of the same kind had been Perugino's special stock in trade, but the figure-style and the pyramidal composition came from Leonardo. Raphael made both his own; they became so thoroughly his own, in fact, that he rather than Leonardo is usually cited as the definitive painter of the period.

The *Florentine Madonnas* were the best-liked paintings of their generation, and they remain the best-known and most popular Madonnas in existence. It is not too much to say that most of the European family gets its visual image of the Madonna from those pictures. It is nevertheless common to hear serious and responsible critics attack the reputation of the whole class, and of Raphael. Objection cannot be maintained if it takes off from a technical platform, or from considerations of abstract design: Raphael was superb in both departments. There is legitimate complaint, however, about the way he manipulated the theme. He made a questionable appeal when he decided to surmount an opulent Leonardesque anatomy with the face of a simple, childish girl. While it is also to be supposed that the Madonna was young, healthy, gentle, modest, and that her maternal passion expressed itself in a decorous way, paintings which celebrate those qualities alone neglect history and close out innumerable connotations. The character of Mary is hardly a fit subject for light and sentimental treatment. Her career was tragic and supreme. To make it anything else is to deprive her of meaning. One suspects Raphael, in fact, of a studied policy calculated never to displease.

When Julius the 2nd called Raphael to Rome in 1508, the great Vatican program of artistic investment was already well under way. Michaelangelo was at work on the frescoes of the Sistine Chapel ceiling (pages 744 ff), and Bramante had made significant progress on the new Saint Peter's. Raphael, at that point, was merely a successful young artist who had yet to be awarded a single major commission. Bramante, it is believed, recommended him to the Pope; no matter what predictions he made when doing so, they fell radically short of the truth the immediate future was to open up. There is no parallel for Raphael's success at Rome. The Pope already had numerous ar-

tists on the ground. Most of them were men of standing. Some were men of fame. Within an unbelievably short time, almost all were summarily dismissed, or made subordinate to Raphael. Much of their completed work was ripped from the walls, and instructions were issued Raphael to fill the spaces with work of his own. Bramante and Michaelangelo were the only important men to survive the purge. The latter was perennially suspicious and hostile, but there is almost nothing to suggest that Raphael had conducted a malicious campaign for preferment. The amazing thing is the cordial regard which surrounded his name. His superior abilities seem simply to have been conceded by men who might have been his enemies, and his genius in human relations made it possible for him to organize and direct the work of a great corps of mature artists who normally would have been competitors. Such developments seem specially remarkable in view of Raphael's appearance. His face, even during his thirties, remained adolescent and unformed. He had the uncertain stance of a delicate boy. He nevertheless seems to have made upon everyone who knew or saw him an impression of prodigious ability. There was no limit to his resources of energy, patience, and creation. Everything he touched went fast and wonderfully well, and he did it all with such ease that there seemed to be no limit to what he could undertake.

His most important commission and greatest success at Rome began when the Pope assigned him the task of decorating the so-called "Vatican Stanze," a series of connecting rooms on an upper floor of one wing in the Vatican complex. The plan was to maintain a certain degree of system in the choice of subject matter. In general, the theme was High Renaissance Christianity as made manifest by significant instances in the ancient and modern history of the Roman Church and by the flowering of humanistic culture.

Raphael's first-hand contribution was largely limited to the *Stanza della Segnatura*, so called because the room was often used for the ceremonial signing of documents and for meetings of the *Segnatura di Grazia*, a papal court of justice. The chamber is architecturally undistinguished. It has a vaulted ceiling and measures about 30 by 35 feet on the floor. On the ceiling, Raphael put four round medallions containing personifications of *Theology*, *Poetry*, *Philosophy*, and *Jurisprudence*. Corresponding to them on the four walls below are: the *Disputa* (Fig. 16.17) beneath *Theology*, *The School of Athens* (Fig. 16.19) beneath *Philosophy*, the *Parnassus* under *Poetry*, and under *Jurisprudence*, the personified virtues associated with the operation of justice: *Force*, *Prudence*, and *Moderation*.

Labored in the telling, ponderous and perhaps even tedious in fact, the iconography just summarized becomes a clear statement if we reflect upon it. Necessarily expressed in broadest generalization, does it not come close to

being a succinct declaration of the conceptions which have controlled European culture since the Renaissance? A notable point in the ensemble is the even treatment, pictorially and otherwise, given to each subject. The others are in no manner subordinated to *Theology*, and we may conclude that the papal court of the moment felt that the world had arrived on a new plateau. Traditional religion, it would appear, was expected to remain as a great and essential part of the modern orientation; but the resources of secular philosophy and the richness of classical learning were also thought essential. To such, obvious necessity demanded the addition of a decent measure of social regularity as summed up in the institution of the law.

By universal consent, the *Disputà* and *The School of Athens* stand not only as Raphael's greatest pictures, but as the most felicitous expression ever attained in the style of the High Renaissance. The *Disputà* (Fig. 16.17) was the earlier of the two. The name is a mistake. It seems to have come into colloquial use during some period when the complexities of the iconography were not understood, and because certain gestures are similar to those used in debate. As indicated by our previous citation of the picture (page 713) there is no debate at all. In fact, the very idea of debate is opposite to the whole affair, the intention of which was to make people see the truth of the dogma of Transubstantiation.

There can be no doubt that each of the many figures was intended to represent a particular personage, but accurate records do not exist to certify every identity beyond a reasonable doubt. Our diagram (Fig. 16.18) gives the probable identities, some of which are suggested by familiar physical types standard for certain characters and others by attributes like David's harp and Jerome's lion. It will be understood that variant readings exist, but they all indicate that the persons seen in heaven with Christ come from Biblical history, while those on earth around the altar come from the annals of the medieval church.

Although painting on a flat field in a square room, Raphael chose to make the picture simulate the semidome of an Early Christian apse (page 287). His doing so is but another indication that the members of the Renaissance thought that the basilicas were classical monuments. It will be noted also that the resemblance does not stop with the familiar appearance; the theme involves a glimpse into heaven and thus repeats the supernatural setting standard in those earliest days of the faith.

While we can have no doubt that Raphael had it in mind to emulate the solemn dignity of such apses as that of Santa Pudenziana (Fig. 9.25), he had learned his lesson well from Leonardo, and he had at his disposal an art of com-

position unknown during the Middle Ages. As seen in black and white, the three horizontal registers appear more separate than they are in fact; the apparent fault is corrected in the original by color harmonies. By the date of this painting, Leonardo's resort to the vanishing point was the common property of all artists; everybody was using it as he had done to focus attention where desired. No one ever applied the principle more boldly, however, than Raphael did when working out this particular composition. By putting the wafer in its monstrance precisely at the spot of convergence, he succeeded in centralizing the entire ensemble around an exceedingly small area on the surface of the picture. The history of painting contains no parallel for the performance, but there was a good reason for resorting to extreme measures. The bits of bread consumed in the ceremony of the Eucharist are small and ordinary and do not, as a matter of fact, change in texture or taste in the course of the service. The only thing that makes them important is the miracle which is believed to occur: the attributes of the wafer remain constant, but its substance has become divine. It takes great faith to comprehend what has happened, and it took great art for Raphael to present a visual demonstration of so beautiful and so intangible a reality.

In *The School of Athens* (Figs. 16.19-20) Raphael painted the picture which is probably the greatest produced during the Renaissance. The quality of greatness derives from a combination of things. The pictorial mechanics are superb. The iconography is of an intellectual profundity that can be appreciated only by the serious student, and only then after study. The physical relationships of the figures to each other, and of all the figures to the setting, complies in miraculous fashion with the correspondence or contrast in the concepts and systems for which they, as persons, stand. Emotionally the content is mature and elevated beyond almost all else in the history of Western painting; if it is possible to comprehend philosophy through the feelings, one can do it by a study of *The School of Athens*.

So complicated a work of art demands a small explanatory volume of its own. As with the *Disputà*, much depends upon the identity of this figure and that, and there are many questions outstanding. The best brief essay available will be found in Baedeker's *Handbook for Rome*. A longer and better treatment was included by Eugène Müntz in his great work on the Renaissance, now all too seldom remembered. As this is written, Mr. Edgar Wind has in preparation a monograph which will summarize all the important suggestions in something like final form. Referring the reader to our own diagram (Fig. 16.20) for details, we shall confine ourselves below to such generalization as seems reliable and just.

Philosophy is the subject of the picture; but the word meant more in 1509 than it does now. It included everything taught in the universities, and it also included every science, every art, and every other activity that brought the rational faculty into operation. The subject matter is correctly understood, therefore, as a celebration of the earthly accomplishments of man: his physical productions and his perfection of himself.

Lucretius had spoken of "the temples raised by philosophy," an idea which doubtless suggested to Raphael the use of architecture for a setting. In primitive times, building had been the art of shelter; but in periods of high civilization, architecture meant what Alberti had so grandly imagined that it might and ought to be: it was the better environment for a race that knew dignity, the majestic symbol of man's reasoned control over the hostile forces of nature.

Because of Raphael's friendship with Bramante, it has often been suggested that the building we see here is Saint Peter's as Bramante would have built it. That is probable; but it is equally probable that Bramante got his ideas from Raphael. Why else would the latter have been appointed as superintendent of the works after Bramante died in 1514? All such matters are speculative, and however we fancy to work them out, the church in Raphael's painting is a better church than the overbearing one actually built by Michaelangelo. Scale, in Raphael's design, was rendered easy by grace, and the oppressive weight of the vaulting was lightened by glimpses into the sky. The magnificent space of the nave was made more inspiring by the openings out into the air; the interior atmosphere thus gained the light, life, and movement of all outdoors.

It is hardly possible to say too much or to think too much about the setting as Raphael designed it, for the setting carries more meaning than the figures. No one can hesitate in ascribing pre-eminence to the two who stand at the vanishing point, centered on the stage in such a place. The elderly Plato is one (the face is perhaps an idealized portrait of Leonardo); he carries a copy of the *Timaeus*, and he points upward to indicate the locus and source of wisdom. Aristotle is the other man. He is appropriately represented in vigorous middle age; he carries a copy of his *Ethics*, and gestures in dignified remonstrance toward the world of men where all the daily choices must be made and the practical decisions taken.

Representatives of the abstract and practical sciences fall into an easy elliptical arrangement outward and downward on either hand. Except for a few contemporary portraits, every character is classical. There also seems to have been a governing sense of history in the arrangement. Pythagoras (6th Century B.C.) is at the lower left, and Archimedes (died 212 B.C.) at the lower

right; apparently those two were thought of as the beginning and the end of the Greek School.

It will also be noted from the diagram that the men famous for practical achievements are in general placed on the lower levels, and that we tend to climb upward before reaching the men who symbolize pure reason. But there are subtle distinctions over and above that obvious one. Old Socrates, it will be seen, still feels he must argue his point, while Plato's gesture is above and beyond contention: having produced the most perfect synthesis yet achieved by the human intellect, he merely expounds his doctrine.

Certain recent critics have refused to believe that Raphael was personally responsible for the philosophical erudition demonstrated in *The School of Athens*. The notion is even current that good artists, taking them as a class, never have been, and never ought to be interested in such matters. Such a view is mistaken, and derives from several sources, all rather recent.

The 19th-Century movement known as Romanticism (pages 852-863) was in part an attempt to discredit the rational faculty altogether. Those who are under its spell find it peculiarly distasteful to have art connected in any way with learning. They reassure themselves by pointing to the occasional instances when worthwhile work has in fact been produced by men of little education, but they go too far when they suggest that knowledge is like poison to the creative imagination. As applied to Raphael, such thoughts are without contemporary documentation; indeed every bit of 16th-Century evidence tends flatly to contradict the whole idea.

During the early years of the present century, furthermore, the British critic Roger Fry (pages 909; 923) promulgated the doctrine that subject matter of any kind had no legitimate place in the artistic transaction. Because his theories offered a sanction for modern abstraction, they have been popular. If applied to *The School of Athens*, Fry's dogma would tell the student to neglect the iconography entirely. It would even warn him to resist any impulse to become interested in the content of the painting — on pain of losing his capacity for "aesthetic" experience. Is it not impertinent, however, for a modern theorist to refuse to pay attention to aspects of Raphael's art which Raphael himself obviously considered worth the expenditure of an immense amount of labor?

We may sum up by saying that there is no reason whatever to question Raphael's total responsibility for *The School of Athens*. He doubtless had the benefit of much conference with the best scholars of the age. It is unreasonable to suppose that he did not draw upon their learning, but it is even more unreasonable to imagine that he could have made such magnificent pictorial

use of ideas that he did not thoroughly understand. He was not only associated with scholars; he was a scholar himself. To his other endowments, therefore, we must add the final accolade: that his mind was also one of the greatest of the Renaissance.

During the twelve years he spent at Rome, every imaginable honor was heaped upon Raphael and every sort of enterprise placed under his control. In addition to the artistic and architectural responsibilities already mentioned, there were numerous other commissions of an important kind. Because of his affability and because he seemed to accomplish every assignment with grace and ease, the Vatican asked him to do more and more. He was put in charge, for instance, of an archaeological survey of Rome, out of which was supposed eventually to emerge an elaborate new map of the area. Obviously, Raphael soon ceased to be an artist; like Phidias he became a statesman of art. Presently, the limit was reached. In 1520, at the age of 37, he caught an acute infection, lacked the strength to rally, and died after an illness of less than a fortnight. He was buried in the Pantheon.

MICHAELANGELO

Michaelangelo died in 1564 at the age of eighty-nine. He had been an important master before reaching his twentieth year. He left behind him a series of stupendous monuments: Saint Peter's church at Rome, the frescoes of the Sistine Chapel ceiling, and the noblest sculpture since Greece. Recognized as one of the world's leading citizens, he was mourned like an emperor. Everyone knew that he had been an ornament of Western civilization.

And yet no other human being so thoroughly exemplifies the tragedy of mortal endeavor. Unhappy as a child, this very great man became increasingly downcast as mature insight clarified for him the meaning of things. He died in complete discouragement after a career marked by the most dazzling success in all the history of art. Before attempting to review his productions, we must do what we can to explain a temperament apparently so far out of keeping with the lesson of the facts.

Michaelangelo was born into a distinguished family, the Buonarroti of Florence. His aptitude for sculpture asserted itself strongly and at once, but brought down upon him the wrath of his relatives: the medieval prejudice against manual labor (page 532) was still strong enough to have effect.

Physically, Michaelangelo was small and misshapen, a circumstance that contributed to morbid reaction in a personality endowed with a supreme passion for beauty and strength. Affairs were not improved by the passage of

time. As a youth, he received a severe beating in a fist fight and carried the mark of it the rest of his life in a badly smashed nose. As an adult, he several times yielded to cowardice when threatened by physical danger, a form of behavior in mortifying contrast to his heroic ideals.

Raphael's gift in human relations found its opposite in Michaelangelo. He disliked and distrusted everybody. He could not get a block of marble out of the quarry without quarrelling with the workmen, and he never found more than a handful of assistants whose presence in the shop he could abide. For his incapacity as an executive, he compensated by a prodigious expenditure of energy and by a rapidity of execution that passes belief, even in the face of the incontrovertible facts.

Having few normal friendships and small outlet for the affections, he found it all the harder that bad luck frustrated every project he undertook. He was compelled to leave every one of them a mere fragment and suggestion of the nobler conception with which he had commenced. In all fairness, it must be stated that his imagination knew no limits. He lacked the most elementary grasp of costs, labor, and materials. He was obtuse in his judgment of those who employed him, and seems to have expected, as though by right, patronage with patience and single-mindedness never found anywhere in this world.

Powerful men were ready, it is true, to invest vast sums in art. Individual genius was never more highly respected. Personal capacity was never less restrained by the social order. Most educated persons, moreover, shared a common culture. The Italian 16th Century was nevertheless the very worst period and the very worst place into which Michaelangelo could possibly have been born.

Modern nationalism was the chief product of the 16th Century. England, France, and Spain each had a dynasty, and the Spanish Hapsburgs maintained a personal union with the German imperium. Each one of those nations was openly embarked upon a program of imperial aggrandizement. In such company, the Italian people were hopelessly outclassed. From the start of the Middle Age the peninsula had been the home of small city-states, intense local loyalties, implacable feuds and hatreds. Most Italians of Michaelangelo's generation were quite incapable of comprehending even the notion of national interest, and the Italian despots literally invited (as Ludovico Sforza invited Charles the 8th in 1494) the great powers to invade Italy to interfere in Italian affairs. From that period onward, Italy was a battleground where foreign rivalries were fought out, only to flame up again from new sources and in new combinations. Mercenary armies marched wherever they wanted to go, and often did as they pleased. The crowning infamy occurred on May 6, 1527,

when the Spanish and German troops of Charles the 5th sacked Rome. The details of the outrage are too revolting to repeat; in the roster of Christian disgrace, the event is second only to the Fourth Crusade. Thus during Michaelangelo's adult life and by one of the great paradoxes, Italy was being degraded at the very moment when Italian culture was teaching the rest of the world how to live. It is impossible to exaggerate the degree to which political humiliation depressed the Italian spirit. The nation remained supine until the time of Garibaldi.

But even the political situation can hardly have borne down upon Michaelangelo so heavily as the religious events simultaneously in progress. The first generation of the 16th Century marks the nadir of Roman Catholicism. For some time the Chair of Saint Peter had been occupied by popes occasionally marked by energy, often by intellectual distinction, always by culture, but never by religious pre-eminence. The evil side of Roman living became an international scandal in the behavior of some of these men. The details are scarcely fit for print, but may be read by the student in a number of places. All of the popes mentioned operated the Church as though it were merely another State in the general competition between governments. On the whole, the Papacy was competent and alert with respect to its temporal advantage, but none of the popes of the period fulfilled the obligation of spiritual leadership. Feeling began to run high in many places. Resentment became more bitter and more open; but with an incredible conceit, a whole series of pontiffs neglected the matter. They did not even try to find ways to correct the situation. The great and final break came with Luther's Reformation of 1517, followed by the Act of Supremacy (1534) which separated the English church from Rome.

Confronted at last with overt action of unmistakable cogency, the Papacy took measures of its own. The Society of Jesus was founded in 1540. The Universal Inquisition was established in 1542. With the avowed hope of finding a generally acceptable mode for reorganizing the Catholic polity, the Council of Trent held its first assembly in 1545, and met off and on until 1564. Among the dignitaries who attended the council, there was real difference of opinion with respect to the methods that might be used to heal the Reformation. In the end, the Church emerged with a program more intransigent and authoritarian than ever before. However helpful in guaranteeing discipline within the Catholic organization itself, the so-called Counter Reformation then undertaken proved a ghastly failure. The Inquisition left a heritage of implacable hatred wherever it attempted to operate. In Germany and the Low Countries, the Hapsburgs identified their own political aims with the interests of Catholicism; although they staged a reign of terror more dreadful than any-

thing known until the infamies of Hitler, they merely succeeded in making the population hate both the church and themselves. The same Hapsburgs sent the Spanish Armada against England in 1588, with much the same purpose; and again, they succeeded only in making patriotism synonymous with freedom from Rome.

Michaelangelo's state of mind during those times can be imagined only if we fully appreciate that his Christianity was appropriate for a saint. The 13th Century might have been more congenial for him than the 16th. His writings are replete with spiritual reflections, usually expressed in a tone of despair. His ultimate discouragement was the worse, moreover, because he was one of those who advocated a more moderate method for dealing with the Protestants.

Michaelangelo's artistic education need not delay us long, but contains certain points of interest. In 1489, he entered the atelier of Domenico Ghirlandaio (1449-1494), a society painter notable for philosophical insignificance. The man nevertheless had technical methods greater artists would have been wise to copy. The work went through his shop fast. It came out with scarcely a blemish. It has endured in splendid condition. No school could have been better for a youthful genius than one which taught him decision, dispatch, and the virtue of bringing work to a conclusion — it is on those very points that Leonardo was weak, and Michaelangelo strong.

After a short time, Michaelangelo moved on to become the pupil of the elderly sculptor Bertoldo, a man who had actually worked with Donatello and who conducted a kind of museum in the Medici gardens. The relationship brought the young man into contact with the Classical style, and the immediate result was his rather youthful but powerful relief now in the Casa Buonarroti, showing a *Battle of the Centaurs*.

An even more significant incident was a sojourn of several months in Bologna. Having fled Florence in terror during a political crisis in 1494, Michaelangelo stopped in just the place where he might be affected by the work of Jacopo della Quercia (Fig. 15.29). He remained long enough to carve a small marble saint to fill a vacant station on the elaborate *Shrine of Saint Dominic*. Vigorously personal like all his work, this statue still bears an obvious resemblance to one of the figures Quercia placed in the lunette over the doorway at San Petronio. From that point on, the terrible force of Quercia's style became part of Michaelangelo's own and remained with him the rest of his life.

The first work of permanent significance is the *Pietà* now placed in one of the side chapels at Saint Peter's (Fig. 16.21). Generally given the date 1498-1500, it may be earlier. The style is an interesting combination of elements

from the Early Renaissance, the 16th Century, and the personal proclivities of the artist.

The composition is a Leonardesque pyramid, and one of the very first instances where that figure had been used in sculpture. We have already commented upon the capacity of the triangle to concentrate interest within itself (page 722), for which reason the form is perhaps more appropriate for sculpture than for painting. By making the work of art emphatically complete as a visual unit, there is no necessity for association with a niche or any other kind of architectural background. From that circumstance alone we might guess that the young artist was already asserting his famous, complete, and belligerent independence.

Some authors have attempted to see a topical reference in the content. Does it refer to Savonarola's martyrdom? Or to the new crucifixion of Christ in the form of the infamous Borgia pope, Alexander the 6th, who was then in office? Without suggesting that such things failed to affect the spirit of the sculptor, a more general interpretation is in order. It is first of all evident that Michaelangelo made the Madonna draw into herself, bearing her sorrow much as he had been compelled by the contemporary world to shut his personality away. Only the gesture of her left hand seems in any way to be addressed outward. That much is obvious. Less easy to account for is the distortion in which he freely indulged.

The distortion is of several kinds. In the first place, the Madonna is on a larger scale than the Christ; such a woman would be nine feet high if she stood up. Secondly, her dress contains a preposterous amount of cloth. These physical improbabilities and impossibilities are even less radical than a distortion of historical and biological fact. It is possible for a girl of eighteen to be a mother, but it is not possible for her to have a child thirty years old, as Christ was when he died.

Michaelangelo himself explained the last point: a woman of perfect purity, he said, would keep her youth forever. As to the others, we are left to work out our own reasons. By exaggerating the Madonna's size, it was possible to make her handle an adult Christ as easily as a normal mother handles a baby; the entire group thus was made plausible. The extra bulk of drapery contributed to a broad, stable base for the statue, a less exalted purpose but an artistically important one. But we have not yet got to the bottom of the matter.

In the first place, no one can deny that the distortions, both physical and historical, constitute instances of emotional truth, but are quite untrue as facts. Seen in historical perspective, the resort to such methods signifies a potent attack by Michaelangelo, even at the beginning of his career, against the

whole philosophy of the representative convention (pages 539 ff). It took nearly four centuries for his point of view to gain a controlling position; but as this is written, the world's best artists, as stated in Chapter 19, take the position that representation is actually unimportant by comparison with the efficiency of art as an expressive vehicle.

It is obvious that Michaelangelo's methods partake of the nature of expressionism (page 933 ff), but his particular application of that theory included a new element: Renaissance individualism in its most extreme form. He was the first artist who dared to take the view that his art was his own. Raphael's *School of Athens*, to cite a recent comparison, was less Raphael's picture than a celebration of the culture of the age. In everything that Michaelangelo touched, the balance was adjusted radically in the opposite direction. He was often under pressure from his patrons, who tried to push him in one direction or another; but regardless of who paid the bill or what he had ordered, the emerging work of art belonged to the artist. The reader may well be amazed that such a thing could be brought off. As to how it was possible, we can adduce two cogent reasons. In the first place, genius as such was privileged in Italy during the High Renaissance. In the second place, the power of Michaelangelo's personality was unique. It is recorded that the most powerful men of the era actually felt fear when in his presence, and were glad enough to leave him alone.

The extent to which Michaelangelo went in the matter of expressing his personal opinions is well illustrated by the marble *David*, commissioned in 1501. Because David was a slayer of tyrants, the subject was an incongruous choice for a civic monument at a moment in Florentine history when the question of tyranny was likely to stir up action as well as feeling. The net result, however, was to establish the young sculptor as one of the world's most admired artists. A trivial circumstance has lent the *David* an adventitious fame. Michaelangelo carved it free-hand from a block of marble which had been badly mauled by a sculptor named Baccellino about thirty-five years earlier. Traces of Baccellino's chisel may still be seen on the back and on the top of the head. The incident is of course merely an illustration of the superior power of visualization common among professional artists. Set up in 1504, the *David* was taken to the Academy in 1873, to protect it from further weathering. Well displayed there, its gigantic size (height 18 feet) renders the best possible indoor setting inadequate.

In 1505, Michaelangelo received from Agnolo Doni (who had his portrait done by Raphael that same year) what is believed to be his first commission

as a painter: the circular *Holy Family* (Fig. 16.22) now in the Uffizi. The work introduces us to a new class of Renaissance art, although it was hardly the first of its kind. We refer to the so-called "devotional picture," which derived from Neo-Platonic concepts and requires, if it is to be understood, a frame of reference utterly separate from that which applies to narrative painting.

The devotional picture has no story to tell. The artist may pose the figures as he wants; he is not governed by the necessity of making them do some particular thing. There is no point of time to bring up memories of the past, or to suggest future expectations. No local facts dictate the setting. All the factors which ordinarily control the imagination are removed; but by the same token, the artist is deprived of all those which ordinarily help him in the act of visualization. He is left free to perform the appalling task of presenting us with absolute beauty.

It was natural for any 16th-Century master to assume that absolute beauty would find its best expression in the language of the human body, and specially natural for Michaelangelo to find the body's greatest beauty in its shape and movement. Beyond that, the picture may be said to be abstract. The lighting has no parallel on earth. In a magnificent manipulation of the Mode of Relief (pages 582-586 ff), Michaelangelo modeled the figures as no one else could possibly have done, and we see the Holy Family as though in a vision. "Had my soul not been created God-like," wrote the artist himself in a passage which is surely apposite, "it would seek no more than outward beauty, the delight of the eyes. But since that fades so fast, my soul soars beyond, to the eternal form." The statement is enigmatic without such a picture to illustrate it, and needs in any case the supplement of another aphorism from the same source, namely, that "the heart is slow to love what the eye cannot see."

With such evidence in hand, we may justly infer that Michaelangelo considered it his artistic destiny to find visual imagery adequate to suggest, and perhaps even to portray the most exalted concepts permitted to the human consciousness. The "eternal form" mentioned by him is probably to be understood in at least two ways: as a synonym for the glory of God from which humanity was banished at the time of creation (page 652); and as an artist's name for the divine quality felt whenever beauty is discerned in the shape of things on earth (page 653). "The wise," he said in still another statement, "believe all lovely things we see on earth approach more closely than anything else to that font from which we all derive."

In 1505, Michaelangelo went back to Rome to discuss with Julius the 2nd plans for a tomb suitable to the station, character, and taste of that most vig-

orous pontiff. The commission was in every way congenial, and the ideas of the Pope appear to have corresponded remarkably with those of the artist. Between the two, they projected the most remarkable tomb in the history of the world. It appears to have disturbed neither of them that their plans were fantastically impractical.

The original plan called for a small temple (Fig. 16.23) intended to stand inside the new Saint Peter's. Julius had no intention of appearing in effigy as mortal, recumbent, and dead. Instead, we were to look up at his figure in the very act of entering heaven, into which place he intended to go seated bolt upright on his papal throne, riding on a catafalque carried by two angels, with his hand raised in the gesture of benediction and his eyes looking fearlessly forward into eternity.

No fewer than 47 full-scale marble statues were to be included in the composition, plus six panels of bronze relief. Except for the reliefs, which were to commemorate biographical episodes in the life of the Pope, the subject matter was to be a grandiose demonstration of the recondite iconography so satisfying to the taste of the period. Different scholars have developed different explanations, but we shall not be far wrong if we understand the tomb as an artistic parallel for Ficino's *Theologica Platonica*.

The elevation of the tomb was arranged in three levels. The purpose was to use the physically high and low to demonstrate the extremes of heaven and earth, and a stage of comparative grace between.

Around the exterior of the lowest story, there were to be series of niches, with a *Victory* in each niche. On both sides of every *Victory*, nude and writhing *Captives* were to appear, each lashed to a slab (Figs. 16.24-25). Long recognized as reflecting to some extent the state of their author's own spirit, the *Captives* were intended (in the official iconography of the tomb) to typify the Neo-Platonic concept of the immortal soul disgraced by imprisonment within the body, and struggling against the slavery of man's lower nature. In the same way, the *Victories* would also have an ethical meaning; they would stand for instances where reason had conquered the base emotions, giving man a taste of freedom and glory even here on earth.

On the second level, which corresponds to the top of the ground story, there were to be only four large statues, one at each corner, and all free-standing. The characters to be depicted were Rachel and Leah, Moses and Paul. Moses and Paul had a special following at the time; they were often cited as men who had actually attained a synthesis of thought and action, thus enjoying spiritual grace during life. Leah and Rachel fell into a similar category. They symbolized the active and the contemplative life, both being considered necessary for the soul in its struggle back toward God.

As indicated above, the gates of heaven itself were to be the setting for the third and top level, occupied by the Pope and his angels. One of the latter, it is said, was to have a face full of rapture that so good a man should receive his reward. The other was to be in tears, because the world had lost him.

Very little work was actually completed in preparation for the tomb. Michaelangelo spent an immense amount of time and disbursed tremendous sums accumulating a great stock of marble for the purpose, and the Pope himself lost interest as costs added up with little to show for it. In 1508, he diverted Michaelangelo to painting the Sistine Chapel ceiling, originally intended as an interim project. In 1513, Julius died, and with him all hope of completing the plans.

After an enormous amount of delay and a tedious succession of revisions, the heirs, between 1542 and 1545, finally put together a simple wall tomb, using completed details intended for the full-scale project. The great Pope, as everybody knew, intended to rest in his magnificent new Saint Peter's of the Vatican; but by a maliciously ingenious reading of his will, the name *San Pietro* was construed in a generic way. He was therefore put in San Pietro in Vincoli, a small basilica on a side street.

The *Moses*, the only completed statue of the four projected for the second level of the tomb as planned, appears as the central figure in the arrangement at San Pietro in Vincoli. It is on the floor level, where it is probably even more awe-compelling than if placed as intended. To many, the force of the statue seems identified with rebuke, and the suggestion is made that Moses is shown as in Exodus 22:19. That is to say, we see him just as he is about to shatter the tablets of the law by casting them down in his wrath as he witnesses the celebration around the Golden Calf. An eccentric detail tends to substantiate such an interpretation. An erroneous translation of the scripture was then current which said that horns sprouted from Moses' head on that occasion.

The moral dignity of the statue is inconsistent with Moses' somewhat childish behavior on the occasion mentioned; and on the whole, it seems likely that Michaelangelo, as usual, intended to transcend historical narrative. If that be so, we may read the figures as a more general study of the Moses character, in which connection the last few verses of Exodus 24 seem apposite. They tell how Moses' face shone with light during and after his conversations with God. The Israelites were frightened thereby, and Moses had to put on a veil. It also seems likely that the statue was an attempt to depict the supernatural excitement known to all good students of Plato when, for an instant, the truth comes clear. In the words of Ficino, it "petrifies and almost kills the body while it enraptures the soul."

Among the other statues that were finished, or brought well along, are the *Victory* now in the Palazzo Vecchio, and some of the statues (Figs. 16.24-25) already cited as belonging to the lowest register of the arrangement as first planned. As a group, the *Captives* are colloquially known as "the Slaves." Two figures are in the Louvre, and four are in the Academy at Florence. The latter are believed to come from an abortive revision of 1532, which involved discarding all the work completed to date. They are larger than the statues in Paris, also more extreme. Their tortured bodies actually writhe back and forth in depth a greater distance than the total width across the shoulders.

Taking them as a set, "the Slaves" offer much provocation to anyone with a zeal for interpretation. Who can say what they mean? A number of suggestions have been put forward, all plausible. Perhaps they do not represent captives as previously stated, but the arts and sciences reduced to impotence by the death of so generous a patron. Another idea has it that they personify the political mortification of Italy, or even that they personify the foreign powers then reducing Italy, and show what Michaelangelo wanted done with them. There can actually be no sure right or wrong in the matter of interpretation. Neither do the various suggestions necessarily exclude one another; on the contrary, all may be true.

The truth of the matter is that, except for the use of the human body in recognizable form, "the Slaves" are abstract. Every man must infer what he can from the pose of the statue and the state of the muscles; even facial expression, of which there is close to none, fails to offer its usual help. It is fair to stipulate, however, that every honest interpretation must limit itself to generic words. Most of the meaning cannot be described; it belongs in the realm of the undefined emotions.

In the latter connection, it is of peculiar interest that several of the figures remain unfinished. Their condition may not easily be disposed of by reference to the sculptor's crowded schedule. Such a suggestion is out of character because of Michaelangelo's pre-eminence among artists for instant decision in matters of design, and for terrific speed in pushing work to a conclusion. Why should he have left something unfinished when he could have completed it with very little further labor? We must conclude that he intended to leave things as we see them.

What was the power that might be destroyed had he carried each statue further? The answer must in some way relate to the special strength of the cogent but indefinite statement — a resource familiar in literature. Such statements set the reader or the observer, as the case may be, off on his own. The artist names the train of thought even though he does not map its course. So conceived, it seems that the unfinished marbles, which in artistic fact are form

emerging from matter, have something to do with humanity's struggle against the material incubus, and the beatitude vouchsafed when man realizes his humanity and later his salvation.

Michaelangelo was at Florence when Julius sent for him to paint the ceiling of the Sistine Chapel. Having small taste for painting, and suspicious that Bramante and Raphael were at the bottom of the scheme (i.e., hoping to discredit him), he flatly refused to come back to Rome. After prolonged negotiations, Julius — a man not accustomed to negotiate with anybody — appealed to the government of Florence, asking that the artist be brought by force. "You have tried a bout with the Pope," said one of the Florentine officials, "on which the king of France would not have ventured. . . ." Nothing daunted, and realizing that Christendom would not be big enough to hold him, Michaelangelo declared he would take refuge with the sultan of Turkey. Then presently he gave in.

At that time, the ceiling of the chapel was a mere field of decorator's work, blue and studded with stars. The Pope asked only that the twelve apostles be painted on the vault, but Michaelangelo would have none of it. Disliking the task as he did, and with every reason to get it over with fast, he detested little plans even more. The scheme became increasingly big, and emerged as an attempt to provide an Old Testament foundation for the narrative frescoes painted on the walls of the chapel thirty years before (page 707). The main theme may be described as the Creation, God's subsequent wrath with mankind, and the survival of humanity by virtue of Noah's immunity. The narrative pictures are reinforced by seven Prophets and five sybils, thus recalling how one event foretold another, and putting classical mythology openly on a par with Christian history. In addition, there are innumerable subordinate figures of purely artistic utility; they are disposed for compositional purposes, to enframe units of narrative, or to lead the eye onward. The total area covered measures about 700 square yards. Michaelangelo is believed to have executed almost every inch of it personally, and his sustained expenditure of energy during the herculean performance is without a parallel in the history of art, or in any other history. He paused only when exhausted. In his creative fury, he neglected the simplest and most obvious routines of health and comfort. Forgetting to remove his shoes for a period of weeks, for instance, he pulled the skin off with them when finally persuaded to change his clothes. He worked almost entirely flat on his back; and as a result, he suffered serious ocular maladjustment for some time after completing the commission and resuming once again the normal posture.

Although individual pictures on the ceiling are among the greatest known

on earth, the project as a whole could hardly have been more unwise. It being nearly impossible to bring the entire field into view at once, the surface had to be subdivided into panels, with scenes coming seriatim. The contour of the vault was no proper field for painting. It was often poorly lighted; and under the best of conditions, the height (about 85 feet) and the vertical angle of sight made inspection of the paintings uncomfortable at all times, and often impossible. It is notable, in that connection, that few of them are genuine ceiling pictures in any case; most were designed as though to be viewed horizontally, like normal paintings.

After finishing the panels that told the story of Noah, Michaelangelo apparently removed the scaffolding and studied the work from the floor. As a result, he very considerably simplified the compositions which dealt with the Creation, two of which we show in Figs. 16.26-27. He reduced the setting to the lowest limit possible with any remaining correspondence to the narrative. The meaning is carried almost exclusively by the human figures. The latter were also reduced in number until there could be no fewer. Each was painted in the strongest possible application of the Mode of Relief (pages 582 ff); sometimes they make the impression of having been hewed from the block rather than painted.

The figure-style shows the full effect upon Michaelangelo of the Pergamene division of Hellenistic art (pages 170 & 710) with which he had recently become fascinated by way of the few decadent manifestations thereof visible at Rome. But his skill and judgment in posing the body were incomparably better than either the *Laocoön* (Fig. 6.20) or the *Belvedere Torso* (Figs. 6.21-22). Starting with such flamboyant and empty sources, he arrived once again at standards of excellence comparable to those of the Greek Great Age.

His iconography was at once grand and pathetic, a truth best demonstrated by the *Creation of Adam* (Fig. 16.27). For a sincere Christian, the gift of life was no gift at all in Italy during the 16th Century; and we therefore see Adam accepting it reluctantly, and God giving it, divine fire though it is, with sympathy and anxiety. It is also to be noted that Adam is placed on earth (from which he came) and near God (whose image he was to bear). The juxtaposition suggests a remark in Pico della Mirandola's *Oration on Human Dignity*; namely, that Adam had the right to choose: he might abase himself to the brutes, or become divine. The numerous figures enclosed within God's mantle amplify the meaning further. The lovely girl encircled by his arm must be Eve, whom God would presently give to Adam. It is significant that she is younger here than in the panel showing her own incarnation, and she looks out with fear and wonder upon the miracle of birth which she was destined so often to repeat upon the earth. The numerous babies suggest the de-

scendants of Adam and Eve, but it will be observed that one of them is singled out from the rest. The fingers of the Almighty rest with painful weight on his shoulder, and the child feels the burden. He must be meant for the Christ child, and it would seem that the Almighty felt need of him at this significant moment.

The next important commission, and the first in Michaelangelo's career to involve a substantial amount of architecture, was the *New Sacristy* attached to San Lorenzo at Florence, often called the *Medici Chapel* because it was undertaken to provide a family mausoleum. Work began in 1521, and the project was abandoned unfinished in 1534.

The architecture Michaelangelo designed as a setting for the several tombs throws a new light on his personality. Uncompromisingly proud and completely aware of his own genius, it was his habit to respond to the opinions of others with intolerable arrogance. He was nevertheless capable of humility, and was occasionally more than gracious in his appreciation of other artists. Those he admired most seem to have been those opposite to himself: Gentile da Fabriano, for example, and Fra Angelico. On this occasion, he paid Brunelleschi the compliment of emulating his style. Michaelangelo's handling of the decorative orders, and his employment of line and surface, echo the architecture of the modest and elegant nave just a few steps back through the entrance passageway. But at the same time, a master habituated to plastic expression and accustomed to make himself emphatic could not be Brunelleschi over again. Everywhere we look, therefore, we can feel the stronger relief and the greater weight of the High Renaissance.

Lorenzo the Magnificent and his murdered brother lie in a plain sarcophagus along the entrance wall; a more elaborate tomb for them was part of the original plan. The famous "Medici Tombs," one of which appears in Fig. 16.28 (the other is almost the same in design), house two later and lesser Medici: Giuliano, Duke of Nemours, and Lorenzo, Duke of Urbino, who had died in 1516 and 1519 respectively. Into the iconography of those monuments we need not go in detail. Suffice it to say that it conformed to yet another scheme of Neo-Platonic categories. Taken together, the two tombs were intended to set forth the dual concept of the active and the contemplative life, and into that theme was woven the notion of mortality and time, the latter being suggested by the recumbent statues of *Night*, *Day*, *Dawn*, and *Dusk* which lie so uncomfortably inclined upon the lids of the two sarcophagi. About the design, much is to be said.

Michaelangelo was the founder of the Baroque (Chapter 17) in the same sense that Alberti founded the High Renaissance. As they stand, the two

Medici Tombs are incomplete. Both were to include a pair of river gods, probably reclining on the floor at angles opposite to the statues which now lie on the sarcophagi. The addition of those intended figures would tend to tighten the composition; but even as they stand, the tombs have an extraordinary finality of design. They are, in fact, the earliest demonstration of the principles by which Baroque art was to be governed. As such, they belong to the next chapter rather than to this, and it is appropriate to defer discussion until that time. Equally a prediction of the Baroque was the immense *Last Judgment* on the eastern wall of the Sistine Chapel, upon which Michaelangelo was at work from 1534 to 1541.

The *Last Judgment* proved to be his final important commission in either painting or sculpture. In 1535, Paul the 3rd asked him to become superintendent of the Vatican buildings, a position that did not mean much at the moment, but one which eventuated in his taking over the construction of Saint Peter's (1546), the completion of the Farnese Palace, and the design of a piazza and a group of buildings around it for the Capitol Hill — that venerable site being still without suitable embellishment.

When Michaelangelo took over Saint Peter's, he found the fabric much as Bramante had left it in 1514 (page 706). The various interim architects had made a number of paper plans and a number of small wooden models, but they had accomplished little construction. It is difficult to say to what extent his decisions were dictated by circumstances over which he had no control. At any rate, he designed a central church around the existing piers at the crossing, with arms so short and a plan so compact that the body of the building would tell (much as it does today in the apse view) as a pedestal for the immense dome. The dome itself was a refinement of the one Brunelleschi had designed at Florence (page 631). There is no telling whether its present elliptical silhouette was designed by Michaelangelo or by Della Porta, who took over after his death, at which time the work was complete to the top of the drum.

There can be no question that Saint Peter's would be a better building had Michaelangelo's central plan remained. The extended nave ruined the composition; any normal view including the present façade gives the church an unfortunately disjointed look. When all is said and done, the chief present interest of the design has to do with Michaelangelo's manipulation of scale, a matter in which he made a significant historical contribution.

He took the fundamental shape of the nave from Alberti's Sant' Andrea at Mantua (Fig. 16.4), but he had a special problem because the building at Rome was intended to be immensely bigger. In making the adaptation, he proceeded in a bold new way. He discarded the idea of multiplying the con-

ventional classical members. Instead, he merely gave the new church the usual number of parts by the method of increasing the size of each part in proportion with the gigantic scale of the whole.

Upon entering, one's sensibilities are affected in peculiar fashion. There is no chance to form a notion of size by the familiar method of counting parts, as we do at Hagia Sophia (Figs. 10.2-3) and at Amiens (Figs. 12.12-13). In fact, the exaggerated scale of familiar mouldings and orders may at first pass unnoticed. Presently, however, the unusual surroundings begin to impart a feeling of their own size. The feet seem to wear seven-league boots, and every other capacity of the person becomes, for the present, enlarged in the imagination. Merely amusing at its inception, the sensation gradually becomes an idea seriously entertained. It is hardly too much to say that the end result is to impart a sense of personal grandeur to every man and woman within.

For the ensemble on the Capitol Hill (Fig. 16.29) Michaelangelo prepared a design that is surely one of the best in history. A bronze equestrian statue of Marcus Aurelius, unique among classical antiquities, was chosen as the focus for the entire composition. Around it extends the pavement of the small piazza, bounded on three sides by palaces and opening on the fourth upon a tremendous stairway down the steep side of the hill. The Palace of the Senate closes the vista established by the axis of the stairs. It is a larger, slightly more ornate building than its flanking palaces. The latter are identical duplicates, and they lie at a moderate angle to each other.

Precedent for such an arrangement was not lacking; indeed, the inspiration may have come from a somewhat similar grouping at Pienza. But no earlier plan accomplished in the same measure an aesthetic coherence as between several buildings in a group. Michaelangelo's success on this occasion inaugurated the modern tradition of working with units of architecture much as the painter manipulates single items within a composition. As compared with other essays along the same line, his design is perhaps still the very best.

Aesthetic emphasis was produced by the size and central placement of the largest building, and yet the others have scale enough to stand in their own right, and not as mere outbuildings. Of particular interest is Michaelangelo's care for the fall of the light. It was natural for him to approach architectural design from a sculptor's point of view, and it is said he would never permit construction until he had made and studied a model of the proposed building. In this instance, he demonstrated extraordinary judgment in the placement and projection of parts, with the result that cast shadows aid rather than harm the forms: the absence of parallelism in the plan guarantees that no two of the buildings will ever take the sun in the same way at the same time.

Considered separately, the Palace of the Senate can justly be hailed as the best, and probably the final solution of the Renaissance problem of combining the aesthetic qualities of classical architecture with the demands of modern utilitarian buildings, most of which must have several stories. As such, it proved to be the model for so many derivative buildings in Europe, America, and elsewhere that it would be futile even to guess at the number; there are probably a thousand new ones under construction as this is written.

As a class, the Palace of the Senate and all derivatives take their original guidance from the Roman variation of the Greek temple (Fig. 8.5). Its three divisions (podium, order, entablature) are obvious on the façade, but Michaelangelo's design called for a podium considerably higher and a colossal order much shorter than classical rules would suggest. In all such designs, it is essential to give the order (pilasters or columns as the case may be) sufficient vertical power to unify the elevation. It is correspondingly important to minimize the horizontality of the several levels of floor, a result which was aided in this instance by a clever variation in the size and shape of the windows.

At the top of the building, Michaelangelo found himself in the perennial trouble that besets every man who tries to adapt the classical orders to modern work. An entablature in proportion with the order would be too small to operate as a proper enframing for the whole building, while an entablature big enough to fit the height of the building would dwarf the order immediately beneath. Michaelangelo's solution has been the standard one ever since: he added a decorative balustrade, by means of which he gained height without overbearing weight.

The great man was seventy-two years old when he redesigned Saint Peter's, and the colossal spirit of that church remains as a testament to the regard in which he was held in Rome. His later years were more and more unhappy, however, and his isolation, seemingly grand, was in fact desperate. He could neither approve nor disapprove the policies of the Counter Reformation, a fact which increased his personal turmoil. Certain minor aspects thereof even proved a direct embarrassment to him.

One of the matters to which the Catholic reformers turned their attention was the question of decorum. In view of the flamboyant sensuality marking the immediate Italian past, their concern was appropriate, but it led them into some artistically ridiculous notions. Nudity as such became suspect; and Michaelangelo himself, the most admired artist in the world, was accused of impropriety because his *Last Judgment* contained many naked figures. Paul the 4th actually had Daniele da Volterra (1555-59) paint shorts on some of the offending bodies. It was even suggested that the painting be removed entirely.

Before Michaelangelo was dead, both Catholics and Protestants were indulging in some of the worst cruelties known in the Western world. The excesses of the religious wars may be thought of as an outward and vulgar counterpart for the spiritual stress within his own soul. His later writings are replete with passages expressing a sense of utter futility. "Lord, what shall I do unless thou visit me with thine ineffable grace?" he says in one place. And again, "I have let the vanities of the world rob me of the time I had for the contemplation of God."

Among his later drawings many approach complete dematerialization, but perhaps the best and most intimate record from his old age is to be found in the medium he loved best. Only three sculptural groups survive from those years. All three deal with the entombment of Christ. All three utterly renounce the pagan ideals of beauty and strength with which he had amazed the world in earlier days, and still does. Fig. 16.30 is perhaps the most pathetic of them all, but let the student also consult the grander group originally intended for his own tomb and now appropriately placed behind the high altar in the Cathedral at Florence. It stands all alone there, the last and by no means the least statement from the small, unhappy Florentine gentleman in whose person all the greatness of Italy was concentrated.

VENETIAN PAINTING DURING THE HIGH RENAISSANCE

The Renaissance came late at Venice, the reason being more or less evident in the character of the city. It is hardly accurate to think of Venice as Italian; in fact the place never has been so until rather recent times. From its foundation during the 6th Century, the town was a maritime power and is still one of the busiest ports in Europe. The natural line of intercourse was with the Germanies by way of the Brenner Pass, and with the Levant by way of the Mediterranean. The important Venetian families had relatives resident at Constantinople, Saloniki, Tyre, Alexandria, and a host of other places. For the same reason of trade, colonies of Greeks, Arabs, Slavs, Syrians, Turks, and Germans lived at Venice to handle their end of the immense transshipment which flowed continuously through the city, leaving wealth in its train. It was natural enough that commercial considerations loomed much larger in the Venetian mind than philosophical or religious questions, and inevitable that materialism would assert itself strongly in the local culture. The cosmopolitan atmosphere of the place involved much more than mere trade, however. From the beginning of the 13th Century onward, Venice held political and military control over many of the eastern islands, and over substantial

portions of the mainland as far afield as the shores of the Black Sea. Except for a series of conflicts with Genoa, her only rival on the sea, Venice remained not so much aloof as unconcerned with Italian politics and Italian culture. Her interests lay over the horizon.

To identify one's self with Venice, moreover, was to call up visual imagery unique in all the earth. The reality of the place is like a dream. No other city was ever built on so irrational a site, with canals for thoroughfares and gondolas for transport. Venetian architecture is as fantastic as the idea of the town itself. Great palaces rise like lace out of the water, and all the ordinary customs seem replaced by farfetched romance. Nature has done her part to enhance the spectacle. The sea and clouds take on colors that are extravagant even for the Mediterranean. The very air often glows with golden light, bathing the colored marbles with bizarre opalescence.

It would be unreasonable to ask the inhabitants of such a place to spend their time wrestling with the severe abstractions of architecture, or to be content with the monotonous of sculpture. Everywhere they looked, the view whipped them up to a lust for color. Their art may well have been delayed, in fact, by the lack of the right medium. Mosaic was too sombre for the spirit of the times. Both tempera and fresco had proven fugitive in the damp atmosphere. The start of the school coincided, in fact, with a visit by Antonello da Messina (page 581) who came there in 1475 to paint a large *Madonna Enthroned*, now broken up and preserved only in part. Antonello, it will be remembered, was one of the very few Italians who ever painted in the Mode of the Total Visual Effect, one of the earliest who habitually used oil, and one of the very few men then alive who understood its properties.

The Venetians adopted oil instantly, and made it their own. The best artists of the place have invariably been painters, and the historical contribution of the school depends upon their surpassing judgment in the development and perfection of methods for painting with oil. Most writers have erred by stating the matter too gingerly. They may perhaps be forgiven, because the truth of Venetian achievement and influence is so sweeping as to challenge the credulity of the reader.

As to the achievement of the Venetian masters, it may be said that their research was exhaustive and very nearly final. Except for the special and somewhat limited contribution made by the French Impressionists (pages 863-874), there has been nothing new in the way of technique since. It will be understood, of course, that the expression of mature men is ramified beyond description, and that when we state that such and such an artist painted by Venetian methods, we make no suggestion that his pictures look anything like Titian or Tintoretto. We merely mean that he accomplished his own purpose with the

same tools and the same materials used in similar fashion. That being plain, we can make a very brief statement of the breadth of Venetian influence.

Through the agency of El Greco (about 1548-1614), who had learned his trade in Titian's shop before going to Toledo, the Venetian oil technique was transmitted to Spain. Every Iberian artist since might justly be called a Venetian derivative.

Through the agency of Rubens (1577-1640), who spent a full eight years in Italy and made many copies after Titian, the Venetian manner went to the entire north of Europe. Flemish, French, and much Dutch painting has ever since been Venetian in method. Rubens's distinguished pupil Van Dyck (1599-1641) took the same technique to England, and every British painter and all American painters have employed it since.

The influence so broadly described above has not yet lost momentum. As with most other instances of cultural invention and borrowing, the Venetian method was widely adopted because artists thought it better and more convenient; they instinctively recognized its theory as being fundamentally in keeping with the art of painting, and as opening up more complete possibilities of expression. Most of the technical stratagems in the work of Cézanne (pages 908-917) — all too often put forward as original inventions of his own — were matters of common knowledge at Venice during the 16th Century, and he learned them from Venetian paintings he had studied in the museums. What was true of Cézanne is equally true of the followers of Cézanne. The retrospective exhibition of Matisse, held in New York in the autumn of 1951, showed that supposedly radical and modern master to be an immensely skilful painter indeed; but although the problems he had set himself were special and even new, his tactics in solving them were Venetian.

The Venetian Mode

The Venetian Mode, sometimes called the Pictorial Mode of the Later Renaissance, was the fourth and last theory of painting to be promulgated successfully in the history of European art. It derived from the Mode of the Total Visual Effect (pages 580 ff); in some respects, the two are often so nearly alike as to be difficult to distinguish. As the reader has doubtless inferred from what has gone before, the principal advantage of the Venetian Mode over its predecessors was the fact that it offered greater flexibility to the art of painting. While producing pictures of acceptable verisimilitude, the new system set the painter free from the artistic lock-step which must be accepted as the inevitable consequence of maintaining a strict one-to-one relationship between the facts of the painting and the facts of nature.

It will be understood, of course, that the Venetian departure from nature

was partial, and not complete. In Venetian pictures, the human anatomy is reasonably strict. Linear perspective is likewise correct. But in every department having to do with tonal relations, the Venetians did as they pleased with only the slightest regard for the rules of light and color which John Van Eyck (pages 614 ff) had investigated so thoroughly and mastered so well.

Having cast aside natural fact as the law of art, they were able to make direct and arbitrary use of value, hue, and intensity in several ways from which painters had hitherto been foreclosed. Upon occasion, representation itself (especially the placement of objects forward and back within the represented space) was made easier by calculated contrasts between the tone of the near thing and the tone of the far thing. By an equally arbitrary manipulation of the tone, the Venetian painters threw the light, so to speak, upon a person in the act of doing something crucial in the drama of the picture. By a cognate use of shadow, they relegated other figures to subordinate status. Sometimes shadow has the opposite effect, and directs attention to a particular face by the simple power of our curiosity to explore the undefined.

The two routines just described (the use of tone to aid representation, and the use of tone for emphasis and suppression) were the techniques which made the Venetian Mode popular with other schools. Somewhat more local to Venice was a special and additional preoccupation with grand schemes of interior decoration, into which single paintings had to fit as details in the larger design. Such taste begot the habit of planning the hues of a painting in harmony with each other, so that the final composition, considered as a whole and as an area on the wall, would fall in the general region of some chosen hue — or, in technical language, would possess a definite *tonality*. In very large paintings, it was almost equally important to make the rhythm of the picture, as established by accents of value and hue, correspond well with the architectural rhythm of the chamber in which it was to hang. Because good artists, especially schools of them, usually come close to accomplishing what they set out to do, the Venetians made pictures that were more decorative than any the world had seen before. At the same time, it must be conceded that their strong interest in beauty tended rather often to result in beauty alone, and we shall look in vain for the intellectual and spiritual qualities characteristic of all art that stemmed from Florence.

All of the Venetian painters used the Venetian Mode; but for the purpose of explanation by reference to black and white plates on a scale practical for the present volume, we shall find the plainest examples in the work of Tintoretto. Giorgione and Titian used the same methods, but they were less obvious about it. In keeping with the more strident nature of his art, which looked forward toward the coming Baroque (Chapter 17), Tintoretto did not even

attempt to be restrained about the methods he used. His theory of painting, in spite of all we have had to say by way of preparation, was baldly simple and direct: it was the same theory which brought the spotlight into general use in the theatre, where nobody worries about the naturalism of the effect.

An excellent instance of a comparatively simple painting in the Venetian Mode is Tintoretto's *Presentation of the Virgin* (Fig. 16.39). It will occur to the reader to compare it with Giotto's version of the same subject at Padua, from which much can be deduced with respect to what Venice wanted from her painters. But forgetting the spirit of the picture, let us note how he used the light.

One's attention is arrested at once by the oval flood of brilliance which carries up the stairs and stops at the small figure of the Virgin. Dramatically, what could be in more perfect order than the idea that a radiance as of divine grace followed her up the steps that day? And yet what could be more inconsistent with the logic of illumination as we observe it on earth? A single field here and there models, with reference to itself alone, in rational fashion; but the same cannot be said of the broader areas of light and shadow which form so essential a feature of the composition. Why does the light fall only where it does? How does it happen that the child herself merely leads the light up the stone stairs, and receives almost none of it? Why is there so exaggerated a contrast of value between the illuminated areas, which seem to get the full sun, and the shaded areas, which seem almost like nocturnes? What is there to say about the brightness of the amazed old man at the lower left? And what of the fact that the canvas divides into almost equal halves of light and dark along the diagonal?

So long as we insist upon finding a natural or mechanical cause for everything we see in the picture, it must remain an outlandish engima. Immediately we accept the artistic propriety of using paint without reference to the facts of visual experience, the entire Venetian theory of painting opens up. Because painting is in many respects more flexible than nature and much more under the control of the artist, it becomes feasible — once we accept as legitimate a substantial departure from the tone relations of nature — to create a pictorial world with effects of light and color which otherwise would remain quite out of the question. Out of the question, it is worth remarking, even in the modern theatre with its battery of lights. The imagery of art, to put it briefly, can be different, more extended, and more responsive to the creative imagination than the imagery of sight.

In his well-known *Miracle of Saint Mark*, Tintoretto arbitrarily bathed some of the figures in light and some in shadow, and he thereby achieved emphasis and subordination as described above. Our Fig. 16.40 reproduces a sec-

tion from the upper right-hand corner of the composition, and the purpose of the selection is to illustrate a modest instance of the Venetian habit of using contrasts of value, hue, intensity, or all three, as a method for making us read certain masses as being forward or back from certain others within the represented space of the painting. The detail shows one figure entire, and part of another. The two lie approximately in the same vertical plane, and it was necessary for the painter to make both "come forward" from a background he wished to "place" about twenty yards away. Neither the drawing of the figures nor the drawing of the background would, in itself, furnish sufficient indication of the spatial relation he wanted us to comprehend. With respect to the two arms of the man at the lower left, he was aided in the representation by atmospheric perspective, and even more by the sharp contrast between the high value of the white gateway and the arms silhouetted against it. No such fortunate arrangement of contrasts existed to "place" the old gentleman at the upper right in the same manner, and he resorted to an arbitrary expedient.

Around the upper silhouette of the figure, he ran a ribbon of tint very near to white in value. Depending upon the variation in local contrast between the figure and its background, the whitish ribbon was made narrower or wider as circumstances required. The result, as seen either in the original or in a good photograph, was to make the figure "snap forward" into the desired position.

Technically, the trick is known as *disconnection*. Mr. Arthur Pope called attention long ago to the fact that the device was common to both Venetian and Chinese painting. It is impossible to know whether the Venetians performed an act of total invention, or whether they adopted methods observed in pictures that somehow found their way to the head of the Adriatic in the course of Eastern trade. Either may have happened. At any rate, most painters ever since have freely resorted to arbitrary modulations of tone, to calculated contrasts of local hue, and to any other convenient manipulation of pigments whenever such would serve to supplement other indications of spatial displacement as between objects seen in the picture. It is in this department of art where Cézanne, in particular, owed so much to the Venetians.

Although Venetian paintings purported to be representative and were often stirringly dramatic, the going taste at Venice demanded, as already stated, that pictures be something more than a vehicle for expression. There was an almost equal interest in paintings as an integral part of the interior decoration. In theory, any colors might have been chosen, or a great variety of colors; but the 16th-Century Venetian fashion called for paneling in rich brown woods, with decorative accents occasionally brought out in gold. With exceptions, furniture and hangings were chosen with an eye more to harmony than to contrast, and the same principle applied to the color scheme for paintings.

While a quick look at a Venetian picture gives one the impression of experiencing all the hues in more or less vivid state, a more sober and systematic analysis (especially if it involves putting the Venetian example into contrast with some other) corrects the original hasty reaction. If catalogued, diagrammatically or otherwise, all the hues within the Venetian painting will fall on the color circle in the general region of red-orange; and the painting, considered as a unit of area, will tell as a spot or section of that hue. Such a statement seemingly contradicts the unmistakable evidence of our eyes; but the fields which tell as bright blue in Titian's *Europa* at Fenway Court — simply to name an example accessible to American students — actually are neutralized blue-grays. They tell as intense blue only through the agency of contrast; they are cooler and bluer, that is, than the tones with which they are juxtaposed. Because there is nothing to contrast in any serious fashion with the dominance of red-orange, the totality of the picture gleams with that hue, and has the effect so often colloquially referred to as "the Venetian glow."

In keeping with the tendencies of the High Renaissance, a great many Venetian paintings were very large indeed, often covering an entire wall. In such extended compositions, there was an obvious argument against a strong localization of interest; and the even continuation of decorative appeal, similar in principle to the rhythmic and unlimited composition appropriate for an upholstery or hanging (pages 26-29), offered a suitable solution to the problem. The prime desideratum (regardless of the subject matter depicted) was to make the painting an area of rhythmic decoration, a kind of tapestry on canvas within which the eye finds interesting hues and values everywhere. The desired happy effect would be difficult or impossible if the artist felt obliged to put a shadow everywhere nature might put one.

In the bigger Venetian pictures, the alternations of tone were generally governed by the decorative scheme, which was followed whether it happened to be consistent with visual fact or not, and without much regard for making the right-hand half of the painting conform with the left in the matter of illumination. Tintoretto's immense *Crucifixion* in San Rocco is a capital example, but it reproduces abominably in black and white. Veronese's *Marriage at Cana* (Fig. 16.42) will illustrate the point as well as it can be done in a photograph. If studied according to the theory of the Total Visual Effect, its arrangement in value and color is irrational, but it is full of merit and wisdom if we understand that the painter intended in arbitrary fashion to carry a decorative rhythm across a broad panorama of figures and architecture. Lights succeed darks. Dark appears against light, and light against dark. The shadows are cast, or omitted, according to the rules of pattern and not according to the rules of nature. What was true of the large paintings was in general

true of the small ones. Tintoretto's *Miracle of Saint Mark*, taking it as a whole, is a good example of rhythmic spotting over a more limited area; and Giorgione's *The Concert* (Fig. 16.33) illustrates how the principles of tonal rhythm may be applied even to a small, portable painting.

By giving painters a sanction for modulations of color not to be justified by reference to nature, but acceptable by reference to their expressive power, the Venetian Mode extended an invitation to attempt bizarre effects. In later years, Tintoretto in particular carried boldness to the point of violence, thus suggesting to the Venetian-trained El Greco the eerie wildness so appropriate in the fervidly Catholic art produced by that Greek master after he took up residence at Toledo in Spain. Tintoretto's *Last Supper* in San Giorgio Maggiore (Fig. 16.41) will illustrate what is meant.

The Bellini

Jacopo Bellini (about 1400–1470) was the earliest important master native to Venice. Little of his painting survives, but his sketch books now in the Louvre show him as a member of the International Style (pages 531–539). His immediate inspiration came from Gentile da Fabriano, and like Gentile (Figs. 13.20–21), he made a specialty of sweet Madonnas in half-length.

Jacopo had two sons, Gentile and Giovanni. Gentile Bellini (1429–1507) was an able but uninspired painter. He devoted his entire career to pictures of Venetian life, and specialized in panoramic canvases recording the innumerable processions and ceremonies which seem to have been the chief joy of the official calendar in that picturesque city. Gentile may be said, in fact, to have established Venice as one of the perennial subjects of Western art. He was followed in that vein by Carpaccio (about 1455–1522), and by a long line of native painters culminating in Canaletto (1697–1768) and Guardi (1712–1793). Once started, the tradition of the Venetian view attracted painters from elsewhere. Claude Lorrain (1600–82) did a number of harbor scenes suggested by the imagery of the canals. Turner (1775–1851) chose Venice for the setting of one impressionistic tour de force after another. The fantastic light and color of the place will probably never cease to excite the skilled technician, and for that reason some of the very best luminist experiments by both Manet and Monet (pages 863–874) are pictures of Venice.

Giovanni Bellini (1430–1516) was emotionally more profound than either his brother or his father, and was much affected by contact with his brother-in-law, Andrea Mantegna (1431–1506), the most powerful personality in

Lombardy and Donatello's heir at Padua. Giovanni emerged in his own name about 1475, and from that date onward, paintings in large numbers came from his studio every year. Young painters were glad to work there — among them, Giorgione and Titian.

From the first, Giovanni's art belonged to the High Renaissance. A weaker man would have felt inclined to lean upon Mantegna, who was distinguished for his theoretical powers and marked in his work by a realism as passionate as the 15th Century ever produced. Giovanni's gifts were gentler, however. His most characteristic painting might be described as visual poetry; it must be felt through the intuitions, or it will have no meaning at all.

As though by unanimous consent, Giovanni got the best commissions at Venice for thirty years and more. He did a number of large pictures. The *Frari Madonna* and the *Madonna Enthroned* of San Zaccharia, may stand as examples of his work in religious art; and we may refer to his *Feast of the Gods*, the subject of a monograph by Mr. Edgar Wind, to show his capacity in handling the classical themes.

Excellent though they are, the ceremonial pictures in public places hardly spell Giovanni Bellini for those who care most about him. The pictures which reveal his nature best are the half-length Madonnas he turned out in large numbers. Fig. 16.31 shows a typical example. All of them are arranged according to the same formula. The Madonna is seen behind a low wall, on which the child stands. A narrow screen is placed a couple of feet behind her. To either side, we get glimpses of the sky and sometimes of foliage. If the latter, the leafage is always of early summer, and the light and air are soft and still. The mood is as moderate and as unforgettable as that perfect time of year. Often the Madonna looks softly down. Sometimes her eyes open out toward us. In every instance, the expression is completely innocent of any effort to appeal or to impress. The affinity with Gentile da Fabriano (Fig. 13.21) is obvious at a glance; in fact, Giovanni's Madonnas might well be thought of as the International Style brought up to date. His paintings remain unexcelled whenever and wherever a sentimental treatment of the Madonna subject might be appropriate. As compared with Raphael's Florentine Madonnas (Fig. 16.16), they maintain a level of dignity sadly lacking there. It is amazing that a single artist could so often repeat the same simple arrangement without precise duplication. It is even more remarkable that the content, which is delicate to the point of making each picture a serious aesthetic risk, never once fails or cloys.

Giorgione

Giorgione of Castelfranco (about 1475-1510) was an even more lyrical painter than Giovanni Bellini, in whose shop he worked with Titian and was

his intimate friend. Unlike modern oil paintings, Venetian pictures were very slow in production; often a canvas would be turned to the wall after each stage of underpainting, and allowed to lie idle for months at a time until the paint became utterly dry. It is not surprising, therefore, that a number of pictures were only half finished when Giorgione suddenly died in 1510. Titian took them over and finished them. An immense effort of connoisseurship has failed to separate the hands; and for the purist, there is a group of paintings known as "the Giorgione-Titians" — of which Fig. 16.33 shows one.

We have already spoken of the design (page 757). The meaning can be inferred from the faces of the three performers. The young face at the left has the shallow look of the singer who can use his voice, but knows neither how he does it or what the music says. The man to the right is merely a good workman. Between the two, we see the face and hands of one whom we may judge to be the leader of the group. Obviously the only real musician of the lot, he turns as though in appeal for some sign that the others share even a little of his learning and his emotions. The loneliness of the exceptional man, if so elusive a thing can be put in words, is the subject of the painting.

In the art of the modern world, it fell to Giorgione to perform the role of Praxiteles (page 136) and to establish the female nude as a subject in its own right, to be accepted as though out of obligation by Titian, Rubens, Rembrandt, Velasquez, Goya, Canova, Ingres, Bouguereau, Cabanel, and a host of others. The painting which set the tradition in motion was the well-known *Sleeping Venus* shown in Fig. 16.32.

Any honest discussion of the picture involves the English-speaking critic in problems of the greatest social delicacy. The Victorian tradition is still strong enough to make some recent writers insist that sexual allure formed no part of Giorgione's expression. The same can hardly be said of the chaste Botticelli, who was steeped in a lofty Platonism. Much less can it be said of a painter who was popular at Venice during the 16th Century, when that city included within its catalogue of luxuries a mature and refined taste for the sensual. It is irrational to suggest that Giorgione felt a distaste for matters which were the subject of direct and open interest among his friends and contemporaries, and it is fantastic to entertain the thought that the painting constitutes a kind of prophecy of the manners and customs of England and America during the 19th Century.

The attempt to expurgate the picture is not only a failure; it is highly improper. It is far better to appreciate the painting for what it is, namely, a declaration of that physical attraction by which men are drawn to women and become devoted to them. The theme is presented tranquilly, without excitement. The fact of sleep, it will be noted, exerts a generalizing power over the

warm appeal of the body. The essence of the matter, indeed, is a complete absence of narrative. Because no story is suggested, it is possible to contemplate the permanent reality of the universal desire to which all must respond in some measure. The subject of physical love thus attains the spiritual overtones without which desire itself remains incomplete, immature, and certainly no blessing.

Titian

Titian (1477-1576) enjoyed the longest career ever permitted a European artist. He was one of the world's best technicians before he finished his training under Giovanni Bellini; and when he died a few months before his hundredth birthday, he was not only still active, but capable of work that justifies the factual use of the adjective *phenomenal*. No other painter ever had the opportunity to acquire an equal measure of experience. No other was ever more fortunate — from the standpoint of technique — in the place he lived or the period he lived there, and certainly no other was better qualified by temperament and talent to advance in his chosen field. The reader will not be surprised, therefore, to be told that Titian had a broader influence upon subsequent painting than any other artist of the High Renaissance. His work, more than that of any other man, has set the standard and remained as the ideal and the norm for nearly 400 years.

In view of the length of his career, the development of Titian's style holds an unusual interest. An excellent example of his early manner is the *Sacred and Profane Love* (Fig. 16.34) in the Borghese Gallery at Rome. The odd name under which it has long been known is surely a mistake; but in spite of considerable effort scholars have not yet found an explanation that gives complete satisfaction. We can get some feeling for the content from the probability that the sarcophagus was intended for that of Adonis, whose murder by the jealous Mars appears in relief on its face. If so, the nude woman is Venus, and the baby Cupid. A recent opinion would have us identify the clothed girl as Polia, a character who appeared in the *Hypnerotomachia Poliphili*, a collection of allegorical and antiquarian love stories published at Venice in 1499. Polia was in the habit of frequenting a fountain which was kept filled with water from Adonis's stone coffin. If that is correct, Venus must be urging her to take a lover she has so far rejected.

As compared with the painter's later work, the modeling is strongly plastic, and the point of view not radically different from the Mode of Relief (pages 582-586). The masses, both in foreground and distance, seem to assert their three-dimensionality by repelling the atmosphere around them. As time went on, Titian became less and less interested in sculptural definition, and more

and more interested in the softening and blending of things much as they actually appear on the retina of the eye.

His output during middle life was immense. It included important commissions of every kind: religious, classical, portraits. Every writer has so many favorite paintings that he cannot choose one or two for discussion without doing violence to his own feelings, let alone the preferences of his colleagues. If, however, the citation of a "typical Titian" be required, there can certainly be no quarrel with the statement that it is the *Bacchus and Ariadne* of the National Gallery in London (Figs. 16.35-36).

The picture belongs to a famous chapter in High Renaissance taste. It was commissioned by Alfonso d'Este, Duke of Ferrara, who vied with his sister Isabella in the patronage of works of art intended to explore and make manifest the ramifications of the then-popular philosophy of love (pages 653-654). Between them, the two scholarly aristocrats called into being a substantial corpus of refined erotica, most of it with classical subject matter. For the whole story, we may refer the reader again to Mr. Wind's monograph (page 758), merely placing the Bacchus in the series by saying that it seems to deal with the frustrative aspect of the relations between male and female.

Mr. Wind pointed out that the imagery corresponds reasonably well with lines 505-508 in the *Fasti* III of Ovid, and he believes the scene is meant for the final encounter between the two lovers. Ariadne had long since been abandoned by the faithless God. One day as she was walking on the beach bemoaning her condition and hoping for death, she suddenly found herself pursued by Bacchus. He was passing by in the course of his triumphant return from a trip to India. The presence of the Corona Borealis in the sky above Ariadne's head seems enough in itself to identify the moment, because the jewels of her crown became stars in heaven only as she died in Bacchus's arms on that occasion.

Strangely enough, the literary source for the painting had, since the 17th Century, been cited as a passage from Catullus (*Carmina* LXIV), which does not fit nearly so well in the matter of imagery, and tells, moreover, of the first and not the last meeting of the two. How could it have happened that the narrative content of so famous and so accessible a painting was mistakenly interpreted for so long? Why was there no expression of dissatisfaction, no searching for a better answer? Are we to suppose that otherwise energetic scholars used no common sense? Or is it more likely that they simply did not bother with subject matter because subject matter is rarely worth bothering about in Titian?

Before embarking upon a statement, it is fair that the reader should be

warned that, with respect to Titian's content, sincere students of the subject take variant views. The opinion presented here is one the author has found no reason to change for some years, but one with which others strongly disagree.

Here, and elsewhere, it seems that Titian indulged his interest in visual aesthetics even to the brink of contradicting what he purported to represent. The painting states that Bacchus has just jumped clean out of his chariot in a crazy dive toward Ariadne, but Bacchus is in fact a static figure. The same may be said of every other. The postures are those ordinarily assumed only under exertion; but there is no strain and nobody moves. We are reminded of the event Keats described on the Grecian urn: nothing is going to happen, and the future is the same as the present. The story was taken, that is to say, at a point when all its visual imagery fell into composition, and the artist's concern was less with the passion and tragedy of the narrative, and more with the inspired decorative surface Titian was better able to produce than any other man.

Accepting his scheme for what it appears to have been, no praise can be too high. The painting contains within it almost every expedient of design known to the art. No analysis in words can possibly do more than hint at the complexity and perfection of its organization.

The broader elements of the composition, for example, can scarcely be comprehended at all unless we analyze the arrangement in at least three different ways. As usual, the Venetian rhythm of value alternations (page 756) carries the interest evenly over the entire surface in every direction. At the same time, a low triangular figure may be discerned, with Bacchus's head at the top; a moving Bacchus, it is worth remarking, would scarcely be appropriate at the apex of so inflexible a form. Either of the two systems mentioned (the rhythmic or the geometrical) would have been sufficient to give the painting order and intelligibility, but both coexist with a third scheme of composition which, because of its immense popularity since, requires special emphasis.

The system of arrangement was at least as old as the composition of the south front of the Erectheum at Athens (page 108). The balance, that is to say, depends upon an asymmetrical grouping of objects within the represented space. The principle involved was to work out a psychologically satisfactory equilibrium by producing an equation of subject matter. The method is in considerable contrast with balance obtained through the stability of a geometric figure (Fig. 16.13), with balance established by an equilibrium of forces (Fig. 3.14), and also with balance which depends upon the leverage of *avoidsupois* in symmetrical groups (Figs. 3.15-16).

Within the limits of the scheme, innumerable variations are possible, but the one Titian used here (which he appears to have worked out with Giorgione, who had used it for his *Sleeping Venus*) occurs most often. It has been popu-

lar enough, in fact, to account for the composition of more than half the paintings since produced in Europe and America.

The eye, it will be noted, can reach out into the distance only at the upper left-hand corner of the picture. The opposite side is screened off from top to bottom by barriers which are very nearly impenetrable, and the foreground extends broad across the canvas from the bottom edge of the frame upward for about half its height.

The form depends for success upon our intense curiosity about what may be discovered in the far distance. That appeal for attention registers upon the consciousness even though we may believe and declare that we look at nothing and care for nothing but the subject matter in the foreground.

In pulling an explanation out of the semiconsciousness as we do, we indulge in a method of argument admittedly susceptible of abuse. It may help, therefore, to point out that the pictorial function of a deep vista may escape the awareness of an observer for several reasons. The distance may seem, for example, to be neutral with respect to narrative, but inspection of a hundred paintings will show that the landscape chosen for each is ordinarily of a character likely to enhance the mood of the foreground content. Just as the sustaining instruments in the orchestra escape direct analysis, but are necessary, so the small areas of distance are not only vital to this particular form of pictorial composition, but powerful enough in their attraction to balance an immense weight of active subject matter on the opposite side of the painting. In the instance under review, it will be observed that Titian took pains to make certain the vista he used would have ample power to attract attention. Bacchus and his companions enter from the upper right, and proceed over the ground in an arc that is roughly circular. The eye is led from left to right along one thing and another until Ariadne's right arm points directly out into the beyond; and the bluffs on the shore continue back and back in an unbroken curve.

Because the reader is destined to see similar compositions constantly as he studies the further history of painting, and because the scheme of arrangement analyzed here actually attained sufficient currency to make it a pictorial form comparable to one of the recognized musical or poetical forms, it will be useful to give it a name. We may refer to it as *the composition dependent upon a balance of mass against distance*, or more accurately as an arrangement of *mass against interest*. Although the small area of distance is usually at one upper corner or another, it obviously may be placed in the middle or anywhere else; the essential thing is to arrive at an equilibrium of appeal to the observer's attention. Distance, moreover, is merely the most usual subject matter employed for that purpose. Anything else which is comparatively small in scale but intense in the power to attract will do as well.

The intricate perfection of the composition of the *Bacchus and Ariadne* is matched by an equally accomplished handling of its most minute details. Throughout the painting, there runs a theme of harmony with respect to line and shape which is identical in physical fact with a great variety in the matter of hue and value.

The cloud above Ariadne, for example, has a silhouette that echoes her own, while the branch over Bacchus is an approximate repeat of his flying fold of drapery, but of opposite outline and in dark rather than light. The spaniel dog, on a smaller scale, has much the same outline as the leopard harnessed to the chariot; but once again, the value of its original is reversed. Repetitions of a V-shaped figure run all through the painting, sometimes flat on the plane of the picture, sometimes at an angle to it. The legs of the infant satyr may be said to announce the motive, which is symmetrically reflected by the front outline of the little dog and by the ears of the calf's head on the ground behind. Thence the V's go out to either side in the legs and arms of almost everybody else.

However honestly and thoroughly we make lists of such matters when we see them, the intricate visual perfection of those interacting elements cannot be carried over into verbal description; it is merely hoped that the latter will aid the eye of the reader. Taking the history of painting as a whole, however, there are few who would quarrel with the assertion that Titian's mastery of the pictorial art was not only more facile and ramified than that of any earlier artist, but plainly more accomplished. To date, it must be added, no other painter has demonstrated a comparable fertility of imagination in those abstract inventions which he so easily incorporated into the design of something that many persons have taken as no more than an unusually skilful performance in the field of representative painting.

Portraits formed a minor but constant part of Titian's business. It may be questioned whether portraiture, as such, ever has or ever can open up vistas leading toward the full greatness of art; and were it not for Titian's paramount influence upon all future paintings of that class, we might skip the department altogether. Titian worked out a certain portrait-formula, however. Rubens took it up, and passed it on both to the court painters of France, and to Van Dyck. Van Dyck's spectacular success in London established the same formula in England, and no other was used by Hogarth, Reynolds, Romney, Raeburn, or any of the other British portrait painters down through Sir Thomas Lawrence, who died in 1830. In details of style, portrait painting changed several times during the 19th Century, but the original Titianesque formula is still often used for the arrangement. Mr. Wyndham Lewis used it

once again, for example, when painting a portrait of Chancellor Capen (1937) for the University of Buffalo — a picture that is otherwise radically modern, being Byzantine in figure-style and cubistic in modeling.

Among the many available examples, none is better as a general demonstration than the *Charles the 5th* (Fig. 16.37). We may note in passing that the handling shows, by comparison to earlier work, considerably less plasticity and substantially more blending of the masses into the environment; but with respect to the formula now under review, the first point to be considered is the size of the canvas, which is grandiose for so simple a picture. Next, it should be observed that we find our line of sight directed upward toward the magnificently competent emperor, who wears his gorgeous armor as unconsciously as a peasant might wear a smock. The environment is appropriate to the majesty of the sitter: he rides not through wild country, but over the lawns of a great park. The occasion for the painting, moreover, was a significant moment in the history of the Hapsburgs and of Europe; Charles's army had just beaten the troops of the Elector of Saxony at Muhlberg, thus scoring heavily for the Catholic cause in the Counter Reformation.

What went for the king, went also for the king's men, and official portraiture has ever since been much as Titian established it. The paintings, that is to say, have been in the Venetian Mode. They have been made as large as possible, with the line of sight arranged to make it necessary to hang them abnormally high. Whatever the facts, the pictures have uniformly described the sitter as a person of superior physical, moral, and intellectual power, with the inevitable suggestion that he thought in large terms and was dependable in the world of great affairs. Aristocracy has been the true subject matter of all such portraiture, to which the average man must incline his eyes upward from a remove as though to admire his betters.

And yet it is always politic to remind the commons that however nobly the lords conform to the ideal of nobility, the lords are human and humane. It therefore became customary to include some object indicative of the sitter's private interests, or to show him doing something he liked to do. Scholars look up from a book. Scientists have an instrument in hand, or beside them. Sportsmen stand beside a fine horse. But best of all, from the standpoint of eliciting the ordinary man's sincere admiration, was an opportunity to show the sitter performing some everyday act in which he excelled. Titian set the fashion when he chose to put the emperor on a horse and make him hold a lance in his hand. Everyone who saw the painting was thereby reminded of a boastful complaint that had become a byword in Charles's armies, namely, that affairs of state had robbed them of the best cavalry commander in Europe — presumably to the disappointment of the monarch also.

In 1545, Titian went to Rome. He stayed there eight months. It is difficult, as indicated, to know the inward heart of such a man, or to tell how profoundly he was capable of being affected by an experience; but we may certainly note a substantial change in his painting which seems to date from approximately that time.

The Rome Titian saw was Rome at the start of the Counter Reformation, and the same Rome in which Michaelangelo was spending the latter part of his career. It is evident from the later pictures that Titian felt some necessity for responding to what looked like a ground swell in European art and culture. Like Michaelangelo, he moved in a direction that predicted the Baroque. Perhaps under the influence of the *Laocoön* (Fig. 6.20) and the other Hellenistic pieces by which Michaelangelo himself was being influenced (page 745), he made his later figure-style more ponderous, and began to employ poses eloquent of true muscular strain. We may note the same new stridency in both his religious and his mythological painting, and we may assume that he was attempting to supply the fervid excitement which, foreign though it was to his temperament as we have known it to date, was to be of the essence in the art of the 17th Century.

The *Rape of Europa* (1559), one of many classical subjects painted for Philip the 2nd of Spain and now in Fenway Court in Boston, is typical of the later mythologies and unquestionably the best Titian in America. The experience of inspecting the picture is a strain on the eyes. To the right, the figure group performs a slashing diagonal across the vertical surface. The distance opens up on the left in no gentle fashion; the vista is a breakneck rush out into space. The color by no means diminishes the general commotion; it is bold in the foreground and alive with fire over the mountains. Tricks of perspective add a disquieting sense of the supernatural. We see Europa and the bull along the horizontal line of sight, but look down from a great height into the landscape far behind and beyond them. Presumably we are up in the air with no platform to stand on, and we look two ways at once as we sometimes do in dreams.

Needless to say, the balance of such a composition is precarious, and the total effect of the painting strenuous rather than reposeful. The whole affair illustrates not only the trend of the times, but still further the odd relation between Titian and his subject matter. Why did he open up with such thunder about an abduction that amounts to a fairy tale?

Among the later religious paintings, we can do no better than study the last of them all, the *Pietà* (Fig. 16.38) Titian intended for his own tomb. The design dates from 1573, and the execution was not quite complete when the master died in 1576.

In the matter of style, the picture carries almost to a conclusion the predications inherent in his later development. The technique bears no further relationship to the Mode of Relief (pages 582-586), by which — whatever its merits — the art of painting had for so long taken its lessons from sculpture. The plastic reality of figures and objects was, in this last phase of his style, submerged in a vaporous harmony of atmosphere. Only by a conscious effort, in fact, can the eye separate out any particular shape for special inspection. Titian's control over tonal relations was more subtle and more profound than ever before. The tones themselves have the quiet of an elderly man. A soft golden light is reflected from the apse; it plays over the figures in this direction and that, bathing everything in gentle melancholy. The brushwork, which might be described as moderately impressionistic, is hardly that if the term connotes incomplete description; the technique is so magnificently competent that the slightest flick of the brush told its tale to the full. There is, as a matter of fact, almost no paint on the surface, and the grain of the canvas shows through.

The content, unfortunately, was slightly marred by the increasingly operatic taste of the later 16th Century. What place has a pirouetting angel of the Cupid type in this quiet scene? Why is the Magdalen presented to us in a state of shock, yelling? Aside from those incongruous details, the scene is among the most dignified in the history of sepulchral art. Titian himself appears in the role of Saint Joseph of Arimathea. It is a notable characterization. The old gentleman kneels with courtly tenderness to assist the Madonna, accepting the inevitable tragedy as quietly as he accepted the certainty of his own early death.

Tintoretto

Jacopo Robusti (1518-94), universally known as Tintoretto, was the last of the great figures in the Venetian School, and except for Caravaggio (pages 806-808) the last Italian artist who, in the long view of history, may be styled as a creative genius of the first order.

He was apprenticed to Titian, but Titian disliked him and dismissed him from the shop before his time was up. An early account of the affair imputes jealousy as Titian's motive, which is incredible because of the position he then occupied at Venice. The probable truth of the matter lies in their personal differences. Tintoretto's style derived from Titian's, but his taste and temperament were of a kind admirably calculated to offend the older master. Paradoxically enough, the offensive element was an early demonstration of the very qualities Titian himself tried to incorporate in his own later work. Tintoretto reacted vigorously and at times flamboyantly to his subject matter.

His most characteristic pictures are full of urgency and action. He seemed to consider it important to whip up the observer's emotions by every devise of technique and content. To study even his more moderate paintings (Fig. 16.39) is to become conscious of a certain heightening in the atmosphere.

The broader principles of his art have been set forth in our discussion of the Venetian Mode (pages 752-757). It now remains to summarize the innovations to which we have just referred.

No earlier painter employed directional forces with an equal prodigality. His first consideration was to find an angle of sight so new, so odd, and so unfamiliar as to be startling in its own right. An upward angle of vision had been used before, but hardly with the same temerity. It is one thing to ask the observer to raise his eyes (Fig. 16.37) and another thing to put the central actors of the pictorial drama at the top of a near vertical incline going off diagonally from the surface of the picture (Fig. 16.39).

Having found an angle of vision sufficiently novel to meet his taste, Tintoretto would then figure out ways to enforce movement into the represented space. Every imaginable directional impulse was used in one picture or another: the gesture, the figure in motion, the glance of a startled eye, spectacular foreshortening, powerful perspectives of architecture — and the list has only begun. Because he almost invariably forced the movement inward, or somewhere near it, certain important and novel results were obtained. The space represented by the picture tended to impress the observer as a continuation of the volume within which he himself was standing at the moment, and the effect of that was to evoke a sense of personal involvement with the events already so strongly described. In extreme instances, Tintoretto may be said to blast his way into our sensibilities. However vivid, the experience is not without pain.

By historical chance, it was Tintoretto rather than any other man who first became synonymous in the European mind with everything suave, elegant, desirable, and Italian in the artistic manipulation of the human figure. The popular mystery of El Greco's art can be explained, for example, if we merely appreciate that his earliest imagery came from the late Byzantine pictures he saw on the Island of Crete, that he cross-bred that style with Tintoretto, and moved on to Spain to use it for paintings which are either lofty or morbid in their mysticism, or both.

Tintoretto had a slogan lettered on his wall, to which he often called attention. It read: *The color of Titian and the drawing of Michaelangelo*. In trying to make out his meaning, we should probably construe the word *color* very broadly indeed. In addition to its strict denotation in terms of hue, tint,

...less meant to call up a total impression of those ways in Michaelangelo: the absence of intellectual severity and even sensual beauty. The aim was very nearly achieved. ... usually large, unusually soft of flesh, and unusually delicate in complexion. His men are fit mates for them. Both sexes commonly were made to sit or stand in exaggerated contrapposto; and in accordance with his habit, he usually presented both from some unusual angle of view. However insignificant for the narrative in hand, every figure was made to move like a dancer (Fig. 16.41, lower right) and was made to seem in itself a thing of absolute beauty.

Without impeaching the authenticity of Tintoretto's art, we must recognize that his deliberate combination of two recent successful styles differed from the normal assimilation by a younger artist of elements in the art of his elders. He was not trying to create a new thing, but to play safe by combining two known values in the hope of losing neither and profiting by both. His point of view bore a subtle but all-important contrast to the outlook entertained by Giotto, Donatello, Michaelangelo and other men upon whose work the history of art depends. His was a philosophy of derivation. The concept of creative synthesis, the life-giving element in all the greatest art, was lacking.

In the case of Tintoretto, the reader may well complain that we bear down too heavily upon a distinction that made small difference. In the world-view, however, the very existence of the distinction proved prophetic. The day Tintoretto put his slogan on the wall was the day Italian art crossed a great divide. The results were at first hardly perceptible, but in the end Italy ceased to be the center of European art and culture.

Tintoretto's career, especially his endorsement of amazement as a value in its own right, proved to be a signal that a new era in Renaissance culture was about to open up and swallow all within it. Not only does he mark the end of his era and the beginning of the Baroque; with him, the importance of the Venetian School ceased. Venice continued to have good painters right up to the Napoleonic era; but between Canaletto, Guardi, Tiepolo, and Longhi on the one hand, and Titian on the other, everyone must accept a difference in calibre. One cause seems to have been the loss by Venice of the special advantages which had formed the foundation of her materialistic philosophy. The discovery of the direct route to the Far East around the Cape of Good Hope (1498) opened that trade to shipping from northern Europe, and gradually subtracted from the importance of the Mediterranean. The opening of the New World had a similar effect. To this day, the city maintains her local pride and a substantial prosperity; but her pre-eminence lies in the past.

NORTHERN ARTISTS OF THE HIGH RENAISSANCE

As set forth in Chapters 13 and 15, the north of Europe had developed its realistic tradition direct from the Gothic; and whatever its content and however scientific its representational techniques, northern art remained Gothic in form throughout the 15th Century. Only here and there do we find a detail or two to suggest direct influence either from Italy or the Antique: for example, the architecture in *The Madonna with Chancellor Rolin* (Fig. 15.1) makes one wonder if the painter had been south of the Alps.

By about 1500, however, the situation was different. It was no longer possible for anybody to escape consciousness of an artistic garden, blooming with a new and gracious fragrance, stretching from the Piedmont to Naples, and full of beguiling southern flowers. As one might expect, a good many northern artists who otherwise might have continued in their own tradition made tours of Italy and tried as best they might to assimilate the lovely Italian style. Such men were most numerous in court circles or at metropolitan centers: at Fontainebleau, for example, and also at Antwerp, which by then had assumed its modern character of the greatest port in Europe, with an active trade leading to Italy and everywhere else.

As typical of the many Flemish artists who cultivated an Italian style, we may name Jan Gossaert, called Mabuse (1470-1541); Bernard van Orley (1493-1542); Jan Sanders, called Hemessen (1504-63); and Fran Floris (1516-70). Fig. 16.43 may be taken as characteristic of their work.

By the time such men felt its influence, the Italian Renaissance had passed into the grander and more idealized phase represented by the later work of Raphael (Figs. 16.16-20) and his contemporaries. Not one of the Flemings mentioned was strongly creative in his own right; it may be doubted whether any of them, if born in Italy, would have made a reputation there. All of them were too easily influenced and, worse than that, too quick to assume they understood the purpose and method of the great Italians. It is difficult to explain the immense difference between authentic Italian art and the work of such Italianizing northerners, since the physical facts are so much the same. The complaint against the Flemings is not their inability to paint, for they painted well. It is the truth that the "Grand Style," whenever the epic mind was lacking, has invariably proven the very worst art known to man. Unable to think or feel in heroic terms, the artists now under review considered their problem to be merely one of adaptation, not complete change. Instead of approaching the matter philosophically, they merely smoothed up the custom-

ary anatomy of 15th-Century Flemish realism, and made it more ample and more sensual. The net result was a vulgar, uncomfortable, hybrid art with the faults of both its sources.

The painters just dealt with were popular. Without doubt they pictured themselves as leaders if not creators of taste, in the act of opening new vistas for the northern imagination. But seen in historical perspective, they were faddish men who had nothing to do with the true worth of northern art during the High Renaissance. The latter depended upon the existence of several masters of grand scope and magnificent personality who, although very well informed about the Italian style, remained steadfastly Gothic in their idiom while demonstrating an imaginative drive and expressive power equal to the best of the Italians. We refer to Hieronymus Bosch, Albrecht Dürer, and Peter Brueghel.

Hieronymus Bosch

Hieronymus Bosch (about 1450-1516) was probably born at Aachen. He painted a good many pictures of the conventional Flemish kind, of which his *Adoration of the Magi*, a three-paneled folding altarpiece now in Madrid, may serve as an example. His special reputation depends, however, on work of quite another sort.

One of the most famous is a large triptych in the Museum of Fine Arts at Lisbon. The subject is a highly imaginative rendering of the *Temptations of Saint Anthony*. The Saint to whom we refer was the one born at Alexandria in the 4th Century. He was a celebrated hermit. Even by the strenuous standards of that time and place, his asceticism attracted unusual interest and made him a special target for the schemes of the Devil. First, that Black Master undertook to torment the Saint with all kinds of seductive thoughts calculated to drive him mad by filling his mind with images of the comforts and pleasures he might enjoy by a mere relaxation of the will. When that failed, the Devil resorted to physical methods. Delicious foods and drinks were set out to lure Anthony from his unimaginably austere diet. Lovely courtesans were sent to assail his chastity. When those measures also failed, the Devil lost his temper and sent demons and monsters to give the Saint a brutal beating.

Bosch handled the subject with an intensity of detail typical of all northern art (page 296). Although the panels are large, items appear in such multiplicity as to render the whole painting unsuitable for reproduction on a small scale, and in Figs. 16.45-46 we accordingly show two typical sections in close-up. Seen as a whole, the painting shows Anthony seated before a Crucifix in a cell opening toward us in the middle of a castle ruin which fills the central

part of the main panel; Bosch probably derived the idea from the tradition that Anthony lived in a cave. The courtesans disport themselves at table on a stone terrace outside. Around the ruin, there may be seen an unrivalled collection of real and imaginary monsters (Fig. 16.46), all of the most sinister aspect. Every one of them seems himself to be tortured, morbid, or both, and every gesture is surcharged with ghastly menace.

The terrific scene is presented against a landscape which runs continuously through all three panels. The wings open up to a view of sea and harbor; doomed ships are there, either wrecked or sinking. A burning village (Fig. 16.45) appears in the background of the main panel, with a party of armed men traversing a bridge.

It goes without saying that Bosch worked in the region later to be entered by William Blake (1757-1827) and still later by Chirico, Dali, and the other Surrealists of the present day. As explained above (page 423), Surrealism abandons a setting in the world, and finds a locus elsewhere. Its method is always the same: to depict with devastating specificity the most radical concepts of the visual imagination. A generation ago, it was customary to explain Bosch's diabolism as an excursion of the fancy, usually intended to amuse. Whenever, in a particular instance, the appeal to humor failed to satisfy, the notion of satire came forward; and when that too seemed incongruous in the face of the painter's self-evident earnestness, one heard the phrase ". . . foolish superstition which the world has now outgrown." All such notions now seem like nonsense. Anticipating psychiatry by about 450 years, Bosch did his greatest work in the nether reaches of the mind, that realm more-real and yet not-real, before whose gateway all men pause in dread.

The subject matter with which Bosch dealt was different from the psychological malaise with which we are immediately familiar. He lived among a population largely illiterate, during an era when the Church was losing its power to soothe and reassure. Terrible imaginings came to the surface, more dreadful than any we moderns can comprehend because there was no way to explain them, and no hope of therapy.

Those who have traced northern art from its beginnings (pages 295 ff) will of course recognize the pedigree of Bosch's grotesques; the genus is as old as the barbarian invasions of the ancient world. One effect of Christianity, however, had been to hold under control the violence of the northern temperament and, by the same token, its tendency to radically fantastic imagery. In general, that restraining influence was remarkably effective during the entire Middle Age, with the ever-existent turbulence of the barbarian taste breaking through only occasionally as in the Utrecht Psalter (Figs. 9.45-46) and the more extreme Romanesque tympana (Fig. 11.12). Bosch appeared just

when the discipline of the Church was becoming less effective as a social reality. He was therefore free to roam where he pleased in an area hitherto quarantined. He appeared, also, at a time and place almost ideal for the purpose: in the Flemish region when it was impossible to be a painter at all without possessing an exhaustive knowledge of representative accuracy and the best techniques for achieving it. Without realism, Surrealism is impossible; its power to convince depends upon its capacity to say that the outlandish is actual.

Again capitalizing upon the achievements of northern realism, Bosch may be said to have been the founder of the modern tradition of *vulgar genre*, an aspect of northern art destined to survive long after the patrician taste of the Renaissance had submerged every other remnant of Gothic feeling. The so-called *Prodigal Son*, formerly in the Figdor collection at Vienna, is perhaps the best-known painting of the class. Fig. 16.44, important for other reasons also, will likewise illustrate what is involved. As a general category, vulgar genre finds interest in the stable and the drunken party, and displays a liking for the company of farmhands, peddlers, tramps, whores, and bums. Bosch was simply the first of a notable line of northern artists, among whom we may name Adrian Brouwer (1605-85), Adriaen van Ostade (1610-85), David Teniers the Younger (1610-90), the 17th-Century French painters called *Le Nain*, and the British Hogarth (1697-1764), who was the last of the great Gothic artists. To a man, such painters used all the skills of the Renaissance to assert the reality and validity of the unthinking majority who owned nothing, hoped for nothing, and worked with their hands. Their philosophy was opposite to the classical and Italian bent for selection by reference to some theory of beauty or edification. In the presence of their art, the heartbeat of Renaissance decorum inexorably slows and misses time. What are the deep racial instincts which pull us toward surroundings and behavior from which we are foreclosed by every tenet in the code of manners that all the world learned from Italy during the 16th Century?

Bosch seems less to participate in his own vulgar genre than to tell its story with an overtone of heartbreak. Subtle and perhaps imperceptible in many paintings, his deep bitterness comes out plainly in the great *Christ before Pilate*, at Princeton (Fig. 16.44). The use of gross persons as actors in the sacred drama was in itself a shocking thing, but the device has to do with a judicious realism of thought as applied to Christianity. The meaning of the picture hinges upon the physical and even the mental contrast between Christ and the persons around him. In a world where shrewd officials train and control professionally brutal men to keep the mob in hand, is it intelligent to expect

much from a little preacher who, as history tells us, got himself hopelessly caught? Although rarely stated so baldly then or now, there is much evidence, pictorial and otherwise, to indicate that more than one prominent person of the 16th Century entertained the specific belief that Christianity had failed. Michaelangelo certainly squared up to that possibility, even if he did not accept it (pages 745-750). Peter Brueghel, as we shall see, seems to have abandoned hope like Bosch.

Albrecht Dürer

In the history of German culture, Albrecht Dürer (1471-1528) occupies a position comparable to the one held by Leonardo with reference to Italy. He had immense prestige among his contemporaries, prestige which rested only in part upon his accomplishments as an artist. He wrote a book on geometry with special reference to its application in art. Another book dealt with fortification, and still another with anatomy and the human proportions. He was an intelligent and profound scholar in almost every field of learning then available, a fact which greatly enhanced the contemporary authority of his art. He was, in addition, a friendly man.

Dürer has traditionally been introduced to students as a painter. His career in that medium may be evaluated by reference to the portrait of his father (1490), now in Florence, and to the three self-portraits — in the Louvre (1493), the Prado (1498), and the Alte Pinakothek at Munich (1500?). Supplementary reference should also be made to such religious paintings as the *Landauer Altarpiece*, an *Adoration of the Magi* (1511), now in Vienna; and to the *Four Apostles* (1526) in the Alte Pinakothek. An honest estimate of such work is bound to suggest that we must hold Dürer's painting in less esteem than we hold the man. The technique was superb, but the style was an unsuccessful attempt to combine an exceptionally florid Late Gothic taste with the measured idealism of the Italian High Renaissance.

It is a mere affectation, however, to think of painting as a "major art" and print making as a "minor art"; the truth about Dürer is that he ought to be approached by way of his engraving, and judged by it. He had a personal taste for the medium, evidencing thereby the German genius for mechanics and for metal work in general. The unparalleled precision of the graver made a virtue, in fact, rather than a fault of the Gothic instinct for intensive detail. In Dürer's case, that was unusually fortunate and necessary, because he seems to have had an unlimited faith in the power of elaboration. As an architect, he would have been weak and tedious. As a painter, he was prolix. But with his own tools, he turned out a wealth of work which defies the faultfinder. Not only was he the greatest engraver who ever lived; engraving was par

excellence the ideal medium for making the most of German taste at that period.

It is possible to have a personal fondness for almost every plate Dürer ever did. On the basis of technical perfection and on the basis also of spiritual profundity, three particular prints stand out from all the others. They are the *Knight, Death, and Devil* (1513) (Fig. 16.47) and the two plates from the next year, *Saint Jerome in His Study* and the *Melancholia*. The three are about of the same size, and were evidently intended as a set. They were not meant to be shown as a single composition; the unity of the set depends, rather, upon an organic relation of content. The *Knight* typifies the Christian faced with the problems of the daily world in which he must decide, act, and persevere. The *Saint Jerome* stands for the Christian scholar who secludes himself to make contemplation possible. The *Melancholia* refers to the creative faculty of mankind; it suggests that humanity is there closest to the divine, and yet sadly ineffective. The iconography of all three is complex; we can only suggest it here and refer the reader to the excellent account in Mr. Edwin Panofsky's *Dürer*.

It is probable that Dürer had been in north Italy in 1494. He must inevitably have seen Donatello's *Gattamelata* at Padua (Figs. 15.15-16), and he must also have studied Verrocchio's *Colleoni* at Venice (page 721), which had been set up on its marble pedestal only a year or two before. In addition to those notable monuments, all the world knew that Leonardo himself was then at Milan, and had declared his intention of making himself the author of an even greater equestrian group. His notebooks contain many sketches which we now relate to the *Francesco Sforza* upon which the great Florentine did intermittent work from 1483 to 1493, in which latter year he was ready to put a full-size model on exhibition — presumably the same model that stood in the courtyard of the Castello when the French entered Milan in October 1494 (page 709) and put an end to the project by destroying both the model and the house of Sforza. It seems inescapable that Dürer's interest in an equestrian composition must have been stimulated if not suggested by his Italian tour, and scholars have amused themselves ever since by finding resemblances between the *Knight*, the two completed statues in Italy, and the drawings of Leonardo, with which Dürer must in some way have become familiar. The rhythm of his engraved horse seems to be Donatello's, but the conformation of the animal and the armor of the rider are more like Verrocchio. It is worth remarking as we pass that the triangular composition of the figure and its setting in a rocky pass are reminiscent of Giotto's *Flight into Egypt* (Fig. 13.46), a painting Dürer must have seen even though 16th-Century artists, taking them as a class, were snobbish in their attitude toward "the primitives."

The content is both very ancient and very new. We see the knight riding across the picture, presumably making his way toward a beautiful city set high on a peak and appearing against the sky in the far distance. Death on a tired horse speaks to him, and brandishes an hourglass. The Devil, half pig and half wolf, apparently also has tried to get a hearing, but the rider has already gone by. A big dog, something like our modern golden retriever, runs along intent on some errand outside the picture.

The image of the Christian as a warrior goes back to Saint Paul, whose epistles are often spiced with the military vocabulary. Dürer also inherited the idea from the Crusades; and even more directly from Erasmus, who had used *Christian Soldier* in the title of one of his early essays.

For any well-informed German, the "breastplate of righteousness" was no mere figure of speech in 1513. The religious situation was volcanic. Violence was to be expected, and Erasmus tried to exert a moderating influence. In effect, it was his hope to bring about harmony by persuading both clergy and laity to embrace a better understanding of both Christianity and humanism. Sin, he contended, was not only prohibited by God, but beneath the dignity of man. If that much could be generally accepted, it followed that temptations would lose their power, and no one need fear them. Such, probably, was Dürer's reason for showing fiends as mere spooks. The Christian knight simply overlooks them, and the Christian dog doesn't even bother to sniff their scent.

The *Saint Jerome in His Study* (Fig. 16.49) can hardly be excelled as a celebration of the *vita contemplativa*. Although spatial realization had been a northern specialty for more than a hundred years, Dürer's elegant perspective — the work of an accomplished mathematician — opens up the room before us in extraordinary fashion. It is hard to believe we are inspecting a small picture; it seems much more as though we had actually looked in upon the fine old gentleman and saw him as friends might who had just come in the door. His lion looks sleepily up as Saint Bernard dogs do when familiars arrive; in a moment, the saint will finish his paragraph and look up also. In the meantime, we can envy the order and simple comfort possible only for bachelors: a few pieces of good furniture, and all one's gear ready at hand without any crowding. The windows face the south; and from the shadows, we may judge it is the middle of the morning on a fine day. No painter and no photographer could possibly rival the beauty of the light; not only does the engraver have sharper contrasts to work with, but also he can stipple and make the sun flicker with life in a manner from which even the French Impressionists were foreclosed by the coarse tools they used.

From the *Saint Jerome*, in which the artist himself obviously took so much simple, genial pleasure, it is a disquieting experience to turn to the *Melancholia*

(Fig. 16.48). If we may judge from the shadow cast by an hourglass hung on the wall above the head of the central figure, the setting is in moonlight. A comet blazes across the sky, and it is chilly enough to make the half-fed dog curl up. The personified Melancholy crowds herself heavily into the right foreground. Her face is sensitive, tired, and distraught. Her hair and her dress are in a mess, the result of long, concentrated effort. She has wings, but the idea of flight is ridiculous because they are too small for so gross a body. She sits in front of a partially finished building, with some fine tools in disorder around her. In her hand, she holds a beautiful pair of dividers, and there is a discarded book on her knee. A baby, perched uncomfortably on the rim of a grinding wheel, digs busily into a slate with an iron spike, doubtless making horrid squeaks as he does it.

The mood of the *Melancholia* is plain enough at a glance. Its more profound meaning involves an immensely complex excursion into medieval lore. The main features may, however, be explained without reference to details.

In its ultimate heritage, the theme goes back to the classical tradition which held that the nature of mankind might be explained by reference to four humors: the sanguine, the choleric, the phlegmatic, and the melancholic. Each humor responded to a physical cause in the form of a vital fluid supposedly contained within the system. Ideally, all four fluids ought to be in what sounds like physical and chemical balance. Since they usually were not, individual men had to submit to a more or less warped temperament.

The four humors were also thought to have an astrological significance. The planet Saturn had come to be identified with the melancholic cast of mind; hence the adjective *saturnine*. Because Saturn was an earth god who had much influence over agriculture, he was conceived as having a special and necessary interest in quantitative measure of all kinds. In particular, he was thought to hold jurisdiction over the survey of land. From that, it was no step at all to making Saturn God of Geometry. The magic square on the wall at the upper right was, as a matter of fact, a talisman in sixteen compartments calculated to divert the gloomy influence of Saturn into constructive channels.

Among the 16th-Century intellectuals, of whom Dürer was one, both melancholy and geometry had recently acquired new life and meaning. The entire representative convention (pages 539-542) owed much of its prestige to the sanction from geometry as reflected in the 15th-Century research into the principles of linear perspective. As the Early Renaissance passed on into the High, a further attempt had been made (page 722) to satisfy the aesthetic sense by geometric compositions which, it had been hoped, would provide art with the finality and completeness of the Antique.

Already connected with art through Saturn and geometry, the melancholic

temperament had lately become identified with the creative imagination by another and yet stronger chain of reasoning. Marsilio Ficino (pages 649 ff) had, among his other contributions, popularized a bit of Aristotle's mistaken but unbelievably accurate dogmatism. Aristotle (384-322 B.C.) noted that creative persons tend to be abstracted, that they exhaust themselves with effort, and that they often get downhearted. Neglecting the more exalted moments of the creative cycle, he flatly declared that every superior man is necessarily a melancholic. The amusing discovery that Plato himself had been born under the sign of Saturn added a further thought that did nothing to diminish the popularity of that idea. To this day, intellectual snobs the world over cultivate melancholy, and creative persons often give the impression of it.

With such information to help us, Dürer's obscure plate may be understood. The little baby with his slate signifies the optimism of naïve and misdirected effort. The frustrated goddess symbolizes the incapacity of the mature mind to realize meaningful achievement. There is some reason to think that the geometrical apparatus, disposed in most ungeometrical arrangement, reflects Dürer's personal discouragement with geometry as such. The history of his critical writings indicates that he had first hoped to locate beauty by increasingly subtle geometric reasoning. After a great deal of work, he gave the idea up as impractical. In the absence of better mathematics, it would seem that he identified geometry with the rational faculty. The trouble with the rational faculty, as Dürer seems to have found out, is our inability to reason beyond what we can measure and count. In a word, every man must be enough of a mystic to know that the mind cannot keep pace with the imagination. It must be some such feeling that accounts for the inadequate wings Dürer gave his goddess and for her apparent realization that her keys would open nothing.

Inasmuch, also, as all three of the plates under review date from a time when religious issues were tense and grave, and when Dürer himself was in agony over which way to turn, it is possible to interpret the *Melancholia* as an expression of doubt with respect to the Renaissance itself. Humanism, particularly humanism as represented by such men as Alberti, inevitably involved some measure of departure from religion as the hope of grace, and an equivalent assumption by the self of the burden for achieving happiness on earth and ultimate salvation. The rational faculty was the principal tool to be employed in the process. Faith in the rational faculty was the essence of the new era; but Dürer, like Botticelli (page 662) and Michaelangelo (page 750), had evidently started to doubt.

However discouraged he may have become with them as a method for solving the problem of existence, Dürer's geometrical investigations led him into

trains of thought of peculiar interest to students of 20th-Century art. His engraving of *Saint Anthony* (Fig. 16.50) stands as one of the most accomplished fusions of representative drawing with geometrical abstraction. The figure of the saint would fit almost precisely into a hollow cone. The pile of buildings rising behind him has much the same structure we can see in eroded lava of the columnar type. Dürer's work, at this particular moment in his career, was governed by a theory identical with the early Corot and the architectural pictures of Cézanne. From that position, it is scarcely a step and we arrive at Analytical Cubism (pages 925-928). A pen drawing, also dated 1519, shows two heads abstracted into a series of plane surfaces that intersect each other like the facets of a diamond. Dürer certainly had no intention of using so extreme an idiom in a finished painting. His drawing must be recognized as something he put down as it passed through his mind, but his train of thought was nevertheless indistinguishable from the one that led Cézanne toward cubism, and Picasso and Braque (building on Cézanne) right on into it.

Peter Brueghel

Peter Brueghel the Elder (about 1528-69) took his name from the place where he was born. Of the various villages available under that name or something like it, the one near Bois-le-Duc seems most likely. Because Bosch came from the same locality, his powerful influence upon Brueghel is conveniently explained. The artist himself omitted the *b* upon occasion, making the name Bruegel; but for the spelling with the German diphthong *eu* there is no authority even though his descendants sometimes use it.

Because of his low taste, English speaking critics have been slow to recognize Brueghel's greatness. The pictures so offensive to their delicacy are the numerous examples of vulgar genre, in which department of art he heartily outdid Bosch and everyone else who ever tried it. Examples are the *Peasant Dance*, the *Peasant Wedding*, and the *Parable of the Bird's Nest* in Vienna; also the *Peasant Dance* in Detroit, from which we show a detail (Fig. 16.52). In addition, there are numerous single figures depicting the same class of people. From the standpoint of the genteel, the enormity resides in the painter's apparent failure to feel distaste for such subject matter, and from the historical knowledge that he personally participated in similar revelries, did it habitually, and enjoyed it.

Some decorous critics, compelled nevertheless to admire, have tried to find a way out by interpreting Brueghel's vulgar paintings in much the same way we are supposed to get the point of the Neo-Classical tracts (Figs. 18.2-3) later produced by Jacques Louis David; i.e., as containing an edifying suggestion. In a few instances, like the *Blind Leading the Blind* (Fig. 16.51), there appears

actually to have been a text (Matthew 15:14); but in other instances, if text there be, the sentiment expressed can hardly recommend the painter to the bourgeoisie. The parable of the bird's nest, for example, contains the disquieting conclusion that "He who knows where the nest is has the knowledge; he who steals it has the nest."

Without suggesting that Brueghel's wit is uniformly suitable for the drawing room, it must be conceded his offenses against daintiness are about the same as those of the poet Chaucer. In disposing of him as negligible because he was coarse, the Victorians overlooked some of the greatest painting ever done in Europe. It is now necessary to take another point of view.

In 1552-53, Brueghel made a tour of Italy, apparently going as far south as Naples. He seems to have journeyed down by way of the Rhone Valley, and to have returned over the Brenner Pass. The things he saw furnished him with new and grander subject matter for his painting and had a remarkable effect upon his artistic methods. In astonishing contrast with almost every other northerner who went to Italy, he remained completely his own man. Instead of being led around by the nose, as it were, and beguiled into imitation, he paid no attention to the superficial attractions of Italian art. At the same time, he was profoundly affected by its underlying fundamentals.

From Michaelangelo, he learned how to pose a ponderous anatomy in complex and accomplished contrapposto; but he showed no interest in a classically idealized figure-style. From Raphael and the Umbrians in general, he learned how to make space carry meaning. In fact, he seems at once to have understood the special power of Tintoretto's enforcement of movement into the represented space (page 768), and many of his landscape compositions are laid out on an inward diagonal (Fig. 16.54). The most unusual circumstance of all, considering how much he gained from Italy, is the extreme rarity of instances where we can discern a one-to-one relationship with any specific Italian masterpiece. In fact, almost the only sure case of the sort is a drawing in Hamburg, in which the figure of a northern peasant is posed exactly like one of the incidental nudes on the ceiling of the Sistine Chapel.

As a landscape painter, Brueghel has few equals and no superiors. Several of his best pictures record the winter scenery of the Low Countries; they are hardly to be surpassed for the excellence with which they communicate the damp, the cold, and the *gemütlichkeit* nowhere else to be found in the same combination at the same season of the year. The human figure, as rendered by him in such a setting, tends to take on the aspect of line and flat tone that forms actually take in nature when seen against ice and snow. By the outline alone, he was able to define mass and describe action. He demonstrated a genius for the silhouette, in fact, unknown elsewhere except in the Far East.

His true greatness had its genesis, however, in the Italian journey which brought him into contact with mountain scenery of a grandeur unknown in the Netherlands and which he employed in a series of magnificent paintings. The most famous are five which date from the two years 1565-66. They are: *The Hunters in the Snow*, *The Dark Day*, and *The Return of the Herd*, all in Vienna; *The Hay Harvest*, formerly in the collection of Count Lobkowitz at Raudnitz; and *The Corn Harvest*, now in the Metropolitan Museum. As distinguished from most other landscape paintings, either earlier or later, the pictures mentioned are important for the successful use of vast distances: not vistas of a mile or two, that is, but stupendous extensions of space as seen from an elevated station high in the hills, and imparting much the same sense of exaltation.

The space unaided would scarcely have carried its meaning, but it came to life under Brueghel's miraculous power to make us feel the very essence of the atmosphere at different times of the year and under various conditions of weather. His method was similar to that of the Venetians. He did not depend, that is to say, upon a systematic translation into paint of the natural phenomena. He worked, rather, through the direct appeal of tones to the emotions, and he appears to have made his choice upon that basis, whether in selecting local hues or in modeling a field.

In the familiar *Hunters in the Snow*, for example, he rendered every object within the limits of a very narrow range of tones. In addition to white for the snow, he used tints of green and of red-orange neutralized almost to the limit. A few spots of black must be mentioned for completeness, and the painting as a whole may be described roughly as gray-green pointed up here and there with the merest hint of warmth. Such are not necessarily the actual colors of winter, but they have the mood of winter in them, and no other painting concerned with that cold season carries the same conviction. By similar methods, the *Corn Harvest* is full of the golden air of autumn.

Had he lived in a happy world, Brueghel perhaps could have spent his life composing landscapes that were serene, noble, poetical, or intimate as inspiration might from time to time suggest. His career had its setting, however, amid horrors which until the time of Hitler were generally considered the worst ever perpetrated by an educated and Christian population. The Protestant Reformation had started in 1517. Because it was popular in the Netherlands, and because the Netherlands were also important for their wealth, the Catholic emperors Charles the 5th (Fig. 16.37) and his son Philip the 2nd made Brueghel's homeland the special object of their most resolute policy. Bosch had lived through some of their activity. Brueghel's maturity coincided with re-

pressive measures of the utmost inhumanity. For the narrative at length, the reader should turn to J. L. Motley's *Rise of the Dutch Republic*. It is important to recall here that the 16th Century was the period when the Spanish Empire was attempting to solidify its power not only in the New World but in England and on the continent. Events in Flanders and Holland, where most of the important churchmen, governors, and soldiers were Spaniards, formed merely part of the larger picture.

Protestant defection in the Low Countries had brought the Inquisition into vigorous activity. The infamous memory in which it is held springs from two sources. Its methods were diametrically opposed to everything summed up in the common law of England and America, or any other law possessed of a just procedure. Its sentences, moreover, were considered barbarous even during the 16th Century. For so slight an offense as the oral discussion of theological matters, the average man was almost certain to suffer death if accused. His only hope was to establish repentance, in which case he would be hanged rather than burned.

In 1567, lesser measures having failed, Philip the 2nd sent the Duke of Alba into the Netherlands with the double purpose of suppressing heresy and crushing the liberty of the towns. Alba was one of the most competent Spaniards of the century. He came with a well-disciplined army. His sincerity cannot be questioned. His methods, however, remain a byword for inhumanity and in the end failed to accomplish the calculated result. In the course of his administration, Alba brought about the torture, maiming, hanging, burying alive, and burning of innumerable individuals. He himself estimated one batch of executions at 18,000 — a figure which must be interpreted in relation to the then population. He also mercilessly exacted ruinous taxation, and he missed no opportunity to subject both cities and citizens alike to calculated humiliation. He remained in the north six years, and returned in honor to Spain, where he died in 1583.

Brueghel's most definite description of the Spanish outrages is a drawing in the Royal Library at Brussels. It was used as copy for an engraving known as the *Justicia*, in which the details are reversed mirror-wise and seem strangely less immediate than in the original. In the middle, the Blind Goddess stands on a slab labeled with her name. A trial is being held over at the left. The space at the lower right is taken up by the figure of a man stretched on the wrack. Simultaneously he is also receiving the water cure; his abdomen is already horribly distended, and men are pouring another jar full into his mouth through a funnel. The middle ground and distance give us a catalogue of punishments which were favorite at the time: a beheading, the crushing of a right hand, a flogging, a man suspended head and heels by a rope, tall poles surmounted by

cart wheels to which men are trussed, half a dozen hangings, and a burning at the stake.

Among the major paintings which deal with the same sort of thing, two stand out from all the others: *The Massacre of the Innocents* and *The Way to Golgotha*. The former is conceived as an event in a Flemish village. The savagery and pathos of the action are brought into contrast with the magnificent discipline of the Spanish cavalry; a whole company of them remain in formation while the nasty work goes on.

As a picture, *The Way to Golgotha* (Fig. 16.53) is more complicated. Its implications are likewise more sweeping. It is set in barren ground. In some particulars, the spot may recall a site near one of the Lowland cities, but a pinnacle rock like those around Le Puy suggests a memory of the painter's route to Italy. The crucifixion will take place at the upper right-hand corner, where a great circle of spectators has already formed, in the manner of the time, around the two crosses already set up. A hole in the ground awaits the shaft of the third.

Christ may be found near the center of the middle ground. The point of time is the moment when he has collapsed under the weight of the cross. A bit to the left, a press gang has taken Simon of Cyrene, to make him help with the work. Simon's desperate wife protests, and a soldier callously repels her with a spear. The other peasants run away.

The Holy Mourners occupy the lower right-hand corner of the composition; they look like a group by Roger van der Weyden (page 616). The rest of the picture is filled with Spaniards on their fine horses, yokels on their way to the show, and the detritus of yesterday's executions. The two thieves may be picked out as the men tied up and riding in a cart.

To understand the picture, it is first of all necessary to appreciate that Brueghel's dramatic method was fundamentally different from that of the Italian "Grand Style." An Italian artist, in handling the same subject, would have approached his problem very much as a Greek might have done. To him, the human figure would have seemed the artistic vehicle par excellence. The unity of time (page 60) would have been his primary artistic obligation. The unity of words, his procedure would have been to simplify the drama as much as possible by selecting the principal actors and eliminating the others, and then to pose the essential figures in such a way that the full meaning of their action would come into the field of attention instantly.

Brueghel, however, was a northern artist, and one of the very few who ever attempted to use the northern and cumulative method of presenting subject matter (page 295) in an epic painting. He had no awe for the human figure, and he did not accept the classical theory of selection, elimination, and simpli-

fication. Indeed, we cannot find Christ himself without hunting for him; he is an obscure person in a crowd which itself is a mere part of the setting. Many things are going on at once. The eye must resolve them one by one, turning to the next thing in due time. Memory plays a part in the process. Comprehension is gradual, and the effect is built up piece by piece and item by item until we finally possess ourselves of the picture, total and complete.

Realizing that we cannot come into visual possession of the picture by a single act of inspection, and understanding also that its meaning is compound rather than simple, we can see that there is significance even in the bare mechanics of the method. Brueghel makes the world a vast universe of space, the human population a detail, and the single person insignificant. Jesus is by no means obvious in such a place; and even when he has been found, it is patent that he influences the behavior of almost nobody. In fact, he is abused. Some such intention must also have suggested rendering the Holy Mourners in a style then a hundred years out of date, i.e., that conventional expressions of Christian regret do not moderate the march of contemporary events.

The analogy between the Crucifixion of Christ and the 16th-Century crucifixion of Flanders is obvious. Every historian has wondered how Brueghel managed to get away with it. None of the simple explanations fit the case. He was well known. His pictures did not remain hidden. No powerful patron protected him. The religious titles would not in themselves have fooled anybody. The Spaniards were the opposite of tolerant and liberal, and none of them admired good art enough to excuse the unflattering part the painter made them play on his stage. There can be no chance of our mistaking the intent, for we have Brueghel's own word for it. As he lay dying, he ordered his young wife to destroy a great many of the paintings then in stock for fear they would get her into trouble with the authorities. In view of what we still possess, it is appalling to imagine the content of those Martha Brueghel burned up.

The modern reader, who thinks of self-expression as a right, perforce has difficulty in accommodating himself to the conditions of the 16th Century, when it was wiser for a man to keep his deeper thoughts to himself. For the most part, Brueghel did that; except in his scenes of vulgar genre, he seems usually to have remained aloof, an observer and recorder rather than a participant in the drama. One or two pictures survive, however, which tend to supplement what we already know of his more private feelings.

In the great and terrible *Dance under the Gallows* (Fig. 16.54) he juxtaposed inhumanity and natural beauty. He made rough peasants dance under the gibbet, apparently without appreciating that it symbolized their mortality and humiliation. We may infer that, for the painter, *carpe diem* was more

than a poet's conceit; in that generation, it was a crass necessity, the best that might be expected in a ghastly world.

In a drawing at Vienna (Fig. 16.55) he was even more specific and, empirically speaking, more inclusive. Here we see an immense fish stranded on the beach. Men are cutting his belly open. A vomit of little fish floods from his mouth. The little fish regurgitate fishes smaller still. On the shore, some of the little ones hang from a tree; past them goes a larger fish endowed with the legs of a man, making haste toward the safety of the distance.

On the knife, we see an astronomical symbol that stands for earth, i.e., so go earthly affairs. Grandeur gets stranded by its own size. The little scoundrels hang while the bigger scoundrels get clear. Dean Swift would have liked the picture had he known it. By paraphrasing a line or two from that author, we may perhaps summarize Brueghel's outlook on a terrible world.

The big fish eat the little fish
And chew on them and bite 'em.
The little fish eat littler fish
And so *ad infinitum*.

*

17



THE BAROQUE AND THE ROCOCO

In all probability, history will show that the Renaissance ended in 1914, for until that fateful year, nothing happened to bring about a cultural change comparable to the difference between the Gothic and the Renaissance. The fundamental concepts which were first asserted at Florence shortly after 1400, and which were modified and developed a century later to make the philosophy of the High Renaissance, have governed. The ideas which then went out from Italy to the rest of Europe still furnish most of the world with its values, its customs, and its way of life.

It is true that great events have changed the outlook. Nationalism, which had never been an important factor in European life at any time anterior to the High Renaissance, emerged during the 17th Century as the only political fact worth talking about. The national monarchies were in due course superseded by the national democracies, and democracy — a theory which at first seemed patently absurd — today is so firmly established as an ideal that no dictator has as yet dared assert he disbelieves in it. Science has come into its own; and for the first time in history, the economy has become geared not to agriculture, but to industry. The Americas have been settled and civilized. Western ideas have extended themselves to the Orient, with results which cannot be foretold. The church has ceased to exist as the primary patron of cultural enterprises, to be succeeded by the government, the wealthy person, and even the public at large. But not one of the things mentioned has been big enough to modify the foundation of Western civilization.

Art history bears out that truth perhaps better than any other record of the era. The period since 1600 has been immensely productive. The 17th Century alone witnessed the first important school of artists in Spain, the only Dutch art of any significance in history, the start of British painting, and the assumption by France of the artistic leadership of the world. Most of the buildings,

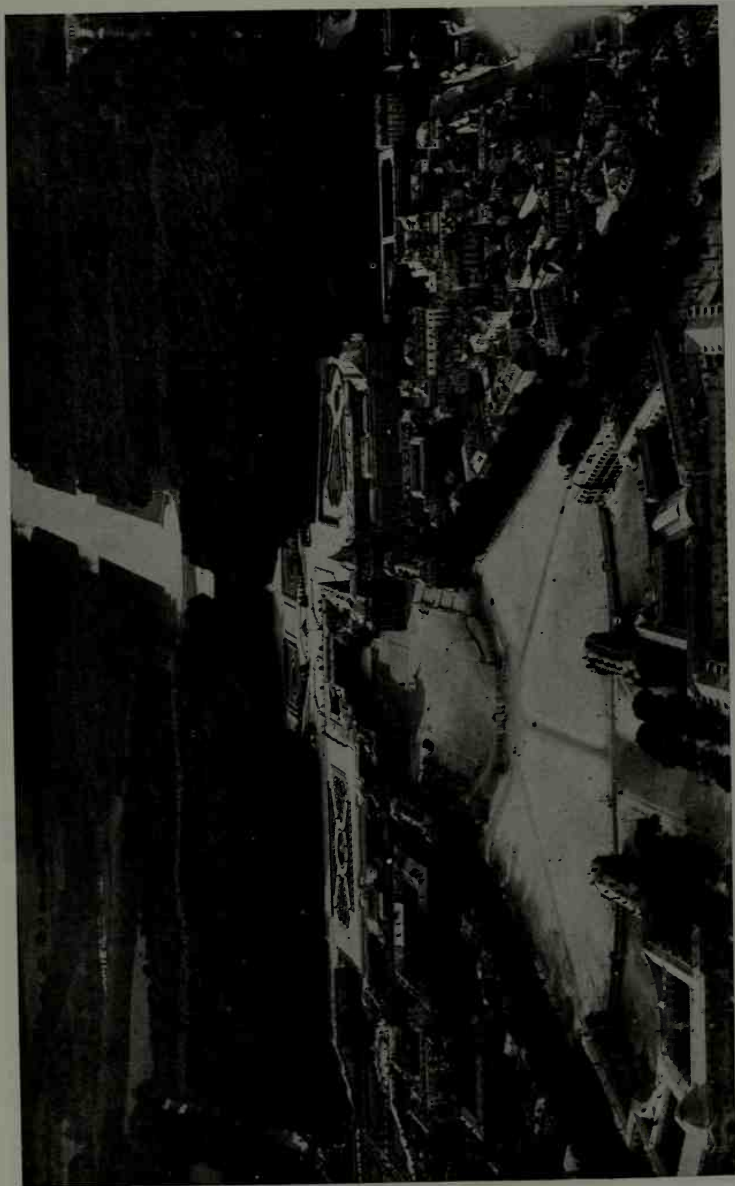
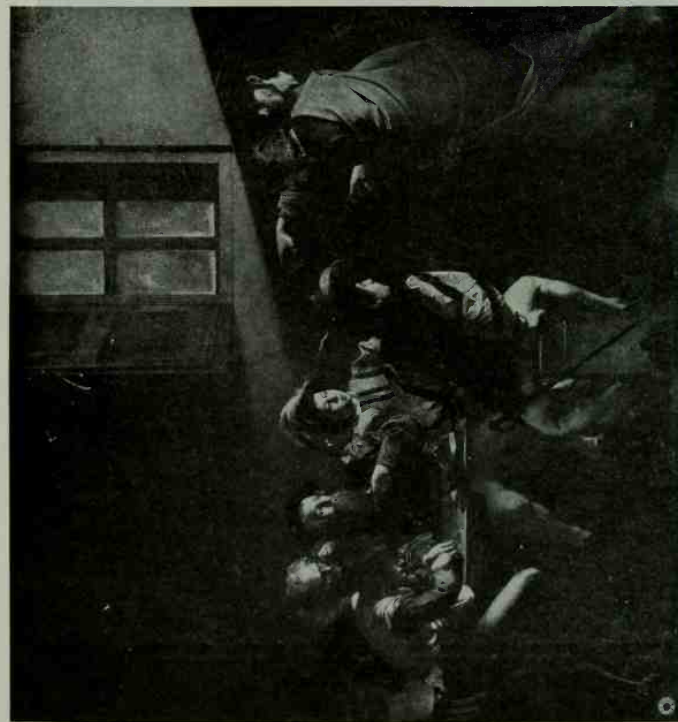


Fig. 17.1 Versailles, COURTESY OF THE FRENCH GOVERNMENT TOURIST OFFICE, NEW YORK.



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Fig. 17.2 Caravaggio, *The Calling of Saint Matthew*, Rome, San Luigi de' Francesi, 1507-08.

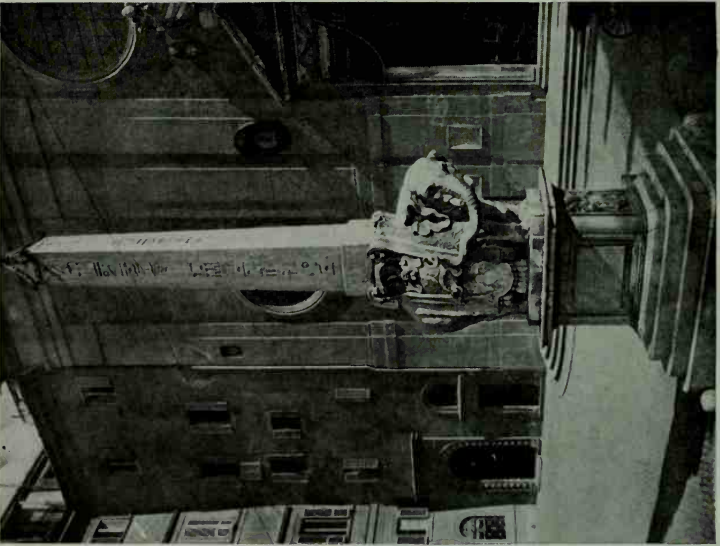


GIRAUDON

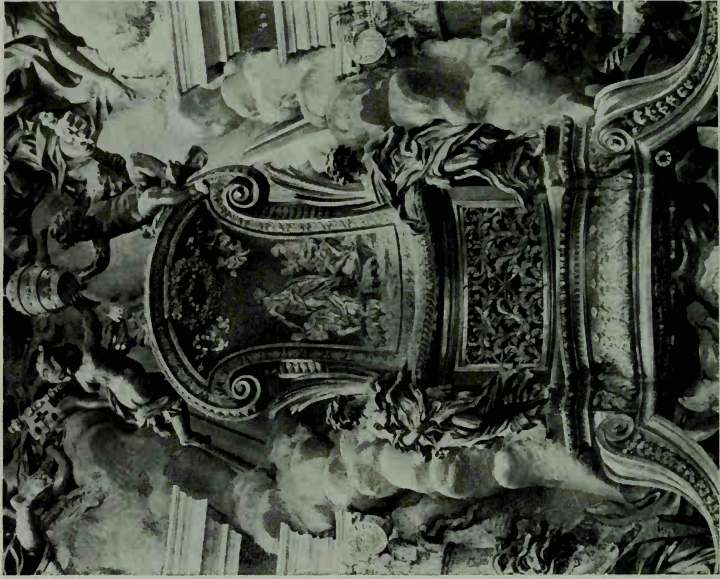
Fig. 17.3 Caravaggio, *The Death of the Virgin*, Paris, Louvre.



Figs. 17.4-6 Bernini. *The Ecstasy of Santa Theresa* (center) and (left and right) members of the Cornaro family. Rome. Santa Maria della Vittoria. 1646. ANDERSON



ALINARI
Fig. 17.7 Bernini, Elephant and Obelisk, Rome,
Piazza della Minerva, 1667.



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Fig. 17.8 Bernini, Shrine for the Chair of Saint
Peter, Rome, Saint Peter's.

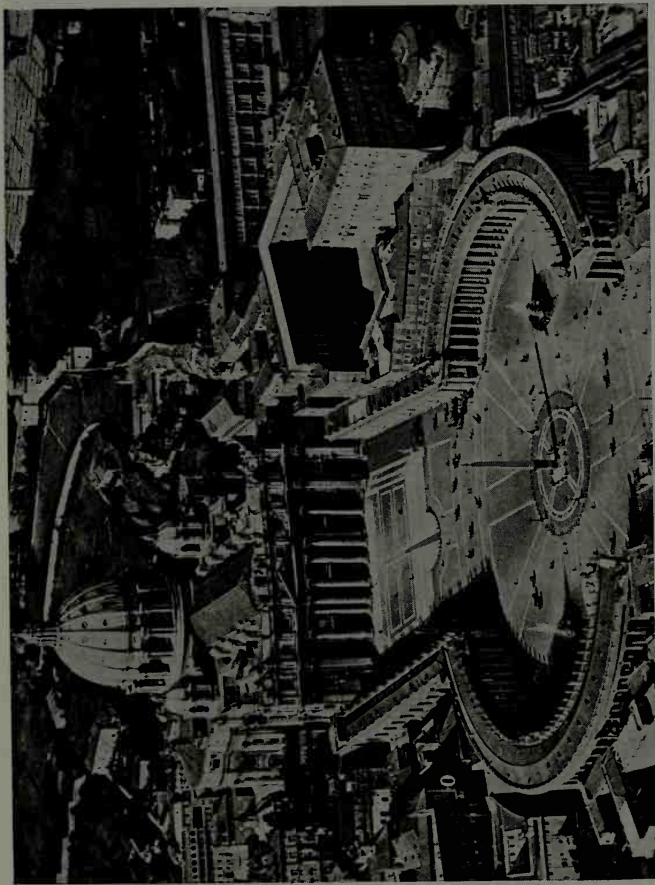


Fig. 17.9 Rome. Saint Peter's was originally designed as a central church by Bramante and begun in 1506. After work had dragged under a series of architects, Michaelangelo took charge in 1547; by the time of his death in 1564, the drum under the dome was complete as redesigned by him. Giacomo della Porta built the dome

(1588-1592), using a steeper pitch than Michaelangelo had intended. Carlo Maderna was employed (1606-1626) to extend the nave and to build the façade. The great colonnades are the work of Bernini and date from 1656-1663.

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Fig. 17.10 Rome, Sant' Ignazio. Central portion of the ceiling painted by Andrea Pozzo, 1691-94. *Saint Ignatius in Heaven*. Sometimes called *The Glorification of the Company of Jesus*. The complete picture includes a full story of architecture beneath what we see here. The personifications of "The Four Parts of the World" appear below the portion shown.



Figs. 17.11-12 Rome. Perspective Gallery in the Palazzo Spada (left) and the cloister of San Carlo alle Quattro Fontane. Both designed by Borromini. PHOTOGRAPHS BY ALINARI



ALINARI Fig. 17.13 Rome. Sant' Agnese in Piazza Navona. Designed by Borromini. 1652.



Fig. 17.14 London. Saint Martin's in the Fields. Designed by James Gibbs. 1721.



Fig. 17.15 Rubens. *Lion Hunt*. Munich, Alte Pinakothek. About 1617.

Fig. 17.16 Rubens.
*Rape of the Daughters
of Leucippus.* Munich.
Alte Pinakothek.
About 1619.



GIRAUDON

Fig. 17.17 Watteau. *Jupiter and Antiope.* Paris. Louvre.



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Figs. 17, 18-19 Drawings by Watteau.

BRITISH MUSEUM



Fig. 1720 Watteau. Les Champs Élysées. London. Wallace Collection. Between 1717 and 1721. 16 $\frac{3}{4}$ by 12 $\frac{1}{2}$ inches.

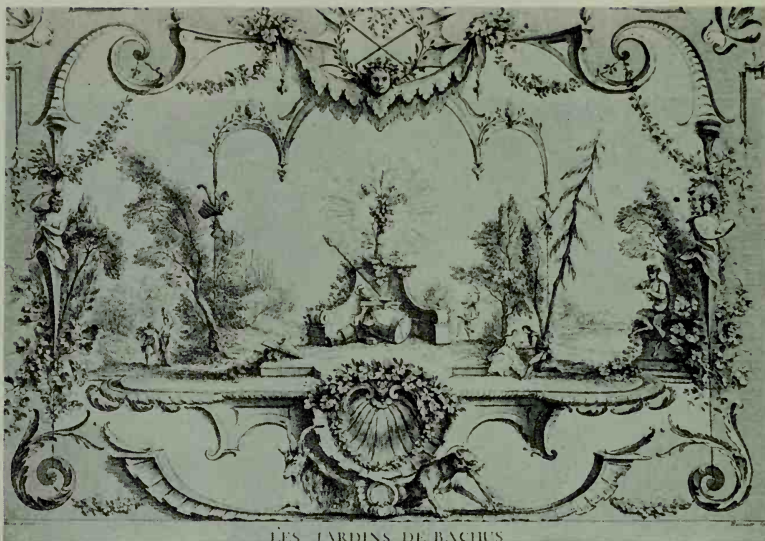
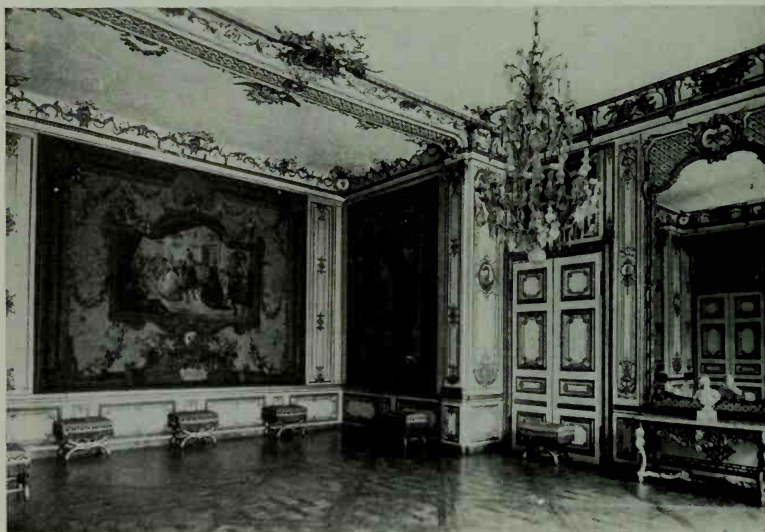


Fig. 17.21 Engraving by Gabriel Huquier, after a drawing by Watteau. New York. Cooper Union.



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Fig. 17.22 Versailles. Apartment of Louis the 15th.



Fig. 17.23 (left)
Dresden. The Zwinger
Palace. Entrance of
the northwest wing,
1711-1722.

PHOTOGRAPH BY
MARBURG

Fig. 17.24 (right)
Boucher. *Cupid as
Captive*. London, Wal-
lace Collection. 1754

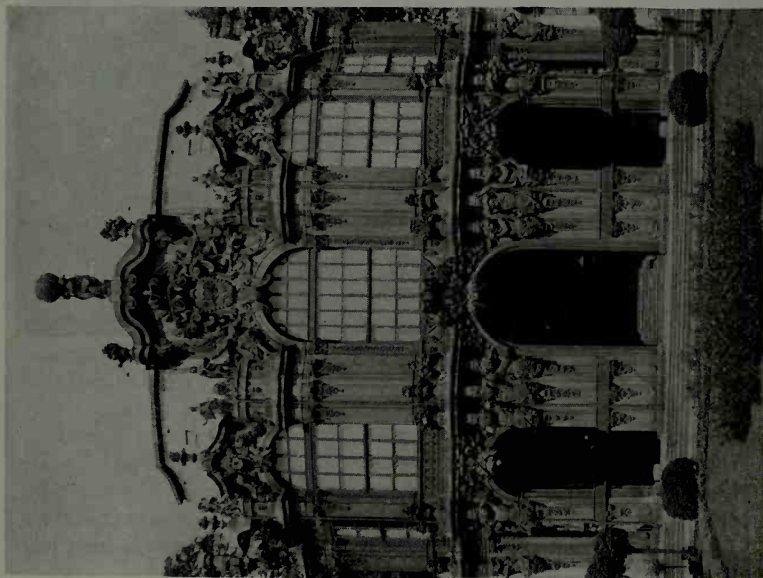




Fig. 17.25 Fragonard. *The Swing*. London. Wallace Collection. Probably 1766.

pictures, and statues in sight date from the last 350 years, as do most of the artists we know by name. But however loudly we hear the cry of originality, European culture has remained much the same. With respect to European art, all the crucial decisions were taken before Michaelangelo died, all the definitive influences were at work; and every artist since then has been, in sober fact, a Renaissance artist. There have been interesting departures from the style of the High Renaissance; but regardless of what may be claimed, every single development is easily understood as an extension of the Renaissance expression.

The circumstances just outlined pose an insoluble problem for the author of an introductory volume. No solution exists that will not do violence to some sentiment, some interest, some favorite material of both the reader and the writer. But if we are to hew to the line originally chosen, we must apply to the last three and a half centuries exactly the same perspective we applied to every earlier era. We must rigorously decline to be lured into a detailed treatment of artists and schools that loom large only because luck has intervened to put them in our immediate historical foreground. We must accept the fact that the world has just passed through a dozen generations bearing to Italy the same relation that the Hellenistic Period bore to Athens, and we must assign to the art of those years only the amount of space it deserves in view of its absolute importance.

The art of the 17th and 18th Centuries forms a unit of style with a recognizable difference reflected in the custom of referring to the 17th Century as *The Baroque*, and to the 18th as *The Rococo*. *Baroque* may come from the Portuguese *barroco*, an irregular pearl. Supposedly the sheen and curvature of the pearl correspond to similar qualities in the art of the period. *Rococo* appears to be a fanciful construction on the stem *roc*, and its application to art is said to derive from a resemblance between the motives used in French interior decoration and the waterworn shells seen in the elaborate rock gardens then popular. Neither derivation is certain, and neither word has any certainty in usage.

Both terms still carry an unfortunate connotation of reproach. While both styles developed in orderly fashion from the High Renaissance, both differed therefrom in the direction of elaboration and display. In such differences, earlier critics could see nothing but a welter of indulgence. Readers and students were advised, on pain of bad taste, to experience feelings of disgust whenever confronted with a work of art dating after 1600. That impression has been corrected by the development of art history as a university discipline. There is much merit in the Baroque and the Rococo. It is not difficult to demonstrate the merit to any fair-minded person, and it is only in careless parlance that either word still suggests any hint of blame.

While the two styles were really one, as stated, and while there are innumerable instances where one name applies as fairly as the other, there was sufficient development during the two hundred years of their coverage to justify the separation with respect to title.

The Baroque stemmed directly from Italy. In particular, it was the work of Rubens and Bernini, both of whom took off from the plane of reference furnished by the later art of Michaelangelo, Titian, and Tintoretto. The Baroque was the going style when the church decided to make use of art as one of the weapons of the Counter Reformation; because of that historical circumstance, Baroque art was the last art affected in any fundamental fashion by Roman Catholicism, or even by religion. Simultaneous with that final period of church patronage, the world witnessed (in the person of Louis the 14th of France) the earliest large-scale disbursement of public funds for art intended to glorify a modern government. As might be imagined from its sources and the purposes to which it was directed, Baroque art was characterized by power and strength, and its intention was to call up profound and even violent sensations.

The construction of Versailles (Fig. 17.1) marked more than the commencement of the modern governmental custom of making major investments in architecture; it may conveniently be remembered, also, as the monument which commemorates the shift of the artistic capital from Rome to Paris. Ever since, the history of art has been very nearly synonymous with the history of French art.

The Rococo, which was simply a later and more delicate Baroque, was French. It was primarily secular and aristocratic, and is the best record we have of the beauty of life among the upper orders before democracy and the French Revolution. Using much the same stylistic devices as the Baroque, the Rococo directed itself toward the exquisite in both form and content. Its movement is gentle and graceful and its purpose to charm and delight.

RENAISSANCE MANNERISM

Michaelangelo, Titian, and Tintoretto belonged to the High Renaissance, and were so presented in the last chapter. The reader will recall, however, that we were more than once at pains to suggest that those artists did not remain single-minded and assured. Especially as their activity drew toward a close, all three lost, now and again, the decorum of their era. More and more frequently they broke over into expression marked by an absence of emotional control. Whenever they did so, they predicted the Baroque.

An increasing number of critics have begun to make more and more of the

aberrations just cited. They claim that more was involved than the simple transition between two major styles. They contend that we must recognize an interim period between the High Renaissance and the Baroque — another style which would itself be a natural unit in the history of art — to which they give the name *Mannerism*.

The monumental evidence for their contention is to be found in the work of a number of artists, some of them as early as the first generation of the 16th Century, who do not fit the standards of the High Renaissance and who have heretofore been relegated to secondary rank. We refer to such men as: Giulio Romano (1492-1564), Raphael's chief assistant; Primaticcio (1504-70), the chief founder of the School of Fontainebleau (page 709); Pontormo (1494-1557) and Bronzino (1503-73), both Florentines; and Parmagianino (1503-40), a very strange master who has recently attracted serious attention.

It is evident at a glance that all of the artists mentioned fed upon their more famous contemporaries and upon the past. That had always been done; the new element was to do it self-consciously, systematically, and in more literal fashion. Our statement is no mere conclusion from the evidence; it was openly expressed as the wisest, and indeed the only practical artistic philosophy as early as 1550, in which year Giorgio Vasari published the first edition of his invaluable *Lives of the Most Eminent Architects, Painters, and Sculptors*.

Vasari's work paved the way for the founding at Bologna in 1585 of an institution which included in its name the significant word *Academy*. The founders were a family of cousins named Carracci; and they made themselves the first faculty to offer a formal curriculum in the theory and practice of art. Their theory was the eclectic one just described. Though it has often been damned as evil in itself, the program was in fact very intelligent. No system of training, it must be pointed out, can teach greatness. The fair test of education is whether it equips men to make something of themselves, and upon that score, it must be conceded that the pupils of the Carracci were excellent technicians.

While he must be prepared for allusions to the development just summarized, the reader will be wise to steer clear of argument until he feels able to weigh the evidence on his own authority. As of this date, Mannerism remains a hypothesis which may or may not become defined as a separate artistic style with a distinct philosophy. In any case, should such a style become defined — and considerable research and publication is still required on the matter — its chief elements will be approximately what one might infer from the remarks already made, and the remarks about to be made, concerning Michaelangelo, Titian, and Tintoretto in their capacity as forerunners and creators of the Baroque.

In any case, a better name should be sought by those who wish to establish the existence of an interim style. *Mannerism* is a descriptive and even provocative word with two meanings: (1) *mannered*, as we have used it in Chapter 13, to signify the self-conscious cultivation of artificial grace, and (2) *in the manner of*, to signify eclectic borrowing without performing once again the act of creative synthesis. Neither applies to the totality of the questions raised here-with; and while it is convenient to add another meaning to a familiar term, it is never permissible to do so when, as in the present instance, the new sense must necessarily destroy the old.

FORM AND CONTENT IN THE BAROQUE

Almost every convention and technical expedient of the Baroque existed in principle somewhere in the work of Michaelangelo, and we shall find ourselves alluding constantly to that master in the summary to follow. His first and most fundamental legacy to the 17th Century was the habit of making stupendous plans. Versailles would never have come to mind had it not been for his vaunting imagination in proposing such projects as the tomb of Julius the 2nd, and in realizing such achievements as Saint Peter's. Having spread from Rome to France, the fashion he set went to every other land and affected the plan and appearance of innumerable cities — the river front of Paris, for example, and the layout of Washington.

If stupendous plans were out of place for reasons of cost, need, or otherwise, the Baroque artists settled for the kindred effect of the amazing. By one method or another, they undertook to move the observer to the depths, and to move him fast. They aimed, as it were, directly at his emotional vitals, and the successful work of art was conceived as the one that provided an almost painful heightening of the sensibilities and the most vivid imaginable awareness of the experience of the moment. There are so many ways to startle, dazzle, and amaze that we can only suggest the possibilities and leave the reader braced, as it were, for the remaining broadsides in the battery of Baroque art.

The simplest method of all was to play a trick. Opera and the theatre were under intensive development during the 17th Century, and the borderline between monumental art and stage scenery seems often to have been non-existent. The greatest artists of the period did not hesitate to present misleading visual data to the eye whenever it suited their convenience. In the sense of dishonesty, there was no conspiracy to deceive; the members of the public were sophisticated in artistic matters, and could be counted upon to enjoy the demonstration of skill.

Among the various devices that fall under the heading of tricks, none was more entertaining than the constructed perspective. Theatre sets (most of them permanent rather than movable, as now) were usually designed that way; and the same sort of thing often added a fillip to the sobriety of formal architecture. A capital instance is shown in Fig. 17.11, where the illusion is so perfect that one might pass by without realizing the truth unless warned. Ostensibly, we look down a long gallery and see a life-size statue about a hundred feet away. The actual distance is less than twenty feet.

Tours de force of technique went hand-in-hand with the cult of tricks and illusions. With the entire Renaissance behind them, the artists of the 17th Century were in possession of more skill than any others who can be named as a class or group; in comparing even the simplest objects from the period with examples from any other, the soberest critic cannot withhold his admiration for standards of craftsmanship beyond praise.

Because painting lends itself more easily than any other art to spectacular effects, the Baroque painters may perhaps be singled out to illustrate the point under discussion; among the painters, we may focus our attention upon the ceiling painters. Ceiling painting was not new. Mantegna had done some illusionistic paintings of that kind at Mantua as early as 1474. Correggio's *Assumption of the Virgin* (1524), painted on the underside of the dome of the Cathedral at Parma, remains one of the unsurpassed technical demonstrations. But such things, when done at all, had been a special effort. They now became a standard performance. Among the notable examples, we may mention Guercino's *Aurora* in the Casino of the Villa Ludovisi (1621-23), Pietro da Cortona's *Triumph of Divine Providence* in the Barberini Palace (1633-39), and Andrea Pozzo's *Glorification of the Company of Jesus* (Fig. 17.10). It seems almost impossible that technique could become more magnificent than we see it in the three ceilings mentioned, but such proved to be the case. All other ceiling painters pale by comparison to the complete master of the business, Giovanni Battista Tiepolo (1696-1770) of Venice. Aided by the trend of taste toward the Rococo, he sought lighter and gentler effects; thus he covered the overhead of a great many rooms with compositions as charming as they are spectacular.

Baroque ceiling painting opens up some interesting critical questions. In approaching these, we must stipulate that in every typical instance, the eye is cleverly led upward into the represented space of the picture by some transitional passage between the walls of the chamber and the surface of the ceiling. The favorite method was to put the sky in the middle of the overhead and paint a border of architecture around it. The painted architecture carried down to the eye of the observer as another story or two piled on top of the walls be-

low. The picture on the ceiling was conceived, to put it another way, as an indefinite upward extension of the volume defined by the walls.

To the purist in architecture, such a performance is hateful. "It blows the roof off!" he will declare; but surely it is legitimate for us to inquire whether beams and masonry are in fact sacred. Why must we forbid the architect to avail himself of the painter's help? No one can deny that pictures are useful for interior decoration, or that it is difficult to design an interior which offers a sense of the fullness of space. Conceding that every technique contains within itself the germs of its own defeat, what can be wrong with an architectural design which, from the beginning, includes the conception of a ceiling picture to add upward volume?

Over and above such theories of design — in which they were intensely interested — the Baroque artists of Italy and other Catholic lands had a sober reason for adopting the optical illusion as a standard resource of their trade. It was a crucial need of the Counter Reformation to convince the public that transcendental things were real. Artists had the skill to call another world into being, and they could make people see the things the Church wished them to believe.

The philosophical legitimacy of using art for such a purpose cannot, as a theory, be attacked, but the advent of such ideas during the Baroque called into being an immense corpus of religious art which requires explanation. We must continually remind ourselves that the program of the Counter Reformation was a program directed at the mass of the population. The narrative subject matter for religious art was chosen accordingly. It almost never appealed to the mind; it almost always appealed to the sentiments, the emotions, and to the sheer credulity of people who not only could be swayed by the bizarre but enjoyed the sensation. It follows that cultivated persons, and above all intellectually inclined persons, find Catholic Baroque art uncongenial and even offensive. To such, the Church has always been inclined to say: beware of pride.

Caravaggio

Dazzling views into heaven formed only one department of the Catholic art to which we have just referred. Another branch of the same program embraced the simpler and more familiar stories from religious history, and such were generally rendered with a verisimilitude so intense that we must include a super-realism among the achievements of the Baroque. Among the masters who engaged in that effort, Caravaggio and Bernini have a magnitude beyond all the others and require individual attention.

Michelangelo Merisi (1573-1610) was known as Caravaggio from the town in north Italy where he was born. He fits into no pattern yet established by the history of art unless it be the one we suggest here. He was a revolutionary personality. He cared nothing for the conventions of respectable life, and was often in trouble with the law. He openly resented the aesthetic theories upon which all High Renaissance culture had been founded, and his painting seems to have been deliberately intended to insult persons who wanted decorum in life and dignity in art. His method of insulting them was the most offensive and infallible of all. He simply did his utmost to tell the truth.

Even in Italy vulgar genre had long been sufficiently familiar so that such material, of itself, carried no offense. An occasional tavern scene was relished by the best of men; but it was quite another thing to choose a tavern for the setting of a sacred picture. In a series of paintings done for San Luigi dei Francesi, Caravaggio did exactly that; we find Christ summoning Saint Matthew (Fig. 17.2) from a group who sit around a table gambling. Sacred history was of course on the painter's side. Our Lord had described himself as often having to do with publicans and sinners, but neither the contemporary church nor the contemporary public had much stomach for visualizing his words. Had the painter not been a very dangerous man, he might well have found himself in serious trouble.

As a matter of fact, he did experience the refusal of several of his greatest pictures, notably the *Death of the Virgin* (Fig. 17.3), which impressed the authorities as so ignoble as to be indecent. Being somewhat less preoccupied with notions about the dignity of man, we may take a different view. Unquestionably, the painting is one of the most moving in the history of art, and few others carry the same weight of conviction. The actuality it evokes is in itself formidable, but the thing we feel even more is the strength of the painter's devotion to the humble circumstances of Mary's life and death.

The shock of Caravaggio's subject matter might have been softened had he been willing to communicate the material in a conventionally elegant manner of painting. Instead of doing that, he developed a new and personal style distinguished by devastating professional competence and aggressive treatment of the observer. The most striking feature of his method was to evoke sensation by violent contrasts of light and dark. The idea doubtless came from his contact with Venetian painting (page 753); but his scheme was more systematic and his purpose philosophical rather than decorative.

The end in view was to focus attention more vividly than ever before upon the dramatically operative areas of the canvas by bringing them strongly up into the light. At the same time, other areas were deprived of their power to attract attention by making them subside into the dark. As contrasted with

earlier manipulations of value for the sake of emphasis and suppression, Caravaggio's work was radical because he confined the light to a very small section of the picture surface. The important figure, or even the important part of a figure, was thereby given a stridency sufficient to stun the sensibilities for a moment.

His style, as indicated, derived from the Venetian Mode, but it corresponds more closely with the actualities of sight than we might suppose. When viewing any scene whatever, the eye adjusts itself for the brightest light. Conscious readjustment is necessary to inspect material contained within the darks. Our visual world, therefore, is more like Caravaggio's painting than our habits of thought permit us to realize; his methods, while hardly naturalistic, bear a strong relation to reality as we see it.

His procedure has long been known as "crowding the darks." The expression describes the technique very well. Everything on the posed model or contained within the natural scene was crowded down into the darker shades of paint if in fact its local tone was fairly dark. By the same token, the modeling of face, hands, etc., was immeasurably emphasized because a disproportionate length of the value scale became available for that purpose. Because strong contrasts were possible within, and only within, such lighter fields, mass and shape came out vividly there. The special merit of the system becomes plain when we reflect that the most expressive parts of the body are the areas which fall above the middle value.

Because of his personality and tastes, to say nothing of his theories, Caravaggio no more founded a school than belonged to one. It is still impossible to trace his influence in detail, but his rejection of the High Renaissance, however unwelcome at Rome, proved inspiring to any number of younger and later artists. The Brothers *le Nain*, already cited in another connection (page 773), derive from him both in subject and in style. Much the same can be said of the Spaniard *Ribera* (1588-1656) and of the early period in the career of his greater compatriot, *Velasquez* (1599-1660). *Rembrandt* (1606-69), the greatest of the Dutch masters, is hardly conceivable without Caravaggio as a spiritual forefather. At first glance it might appear that this unusual man had influence everywhere except in his own country. The personal features of his art did not, as a matter of fact, affect many Italian painters. It is notable, however, that Baroque architects and sculptors soon began to cultivate stratagems calculated to produce Caravaggesque effects of light and dark.

Bernini

The new realism inaugurated by Caravaggio lent itself particularly well to the depiction of miracles, and it was of the essence in the program of the

Counter Reformation to establish and fortify a literal belief in the truth thereof. Because the continued and present reality of divine intervention was an important issue of the moment, recent miracles were often chosen as subject matter in preference to miracles of greater fame but more distant date. In presenting such material, the 17th-Century artists outdid themselves in developing methods for getting after the observer and making him feel a party to the event depicted. It was Bernini (1598-1680) who, in his capacity as the most prominent artist at Rome, embraced such enterprises in the most enthusiastic fashion and carried them through without compromise or relief.

In the whole history of art, there is no experience at all equivalent to one's first view of Bernini's *Ecstasy of Santa Theresa* (Fig. 17.5) over the main altar of the small Baroque church of Santa Maria della Vittoria. Upon entering the nave, attention is pulled toward the main subject by a magnificent architectural enframing rendered in dark marbles in combination with surfaces of gold, amber, and pinker tones. The broken pediment above (in itself a manifesto of the Baroque) swells out toward us, and then recedes as though in homage to the niche it encloses. Within the niche, we see the saint accompanied by an angel. The marble figures are carved with a relentless realism, but with a skill so exquisite as to defy belief. A golden light bathes the scene. It comes through a yellow pane of glass concealed above, and its power to convince is by no means diminished by a set of gilt rods arranged radially behind, to simulate heavenly rays.

The saint is represented as a young and comely woman. She falls back and yet rises in voluptuous transport, swooning and losing consciousness of the earth, her body undulating with effort, pain, and delight. Above stands the angel. In compassion and understanding, he is about to thrust through her heart the dart of heavenly love which, by Theresa's own testimony, tore her breast whenever she had union with the divine.

So intense is the experience of viewing the central group that it is only afterward one becomes conscious of the bystanders; but they are present. On the walls to right and left, there are other niches unmistakably like boxes at the opera (Figs. 17.4,6). In them sit the donors — in poses too casual by half — watching the show.

Such performances raise serious questions with respect to the propriety of much 17th-Century religious art. Above all, we may challenge the use made of the subject matter. Santa Theresa (1515-82) was a nobly born woman of Castile. She became a Carmelite nun in 1535, and she distinguished herself both as a mystic and as an executive of capacity and foresight. Her writings are excellent examples of the literary craft. In easy, elegant Spanish she set forth the difficult philosophy of direct religious experience, and her various

publications proved among the most effective available for the Counter Reformation. She brought about a revision of the Carmelite rule and founded about a dozen new convents. Every memorial speaks of her common sense and good humor. Bernini's figure bears small resemblance to the chubby and somewhat jolly person of the saint herself, and the most ardent religionist should be given pause by the particular imagery he chose to evoke in his attempt to convince the public of her union with God.

Although his name is a virtual synonym for all that was extravagant and bombastic in the Baroque, the very same Bernini could be thoroughly delightful when he turned his hand to less pompous material. He designed a great many fountains, which remain among the best on earth. In an occasional minor work, moreover, he devoted every resource of his formidable technique to fanciful themes. For an instance, let the reader turn to the *Elephant and Obelisk* (Fig. 17.7).

The official iconography, as analyzed by W. S. Heckscher in *The Art Bulletin* for September 1947 (Vol. 29, No. 3) is recondite to a degree. The little obelisk was an ancient one, dug up in 1665. Originally it had belonged to a temple of Isis and Serapis near the same site. Because it pointed upward and because the Egyptians had associated such monuments with the sun, 17th-Century iconologists construed the Egyptian understanding as a pre-figurement of Christianity and made the obelisk into a symbol for Divine Wisdom. The elephant was chosen as caryatid for a great variety of reasons. Historically, elephants had often been used as emblems of strength and fortitude. The well known intelligence of the great beasts had served, moreover, to build up a veritable cult of admiration. People even believed them to be capable of such concepts as chastity. The animals were actually credited with a capacity for the religious impulse. Because Pliny had said that elephants courteously piloted lost wanderers out of the desert, the elephant was occasionally associated with the Savior himself.

There was thus a great deal of reason for Bernini to make a marble elephant when he wanted a support for an obelisk; but to all this old-time lore we must add something new. Every once in a while, a real live elephant had been imported into Europe, apparently to the delight of young and old, the same as now. There was all kinds of gossip about the tricks they could learn. One elephant, for example, who had taken up his residence in Holland, had actually learned to enjoy his pipe of tobacco daily! So for all its ostensibly serious and ceremonial character, it is evident that Bernini took the same direct and delighted pleasure in the subject as a child. Only the hard of heart can think of a word to say against it.

Almost everything we have so far said contributes to the general conclusion that the Baroque aimed at the smashing effect calculated to throw the observer's emotions out of control and make him yield to the purpose of the artist. That terrific drive must not, however, be confused with spontaneous methods of artistic production, much less with improvisation or lack of restraint. Most Baroque artists were farsighted. They knew excitement doesn't last. They appreciated the necessity for confirming the first and immediate impression by offering within the work of art material for rational analysis and material for contemplation. However rapid the first onslaught, every major monument from the period is completely logical with respect to iconography and composition.

With respect to iconography, the 17th-Century artists proceeded upon the policy inaugurated by the larger compositions of Raphael and Michaelangelo. The ideal Baroque picture, that is to say, was an immense ensemble of persons governed by the terms of some extended allegory. As compared with the High Renaissance (Figs. 16.17-20) the difference is not one of kind, but one of relative complexity. The great pictures of the 16th Century had been distinguished by a general lucidity no matter how many significant details they contained. In marching forward along the same road, the Baroque masters usually left lucidity far behind; but their most complicated productions continued, nevertheless, to be governed by ice-cold logic. Many of them were so minutely calculated as to have earned and to deserve the sobriquet "machines."

The spirit of the times is epitomized by Andrea Pozzo's ceiling at Sant' Ignazio, already cited in another connection. Fig. 17.10, for the sake of illustration on a legible scale, shows only the central portion of that immense composition. Around the area covered by our bookplate there is a full story of Baroque architecture painted in bold foreshortening, and conveying the illusion that the actual walls of the building rise continuously upward without a break to their ultimate opening into the sky.

At the vanishing point, where all lines of the architectural perspective converge, we find the Holy Trinity in the form of God the Father, Christ with his Cross, and a Dove. Saint Ignatius is seen in ecstasy immediately below, rising heavenward on a cloud. Rays of light proceed from the Savior to the Saint. From the Saint the same rays fan outward in four directions, ultimately coming to rest upon four figures (not seen in the book plate) who personify the "Four Parts of the World": Europe, Asia, Africa, and America. As with all similar compositions, there is but one station on the floor from which an observer can look up and see all parts of the perspective in perfect order. The spot is indicated by a small circle of marble.

The more obvious meaning of the picture is indicated in a letter from the

painter to Prince Lichtenstein. It has to do with the missionary enterprise of the Jesuit Order, to which Pozzo himself belonged. The imagery was suggested by Luke 12:49: "I am come to send fire on the earth. . . ." The fire referred to meant (to the painter) the fire of faith; and along with his personifications of the four continents, he included portraits of missionary saints who had distinguished themselves each in his separate region.

A deeper and more subtle symbolism lay beneath the surface of the iconography. Pozzo was the author of a definitive work on perspective, which first appeared in 1693. It contains 100 magnificent plates, including several which illustrate his system for laying out the perspective grid on this particular ceiling. The author's foreword is addressed "To the Lovers of Perspective" and concludes with the admonition, "Therefore, Reader, my advice is that you cheerfully begin your work with a resolution to draw all the points thereof to that true point, the Glory of God; and I dare predict and promise you good success in so honorable an undertaking." The art of perspective, as conceived by Pozzo, was the artistic vehicle whereby one might make people see the direct and systematic connection between the Deity in heaven and each single and separate human being on earth. With that in mind, it is permissible to read a specifically Jesuit symbolism into the mark on the floor which tells one where to stand — an innovation of Pozzo's, lacking in similar and earlier situations where it would have been just as useful. The mark may be construed as an order, and the man who obeys may be thought of as submitting himself to the discipline of the perspective much as the artist had accepted the rule of the Society of Jesus. The inference is obvious that only those who so submit can hope to comprehend the divine scheme with clarity and truth; all others must accept a distorted view. The device itself (namely, the central placement of an observer) had been used during the High Renaissance (page 705), but with an almost opposite meaning.

It is impossible to deny that the arrangement just described bespeaks for its author a high order of intellectual power, a profound grasp of theology, and a magnificent imagination. At the same time, none of those qualities carry over to the observer from the painting itself. Without suggesting that one may arrive at a mature understanding of any important matter, including a work of art, without knowledge and study, most critics would agree that painters go too far when their pictures are virtually unintelligible without the help of a guide book and schematic diagram. Only to a certain extent do we read paintings as we read literature. It is the business of artists to find forms and figures which communicate the meaning, or most of it, to any man who is willing to use his eyes. It is appropriate to ask that the eyes be made keen by education, but another thing entirely to substitute erudition for visual perception.

The intense drama of the Baroque belies the conservative nature of the principles of design which governed the composition of its major monuments. The methods are as old as Greece. Geometry furnished the order. Symmetry furnished the system. The Greek organic method (pages 65-66) furnished the coherence and the unity. In applying such classical sanctions, the men of the 17th Century developed some extraordinarily original manipulations to which we must now turn our attention. Some of them were mere novelties. Others constitute significant innovations.

Precarious equilibrium was one of the devices that became popular in Baroque times. It was peculiarly useful for making the observer keenly conscious of the present experience. Michaelangelo had been the first artist to use it boldly and openly. When called upon to design a new pedestal for the equestrian Marcus Aurelius (page 748) used as the pivotal element in his architectural composition on top of the Capitol Hill (Fig. 16.29), he chose to put the ponderous statue on top of an unusually delicate pedestal. Similarly, when designing the Medici Tombs (Fig. 16.28), he put supports under the sarcophagi which neither look adequate nor are adequate, and he designed the lids in such a way that the recumbent figures thereon lie at the limiting angle of repose. In both instances, he evoked a sense not only of potential movement, but of potentially disastrous movement. The expedient would have been anathema to the Greeks or to Raphael, but it got certain results desired by the Baroque. To see such manipulation is to feel a charge go into the nervous system; willingly or not, one is prepared thereby for the upheaval the artist intends.

Single elements in precarious equilibrium were, in Baroque art, habitually regimented within symmetrical arrangements controlled by a literal application of the Greek organic system of composition. The Medici Tombs (Fig. 16.28) compose on that principle, but their balance is by no means at peace with itself. The figure to the right is equal and opposite to its converse on the left; but something more than equivalence is involved. The recumbent *Night*, *Day*, *Dawn*, and *Dusk* writhe with inner compulsion. Locomotion is denied them; but they struggle agonizingly to have it. Should their energy get an outlet, they would heave up and destroy the composition.

The balance, to put it in other words, is an opposition between forces that strain away from each other, between emphatic opposites mutually frustrating and bent upon canceling each other out. The over-all impression is that great power has been imprisoned within a rigorous system and that content is struggling to be free from its form. The state of mind just suggested was one the Baroque artists made a habit of evoking, and the method was always the same: tumultuous expression compressed within conventional order.

Innumerable applications of the same scheme might be adduced in the archi-

ecture, sculpture, and painting of the 17th and 18th Centuries. Let the largest monument of all tell the story for the rest: Versailles (Fig. 17.1). Its fabulous area of palace and gardens is without parallel or equal. But everything conforms to a regimentation predetermined by the stipulation that there should be a main axis brought to a focus upon the bedchamber of the King of France, and from that severe and central purpose, not a single bush was permitted to deviate.

Baroque art, the reader will already have surmised, was in the grip of an immense paradox. Its content was irreconcilable with its form. We may assume that the Baroque artists were even more aware than we are of their ambivalent position, and their difficulties were not diminished by the contemporary taste for elaboration which dictated that all expression depend upon small parts in infinite number — a strange and as yet unexplained analogue with the Gothic (page 451). Their effort, taken in its totality, may be described as an attempt to make riotous, teeming complexity seem a rational thing capable of statement by a simple grammar of rules. Nothing illustrates the trend of their thought better than the peculiar relationship which came to be typical as between the Baroque whole and the Baroque detail.

The point at issue can best be explained by asking the reader to imagine his sensations if, by chance, the *Night*, *Day*, *Dawn*, or *Dusk* were removed from its place in the Medici Chapel (Fig. 16.28) and set up alone in some museum. It would be unmistakably a fragment. Is it possible to imagine anything that would seem more radically homeless, more distressingly in need of the surroundings for which it was designed? Very much the same statement might be made of either subordinate palace in the group on the Capitol Hill (Fig. 16.29); without the other two buildings, our sensibilities would grope for an aesthetic answer much as they grope for the completion of an unresolved chord.

We may summarize by saying that the complexity and violence of Baroque art demanded heroic measures for discipline and control. Otherwise, coherence between part and part might be lost, and the relation of the part to the whole would become confused. The measure most often taken was the one invented by Michaelangelo, namely, to design parts which, taken alone, seem grievously distorted, but which make perfect sense when placed in context. To some extent, systematic interdependence had been an essential of organic composition from the very beginning; the Baroque innovation was to force the theory of coherence out to the very end.

Our analysis of Baroque coherence must not be mistaken for an effort to indicate a tendency. The system as described was habitually applied in an absolute and literal way. It is conspicuous in the composition of every Baroque fa-

gade, obvious as the governing principle in every Baroque and Rococo staircase, and is best seen on the grand scale in the colonnades Bernini designed to enclose the piazza before Saint Peter's (Fig. 17.9). The doctrinaire way in which the system was often applied is illustrated even better by some of Bernini's smaller monuments. He went the limit, for example, when he designed the shrine for Saint Peter's chair which stands at the extreme east end of the church (Fig. 17.8). Display reached its apogee the day that monument went on view. Its luxury of colors, textures, and details goes further than to defy description: it defies inspection. But where there seems to be so much life, why is the entirety dead? One can only conclude that the end result of Baroque coherence is to kill.

The potential excellence of the concept has nevertheless made itself manifest in innumerable ways ever since, and most conspicuously in the field of architectural design, landscape architecture, and city planning. It would be incorrect to say that those arts date from the Baroque period, but it is emphatically true that when previously asserted at all, they had remained in the realm of enlightened speculation (page 697) and sporadic experiment (page 748). Ever since, the reverse has been true. The universal habit of undertaking large projects has, in the main, been governed by a broader and more inclusive notion of the artistic unit. Whenever new buildings, streets, bridges, and parks have been projected, there has always been some consciousness that their nature and arrangement ought to fit into an all-embracing scheme which could be cited as artistically respectable.

Rubens

But no building or statue can possibly epitomize the spirit of the Baroque so well as the painting of Peter Paul Rubens (1577-1640). In the whole history of art, he was the only man possessed of sheer power in the same measure as Michaelangelo; but there is an important difference between the two. Michaelangelo almost invariably presented us with figures struggling to move but denied motion (Fig. 16.25). Their energy, that is to say, was kept in explosive reserve. Rubens unleashed his people and let them go.

His figure-style was even heavier than Michaelangelo's, and by representing such persons in violent action, he gave us the best available demonstration of still another vital element of the Baroque. Even in the abstract art of architecture, movement was of the essence, and Baroque movement was always the motion of heavy masses. Such movement might be fast, as it usually was in the work of Rubens, or it might be slow; but invariably, Baroque movement was strong.

Rubens made something of a hobby of doing hunting pictures (Fig. 17.15).

In most of them, nude men and armed men are seen at intimate quarters with tigers, crocodiles, lions, hippopotami, and similar beasts. Both sides are invariably raised to fury, and fight with indescribable hate and desperation. Such scenes certainly illustrate the importance of dynamics in Baroque art; but it is all too seldom pointed out that even Rubens never let his action run wild.

Men and beasts alike weave their violence into an excellent Venetian rhythm (page 756) of light and dark. The headlong combat seems impossible of containment within a frame; but an analysis of the composition quickly indicates that the action is turned and made to curtail and contain itself by the direction in which it goes. Rubens's geometry was never strict like Raphael's, but we seldom lose assurance that the fighting figures mill about within the limits of an elliptical or circular figure. Sometimes the limiting outline appears flat on the picture plane. More often it lies diagonally thereto, and frequently at a compound inclination as in Fig. 17.15. But in every instance the principle is the same, and no different from the one Little Black Sambo invoked when he persuaded the tigers to chase each other around and around in a circle until they all turned to butter.

Because of its comparative simplicity, the *Rape of the Daughters of Leucippus* (Fig. 17.16) is specially useful for the study of the points just made. Ponderous bodies are in violent motion within the confines of an enclosing outline. The darks and the lights make a spectacular pattern of contrasts across the surface. The differentiation of textures, a technique which Rubens had learned well from Titian (page 752), is glitteringly skilful and luxuriant to a degree. Still further, the painting makes manifest another fundamental feature of the Baroque which has been in evidence all along, though not yet singled out for direct comment.

Insofar as such a thing was practical, the Baroque avoided straight lines. By the same token, flat surfaces were eliminated whenever possible, and the same taste dictated that artists refrain from angularity of any kind. The curve was the irreducible unit of the Baroque idiom, and the favorite kind of curve was the one which defined the contour of a substantial mass, human or otherwise. In the work of Rubens, which may be taken as typical, most compositions are curvilinear even though his frames were conventional and rectangular. What was true of major facts of arrangement was equally true of details. The assertive convexity of his female nudes may be regarded as a case in point.

As stated in the last chapter (page 699) architecture had ceased with the coming of the High Renaissance to be the prime mover among the arts. Although there was an immense amount of building during the 17th Century, the architects of that period were derivative from its sculptors and painters in

both style and spirit. The paradox of Baroque form and Baroque content pressed down upon them, in fact, with an insuperable weight, and presented them with a problem which was literally insoluble.

Public taste, as the preceding pages indicate, had changed strongly in the direction of novelty and sensation; but artistic doctrine, as publicly understood and accepted, had failed to keep pace. Classicism commanded just as much respect as ever, and those who ordered buildings insisted just as specifically as ever that the style be classical. For painters and sculptors, classicism was a relatively flexible thing; but for architects, classicism was what Alberti and others had said it was when they froze the style (page 711) by invoking the argument from Roman authority. Sadly for the architects' peace of mind, the same patrons who wanted classical buildings declared in the very same voice that each new building should provide the same surprise, thrill, and dazzlement as a picture by Rubens.

All over Europe, architects began a concerted effort to see what might be done. Using no detail which was not self-evidently of classical derivation, and ignorant, in all probability, of the more extreme examples of Hellenistic date, (Fig. 8.1), they produced an architecture which may be criticized for elaboration, but may not so much as be frowned upon with reference to the elegance, originality, and essential interest of its details.

In general, the fundamental principles of Baroque design were applied as literally to buildings as to any other art; we need not repeat the demonstration here. Confining ourselves, rather, to the novelties which have specially to do with architecture, we may say that the idea of curvature and the idea of movement were the principal innovations of the period.

Curves are difficult and expensive to build in masonry; nevertheless, we may discern in Baroque structures the same preference for strong contour that we noted in the work of Rubens. In Rome a whole series of small churches, by various designers, were given an oval plan; some of them were covered with domical vaulting to fit.

Borromini

Francesco Borromini (1599-1677) was more daring and ingenious than any other Italian architect. His design for San Carlino alle Quattro Fontane was one of the most original of the Baroque or any other period, and the tiny building relates to its whole era much as the Pazzi Chapel (page 634) relates to the Renaissance. The body of the church dates from 1633. The present façade was Borromini's last design; it was added the year of his death.

For the plan of the nave, he took the shape of a cartouche in delicate, extended quatrefoil. The ground outline comprises curves, both concave and

convex, flowing into each other with slight breaks and joinings which seem so natural as to be foreordained. When projected upward as wall surfaces, the curves of the plan present the eye with rhythmic undulations hitherto unapproached in subtlety, and with modulations of light and shadow more delicate and various than any yet seen.

It is a pity that the tiny nave, in many ways the most exquisite designed during the 17th Century, should have been marred by maladjustments. The curvature of the interior walls is somewhat obscured by the weight of a peristyle of Corinthian columns which, although engaged, project a full three quarters of their diameter. The façade is similarly encrusted with ornament. Each item considered alone could hardly be better, for Borromini had the most fertile decorative imagination in modern history; but by a special caprice of the great Baroque paradox, his drive toward expression actually challenged the governing principles of the design. Perhaps his best and most perfect bit of work is the miniature cloister for the same church (Fig. 17.12). Stark and even cold as it looks in the photograph, nothing from the 17th Century will more richly repay serious inspection.

Sant' Agnese in Piazza Navona (Fig. 17.13) is illustrative of his practice in buildings of greater size and may be taken as typical of Baroque ecclesiastical architecture in general. There isn't a work of art in all the world which so thoroughly sets the critic against himself and prevents him from arriving at an opinion. An inspection of the details (including the cupolas which Borromini contributed by an indirect route to colonial America) delights the eye with a succession of elegant motives then completely new. It is probable, for example, that no other building exhibits a like variety of door and window openings, all excellent. At the same time, novelty succeeds novelty at a very rapid pace; we can scarcely see anything because something else is forever already in the corner of the eye. It disturbs one to withhold approbation where there is so much to praise and admire; but what shall we say of a composition where the detail tends to steal the show?

Sir Christopher Wren

The reader will have judged for himself that Baroque architecture demonstrated an immense vitality within the scheme of its restrictions; but certainly — from the standpoint of facing up to the impossible — the greatest achievement of the century was that of Sir Christopher Wren. In 1666, a disastrous fire swept what is now the eastern section (called "the city") of London. In keeping with the tendency of the times, it was decided that the rebuilding should proceed according to a master plan. The plan was drawn by Wren, but it unfortunately conflicted with local traditions and interests and was never

properly carried out. The precedent set proved important nevertheless. On a smaller scale, some of Wren's ideas were carried out at Bath (1754 ff), in the New Quarter of Nancy (1753-57), and in the plan for Washington (drawn 1791).

Our present interest, however, is not concerned with Wren's plan as a whole, but with the numerous parish churches he was called upon to design to replace those that had been lost. It was his first intention to give them the appearance of classical temples; but England (page 709) had not ceased, and has not yet ceased, to be a Gothic country. Both the clergy and the congregations, most of whom seem to have thought of the spire as a Christian symbol (page 391), were determined to have steeples on their churches no matter what the going architectural style happened to be. The spire, of course, was a northern, linear, and Gothic form, primarily vertical and of dissolving silhouette. The temple was a classical form one story high, predominantly horizontal, and with an outline severely enclosed by cornices (page 83). To pile one temple on top of another; to destroy the horizontal divisions intended by the Greeks to stop the eye; to lead us upward within a light, airy silhouette to a sharp point; and to do this with forms that are classical in appearance and plastic in nature — such were the elements explaining Wren's success. Everyone has been gasping at his temerity ever since.

Because most of the London parishes were poor, the little city churches Wren designed were cheap and undistinguished buildings except for the lovely spire each raised against the sky. For illustration, therefore, we reproduce Saint Martin's in the Fields (Fig. 17.14), then on the outskirts of town and now facing Trafalgar Square. The building is representative of a distinct type in ecclesiastical architecture: a church modeled as closely as possible upon the classical temple, with a temple front and a spire of the sort Wren had been the first to design. Our illustration comes from a book of plans, which will explain how easily the type was imported to America and thus became the standard model for all colonial churches.

THE ROCOCO

Although we Americans will always have a special place in our hearts for it, the 18th Century was not a century of great art. It nevertheless put its mark on everything it touched, and its special contribution was to touch everything. There were no artists capable of major creation, but their absence was compensated for by universal good taste which applied itself to the refinement and perfection of almost every man-made object. There is no ready explanation for the phenomenon, but it is a fact that gunsmiths in Pennsylvania demonstrated

quite as nice an aesthetic sense as painters in Paris, and worked in the same style.

The Rococo was, in fact, the last style to which all Western civilization subscribed. Most of the furniture, silverware, china, cloth, and wallpaper in use today was actually designed during the 18th Century, to say nothing of most of the architecture. It has been truly said that the era embodied every advance made since the fall of Rome, including a great many more of the so-called mechanical conveniences than we might suppose.

The Rococo developed directly from the Baroque, and as a distinct variation thereof, it may first be recognized in Paris during the last few years of the reign of Louis the 14th. Neither the king nor the court had anything to do with it; they remained resident at Versailles until the more than timely demise of the monarch in 1715. In the meantime, the Rococo had been getting under way. The artist who best illustrates every important feature of the style was Antoine Watteau (1684-1721), a painter of Flemish origin who arrived at the capital in 1715. He first supported himself by doing hack work. Presently he built up a patronage among the rich folk of the city. Many of them were newly rich; some had actually returned to Europe after making fortunes in the new world. All of them seem to have been specially endowed with the aesthetic intelligence so common at the time, and instinctively, all seem to have appreciated that Watteau was the man who could make the Baroque over into a pleasanter, less bombastic idiom, suitable for the home as contrasted with the palace. In bringing about the required modification of the style, Watteau not only worked for and with the gentlemen who paid his bills, but with their wives as well. The emergence of the Rococo marks, in fact, the first important operation of feminine taste as a definitive factor in the history of art.

The difference between the Baroque and the Rococo is epitomized by the comparison between Figs. 17.16 and 17.17, and the reader will find it helpful to supplement the latter by reference to Figs. 17.18 and 17.19. Watteau's painting derived directly from Rubens. That fact comes out much more plainly in full color than in photographs, but the resemblance is clear enough in the latter nevertheless. Watteau had a daintier figure-style than Rubens; it would be incorrect, however, to say that his canon was delicate. The poses he habitually used are much closer to Rubens than seems at first evident. As Rubens had done, Watteau conceived the anatomy to be an ensemble of several related masses. He almost always gave the figure a pronounced turn at the waist. He pitched the torso at an angle to the hips. He turned the head on the neck; and he lifted or depressed the chin. Such habits almost invariably made it necessary to present at least one part of the body in bold foreshortening, with consequent enhancement, on the part of the observer, of a sense of thrust

in the shoulders, hips, bust, head, or elbows as the case might be. Watteau's dynamics, in short, were much the same as Rubens'; the important difference between the two artists had less to do with style than with content.

In sum, we may say that like the Baroque, the Rococo was an art of movement; but the movement was slower and gentler. The masses set in motion, moreover, were lighter; the comparison between the two styles was as the difference between power and grace. What applied to movement applied to everything else. The lighting was similar, but softer. The contours were convex, but less emphatically so. The textures were luxuriant, but more modest. And above all, the favorite subject matter, narrative or otherwise, was mild, charming, and for the most part inconsequential. Impact had been the most obvious effect of the Baroque upon the emotions; the Rococo merely sought to delight.

Watteau was, in fact, one of the very few authentically lyric painters in the whole history of art, and he made his reputation by painting a goodly number of pictures like Fig. 17.20. As a class, they are known as *fêtes galantes*; the formula for one was the formula for all. The setting is always out of doors, usually in a Baroque garden. The time of day is always dusk, or thereabouts. The time of year is always early summer, and the fresh foliage is shown as growing half wild, with consequent amelioration of the severity of such architecture and sculpture as may be in view. Ladies and gentlemen sit on the grass or stroll through the groves, making love to each other or simply enjoying that perfect time of day and year. There is no sense of hurry; but neither is there a hint of lassitude. The technique itself is peculiarly in keeping with such a mood; it is a moderate impressionism (page 167) which describes everything adequately and pleasantly.

The remarkable thing was that Watteau could successfully multiply pictures of the same kind. He did not hesitate to use the same figure again and again in successive compositions; in fact, the same figure sometimes occurs more than once in the same composition (Figs. 17.17 and 17.20). His methods of work were systematic and rational to a degree; and yet he never failed to evoke the elusive, indefinable, precious poetry which we think of as characteristic of Giovanni Bellini (page 757), Giorgione (page 758), and almost no one else.

As indicated above, the Rococo was an all-inclusive style. Paintings like those just reviewed were never intended to exist independently. All of the Rococo artists were prepared to design entire schemes of interior decoration, and their pictures, however excellent in themselves, were meant to fit in. Watteau's position as prime mover in that new fashion has all too seldom been emphasized; Fig. 17.21 shows one of his designs — the kind of drawing which

might eventuate in a painting, an overmantel carved in wood, a panel of stone sculpture, or a tapestry back for a sofa.

With respect to the subject matter, it is much as we might expect to find it, but certain details of the style demand our attention because they are essential to an understanding of the Rococo as it expressed itself in architecture, furniture, silverware, and all the other arts which are relatively abstract and deal in solid materials. Like the Baroque, the individual forms were largely of classical derivation, and there is a similar sense of curvature and movement in and out. Every proportion was made radically lighter, however — lighter to such a degree, indeed, that the style remained only slightly plastic, and tended to become linear.

At whatever point the artist himself began to feel that he was expressing himself in line, certain new possibilities opened up before him. He made a study of curvature, with the result that the Rococo contains the greatest variety of graceful curves known to the history of art. In combining one curve with another, Watteau was meticulous to preserve the identity of both. Instead of making one flow into another, as in modern streamlining, he employed the principle of tangency. The drawing under review contains a great many examples. In most instances, two curves of contrary direction are brought into contact, with the result that the motion of the eye is arrested and gently reversed at every point of tangency.

The style Watteau had made popular was promptly taken up by the court and nobility as soon as Louis the 14th died. For that reason, we often hear the Rococo referred to colloquially as "Louis Quinze." Because the existence of Versailles made further building superfluous (and also because the population felt strongly about the late king's depletion of the treasury for that purpose), there was almost no major construction in France for the rest of the century. A few sections of Versailles were subdivided, however, on a more intimate scale, and these were entirely redecorated and refurnished in the Rococo manner. Fig. 17.22 shows a characteristic example.

In Germany, however, the situation was reversed. The French language, French clothes, and French customs of every kind were immensely popular among the privileged classes there during the 18th Century. As a result, the numerous noblemen who, as a loose federation, provided Germany with a collective government, each and all yearned to emulate Versailles on such scale as they could afford. Frederick the Great himself built a Rococo palace at Potsdam and named it *Sanssouci*. As an instance of style, we shall be better served, however, by Fig. 17.23, which shows the Baroque just at the stage when it might first be called Rococo.

In France, Watteau had two immediate followers, Lancret and Pater. Their principal function in history was to demonstrate the excellence of their master, for both failed every time as inevitably as Watteau succeeded. The reader may amuse himself at leisure by trying to ascertain why; the answer is by no means easy or certain — a painting by either man looks, in fact, enough like a painting by Watteau to be carelessly mistaken for one.

The Rococo continued to dominate French taste, and the taste of the world, until the Revolution of 1789. Francois Boucher (1703-70) was its most prominent practitioner during his long career. As the favorite painter of Madame Pompadour, he made a business of erotica which, though superbly conceived and executed, were so cold as to remain innocuous (Fig. 17.24).

In due course, Fragonard (1732-1806) succeeded Boucher as the leading artist of France. He made a tour of Italy, and to that experience we owe a number of superb and sensitive landscape pictures, mostly of the Baroque gardens taken over by trees and shrubs which, by that time, were all of a century old. His French patrons were interested in horticulture, however, only insofar as it furnished a setting for human dalliance; and Fragonard delightedly supplied their demand. He became the prince among painters of naughty gallantry (Fig. 17.25). It is doubtful, in fact, whether he ever painted a single scene which represented love in its aspect as an honorable emotion. The lovers who meet in his pictures seem always to be meeting clandestinely, and he was unable even to permit a lady to receive a note without making her look furtively up as though it contained a sentiment she had no right to read.

Because both Boucher and Fragonard worked for the French aristocracy and summed up in their painting all its elegance and irresponsibility, the end result of their art was to make the Rococo identical with everything the French Revolution was against. When at length the explosion took place, it was in the natural course of events for the new government to frown upon the Rococo as a style. Fragonard survived the Revolution. No one had anything against him personally; but during the later years of his life, he was unable to get work and existed in near poverty. The Rococo had in the meantime been replaced by Neo-Classicism, to which we turn our attention in the next chapter.

18

THE 19TH CENTURY

We are still too close to the 19th Century to see it in adequate perspective. We all too often hear that the world experienced vast and significant changes during those hundred years — changes that were more radical than at any other time, and faster moving. There is truth behind such assertions, but it is easy to exaggerate. No other period except the 20th Century puts an equal obligation upon the historian, art historian or any other kind, to tread lightly. In the nature of the case, every judgment must be more than usually subjective, and even though the principal phenomena of the period are known, today's estimate of cause and effect may have to be revised tomorrow.

So far as we can now tell from the indications of the history of art, the 19th Century was the twilight of the Renaissance. The era started in normal fashion, and for something more than its first generation, artistic tendencies and developments are easily understandable by reference to points of view established during the 16th Century. We then begin to find ourselves confused by situations for which there had been no earlier parallel.

The great single fact of 19th-Century art was the exclusive importance of France, and within France the exclusive importance of painting. Nothing else counted. Even men so great as Turner (1775–1851) were off the main track. The Italian sculptor Canova (Fig. 18.1) might for a time have been considered the most prominent living artist, but the decisive history of the Neo-Classical movement to which he belonged was written in France and conducted by painters. The French sculptor Rodin (1840–1917) likewise had a great vogue in his day; but he was a follower of the painters rather than a leader, and played no important part in bringing about the several major shifts of style by which the century was marked.

Within the history of French painting we may recognize three such shifts during the century, to each of which a section of the present chapter is devoted. The *Neo-Classical Style* was called into being by the French Revolution, and in the hands of the French Academy it dominated both art and the



ANDERSON Fig. 18.1 Canova. *Pauline Bonaparte as Venus*. Rome. Borghese. Gallery. Finished 1808. Marble. Life size.



Fig. 18.2 David. *The Lictors Bring Back to Brutus the Bodies of His Sons*. Hartford. Wadsworth Athenaeum. (There is another version in the Louvre, slightly larger.) Oil on canvas. 36 by 27½ inches.



Figs. 18.3-4 David. *The Sabine Women*. Paris. Louvre. 1799.
GIRAUDON

Fig. 18.5 Ingres. *The Stamaty Family*. Paris. Louvre. 1808.



Fig. 18.6 (below) Ingres. *The Apotheosis of Homer*. Paris. Louvre. 1827.

GIRAUDON



GIRAUDON



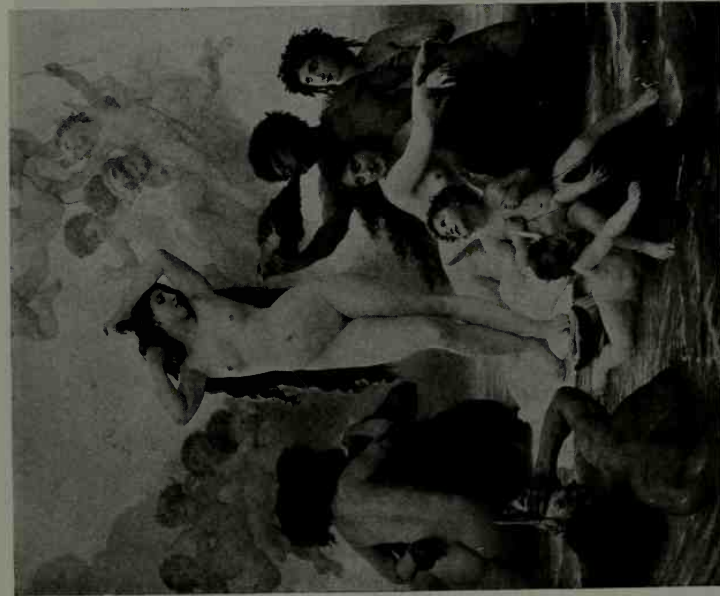
Fig. 18.7 (left) Ingres. *La Source*. Paris. Louvre. 1856. Oil on canvas. 5 feet, 5 inches high.

GIRAUDON

Fig. 18.8 Couture. *The Romans of the Decadence*. Paris. Louvre. 1847. Oil on canvas. 15 feet, 3½ inches high.



ALINARI



ARCHIVES PHOTOGRAPHIQUES
Fig. 18.9 Bouguereau. *Birth of Venus*. Paris, Luxembourg. 1879.



CIRAUDON

Fig. 18.10 Cabanel. *Birth of Venus*. Paris, Luxembourg.



ARCHIVES PHOTOGRAPHIQUES

Fig. 18.11 Collin. *Floral*. 1886. Paris, Luxembourg.

Fig. 18.12 John Constable, Detail from *The Hay Wain*. Shown in London 1824; in Paris 1824. London. National Gallery.

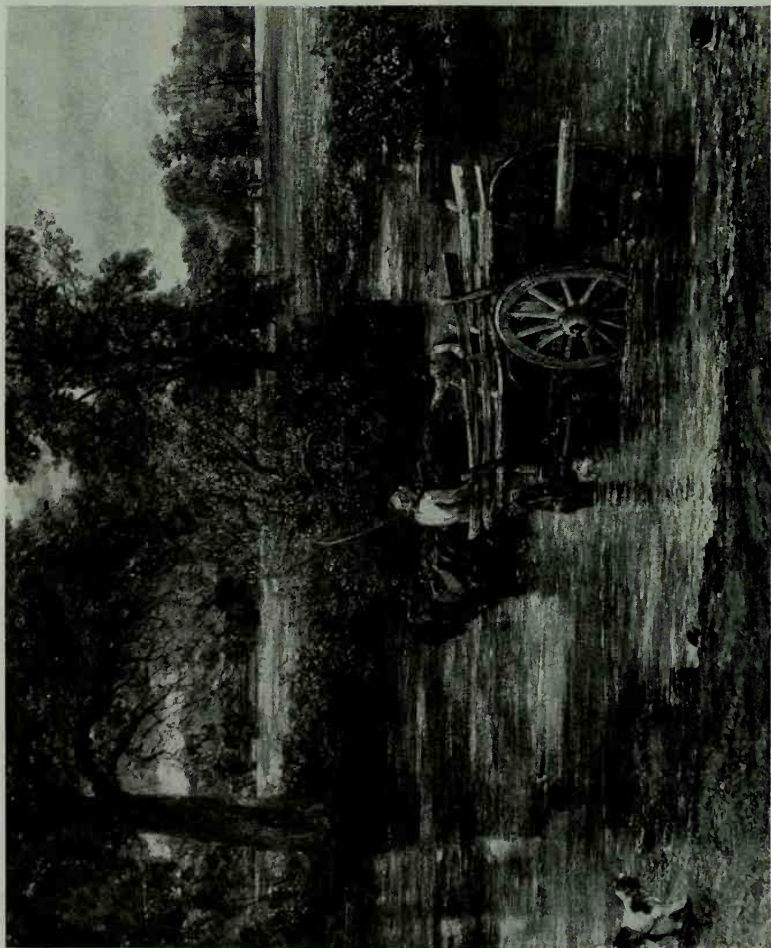




Fig. 18.13 Delacroix. *The Lion Hunt*. Chicago. Art Institute. 1861.



GIRAUDON Fig. 18.14 Delacroix. *Death of Sardanapalus*. Paris. Louvre. 1827.



Fig. 18.15 Courbet. *The Sleeping Bather*. Detroit. Institute of Arts. 1845.

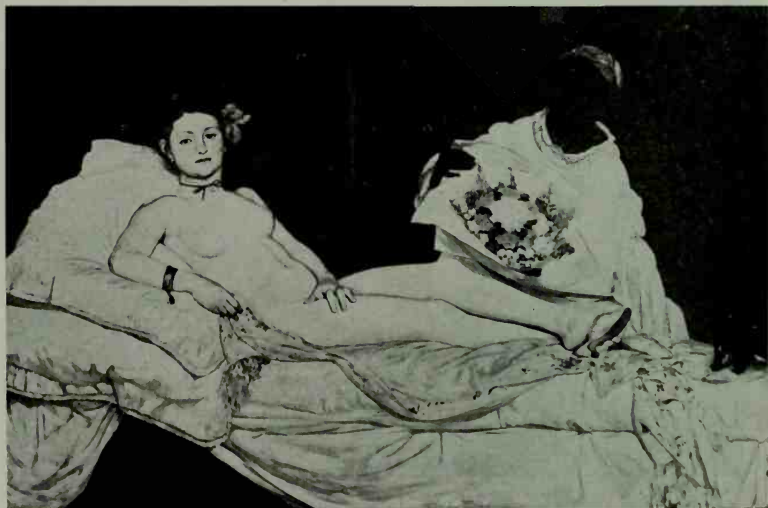
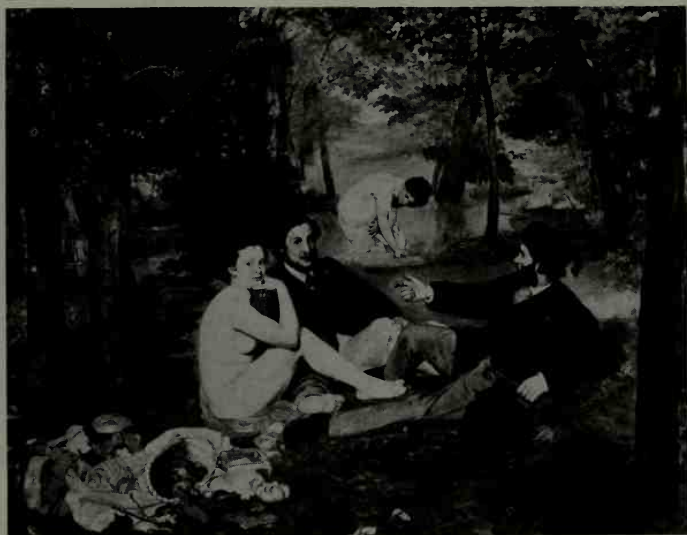


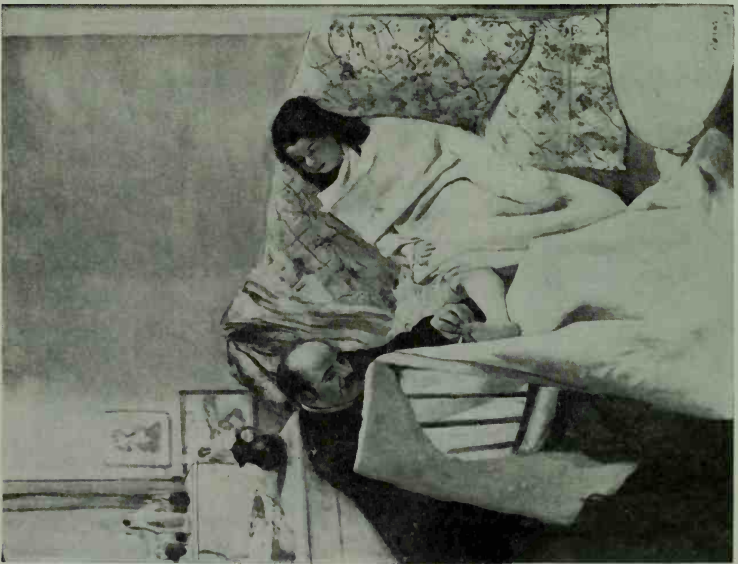
Fig. 18.16 (below) Manet. *Olympia*. Paris. Louvre. 1863.



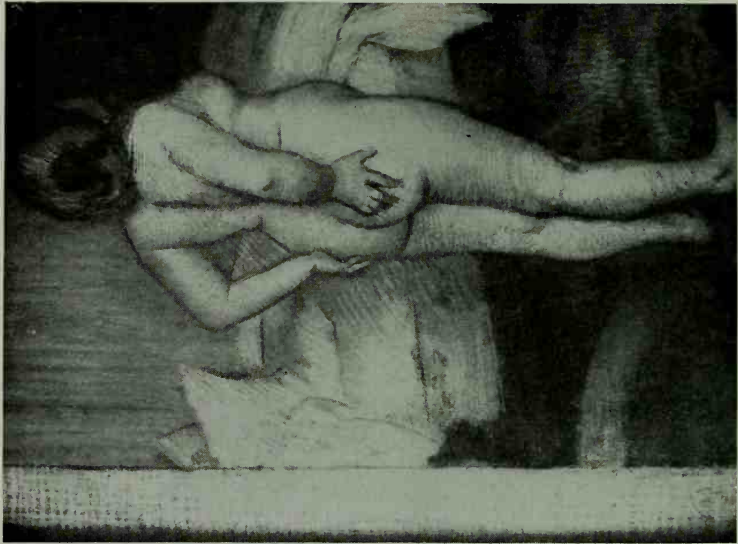
GIRAUDON Fig. 18.17 Manet. *The Picnic on the Grass*. Paris. Louvre. 1863.



Fig. 18.18 Manet. *The Folkstone Boat*. Philadelphia. Collection of Mr. Carroll S. Tyson, Jr.



bulloz Fig. 18.19 Degas, *The Pedicure*, Paris, Louvre, 1873.



bulloz Fig. 18.20 Degas, *Woman Sketching Herself*.

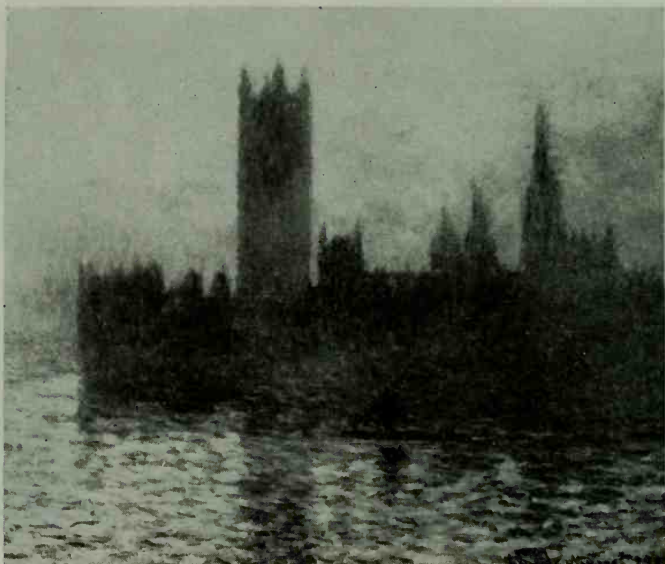


BULLOZ

Fig. 18.21 Degas. *The Cotton Exchange at New Orleans*. Pau. Museum. 1873.



VIZZAVONA Fig. 18.22 Monet. *The Breakfast Table*. Paris. Luxembourg.



VIZZAVONA

Fig. 18.23 Monet. *The Houses of Parliament*.



Fig. 18.24 Monet. *Argenteuil-sur-Seine*. Chicago. Art Institute.



Fig. 18.25 Seurat. *Le Chahut*. First version, 1889. Buffalo. Albright Art Gallery.

education of artists until the middle of the century. It has not yet ceased to function, but as the central fact of French art, it was succeeded by the variegated work we may classify loosely under the name *Romanticism*. A philosophy rather than a style, the Romantic Movement started about 1820, gained momentum during the next two decades, and finally attained general acceptance about the middle of the century. Romanticism was, indeed, the very last artistic philosophy ever to enlist the cordial sympathy of the public at large. To this day, most people still subscribe to that theory of art; thus the *French Impressionists*, who became identifiable as a school about 1870, had always to work against an onus of unpopularity, and still do. A more complete outline might list the so-called "Realism" of Courbet, which is better understood as an eccentric excursion within the Romantic Movement. The century ended, and modern art began, with Paul Cézanne (1838-1906), who started out as an Impressionist, turned his back on both the style and its theory, and promulgated the statements which gave a sanction for 20th Century abstract art.

There are various remarkable sidelights to the narrative just summarized briefly. One of them is the apparent lack of connection between 19th-Century art and the ostensible course of 19th-Century life. One may study the political, social, military, and economic history of all nations during that era without gleaning an iota of useful information about its art. Except for the French Revolution which, as stated, left an artistic record in the Neo-Classical Style, the various wars, shifts of government, social advances, and even the Industrial Revolution itself seem to have arrived and passed on without doing more than to supply incidental subject matter for artists.

As the century proceeded, a significant change took place with respect to the position of artists in society. During every earlier period (page 609), fame and fortune were the prompt reward of every successful artist. The 19th Century also had its successful artists. Some of them received generous patronage and made huge sums of money. But none of the men who enjoyed the approbation of the world a hundred years ago remains in honor today. Most of them have gained the contempt of every serious scholar. The great painters of the period (those whose pictures hang in the Louvre and the Luxembourg and in the major museums of England and America) had to wait a generation or more for the most rudimentary kind of fair treatment. Even today they are far from popular with most citizens.

The phenomenon of the great artist unable to make a dignified living from his art will probably prove in the end to be more significant than any other event, and perhaps more significant than all other events of the 19th Century. While the causes are still obscure, we can trace the gradual separation of the

artist from other men. Merely troublesome at the beginning, the misunderstanding proved devastating in the end. A chasm opened up between the creative mind and society. By the time of the Impressionists, the barrier had become impassable. By then, the average solid citizen frankly disliked the creative art of his own day and was all too willing to express his antagonism. Instead of beckoning with opportunity, the career of the artist became synonymous with renunciation. By 1900, artists as a class had lost any rational and workable connection with the economic system. Most of them lived as they could, and those who elected to make peace with the going order were stigmatized as "commercial artists."

It is not pleasant to contemplate a world that lacks the fundamental need of expression by way of the visual arts; but it is true that the 19th Century drove artists into a world of their own. That will be the chief lesson of the present chapter. As to the elusive cause, it is still up in the historical air. No one has come forward with a provable analysis of why things happened which we know did happen. The best we can do is to sketch the main outlines of the general picture as it affected art, suggesting reasons where we can.

THE FRENCH ACADEMY

When Louis the 14th built Versailles (Fig. 17.1), he thereby moved the artistic capital of the world from Rome to Paris (page 802); but even the grandiose scale of his new palace would not, in itself, have been enough to account for the maintenance by France of artistic leadership ever since. The operative factor in the situation (and a factor which did not become central until the time of the Revolution) was the long-term policy of the French people, a permanent and popular state of mind expressing itself in action at the highest levels of government.

In other lands, the cultural and intellectual life of the population has, with exceptions, remained a private affair and no concern of the political authorities. Conditions in France have been different. Ever since the time of Louis the 14th, the French have considered such matters to be a national responsibility. In addition to its political appointments, the government has systematically maintained boards of eminent men charged with the responsibility of defining and safeguarding the excellence of the French language, the soundness of French science, and the superiority of French taste in the visual arts.

The great enterprise began in 1635 with the establishment of the Academy of Literature. The Academy of Painting and Sculpture followed in 1648, that of Science in 1666, and that of Architecture in 1671. The first important administrative reorganization took place as early as 1663, when Colbert consoli-

dated the existing academies under one ruling body. Since then, the corporate complexion and the official title have changed several times. A detailed history would not aid us in our immediate purpose; we may therefore take the liberty of resorting to popular parlance and refer to the entire official personnel so designated by the government simply as "The French Academy." Let the reader visualize it as a board of gentlemen publicly declared by the government to be *grands seigneurs* of literature, science, and art, and empowered by the government to speak and to act in the name of France.

Once established, the academic principle survived and still does. Usually representative of the conservative point of view, the members of the Academy have always demonstrated a remarkable political agility, and the organization has been able to adapt its chosen formulae to every successive situation since. We may say, in fact, that the existence of the Academy remained the rock around which every artistic current has swirled for more than two hundred years, and a great many things make no sense at all unless we remember that the Academy was always there to reward its own and to undermine the prestige of outsiders.

Art has for so long been identified with freedom that the reader may be forgiven if he has not taken the last few sentences seriously. In order to appreciate that they mean even more than they say, he will require amplification. To belong to the Academy was to be something more than the holder of an honorary degree; it meant that a man belonged to an organization which had the legal power to control French art. Such control was implemented largely in two ways: control of exhibition, and control of education.

Members of the academy were permitted to exhibit their work in public only at the official exhibitions sponsored by the Academy. Artists not associated with the Academy were forbidden by law to exhibit at all. Shows of paintings had begun to assume great importance from the beginning of the 18th Century onward. The "Salons," as they were called, were first held at Paris only every other year; but from 1737 onward, they were annual. As time went on, more and more people came, and painting began to reflect the taste and needs of the middle class as well as the nobility. Finally the king himself, once the sole arbiter of taste, became merely the greatest among a large number of patrons.

The members of the Academy did not hesitate to exercise their control for their own benefit. An indicative statistic is the following: the Salon of 1789 was the last held under the monarchy; only 350 pictures were hung. The Revolution forced, for the time being, a more liberal policy. The degree of previous restriction may be gauged from the fact that there were more than 800 paintings in the show of the next year, more than 1,000 in 1793 (the year of

the Terror), and over 3,000 in 1795. The restrictive policy was not, however, brought to an end by the Revolution. Throughout the 19th Century, the Academicians found ways to control the exhibitions; and at every opportunity and upon a variety of pretexts, they denied a showing to persons, styles, and subjects of which they disapproved. In 1863, for example, they excluded more than 4,000 pictures, causing a national scandal. Even then the fight was not over; however, we need not pursue the narrative further. Enough has been said to illustrate the nature of the operation.

Cynical self-interest surely formed part of the Academic motivation in the behavior described, but it would be most unfair to conclude that nothing else was involved. From the beginning, the Academy had assumed not only the right but the competence and responsibility for fostering art of the sort France ought to have — which meant choosing and endorsing certain kinds of art and discouraging other kinds. At the moment when the Academy was founded, nobody entertained any serious doubt as to what the best sort of art might be: it was the "Grand Style" created by Italy during the High Renaissance (page 725) and imported tentatively by Francis the 1st (page 709) and in thoroughgoing fashion by Louis the 14th, who had even gone so far as to employ Bernini himself for a period.

In the course of time, pictures executed in the "Grand Style" came to be known as "history paintings," since most of them contained subject matter which impinged in one way or another upon heroic tradition. The superior merit of such painting seemed obvious: it was edifying. "Art is a lever of instruction," wrote Antoine Quatremaire de Quincy in 1791. "It educates both the mind and the character when it records important historical events, when it depicts great or noble deeds, and when it represents the beauty of the human body. Who does not know the force of example? The statue of a hero is an object lesson in courage, and that of a wise man a treatise on morals." It is significant that the writer of those lines became permanent secretary of the Beaux Arts (page 842) in 1816; his statement may be taken as an epitome of the Academic purpose, namely, that the right kind of subject for the serious artist must be a historical incident illustrative in some way of the enduring qualities of the good man and the good citizen.

Recent criticism contains so many polemical denunciations of the ideas just stated that a notion is widely current today to the effect that the visual arts are and always have been dead wrong whenever they attempted to teach. We are told that art may entertain, contribute to our comfort, appeal to our feelings, and elevate our aesthetic sense — providing such may be accomplished by abstract methods. All such statements, it is necessary to warn the reader, are opinions; and while the reader as a free man is at liberty to dislike didactic art,

he may not, if he wishes to be well informed, overlook the sincerity with which didactic art has been advocated at various times in the past, including the period now under review. It is essential to realize that the Academicians were not venal, but for the most part were acting from a sense of responsibility. None of them was ever more high-minded than Ingres (pages 850-852), upon whom the mantle of David (pages 844-850) had fallen; and his belief in the validity of the Academic program may be assessed from the following incident.

In 1851, Delacroix (pages 854-857) had come up for election to the Academy. He had been denied admittance several times before; and to a correspondent who asked for Ingres' support when the matter came to a vote, Ingres wrote, "Although I am much obliged to you for your kind letter, I must even so express my regret on learning that you uphold certain doctrines and certain tendencies which, in my opinion, are dangerous — in the person of an artist whose talent, honorable character, and distinguished personality I otherwise fully acknowledge."

If France was to have the right kind of art, France had to provide itself with the right kind of artists; and from the very first, art education was conceived as a primary function of the Academy. The effectiveness of the whole organization, in fact, has largely depended upon its continued dominance over the several channels through which instruction might proceed.

An *École Académique* was founded in 1648. In 1793, its name was changed to the presently familiar form, the *École des Beaux Arts*, colloquially known simply as "the Beaux Arts." Now free to both men and women between fifteen and thirty upon passing an entrance examination, the institution from its inception made available formal instruction under established masters. Attendance there has always been the easiest and most natural way for young artists to put themselves (usually for a fee) under the personal tutelage of some leading figure of the day.

In 1666, the Academy extended the facilities of its school by creating the French Academy at Rome and by establishing the famous *Prix de Rome*, which both Fragonard and David in due course held. Every promising student was encouraged to compete for that prize. Several years of carefree existence in the fabulous and eternal city awaited the candidate deemed worthy. Obviously, the system conduced to docility on the part of the student, but the most ram-bunctiously independent young man would have been a fool not to ponder the advantages of winning the scholarship. Who could not learn much at Rome? Who had the right to be so proud as to overlook the professional preferment beckoning in later years for those so honored in youth? And over and above

such prestige as it might confer merely through its official label as the best, no one could deny that the training offered by the Academy was in many ways excellent.

Beginning with the foundation of its Roman branch, the Academic curriculum had veered more and more away from the study of Renaissance and Baroque models. The set was increasingly toward the study of classical models, which began to assume the authority of primary historical sources. Inasmuch as the only important classical models available were pieces of marble sculpture, the net effect was to focus study not upon painting, which most of the students intended to practice, but upon sculpture, an art in which few of them had any direct interest.

The developed curriculum of the Academy is so familiar as scarcely to require description; it still exists in conservative art schools all over the world. Beginners started by drawing with charcoal from ancient marble statues. Because statues cannot move and might be left in position for weeks or even months at a time, such instruction offered an opportunity for a protracted refinement of the drawing. Because shadows show up well on white, and because light conditions in the studio might easily be controlled and kept constant, a similar exercise in the modeling of contour was feasible.

Because not every student was able to sojourn at Rome, it became necessary to bring Rome to every studio. That was done by importing a collection of plaster casts after famous classical statues. In point of fact, the overwhelming majority of students studied not from the originals, but from casts; hence the phrase "cast drawing" as a title for courses of the kind described. Because the original purpose of cast drawing has been almost totally forgotten even where such work still goes on every day in the year, it is necessary to point out that the regimen was first conceived as a functional part of a well planned curriculum. By drawing from the cast, the student perforce made himself intimately familiar with the style of classical sculpture; that was the first purpose and first step in his training.

Because the style of classical sculpture, like any other style, is merely a habitual and satisfactory way of expressing oneself, the students who learned from the cast formed habits which were considered eminently desirable. Consciously and unconsciously, they might be counted upon to pose the figure in similar fashion and to idealize its contours and texture. By that time they were ready for the living model, and they entered what has since been known as "life class" or merely as "life." Because the model could hold a pose only so long, and because a particular pose could never be duplicated precisely, speedy execution replaced the deliberation appropriate for cast drawing. Otherwise studies from the living model were merely an extension of the same pedagogy.

Insofar as it might be convenient, the schools employed models who looked like classical statues; but when that was not possible, every student who had learned well from the casts knew exactly what to do. He corrected nature's oversight by abstracting the model's appearance in the general direction of Greek idealism.

Those who were able to draw or paint one figure could, it was assumed, be counted upon to paint two, three, four, or even twenty figures. The end product of the curriculum was to be — or so people hoped — the artist who would then furnish the world with one edifying "history" after another. Nothing of the kind actually happened, as we shall see in due time.

DAVID AND THE NEO-CLASSICAL STYLE

Destruction of the old regime was important to the purposes of the revolutionary government, and that intention accounts for the abrupt end of the Rococo. Even more important was the positive program of the new era. The vision and wisdom of the men then in control cannot be overstated. The end in view was the creation of a new world order. History contains no equivalent demonstration of the creative imagination exercised at the highest levels of government; the French and American democracies constitute the most complete fulfilment of beliefs like those of Alberti (page 696) with respect to the perfectibility of the race.

The political events of the late 18th Century were epic events, and everybody knew it. As Frenchmen of education and culture, the republican leaders felt a manifest necessity for having a new art capable of commemorating the great things which had just happened and the better life to come.

The Academy was ready-made for calling such an art into being. It had immense prestige, and its prestige was identified in the public mind with France rather than with discarded royalty. The Academy's procedures and techniques, hitherto devoted to the Baroque and Rococo, might as effectively be turned to furthering the purpose in view. An artistic executive of the first order of skill — a man who looked like a man of genius and destiny — was on the ground, moreover; and he had a plan which offered every political advantage, was congenial both to the learned and the ignorant, and then looked so perfect it must have seemed God given.

The man to whom we refer was Jacques Louis David (1748-1825), a painter. We may skip the details of the royal patronage he had received shortly before the Revolution, of his personal connection with the revolt, and of his brilliant and unscrupulous shifts of loyalty as one faction succeeded another in the years after 1789. Suffice it to say that no matter what he had done in the

immediate past and no matter how black it looked, he was always able to turn it to his personal advantage whenever a change took place. History, it would seem, was rolling in his favor with loaded dice, and every tide he picked led on to fortune. His greatest single achievement was to convince himself and everybody else that the particular kind of art in which he happened to be interested was and always had been a moral expression identical with the morals of the new order.

At the time of which we speak, David was a conspicuous exemplar of the Neo-Classical movement to which we alluded in the last section and which had been in progress for a generation. As a young painter, he had started in the Rococo style. In 1776 he won the Prix de Rome, and after four years there had scored a great success at the Paris Salon with his *Date obolum Belisario*, the painting which secured his election to the Academy. During the next seven years, he followed up his advantage with *The Oath of the Horatii*, *Andromache Mourning the Death of Hector*, *The Death of Socrates*, *The Lictors Bringing Back to Brutus the Bodies of His Sons* (Fig. 18.2), and *Paris and Helen*. Several of those pictures had been purchased by Louis the 16th. Not all of them were susceptible of an edifying political interpretation, but most of them were. As compared with the work of Fragonard or Boucher, the style was much simpler and the content more calm.

At a time when resentment was mounting against the aristocracy and the court, it was easy to popularize any contrast with the Rococo. David's simplicity became "nobility" and his calmness became "great." Almost every government on record has represented itself as subscribing to both those abstractions; but there was a special reason of a more logical sort for drawing an identity between Neo-Classicism and democracy.

While all students of government recognize important constitutional differences between the French and American democracies and the republics of the ancient world, the notion was nevertheless prevalent that the new system had been drawn up in sagacious disregard for about eighteen centuries of error. The citizens thought they had jumped back over all of that, and they believed that their new tradition invoked sound principles originally established and proven in the city republics of Greece and the awesome republic of Rome. It is a waste of time to analyze their error with respect to technicalities. The possibility of making a direct association between the new era and classical times was enough to swing the artistic decision.

One of the great original intentions of the Renaissance had, of course, been to recapture the civilization of Antiquity. In the pages above, we have taken note how data accumulated and how practicing artists felt increasingly obliged to provide themselves with a more and more precise acquaintance with the

facts of classical art. From the middle of the 18th Century onward, however, a series of events had served to redouble classical enthusiasm all over Europe and to make all previous archaeology seem inadequate, erroneous, and out of date.

In 1757, the modern excavations had commenced at Pompeii and Herculaneum. Everybody who could read was delighted and fascinated by the news. An ancient city preserved in fairly good repair, even to the bodies of some incinerated citizens, was a new kind of archaeology, much more lively than the usual battered and depressing ruins.

In 1760, there appeared in London a book called *The Antiquities of Athens*, the work of two young Englishmen named Stuart and Revett. The volume contained some fine big plates showing the Parthenon and the other temples still encumbered with nondescript medieval buildings, but standing nobly forth nevertheless. Athens had been a very inaccessible place for a very long time, and even the existence of such a treasure-trove came as a surprise to most western Europeans. The book had a wide effect in a world which hitherto had possessed only the foggiest notion of Greece as something separate from Rome and perhaps finer, and its publication doubtless paved the way for Lord Elgin's operations of 1801-1810, which resulted in the shipment to London of most of the remaining sculpture on the Parthenon (page 81), and its ultimate assignment to the British Museum.

But the event that really made the difference was the publication in 1764 of Winckelmann's *History of Ancient Art*, with which we have already had to deal in an earlier connection (page 7). Winckelmann's great success was due only in part to the fact that he addressed a public already well disposed. His intellect was of an order to command respect, and his expression, in great contrast with most other writers on similar subjects, was clear and carried conviction. His greatest single contribution was his exposition, which then had the force of a thrilling announcement, that classical art had two divisions — Greek and Roman — and that the Greek was better. "Causes . . . of the superiority of Greek art beyond that of other nations" we may read in his very first chapter heading. The statement opened up an entirely new perspective.

His fundamental thesis was reinforced by corroborating analyses of a newly definite and newly rational kind. Let those who wish to understand David read some of the other chapter headings: *The essential point in art: the drawing of the nude figure based on beauty*; *Ideal beauty formed from beautiful parts of individuals*; *The conformation and beauty of the male deities and heroes*; *The conformation and beauty of the female deities and heroines*; *The expression of beauty in features and action*; *Beauty of the individual parts of the body*.

Such words sound trite because we have so often heard them paraphrased, and still do whenever artistic taste is discussed. It was Winckelmann, however, who first set down on paper the Neo-Classical theory which today survives in good measure. Contemporary aesthetics is colored by it, and so are the press notices which celebrate the "conformation and beauty" of such female deities and heroines as we are permitted to view in the cinema. Mistaken though he may have been in matters of detail, the merit of Winckelmann was the merit of being right: he had a just estimate of the methods by which the Greek artists had arrived at their high idealism, and his recommendations were practical. How fortunate, from the standpoint of David and the Academy, to be able to claim such a man as their philosopher!

It was David who brought to perfection the Beaux Arts system of training for young artists, and he also who most vigorously and specifically looked forward to a great new democratic, and French, era in art. It may be doubted whether any enterprise in the history of culture was better planned or seemed more certain of magnificent success than that program. The monumental subject matter was at hand. A style was ready which was not only popular, but combined present advantage with an aura of history. The need was there and was expressing itself as an insistent demand. And yet Neo-Classicism, which started out with high hopes, was destined to end in tragic and even miserable failure. What was wrong?

A satisfactory answer to that question remains to be found, but certain facts are obvious. One such circumstance was the lack of good ancient art upon which to build a Neo-Classical Style. Let the reader peruse again Chapters 3 & 5. He will be more than ever impressed with the newness of most of our data; it is not too much to say, in fact, that by Thanksgiving holiday, the average freshman knows more about classical art than either Winckelmann or David could possibly have known. The archaeological knowledge available to them was not far better than the statement made long before by Alfonse du Fresnoy in his *De Arte Graphica* (1668), namely, that ancient art ". . . is that which has been made from the time of Alexander the Great to the time of Phocas." Obviously du Fresnoy didn't know what he was talking about, for Phocas was a Byzantine emperor of bad character who ruled at Constantinople between 602 and 610 A.D. Historical mistakes of that order can have an important practical effect. In the case of David, the result was to lead him into a gross error when he selected, from the numerous classical monuments available, the model for his own figure-style.

The model he selected was the *Apollo Belvedere* (page 177), which he sincerely believed to be an example of the best Greek art. It was a dangerous move

in any case for a painter to adopt a statue for his model; but the choice was not made blindly, as some writers seem to suggest. The cold and static nature of classical marbles appealed to David as desirable. The white monotone of the surface seemed to him expressive of purity. The absence of movement signified, by a similar train of thought, stability, permanence, strength, and inexorable dignity. His attitude toward sculpture as such seems to have been similar to that which, during the Renaissance, had expressed itself in the Mode of Relief (pages 582-586).

With respect to the particular department of ancient sculpture from which he elected to choose, nothing could have been more unfortunate. The *Apollo Belvedere* and cognate pieces are not popular today, but they must be conceded a certain elegance and grace. Neither elegance nor grace may be overlooked as artistic desiderata; but when those qualities are sought to the exclusion of others, art becomes a vehicle foreclosed from certain types of expression. As pointed out in various other references (page 49), the nude human figure is artistically useful only because the muscles can be manipulated to indicate innumerable states of emotion. Statues like the *Apollo Belvedere* are distinguished, however, by a refined absence of musculature, and by a chaste refusal to display feeling. Neither element can have been overlooked by so astute a man as David; both must have been misinterpreted as expressing lofty detachment or some kindred content. But the fact remains that when the die had been cast, Neo-Classicism found itself enslaved by the very kind of ancient model least capable of carrying epic subject matter or any other meaning which might be strongly and deeply felt. Another choice, even from among the monuments then available for choice (and we still lack a sufficient number to make a Neo-Classical enterprise feasible) might have brought more fortunate results. As it was, Neo-Classical painting, which sprang from a bloody revolution, was condemned from the beginning to be a bloodless art.

The miscalculations which are now so easy to discern did not appear as such to David and his contemporaries. With a genuinely classical faith in the superior dignity of events from remote history (page 63), the doctrine was promulgated that Greek and Roman literature contained somewhere every subject worthy of serious artistic treatment. Such a notion — which had the effect of supplying a substitute for the Bible — fell in with the anticlerical program of the Revolution. Almost any classical subject was virtually certified as acceptable, and David himself was not above painting a few that were distinctly racy. The kind of subject to be taken seriously, however, was epitomized in the *Brutus* (Fig. 18.2).

The Brutus of the picture was Lucius Junius Brutus, nephew to Tarquinius

Superbus, the last king of Rome. In 510 B.C., the Tarquins were expelled and Rome became a republic, with Brutus as one of the two first consuls. His sons, however, became involved in a conspiracy to restore the dynasty, which would have meant the end of the new republic. Brutus ordered the execution of the young men as impartially as he might have directed that of any other young men; the painting shows him sitting shattered, broken hearted, and alone, having lost not only his dead sons but also his living womenfolk, who shriek with horror as the bodies are brought home.

The moral of such a painting was too obvious to escape the dullest citizen. The incident depicted was an example of conflicting loyalties: private loyalty on the one hand, civic loyalty on the other. The strength of the picture derived in large part from its honesty; the cost of putting the state above self and family was made ghastly plain, while the intangible reward of heroism was left to the imagination.

David's developed style is better exemplified by the painting he himself is said to have considered his best, the *Sabine Women* (Figs. 18.3-4) of 1799. Not only was the picture concerned with the civic welfare; to a certain extent, it was even a civic project. David had announced that he intended to paint the subject, but indicated that he could hardly do it justice without the help of models of both beauty and character. His male friends were cooperative, of course, and we have an index to the high seriousness with which his art was regarded when we read that their wives and daughters were equally ready to pose. Ladies appeared in a concourse, it is said, to undrape their forms before him, and he was able to choose as he wished.

The employment of living models doubtless accounts in some measure for the disquieting element of personality in figures otherwise as smooth as marble. The news that such had been the procedure contributed, equally without doubt, to the popularity of the painting — which was unprecedented. David put it on view as a commercial exhibition. He promised his staff and pupils a dinner should the take exceed 24,000 francs; but even at the then substantial admission of 1 franc 80, three times that amount, and over, was realized. The delighted pupils demanded three dinners, for which the delighted master paid. With the balance he bought himself a country estate, and although well pleased with himself, he did not try the same trick again. The critics got after him, suggesting motives that were less lofty than the obvious lesson of the painting.

The latter, it is necessary to add, applied to the internecine strife within the government, which by that time had become the Directoire. The Rape of the Sabines, said the picture, gave just cause for grievance; but the Sabine women were right when, as shown, they came between their avenging kinsmen and the Romans, thus saving irreparable bloodshed.

Like many another revolutionary, David became an admirer of Napoleon. By still another act of the formidable rationalization at which he had so often proven expert, he converted to the glory of that despot the very art which he had first brought into being as a celebration of democracy and freedom. When the Bourbons returned in 1816 he was exiled because as a member of the Convention he had voted for the death of the king when that matter came up in January 1793. He spent his last years in Brussels.

Because academic art of every kind is unpopular at this date, the reader should be warned to inspect David's work more closely than he might feel inclined to do. His portraits in particular deserve attention; they are not only keen, but fresh and lovely. It is within our province to disagree with his theory of art; but no one knows so much about painting as to be above learning from his technique. There was none finer during the 19th Century, and there has been none finer since.

The Decadence of Academic Art

Academic art was decadent even before the Neo-Classical enterprise got well under way. Classical literature contains a number of episodes which, instructive though they may be, are unlikely to edify. David's early *Paris and Helen* had been one such example; his later *Cupid and Psyche* was an unmistakably salacious picture. The power of ancient authority is well illustrated by the fact that such a work, in every way antithetical to 19th-Century mores, proved not scandalous, but acceptable.

David left Paris forever in 1816. His position as the semiofficial dean of French art was presently assumed by his former pupil Jean Auguste Dominique Ingres (1780-1867), who had won the Prix de Rome in 1801, had been unable to depart for Italy until 1806 but had spent the next fourteen years at Rome and the following four at Florence, and had arrived back in Paris in 1824. The technique of Ingres sums up everything that was good in the Beaux Arts system. No one ever knew how to draw better. Of his painting, Delacroix wrote in 1855, "After examining the Homer picture [Fig. 18.6] I am bound to say I have never seen anything approaching the way it is executed. . . ." The skill to which we refer is best illustrated in a long series of pencil portraits like Fig. 18.5, which Ingres used rapidly to run off during his stay in Italy.

Upon his return to France, he became almost ashamed of them, and refused to do more. Slamming the door in the face of a lady who inquired, "Is this the place where the gentleman lives who does little pencil portraits?" he declaimed, "No, Madam! This is the place where a history painter lives!"

As to his history painting, it is all summed up in his greatest single effort, the *Apotheosis of Homer* (Fig. 18.6), where we see Homer being crowned by

Victory, with the personified Iliad and Odyssey at his feet, and in the presence of a carefully selected group of the world's great from ancient to modern times — Shakespeare and Goethe being excluded from the delegation as being insufficiently classical. It is doubtful whether an equal measure of intelligence and skill was ever expended upon so complete an absurdity, for in addition to its conceits of content, the painting was intended as a ceiling decoration for one of the galleries of the Louvre. It is now hung vertically.

Ingres had it in mind to emulate and even to surpass Raphael's *School of Athens* (Fig. 16.19). The essential folly of the Academic theory is well demonstrated by his complete failure to evoke anything like the same sensations. The reason would appear to be his sole reliance upon the human figure as a vehicle of communication, and the absence of the space (page 732) which Raphael had used so well.

It will be noted, also, that the theme was laboriously contrived, and was not, in strict truth, classical history. Obviously it was intended to elevate; but the conception lacked the epic proportions to which the painter pretended. The whole affair is illustrative of another serious error in the Academic dogma. The classical literatures simply failed to contain the inexhaustible supply of inspiring subjects which, as an article of faith, the Neo-Classicists had loudly claimed were there, ready and waiting.

Other painters began to do what Ingres had done. They tried to make up, that is, stories and situations which were classical only in the sense of including classical characters, showing them in actions that were plausible. A prime example was Couture's *Romans of the Decadence* (Fig. 18.8). The picture was famous in its day and immensely popular, especially in New England, where it was understood as proof positive that wine and women would be fast poison for any civilization. No one stopped to figure that those corrosive agents had taken all of 476 years to ruin Rome, but doubtless some characters were stiffened by a perusal of the original or one of the prints after it. In passing, the author nevertheless begs leave to wonder whether, while fishing for smelts through the ice or shivering in the duck blind, his Quaker and Congregational forefathers (who had nothing against fast horses, and habitually used Jamaica Rum in quantities appropriate to the temperature) did not entertain an occasional sneaking reflection upon the merit of sin in a warm country, as so fascinatingly illustrated by Couture.

Large and complicated paintings continued to be the Academic stock in trade and to have the best hanging at the annual Salons. Because there was no private market for ceremonial art of that size and kind, many of them were bought by the nation and may be seen today in the provincial museums of France — where, presumably, they fit the taste of persons insufficiently knowl-

edgeable to appreciate the better pictures shown in Paris. But in order to appeal to the individual buyer, the Academic painters provided, almost from the first, a class of smaller and simpler pictures including only a couple of figures, or perhaps only one. Some such actually had classical subject matter: the *Oedipus and the Sphinx* (1808) of Ingres, for example. More often, however, the classicism was farfetched, as illustrated also by Ingres in his *Bather* of the same year. The latter shows a single nude female, seen from behind on a slight diagonal and seated by the edge of a sunken bath. The allusion to Praxiteles (page 133) was obvious; but it is significant that no one ever refers to the painting as an Aphrodite. It is representative, rather, of a whole class of Academic nudes known as "studies" — demonstrations by mature masters, that is to say, of the single-figure pictures which formed an essential part of the Neo-Classical curriculum for students. Many such are extremely lovely; Ingres' *La Source* (Fig. 18.7) is perhaps the favorite work of the kind.

It is very difficult to understand how it was possible for such paintings to maintain the approval of 19th-Century society; but such was the case. As time went on, the display became more and more daring, as seen in Figs. 18.9 and 10. Ultimately, even the custom of idealizing the model was forgotten in what amounted, as Mr. Mather once said, to a cult of the "heroic altogether," and the pictures became no more than pretty girls posed undressed on the model stand, with incidental landscape painted in later (Fig. 18.11). It is interesting that certain classes of patronage, innocent in all probability of Neo-Classical theory, understood perfectly what such pictures implied. Before the First World War, canvases of the sort referred to found an appropriate hanging behind the bottles and above the gleaming mirror of the "gentleman's bar" in many an old-time saloon.

ROMANTICISM

It was inevitable that there would be a reaction to the activities of the Academy; and it came in the form of the so-called "Romantic Revolt," the start of which we may date from the Salon of 1819.

In that year, Théodore Géricault (1791-1824) exhibited *The Raft of the Medusa*. The painting would never have been hung except that, under a technicality in the rules, the artist had the right to by-pass the jury. As it was, it was exhibited as "A Nautical Scene"; but the equivocal title fooled nobody. All the world knew that a French naval vessel named *Medusa* had been sent to sea in questionable condition, had been badly navigated and run ashore on the sands off Cape Bon on the west coast of Africa, that the officers had not acted properly, that the surviving enlisted personnel had drifted in agony on a raft

until rescued by a British corvette, and that the Admiralty intended to cover up the whole affair. It was likewise a matter of common knowledge that Géricault had been incensed by the whole business, had dug out the truth, and had painted his picture on the basis of firsthand conferences with the men who still lived. In addition to all of that, it was an immense canvas which by virtue of size alone asserted the same demand for serious attention as any Neo-Classical history.

The modern reader will find it difficult to understand why the painting stirred up so violent a reaction in Paris, not only among artists, but from everybody else as well. It is necessary, once again, to emphasize the strength of faith behind the Academic program; that alone can explain why Géricault's art impressed so many persons as dangerous and hateful. The style, it is important to stipulate, was reasonably sculpturesque, and except for the use of darker and broader shadows could not in itself have been particularly offensive. It was the content that mattered. Instead of an incident dignified by history, it depicted an event still classified as topical. The question raised by the event, moreover, had not yet been settled; there was burning difference of opinion on the matter. In addition to that, the painter took sides, and the painting attacked the integrity of an armed service. It was impossible, under such circumstances, to maintain even for a moment the judicial type of contemplation which, according to the Neo-Classicists, was equivalent to artistic propriety. As though that were not enough, by representing human beings in helpless agony, the artist attacked all established conventions with respect to the dignity of man.

It has been truly said that the French Academy never slept peacefully again. Its entire program had been challenged, and with some success, by another program so thoroughly opposite that the two could not possibly live and let live. Géricault had in effect issued a manifesto which denied the right of the Academy to direct French art, and which, in the same breath, asserted the right of the artist to make art whatever he pleased. Géricault's position was peculiarly strong because it contained the magic word *freedom*, which was something the Academy dared not openly oppose. In understanding the situation, however, it is extremely important for the reader to recognize that historical chance was also playing its part at the moment.

There was no essential connection between the content Géricault chose to paint and the personal freedom of artists. He wished to be free to paint subject matter which he found greatly exciting as well as profoundly moving. The Academy was then insisting upon a calculated subject matter which appealed more to the mind than to the feelings. As of 1819, individual freedom was

identified, that is to say, with the emotional values, and civic pressure was identified with the intellectual values. Today the tables are turned. Romanticism in due course undermined the Academy, and a habitually Romantic public is today shocked by art that fails to enlist its feelings. Picasso, Braque, and others (page 923) are demanding personal freedom as vehemently as ever Géricault did; but they want to exercise it for an art more highly rational, colder, and more elaborately calculated than anything the Academy ever advocated.

The epoch-making picture of 1819 was Géricault's greatest work, but it was a sombre, ponderous composition and not at all a standard example of his expression. With an ingenuity that, to the Academy, must have seemed perverse, he collected material which, though morbidly interesting, was nevertheless bound to fascinate: the faces of mad men, the heads of dead men, stallions fighting. His interest in horses is suggested by the last item, and as one of the most competent painters thereof on record, he was once again sure to be successful in a world where every intelligent man had to be concerned with the subject. He was not interested in the horse as a philosophical expression, but in the horse as a means for action and speed. His best pictures defied the statics of Academic art by showing splendid animals and daring riders engaged in stirring feats which could not help but thrill anyone who had ever been in the saddle. He himself owned stallions and rode them with marvellous abandon, and his untimely death came as the result of complications following injuries received in a heavy fall.

When Géricault died, the leadership of the Romantic Revolt devolved upon his good friend Eugène Delacroix (1798-1863), an equally brilliant and much sounder character. From the standpoint of the Academy, it was unfortunate that Delacroix was born into a distinguished family. Throughout his life, he had powerful friends who were able to steer good commissions his way in spite of all contrary influence. From earliest childhood, his manner of life, like Géricault's, was the opposite of safe and sane. The affairs of his family were habitually conducted in an impulsive way, and his becoming a professional rather than an amateur artist was decided only in 1819, when he suddenly found himself without funds upon the demise of his mother. Reckless and careless at all times, he managed during a single year of his boyhood to get poisoned, to experience suffocation, to set fire to his bed and nearly burn alive, to hang himself — not in attempted suicide but while demonstrating the details of a case that had been in the news — and to be rescued at the last minute from drowning in the sea. It was no wonder that he grew up without great awe for convention and without fear of anything or anybody.

His first important painting was the *Dante and Vergil in Hell*, shown in the Salon in 1822. The subject would not seem radical today, but the notion of finding merit in a 14th-Century poet was equivalent, in the Neo-Classical mind, to absurdity; the picture was vilified by such persons as exaggerated and detestable. For the first adjective there was in fact some justification because the damned souls represented as swimming in the water of the River Styx were in fact adaptations from the figures Michaelangelo had used on the Medici Tombs (Fig. 16.28). The modeling was nevertheless reasonably plastic.

Delacroix seems to have found his way to his developed style as the result of an incident of 1824; this constitutes one of the very rare occasions upon which the course of French art was affected in any profound fashion by outside influence during the entire 19th Century. In that year the British painter John Constable (1776-1837) sent over to the Salon his *Hay Wain*, a detail of which appears in Fig. 18.12. Constable was a gentle painter of the gentle landscape around Salisbury, but he had developed a technique which often is not recognized as dazzling simply because he devoted it to quiet themes. Most of the elements of French Impressionism (pages 863-874) are there. Delacroix was not the only Frenchman to be enthusiastic over the brilliant play of light and color Constable had found ways to make possible. It seemed warm, hearty, and welcome as a change from the cautious tinting the Neo-Classicists had been using in their attempt to combine the appeal of the living nude with the appearance of marble statuary. He therefore took himself off to England in 1825, and he returned a moderate impressionist with an addiction to brighter colors.

The direct inspiration of Constable seems to have brought Delacroix's temperament into a state of synthesis. He had an early taste for Venetian painting and for Rubens, and for the rest of his life he seems to have been engaged in bringing Rubens back again by handling the paint in the manner originally suggested to him by Constable. His industry may be judged from the corpus of material that still survives: about 800 major paintings, about 1,000 small and minor ones, and some 6,000 drawings. The most notable feature of that immense catalogue is the catholicity of its subject coverage. Classical and religious paintings are there, also material from Dante, Shakespeare, from new and unproven authors like Byron and Scott, and from contemporary events like the Greek War of Independence and the Revolution of 1830.

A particular category of content stands out from all the rest as specially significant with relation to the developing philosophy of the Romantic movement. In 1832, Delacroix had made a trip to North Africa as member of a diplomatic mission. He never went again, but the experience added Near Eastern subjects to his repertoire (Fig. 18.13), and he kept on painting them the rest of his life. More was involved than a tourist's memory of the sights he had

seen. More was involved than the impulse which, three centuries before, had sent men exploring the New World. More, also, was involved than the peculiar satisfaction such material gave to Delacroix personally.

Whether he appreciated it or not, he had found expression for a great unsatisfied — and until that date undefined — yearning in the European heart. We refer to the desire for escape, which has ever since been of the essence in Romanticism, and which crops out in strange ways and in strange places. That such a desire should be most keenly felt by the creative minority within the population is an important and disturbing phenomenon. To say that the grass is greener in the next field is to say that the grass is not green enough where one is. One does not depart to improve his lot unless unhappy with the present situation. We must face up to the probability that Romanticism, insofar as it involved the idea of escape, amounted to nothing less than a philosophical negation of Western civilization which, in Delacroix's day, was already rapidly being transformed by the materialism resultant upon the Industrial Revolution.

As expressed in art, the desire for escape has so far found two avenues for making itself articulate. Both are represented in the work of Delacroix.

One may escape by going somewhere else, as he had done when he went to Africa. It is not easy to account for the satisfaction he took in the experience. For the Arabs and Moors who lived there, North Africa was a dull place, and still is; but for the highly educated Frenchman, it was full of fascination and worth not to be had at home. It becomes still harder to account for the impulse to go when we reflect that artists by the hundreds have annually come to France from other lands to find the inspiration Delacroix left France to get. When Gauguin abandoned France for Tahiti in 1891, he merely felt the same yearning and sought the same surcease.

Those who cannot escape in physical fact must escape into the realm of the imagination, which is feasible in art and literature simply by choosing a setting in some era different from one's own. Delacroix did that frequently. He did it when he painted two versions of the *Abduction of Rebecca*, both with the Castle of Torquilstone burning in the background while the wicked Sir Bryan de Bois Gilbert swings the fainting maiden onto his war horse. He did it once again when he painted *The Crusaders Entering Constantinople in 1204* (page 361); but he outdid himself when he painted *The Death of Sardanapalus* (Fig. 18.14). Better known as Ashurbanipal, King of Assyria, that monarch had lost his life when the Babylonians destroyed Nineveh in 612 B.C. Having decided that the city was doomed, the fierce king ordered all his dogs, horses, and women killed in his presence. He ordered the palace set on fire; the smoke may be seen already rolling in. He then calmly slit the veins of his wrists.

The painting is illustrative not only of the Romantic escape, but of certain other tendencies destined to become operative whenever and wherever the Romantic impulse took effect. Delacroix's crusade, as we have seen, was for the value of emotion in art. Emotional satisfaction is surely a good thing in art and in life, and it had admittedly been absent from Academic art. No one needs to be told, however, that emotion is unreliable and at times unsafe. It sometimes directs the judgment properly and provides the fuel for good action, but it also tends to feed upon itself. Excellent though it was in its aspect as a necessary readjustment in French art at the time, Romanticism exemplified one of its chief faults in works of art like the *Sardanapalus*. By making excitement his measure of value, Delacroix — unwittingly, we may suppose — opened the door to the assumption that where some excitement was good, more would be better. The best picture, according to such reasoning, would be the picture which contained excitement in the greatest variety and in the highest degree.

The same train of thought inevitably was applied to the technical process by which pictures were painted. Exciting subject matter, that is to say, seemed to demand exciting technique; and exciting technique came to be identified in the public mind with visual evidence that the artist had been excited while he worked. The excitement of the artist as he worked came, by another step of the process, to be classified as a supernatural condition, often colloquially referred to as a "divine passion."

The notion was not invented during the 19th Century; it had the specific sanction of the most honorable authority. In the *Phaedrus*, Plato had spoken of ". . . the madness of those who are possessed by the Muses," and likened the creative impulse to "inspiring frenzy." In the *Ion* he had elaborated more specifically upon the same theme. "For the poet," said he, "is a light and winged and holy thing; and there is no invention in him until he has been inspired and is out of his senses, and the mind is no longer in him. When he has not attained to that state, he is powerless, and is unable to utter his oracles." As for those who had "no touch of the Muses's madness," Plato by direction and indirection wrote them off as incapable of significant creation, no matter how hard they tried or how clever they might be. The same thing, we may infer from what he said, would apply to the potentially creative personality at all times except when possessed by the Muse.

Plato has always been in the European air, and as Mr. Santayana once remarked, a great many people are Platonists who don't in the least realize it. While it is still too early to speak dogmatically about the philosophical basis for the Romantic movement, there is serious reason to believe that Plato's notion of the psychology of creation was supplemented in the mind of the 19th

Century by certain vulgarized excerpts from the ethical theory of Immanuel Kant (1724-1804) and borrowings from the social theory of Jean Jacques Rousseau (1712-68).

According to Kant, for a perfectly rational being who was also completely informed, there was no choice except to do the right thing. Upon such a being, as it is usually explained, the ethical problem was no problem at all; the correct action was a categorical imperative. A moment's reflection will show that Kant's theory is scarcely susceptible of general application in day to day living, for who except the Deity can ever expect to be perfectly rational and completely informed? The 19th-Century public was not delayed, however, by such refinements of thought. Ordinary men were sufficiently sure of themselves to resent any suggestion that they might be ignorant or unreasonable. Kant was generally understood to say that each man had within himself an infallible and automatic mechanism for deciding matters of right and wrong. By letting one's "conscience" be the guide, as it was colloquially put, a man could decide things for himself. Originally intended for application to moral questions, it was easy enough to apply the same technique of decision to artistic questions; and the artistic good or bad presently became, or so it was contended, not a matter for social judgment but a matter for personal judgment.

Rousseau had been the first philosopher to challenge in any fundamental fashion the essential righteousness of Western civilization. Although his vast influence is still grossly underestimated, we may not take space to pursue his ideas in detail. The concept that interests us in connection with Romanticism was his assertion that people, if left in a state of innocence, would be good. Evil, he contended, was to be accounted for by the pressure of social institutions upon the individual. Here again, a simple transference to the problems of art gave Rousseau's dicta the force of saying that artists, if not put upon by others, would turn out good art.

By pondering the ideas just summarized, the reader can put himself in a position to account for much that has occurred in the history of art since the start of the Romantic Revolt. By following Plato out to the end, works of art would inevitably be removed from the reach of the intellect. Such never actually came to be the case; but in the words of the late Irving Babbitt, Romanticism did in fact become a systematic conspiracy to discredit the rational faculty.

As part of the creed they were prepared to assert and defend, Romantic artists began militantly to impeach all criticism. From Rousseau they had it that critics were the agents of society; because social pressure forced the individual toward evil, criticism was to be resisted and resented. From Plato, even

the artist was foreclosed from criticizing his own work; for how, when in his normal state of mind, could he deal with the products of divine madness?

It was such thinking that soon began to affect the technical process by which pictures were painted. In the painting of Géricault and Delacroix, the change was for the better; as compared with the tightness of Academic technique, their brush work was alive and even thrilling. But as the century wore on and the internal logic of Romanticism became more and more literally to be asserted and applied, the appearance of the average European painting was substantially altered for the worse.

With respect to design as well as technique, calculation of any kind was disqualified. Spontaneity was made the essential thing. Taking a broad view of all painting since 1850 or thereabouts, the result of such doctrine has been conspicuous in at least three ways: it has dictated the medium used, it has changed the fashion with respect to pictorial composition, and it has made coarse impressionism the going method for handling details.

As to the medium, protracted procedures of any kind similar to those used in Flanders (page 613) or at Venice (page 759) were inconsistent with the Romantic concept of artistic creation. Ideally, the right kind of paint was the kind that gave the desired tones at once, which covered in a single coat, and which would permit every field within a painting to be executed at a sitting. Complicated pictures could not be and never have been turned out so rapidly, but the impulse to do so was always present. Whatever their merits, paintings from the last hundred years certainly lack the finish hitherto characteristic of European art.

Equally conspicuous was a decline of interest in the art of formal arrangement. Judging by their work and what we know of their methods, rather few artists of the later 19th Century even attempted to visualize in minute detail the completed canvas before they began. Instead, they improvised. With respect to the arrangement of masses, of colors, of value contrasts, and directional impulses, the average painting from the period under review lacks the well considered composition which had become standard during the High Renaissance (page 762). Instead of inspiring us with the feeling that everything to be seen has an inevitable place and necessary function in the whole, the compositional relationships often seem haphazard and frequently are sloppy. Undeniably, however, the work was spontaneous in the sense that the authors thereof were studiously innocent of scheming.

Worship of spontaneity had still another result which first made itself manifest in the work of Delacroix, became increasingly overt toward the end of the century, and today constitutes an extreme defect of modern painting. Because periods of intense inspiration were necessarily brief, fast work was essen-

tial. Otherwise, the Muses might loosen their grip upon the painter and go away before he could finish. Fast work meant bold work. Bold work meant coarse work, which in a way was excellent because there was nothing like it for making the observer experience in empathetic fashion the actual sensations felt by the painter in his muscles as he held and moved the brush, turned it, put pressure on the bristles, and let the hand rise again. There is no denying that this particular tenet of Romanticism produced some very lively painting. "Sir, you do not paint," Cézanne said one day to Van Gogh, "you *attack the canvas!*" As to the merits and defects of the doctrine, the work of Van Gogh is intimately illustrative. His best brush strokes are inspired, similar to the Chinese and as good. His impetuous methods betrayed him into his worst work, also; of that, the less said the better.

It took about a generation for Romanticism to gain public support, and its ultimate victory over the Academy may perhaps be dated in round numbers from Delacroix's final election to that body in 1857. In attempting to understand why and how such a theory won the hearts of the population, we must first remember that while at their inception both the democratic revolution and the Neo-Classical Style had started with high civic idealism, the Napoleonic Wars left Frenchmen disillusioned and ready for some philosophy which might give meaning to individual existence by reference to something warmer and more immediate than one's sense of membership in society.

The appeal of Romanticism is still further not to be understood without reference to the personalities of the artists and poets who were its leaders. To a man, they were as charming as they were dashing and brilliant, and very easy men to love. Because they claimed to be abused, and because they were fighting a brave battle against odds, they became, as a class, the first artists in history who, in their professional capacity as painters and poets, were heroes.

Because the history of art inevitably tends to become a history of styles, it is specially important to emphasize that Romantic art was never a style. Because of its individualistic platform, Romanticism could not, without self-contradiction, influence artists in the matter of style, and it was therefore impossible for the movement to bring about sufficient uniformity to make the word style intelligible in connection with the art it called into being. The reverse, in fact, has been true. Romanticism brought about complete artistic freedom; and it was the latter, more than any other influence upon European life, which in turn brought about the clamoring chaos which has dominated Western taste for some time.

Even more important, and indeed the most far-reaching of all phenomena resultant upon the general acceptance of the Romantic doctrine, was a funda-

mental alteration of attitude with respect to the function of art in Western civilization. With the significant exception of Michaelangelo (page 739) it is fair to say that, before the outbreak of the Romantic Revolt, no artist had presumed to work for himself alone. For generations, in fact, it had been a point of honor among established masters to offer the patron, when the picture he had ordered was ready, an opportunity to refuse delivery, and to refuse payment as well unless perfectly satisfied.

By virtue of its emphasis upon the self, Romanticism made art into self-expression. How very rare it is at this date to hear the worth of a picture estimated by reference to the satisfaction it gives the owner. How equally seldom do we hear any significant emphasis upon the picture in its capacity as a visual synthesis for some important truth or inspiring idea. And how commonly are we told, both directly and by implication, that the crucial question, from beginning to end, is whether the work of art gave satisfaction to its creator.

The general acceptance of Romanticism, it is necessary to add by way of a final word, must be understood by the reader in a broad rather than a literal way. The movement was not a movement within the world of art alone; it was a system of ideas which, if accepted, would in the end alter one's whole orientation to the world. As with most other philosophies, it has functioned as an influence and not as a set of rules. Its literal application has never been attempted except in extreme cases, but its influence goes on, and tends to account for much that is otherwise inexplicable in the motivation of Western society.

Courbet's "Realism"

The capricious nature of 19th-Century taste is well illustrated by the cycle which began to make itself apparent as soon as the Romantic movement was well under way. Throughout the century, every new thing in art had its genesis not in and of itself, but as a resentful reaction to some established situation. As an illustration of what we mean, we cannot do better than to give the reader a brief account of the career of the painter Gustave Courbet (1819-77), who had arrived in Paris as a youth of twenty and who came prominently into the public eye in connection with his rejection by the jury in his early years there, and the hanging of two paintings in the Salon of 1849.

Romanticism had not brought about the discontinuance of Academic art. Both had plenty of life and force in them. Courbet declared that the one was arrogantly abstract and the other exotic. He wanted no truck with either; and in the name of what he called "Realism" he announced his intention of painting "things as they are." "Show me a Goddess," he said, "and I will paint her."

Those who have read the earlier chapters of the present work will appreci-

ate that he was announcing a policy which was impossible. It is not easy to say what a thing is. Complex questions, both philosophical and technical, confront every artist who attempts to paint visual truth. Realistic art is not a straightforward business, but a problem.

In a superficial way, however, Courbet did succeed in being photographic. Although his artistic instincts often betrayed him into excellent compositions, he cultivated chance arrangements, especially with regard to the broader areas of light and shadow. As shown in Fig. 18.15, he was perhaps the first artist of all time to accept the accident of a cast shadow falling across the face of a nude model. As the same picture shows, he systematically refused to idealize the human figure in any way whatever.

His most famous painting, and the only one that even approaches greatness, was the *Funeral at Ornans*, which he was able to hang in the Salon of 1850 as a matter of right, by virtue of having won a prize the year before. The picture is grim, but straightforward. The setting is in the gloomy district of the Jura Mountains, from which the painter had come. There is an open grave, unrelieved by flowers. Around it stand the friends and family of the deceased; they are working people dressed in their miserable best. A priest whose face is equally common and whose vestments seem shabbily elaborate, reads the service. A bird dog is among the mourners.

The painting did much to give the word realism its modern connotation of having to do only with the poorer and coarser classes within the community, with the overt description of brutal and depressing facts, and with the studied avoidance of gentle feeling, noble thoughts, and heroism. Because of such usage, we have been under the necessity in earlier chapters of qualifying the word and giving a special application to the phrase *objective realism* (pages 20, 623).

As a defiance of both the Academy and the Romantics, Courbet's picture had considerable success, and the success got him into serious trouble. No one knows whether he had it in mind to stir up sympathy for the underprivileged classes, but it was so assumed. His painting was hailed as the art of socialism. More conceited than shrewd, he adopted that doctrine, parading his sincerity and increasing his vogue by refusing the Legion of Honor when Napoleon the 3rd offered it to him. In 1871 he took part in the Commune, was elected to the Chamber of Deputies, and became President of the Commission on Fine Arts. In that capacity he had something to do with the destruction of the column in the Place Vendome, and after the suppression of the Commune, his enemies fastened the responsibility for that act upon him. He was sent to jail for six months and ordered to restore the monument personally at an impossible cost. He therefore fled the country, and died in Switzerland a few years later.

Courbet's "Realism" is less interesting for itself than as a ramification of the Romantic impulse. Contrary to what he thought, his contentions did not militate against the fundamental tenets of the Romantic faith; in fact, they had the opposite effect. He endorsed the validity of emotion with the same emphasis as Delacroix. He merely denied that such satisfaction must be sought in the strange and the remote. His real contribution, and it was a great one, was to assert the truth that the stimuli for significant emotions lie all around us. The end result was to establish the dignity of humble things, and to free art from the formal preconceptions of the High Renaissance (pages 711-715).

FRENCH IMPRESSIONISM

The Impressionists became a force in French art about 1870, and the history of their doctrine followed the usual 19th-Century cycle. Denounced as radical and dangerous in the beginning, the kind of painting they advocated gained grudging acceptance by about 1890 and is today the conservative way to paint.

The Impressionists remain the last artists who can by any legitimate reasoning be grouped together as a school. The name is a mistake, and it gained currency more by accident than design. In 1874, Manet and a group of artists who had come into association with him held an exhibition at Nadar's Gallery to show a number of their paintings, some of which had previously been turned down at the Salons for several years back. Manet's catalogue mentioned the possibility that the purpose of a picture might be to render "an impression." The word *impression* appeared in the titles given to several paintings: *An Impression: the Sun Rising*, *Impression of a Cat Going for a Walk*, *Impression of a Saucepan*. The critic Jules Claretie, when writing up the show, called it the "Salon des Impressionistes," and the name stuck.

Luminism would be a better and more descriptive title, because — while painting for the most part in the Venetian Mode (pages 752 ff) — the common interest of these Frenchmen was to find a technique which, for the first time, would give in art the experience of seeing bright sunlight in nature. Impressionism in the strict sense of refusing to define small details was part of their method, but it was only a cog in the machine.

The study of French Impressionism will teach the reader to beware of what artists say and to note with a narrow eye what they do. As we shall make clear in due course, the aesthetic doctrine of the Impressionists was one thing as stated and another thing as carried out. Insofar as they themselves ever put it into words, their theory was susceptible of the very briefest statement, namely, that *the dullest object on earth becomes a thing of beauty when transfigured by the light*. The idea obviously was derived from Courbet's "Realism," and

there was thus more connection between Impressionism and the Romantic movement than most authors have allowed.

In order to implement their doctrine, they invented a new and brilliant technique for symbolizing in paint the action and life of the sun as seen in nature; but their art was never understood by the public, much less sympathized with. We already have sufficient perspective on the period to declare dogmatically that no other artists then alive compared in creative capacity with the leaders of the Impressionist movement; but not one of them could gain either fame or fortune from his painting. The reason, or reasons, are as yet far from plain; it is important, however, to mention those which now seem clear.

Laboratory science had come a long way by 1870; and most educated persons had, by that time, accepted as valid the scientific method of reaching a finding by means of an objective study conducted under controlled conditions. The French Impressionist painters claimed to be doing the same kind of thing within the field of representative art. Their pictures, said they, were to be understood as problems in research, and the particular research upon which they, as a group, were engaged (i.e., luminism) was, according to them, reason enough for their work and explanation enough for their art.

Matters of technique had been of intense interest at all periods in the previous history of art, but no responsible group of persons had ever before put forward even a suggestion that technique was in and of itself enough to command the kind of respect to which major artists were entitled. It is worthwhile to point out at this juncture that the Impressionists never did exactly what they claimed they were doing; but, as understood by the public, they were denying the necessity for content in art, and in extreme instances, even its existence.

The technique they developed by their research impressed most persons as sensational to the point of vulgarity — an accusation not always without some basis in fact. The explanation of the said technique, when explanation could be elicited at all, proved to be a rather difficult intellectual exercise. The age was an age of formulae, to be sure, but the momentum of the Romantic movement was sufficient to make most persons suspect that a formula, or any other distinctly rational activity, had no rightful place in art or in the artistic transaction. To the extent that it was of the mind, it may be said that Impressionism compromised its chance for popular success.

In addition to the items mentioned — all of which tended to puzzle and annoy — there was the fact that the Impressionists seemed to be lying about their subject matter. The movement had got off to a bad start with the public when its elder statesman Edouard Manet (1832–83) had put on exhibition two

extremely offensive paintings, the *Olympia* (Fig. 18.16) and the *Picnic on the Grass* (Fig. 18.17). Both seem perfectly understandable and decidedly healthy today when seen for what they were, namely, a proper dressing down for persons who misinterpreted as interest in art their taste for the girl shows provided by Bouguereau and Cabanel (Figs. 18.9 and 10). The *Olympia* was a naked strumpet who looked out of the painting not with the sweet allure that so often went with the title Venus, but as bold as brass; the same might be said of the healthy young woman in the other picture. It was the latter, strangely enough, which aroused the stronger reaction. The close juxtaposition of clothed male figures with the feminine nude was, people declared, not to be accounted for except as an elaborately contrived insult to public morals. The suggestion was seriously advanced that the painting would undermine the French home. A similar grouping of male and female figures had long been on view at the Louvre without having had that result, but it was by Giorgione, who had lived more than two centuries before and in another country.

As long as the leading Impressionists lived, they continued to paint pictures which in one way or another needed the accepted taste of the time. The outburst against Manet, which had assumed sinister proportions, was never repeated in the same measure, but annoyance and even disgust was a habitual reaction among solid citizens. Degas (1834-1917) not only appeared to go out of his way to find material that seemed unfit for major painting (Fig. 18.19); there can be no question that he actually did pick his subjects with the intention of offending. In a great many pictures of the female nude, for example, there is perhaps not one figure which could possibly have appealed to any one as the form of a lovely woman (Fig. 18.20). Monet (1840-1926) could rarely be called positively insolent, but he unquestionably made a studied habit of painting inconsequential material in haphazard arrangements (Fig. 18.22).

Inquiries as to the meaning and purpose of such painting were inevitable and frequent. The standard explanation, as received either from the painters or from persons who assumed the right to speak for them, was baffling. The inquirer was told, in effect, to understand or get out. He was directed to discontinue his age-old habits of observation, interest, and appreciation. Nobody but the ignorant and naïve, he was assured, would make the mistake of assuming that the subject matter of an Impressionist painting was identical with the objects represented therein. The objects made no difference one way or the other; if such a thing as content was any longer a matter for legitimate interest, the content was the light. And therefore, the lesson concluded, let men learn to look at this new art by using their eyes in a completely new and different way. Let them learn enough about technique to be able to look at painting by methods different from the way they looked at anything else, and get there-

from a satisfaction unknown in any other department of human life. No earlier school of artists had ever made the same distinction between the aesthetically educated and the ordinary citizen, a gesture which was resented. Quite aside from the fact that such explanations were overly rational, they were also believed to be partially untrue.

All too little emphasis has been placed upon the aspect of the Impressionist operation to which we have just alluded. The important truth which emerges from the story is this: as extremely able men to whom society had given the cold shoulder, the Impressionist painters, as a unit, turned upon society. We can deplore the false taste of the period and the blindness of its citizens. We may be excused for sympathizing with the feelings of the painters, but we must be appalled by the outcome. The breach which opened between society in general and its artistically creative minority widened. The parting of the ways became a positive misunderstanding, and the misunderstanding turned to mutual dislike. Dislike, in turn, all too often became hate; and it is from the last third of the 19th Century that we must date the psychological maladjustment which today constitutes an almost insuperable barrier to the progress of modern art.

It is obviously very important to have a competent knowledge of the main principles of the French Impressionist technique, but there is an immense amount of misunderstanding about the matter. Innumerable writers have stated it as fact that the Impressionist methods were developed in direct response to recent scientific discoveries in the field of physics and optical physiology. The names of prominent scientists like Rood, Chevreul, and Helmholtz are sometimes appended to such statements, and we are told that this painter and that had the writings of such men in his library.

As to the use the Impressionists made of the information they gleaned therefrom, we are usually told something like this: since the spectral colors result from the disintegration of white light and may be reintegrated once again into white light, the painter can produce an illusion of white light if he lays on the canvas a full selection of spectral tones in a pure, unmixed state. When seen by the eye, it is asserted, such tones will be mixed on the retina, with the desired result. To the points already listed, almost every writer who fancies this particular rationale for Impressionism has added a word or two about complementaries, with a hint here and a hint there that the complementary relationship between tones was of the greatest practical use in the technique he purports to analyze. Still further, mention is usually made of recent psychological investigation, and we are reminded of the photo-chemical reactions of the eye (page 717), the familiar optical illusions, and the color top.

The reader may make what he can of the ideas just summarized. He will certainly be able to assure himself that there was considerable interchange as between artists and scientists. The artists bought the scientific reports and read them. The scientists were interested in the possibility of making a contribution to art. Chevreul, who was a chemist, published in 1838 a paper on contrasting colors, for example, and while director of the Gobelin tapestry works made some practical experiments.

If he pursues the matter very far, however, the reader will be impressed with the dogmatism of the view which wants to make Impressionism a department of physics. While allusions are made both to science and psychology, detailed proof (i.e., point by point reference to a particular painting on the one hand, and to science on the other) is conspicuous by its absence. After some years of attempting detailed proof, the author arrived at the opinion that a one-to-one connection between optical physics and French Impressionism was a will-o'-the-wisp. Some simpler and more workmanlike theory seemed necessary to explain what one actually saw with his eyes in the pictures. The following paragraphs, originally suggested by conversations with Mr. Arthur Pope, are put forward as a substitute for the sanction-from-science usually offered to students. Without suggesting that he is laying down the final law on the subject, the author is in a position to point out that he has inspected a great number of Impressionist paintings during the past twenty-odd years and remains satisfied with the analysis given below.

Like every other kind of art, French Impressionism had its foundation in a set of philosophical assumptions about the reality of our visual world. The visual experience of the race is no single thing. Circumstances alter not only what we see, but what we are able to see, and we change our techniques to suit the occasion. When, for instance, we study biology, we inspect the specimens continuously for a considerable period of time. Such vision is always under the constant direction of the mind. It is purposeful. It is, moreover, a process involving consecutive acts of sight. Let such work be compared to a vista which suddenly comes into view through the window of a moving train, and as suddenly is taken away. Of the latter, one lacks a *knowledge*, but he may retain a most vivid *impression*.

The strength of the Impressionist theory resided in a statistical argument, namely, that controlled, systematic, and intellectually directed inspection of objects (as in the laboratory) is rare. So rare, indeed, as not to be part of daily life at all. The instantaneous view, passively received as from the train window, sums up — or so they alleged — so great a part of our visual life that, for the practical purposes of art, it may properly be taken as the totality.

That much being accepted, it followed that the painter's problem was first of all to make certain of what went on in the mind and in the feelings during such moments of instantaneous, simultaneous, and summary vision. Various statements have been made which purport to be descriptive of our sensations at such times; all contain a measure of truth, and all are as yet inaccurate in the sense of being incomplete and inconclusive. Every single suggestion, however, has this much in common with every other, namely, that we almost never see the view clearly. The Mode of the Total Visual Effect (pages 580-582), that is to say, presents things as they might be seen by the perfect eye directed by the perfect mind, a situation not to be hoped for on earth. The Mode of Relief (pages 582-586) depends upon an assumption about the superior reality of mass; that assumption, according to the Impressionist doctrine, is an abstraction contrary to experience.

From such reasoning, it followed that the French Impressionists would, as a matter of principle, be impressionists (page 167) indeed; they would perform describe objects in the same fuzzy way that the eye received them during moments of instantaneous vision.

Further analysis of passive and momentary vision suggested that its most cogent effects depended upon the state of the light at the instant when sight took place. Inasmuch as light works upon the local hue of the objects within the field of view, the psychology of the situation is often colloquially described by the statement "the eye sees nothing but color." Strictly applied, the statement is dangerously misleading, but it is true when understood as a description of the Impressionist method.

Masses in the typical Impressionist painting (Fig. 18.23) were rendered as areas of tone in contrast with the sky behind, or whatever else the background might be. The logical conclusion to such a train of thought would be to produce paintings in the Mode of Line and Flat Tone, an eventuality which actually came to pass in the work of Matisse (Fig. 19.10). Certain other aspects of the 19th Century formula precluded so extreme a result, however, and in the painting referred to, Monet gave some indication of the major relations of light and dark which, within the silhouette, might be read as modeling.

There is no one who would quarrel with the statement that by insisting upon the validity of instantaneous vision, the Impressionists opened up for painting an entire area of human experience — and a very large and important area — into which no earlier school had ventured. Such pictures need no defense. They deal with something that happens, and the immediacy of the reaction they evoke is apology enough. In that very strength, however, there was a serious weakness which in the end made Cézanne feel obliged to turn his back upon Impressionism (pages 908 ff) with the result that the school came

to an end. Postponing discussion of his action, let us turn our attention to certain difficulties which became urgently apparent the moment the Impressionists decided to discard analytical and consecutive vision, and to cultivate the momentary kind.

When they decided that the action of light must govern painting, the Impressionists put themselves under a very unstable government. Light conditions are forever changing. The dogma that objects, dull and otherwise, were transfigured by the light, put the painters under an obligation to record and celebrate an infinite number of transfigurations. They did not shirk. Monet, in particular, faced up to the task and met it with an industry as immense as the problem itself. It is difficult to know just how many pictures he painted of the façade of Rouen Cathedral, but a series of no less than twenty were run off, it is said, during 1874 alone. The principal difference between them is merely that the light has changed — not much, it must be understood, but only enough to make a distinction for a connoisseur of light.

The reader will have noted that the doctrine of momentary vision had much in common with the Romantic belief in the value of spontaneity (page 859); but in the hands of the Impressionists, spontaneity itself began to assume a different character. The idea of spontaneity in the sense of emotional response was lost, as it were, in the rush. The spontaneous momentary view was the accidental view, and in order to make sure that no one would accuse him of contriving, the average Impressionist painter felt obliged to furnish visual evidence of his innocence in that respect. The expedient resorted to most often was to refrain from pictorial composition or, in extreme instances, to defy formal design by arrangements which were deliberately put in disorder.

The necessity for recording fleeting instants of visual experience imposed upon the artists, moreover, a pressure more intense than ever before to work fast. The element of their theory which had to do with the rendering of detail invited such work in any case. Strong insistence upon spontaneity undermined still further any belief in the value of deliberate methods; and it is not surprising to read that whenever they exhibited their pictures, the Impressionists were accused not only of sensationalism, but of hasty, careless, sloppy, inferior workmanship. While such words were and still are fighting words, they were all too close to the truth. The door had been opened to the assumption, which today is often belligerently asserted as a fact, that one might be very clumsy with his hands and still be a first-class painter.

While carried further toward a logical conclusion than any earlier theories about the nature of ordinary vision (page 168), the several elements of 19th-Century French Impressionism, as so far surveyed, were not new in kind. The

techniques then developed for rendering the effect of sunlight were new, however, and now demand analysis. Four essential factors were involved: new pigment materials, the additive mixing of hues, a method for symbolizing the flicker of light, and a system of modeling which in large measure compensated for the short value scale available in paint.

Although much has been written about a possible connection between Impressionism and physics, it is rare to read anything which suggests the debt of the movement to chemistry; but there is no question that developments in the latter field furnished painters with some very powerful pigments. The first chemical pigment is generally believed to have been Prussian blue, discovered by Dresbach in 1704; but that was a comparatively isolated incident. The real harvest of new pigments began to come in toward the end of the 18th Century. Zinc white, chrome green, cobalt green, and cobalt blue all date from around 1800. In 1826 Guimet discovered how to make artificial ultramarine blue, thus replacing the genuine ultramarine which had to be made from powdered lapis lazuli brought all the way from the Far East. Cadmium yellow appeared in 1846. The years 1859-61 produced mauve (the first coal-tar color), cobalt yellow, and magenta. Several new reds arrived during the late 1850's, and from then on there seems literally to have been a deluge of chemical pigments. Many of the new pigments proved fugitive and have since dropped out of the artist's palette; but many proved good and remain. It would be going rather far to say that the old organic and mineral colors dropped out of use, but let the reader judge the upshot for himself.* When walking quickly in a museum from a room of earlier pictures into a room where the Impressionists are hung, one experiences a stimulating sense that the color has been heightened, not a little but a very great deal. The new and brighter paints were used, moreover, at highest possible intensity (page 574), by a method next to be described.

When we take some blue paint and stir it up in a pot with some yellow paint in the usual way, we indulge in *subtractive mixing*. Constable (page 855) was one of the very earliest artists to attempt mixtures of any other kind, and his motive for experimenting was the fact that subtractive mixing is almost invariably a disappointment. Different pigments and different vehicles combine capriciously, and it is impossible to lay down a general rule about what to expect. The subtractive mixture, however, will usually be both darker and less intense than either of the colors which were combined to make it.

Additive mixing, in the literal meaning of the term, is possible only with the

* For most of this information I am indebted to E. P. Richardson of The Detroit Institute of Arts. See also F. W. Weber, *Artists' Pigments*, New York. Van Nostrand. 1923.

aid of equipment which enables us to blend two or more beams of colored light. Such mixing is a daily routine in the theatre, but it is hardly available to those who must use paint. A near substitute for true additive mixing had been used in the textile industry for hundreds of years, however, and the French Impressionist painters took it over and made it their own. Most gray tweed, for example, is woven not from thread of a uniform gray, but from whiter and blacker threads in a predetermined proportion. When one looks down at the sleeve of his jacket, the separate strands are in plain sight; but when one looks at the same jacket from twenty feet away, the eye can no longer resolve details so small. The dark tones tend to lower the value of the field. The lighter tones tend to raise it. When asked to name the local tone of the whole, the observer deals neither with the light or the darker threads, but with the tone produced by the blend of them as seen from his particular station. The principle involved can be applied to any other mixture of values or hues; the essential thing is the juxtaposition of one color with another, and the blurring of small spots as seen in the distant view.

It will be obvious from what we have said that the effect of green can be had by a judicious spotting of a surface with blue and yellow, or that a red can be made into an orange by arranging flecks of red and flecks of yellow in much the same way. The reader will find it amusing to prove it with his own paints. He will doubtless find it disciplinary as well, for it takes an immensely subtle judgment to produce the tone one wants to see. Such experiments carried a bit further will also illustrate how a tint of any hue can be produced (and a very lively tint, too) by spotting in more or less pure white. As for the production of shades, the matter is not so simple, as we shall presently explain.

Various names have been given to the Impressionist technique which brought about the additive mixing of the hues. "Broken brush work" and "divisionism" are expressive. "Pointilism" (i.e., *pointillisme*, but the word should be Anglicized) is the most common designation; strictly it applies to doctrinaire applications of the theory as seen in the work of Signac and Seurat (Fig. 18.25), where the definition is brought about by nothing else but spots of paint.

As a matter of fact, the various Impressionist painters were alike merely in using the broken color technique most of the time. There was no standard or accepted size or shape for the single touch of the brush or palette knife. Comma strokes, mosaic squares, and dabs of every sort were used. Monet now and then approached the spirit of mosaic almost as closely as Seurat; at other times he simply cross-hatched or flecked with the several hues he wished to mix, maintaining no uniformity of size, shape, or direction, and varying the pressure upon the brush as judgment indicated. Van Gogh often used serpentine

strokes, leaving stripes of paint a quarter of an inch wide or more and as long as he pleased. Renoir, in much of his work, was apparently averse to anything that might deny the liquidity of the vehicle; his colors, while broken, seem to flow against each other, and to be in hydraulic rather than mechanical juxtaposition.

Every author who has attempted to describe the broken color technique has stressed too heavily the phenomenon of the blurring of the juxtaposed spots whenever Impressionist pictures are seen from a normal remove. Our own paragraphs on the subject are no exception; and we must now qualify what we have said. In every typical painting of the kind, the individual spots or flecks of color are significantly large. When seen from any distance short of a hundred feet or so (which surely is farther away than one would stand to look at a painting) they do not blend completely together. Each spot retains a certain measure of its own identity. Additive mixing takes place, to be sure; and one is conscious of the new tone thereby built up. But the additive mixing remains incomplete at the same time, and one is almost equally sensitive to the several hues which go to make up the mix. The latter phenomenon is almost as important as the first.

Because it was part of the Impressionist system to use every pigment at highest possible intensity, the contrast between any two contiguous spots of paint was perforce (and intentionally) the maximum contrast possible as between those two hues. The surface of an Impressionist painting might accurately be described as an infinite number of such contrasts, tiny in size but violent with respect to the clash of colors. The psychological effect upon the observer has often been described as "vibratory." Purists in the language may protest that no vibration exists, but thousands of persons have felt that sensation under the circumstances we mention.

This was, in fact, one of the most vital achievements of the Impressionist technique. The response of the optical system is not only similar, but may very well be the same response that we experience whenever we see the leaves of a tree flicker as they move in the sunlight, or whenever we see reflections on clear and rippling water. As a reinforcement to the other representative aspects of the painting, we instinctively read the vibratory effect as indicative not only of the living sunlight, but also of movement in the air.

As set forth in Chapter 14, the principal handicap of all representative painting derives from the infinitely short contrast between black paint and white paint, as compared to the immense contrast in nature between the darkest shadows and the brightest high lights. It was the greatest merit of the Im-

pressionists to develop and perfect the best artistic compromise yet known for dealing with that inexorable fact.

The most familiar and conspicuous consequence of their method was the bright purple which they painted into the darkest parts of their pictures. We often hear it said that they were "the first artists to realize that shadows are in fact purple," but nothing of the sort is true. Purple shadows are familiar in nature under certain conditions, and unknown under other conditions. Shadows of every other hue occur as often as purple shadows. The use of purple by the Impressionists did not result from naturalistic motives, but from a well-calculated artistic scheme.

Their theory in that respect was extremely simple for so excellent a stratagem, and it may be stated briefly. Pissarro followed the formula more literally and consistently than most of the others, and the reader will find in his work a number of paintings which might be classified as laboratory demonstrations. The rest of the school conformed more to the spirit than to the letter of the rule; but if the principle is understood, the reader will be prepared for variations and approximations in practice.

The crux of the whole matter was to substitute violent contrasts of hue (which were available in paint) for the terrific value contrasts of nature (which could not be duplicated by paint).

Let us assume that a single field contains both the darkest shadows and the brightest high lights within the entire picture. In modeling such a field, the doctrinaire Impressionist would paint purple at highest possible intensity into the darkest areas. He would reserve his brightest yellow for the areas in full illumination, and white for the high lights. In grading from the dark up toward the light, the painter would then shift from hue to hue around either the warm side or the cold side of the color circle (Fig. 14.10). In doing so, he would use every hue at highest possible intensity. A "warm field" would thus go from absolute purple through red-violet and the reds, and thence into the oranges up to yellow. A "cold field" would follow a similar sequence of shifts by way of the blues and greens.

It will be understood, of course, that it is extremely rare to be confronted with the necessity for modeling a single field which, within itself, contains both the brightest and the darkest areas of the picture. Yellow and purple, as we noted in Chapter 14, lie on the vertical axis of the color circle simply because they happen to be the two hues which, when at highest possible intensity, give the maximum contrast with respect to value. For any hue other than yellow, the maximum possible contrast is not obtained from purple, but by using the complementary. If he inspects Impressionist paintings with care, the reader will find numerous instances where that fact, also, was employed for modeling

fields where the full range of value was either inappropriate or not desired. The lighter complementary, that is to say, would go in the lights, and the darker complementary, whatever it happened to be, in the shadows. In similar fashion, spots of the complementary were often introduced by the pointilist method whenever it was desirable to "gray" a particular area.

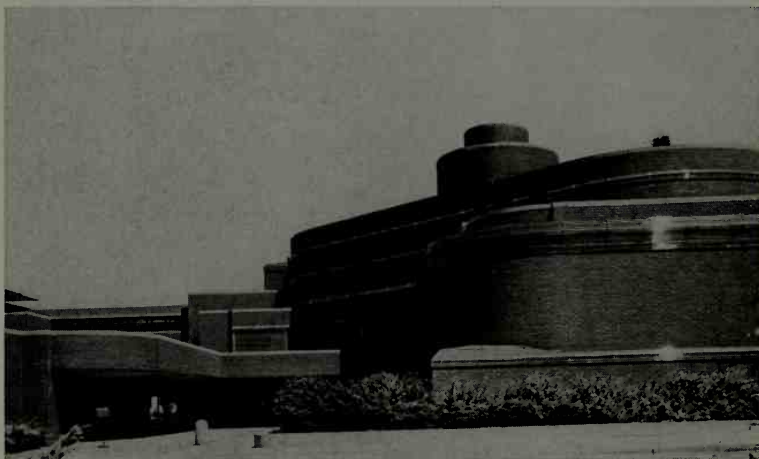
If the reader is at a loss to understand why Impressionist painting was at first so very unpopular, he has much of the answer in the paragraphs immediately above. To an eye and a taste habituated to suave color harmonies as in Venetian painting (page 756) and to the cautious use of contrast as in Constable and Delacroix, the employment of maximum contrasts with respect to hue seemed blatant, sensational, and crass; a defiance, in short, of the decorum to which art had been the servant since the 16th Century. There was something in such an opinion, for it is possible to want a kind of painting not included within the repertoire of the Impressionists. Taking a longer view, however, it must be conceded that the Impressionist system of modeling was overwhelmingly successful. It accomplished the desired result, and for the first time in the history of European art, brought the sun out from under the clouds.

As to the ultimate value of French Impressionism, it is very hard to take a position at this date. The weakness of the movement lay in its worship of natural accident. Its strength, it would seem, derived not from the creation of beauty, but from the recognition of it. In the personal view of the author, the best Impressionist paintings are those that record vivid, perfect moments of intense vision (Figs. 18, 18, 21, 24). Visual situations, that is to say, where nature and luck have become the artists, and the painter the recording secretary.



STOEDTNER

Fig. 19.1 Mies van der Rohe. Model for a skyscraper with walls of glass.



WAYNE ANDREWS

Fig. 19.2 Racine. Johnson Wax Building. Designed by Frank Lloyd Wright.

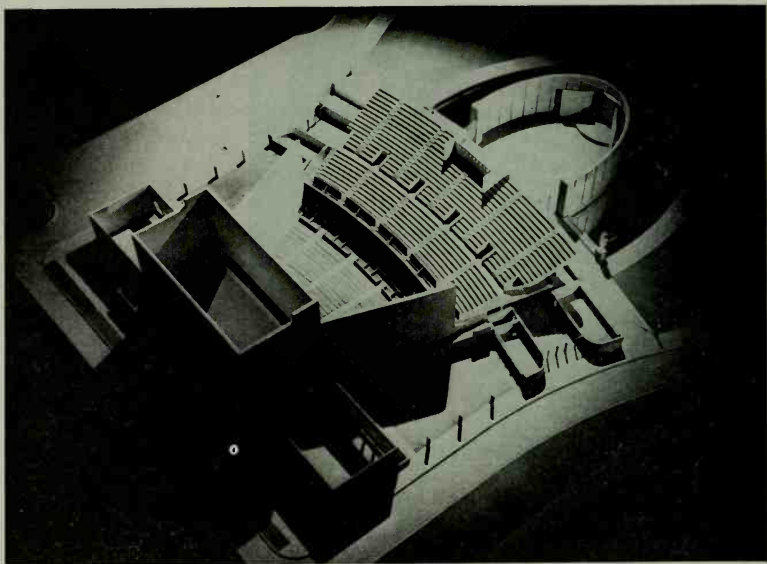


Fig. 19.3 Buffalo. The Kleinans Music Hall. Architect's Model. Designed by Eiel Saarinen.

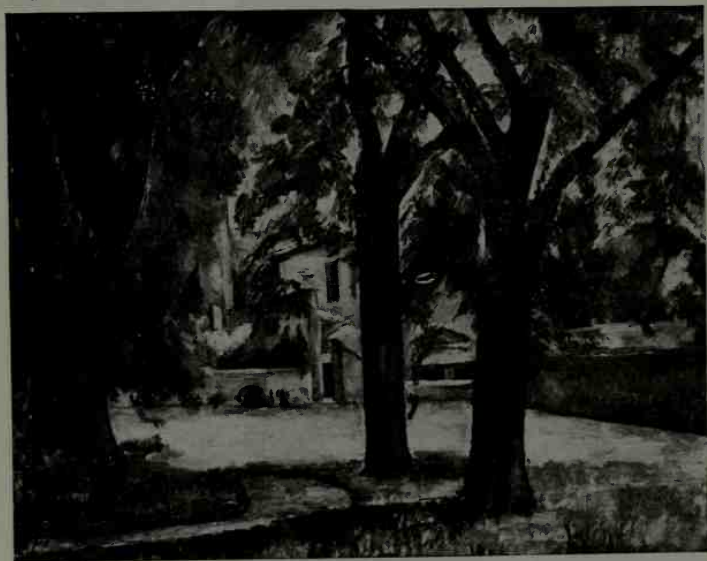


Fig. 19.4 Cézanne. *L'Estaque and the Bay of Marseilles*. New York, Metropolitan Museum.



BULLOZ

Fig. 19.5 Cézanne. *The Card Players*. New York. Collection of Mr. Stephen C. Clark.



BULLOZ Fig. 19.6 Cézanne. *View at Le Jas de Bouffon*. Hamburg. Von Bewmann Collection.

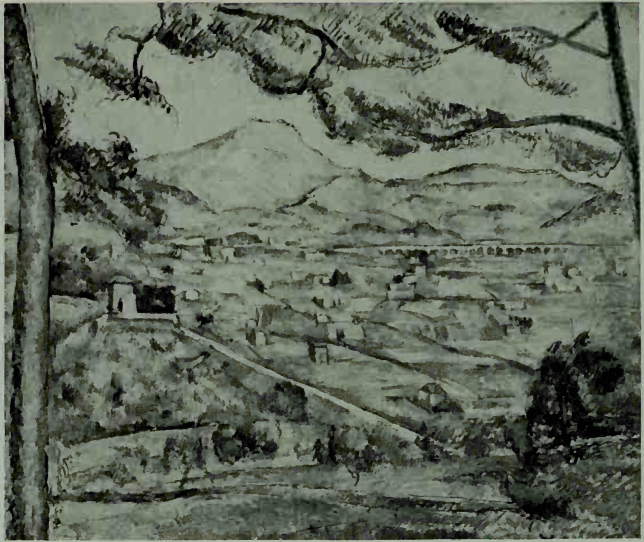


Fig. 19.7 (above) Cézanne. *View of Mont Saint Victoire*. Washington. Phillips Memorial Gallery.

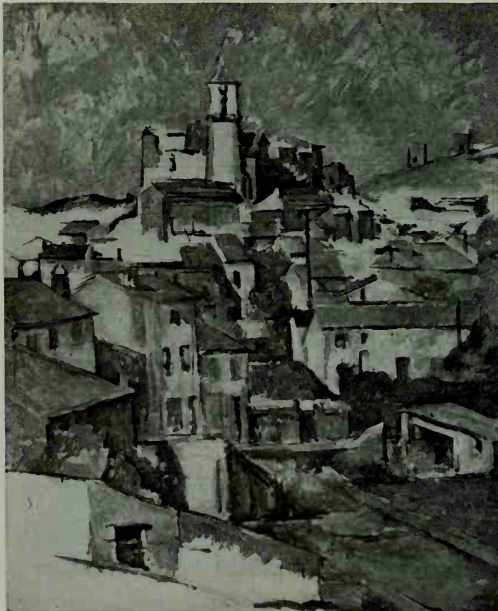


Fig. 19.8 Cézanne. *View of Gardanne*. Harrison, N.Y. Collection of Dr. F. A. Hirschland.



Fig. 19.10 Matisse, *La Musique*, Buffalo, Albright Art Gallery, 1939.



Fig. 19.9 Cézanne, *Morning in Provence*, Buffalo, Albright Art Gallery, 1900-06.

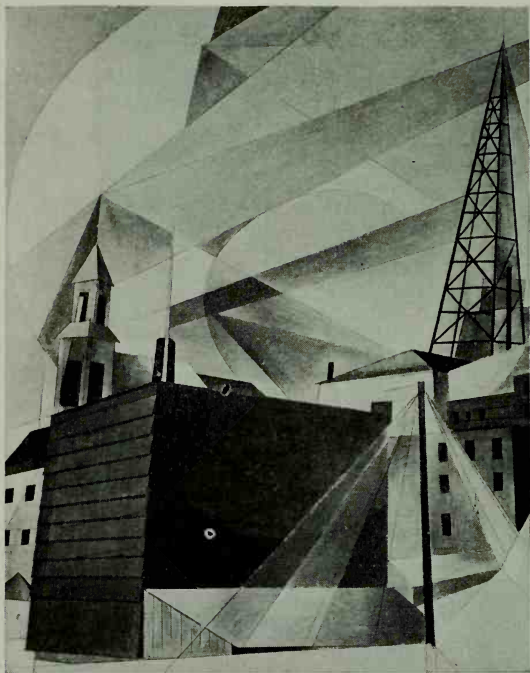


Fig. 19.11 Demuth. *View in Lancaster, Pennsylvania*. Buffalo. Albright Art Gallery. 1921.

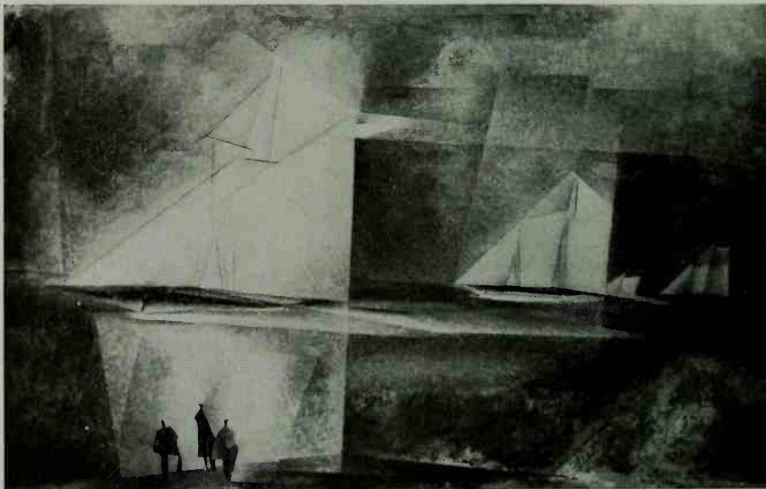


Fig. 19.12 (below) Feininger. *The Glorious Victory of the Sloop Maria*. Saint Louis. City Art Museum.

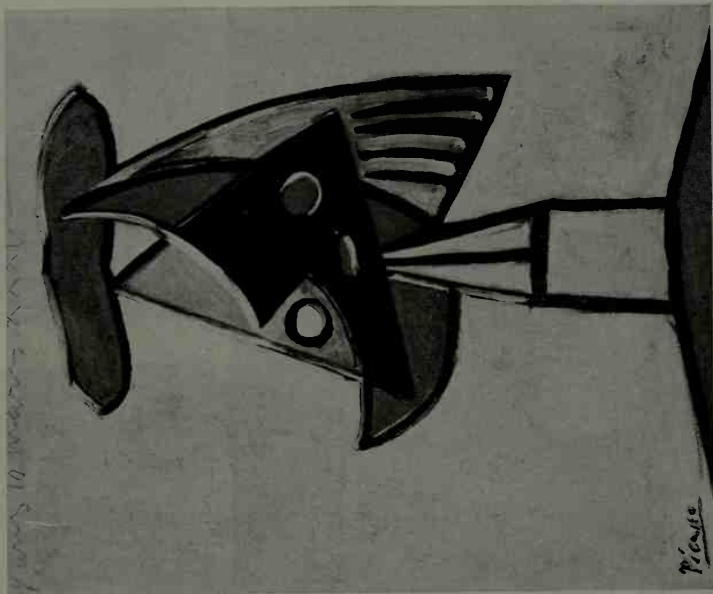


Fig. 19.14 Picasso. *Harlequin: Project for a Monument*. Buffalo, Albright Art Gallery, 1935

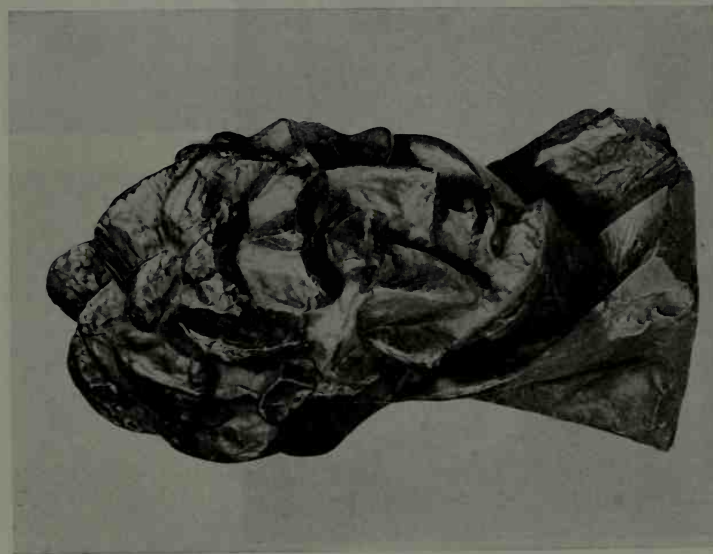


Fig. 19.13 Picasso. *Woman's Head*. Buffalo, Albright Art Gallery, About 1909.

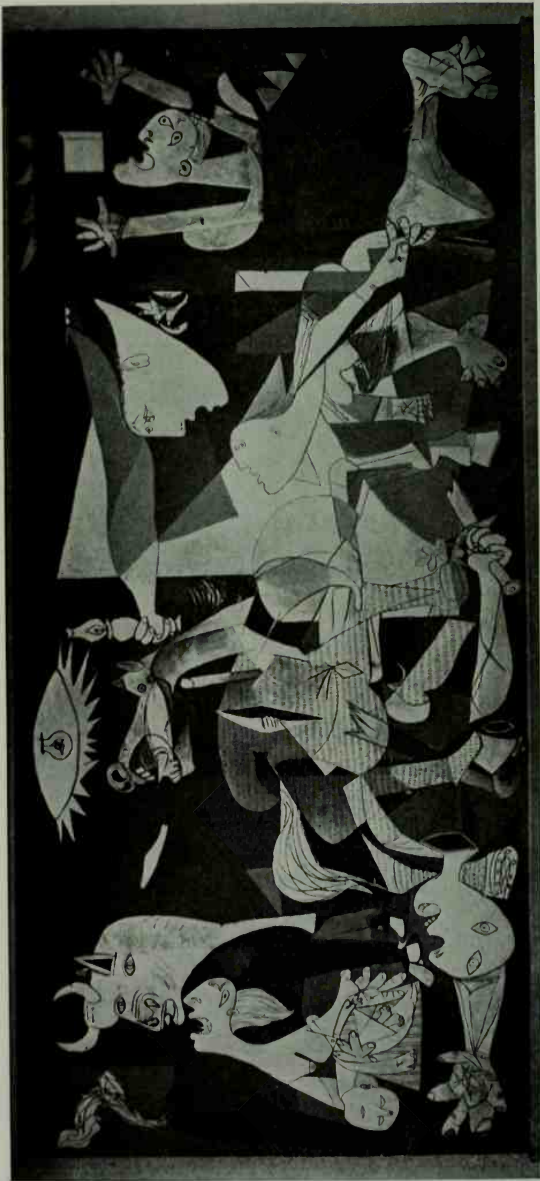


Fig. 19.15 Picasso. *Guernica*. New York. Museum of Modern Art. Owned by the artist. 1937. 25 feet, 8 inches wide; 11 feet, 6 inches high.

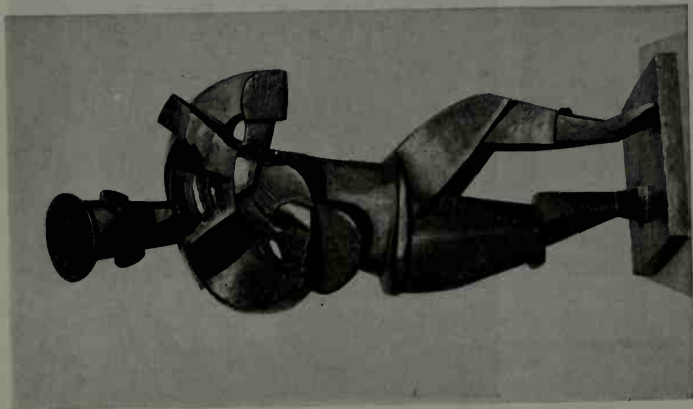


Fig. 19.16 Lipchitz. *Sailor*. Buffalo. Albright Art Gallery. 1914.

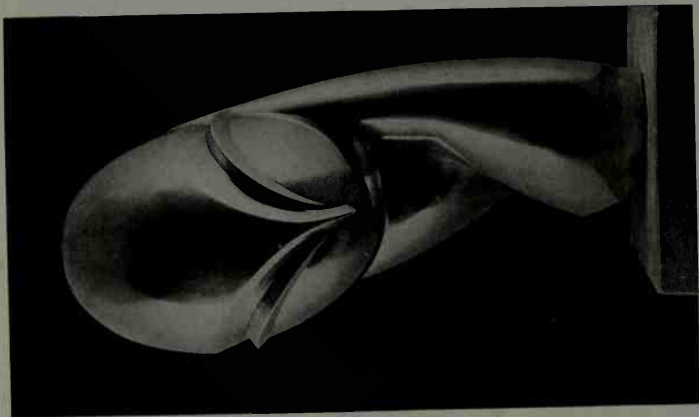


Fig. 19.17 Brancusi. *Mademoiselle Pogany*. Buffalo. Albright Art Gallery. 1920.



Fig. 19.18 Brancusi. *Yellow Bird*. Philadelphia Museum of Art. The Louise and Walter Arensberg Collection. About 1922-24.



Fig. 19.19 Archipenko. *Boxers*. 1913.

Fig. 19.20 Duchamp. *Nude Descending a Staircase*. Philadelphia Museum of Art. The Louise and Walter Arensberg Collection. 1912.





Fig. 19.21 Braque. *Violin and Pipe*. Philadelphia Museum of Art. The Louise and Walter Arensberg Collection. 1920–21.

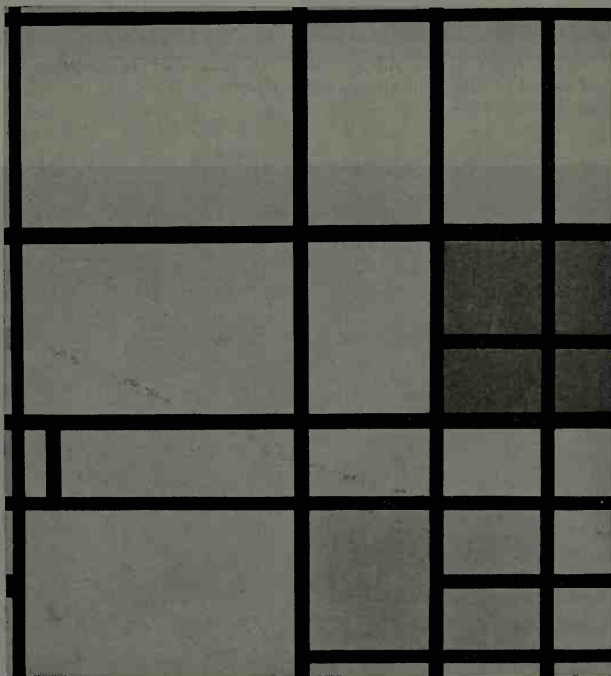


Fig. 19.22 Piet Mondrian. *Composition*. Buffalo. Albright Art Gallery. 1940–42.



Fig. 19.23 Maillol. *Night*. Buffalo, Albright Art Gallery. Cast in lead in 1939 from a statue executed between 1902 and 1909.



Fig. 19.24 Carl Hallsthammer. *Venus in Red Cherry*.

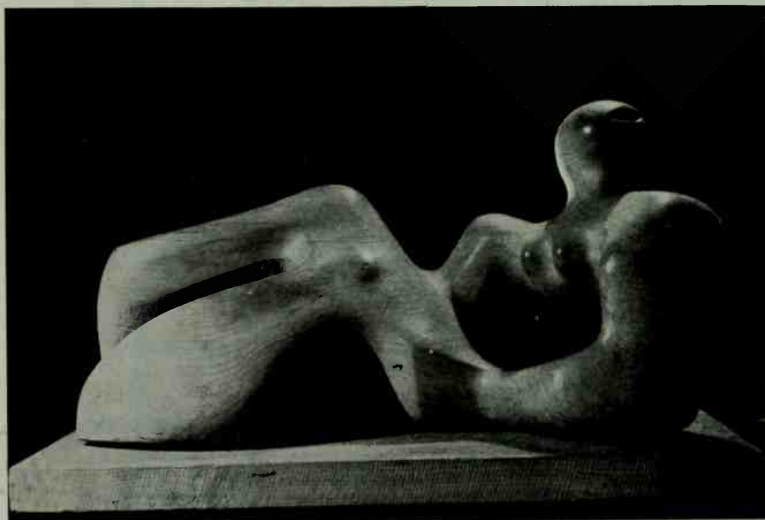


Fig. 19.25 Henry Moore. *Reclining Figure*. Buffalo, Albright Art Gallery. 1935.

Fig. 19.26 (left) Gaston Lachaise, *Standing Woman*, Buffalo, Albright Art Gallery. Cast in 1927 from a statue begun in 1912.

Fig. 19.27 (right) Lehmbruck, *Kneeling Woman*, Buffalo, Albright Art Gallery, 1911.

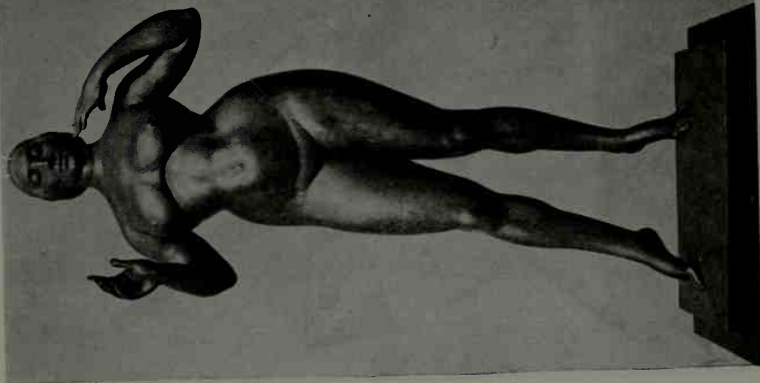




Fig. 19,28 a. Kandinsky, *Small Worlds*, New York, Metropolitan Museum.

b. Microphotograph of zinc oxide magnified 50,000 diameters.

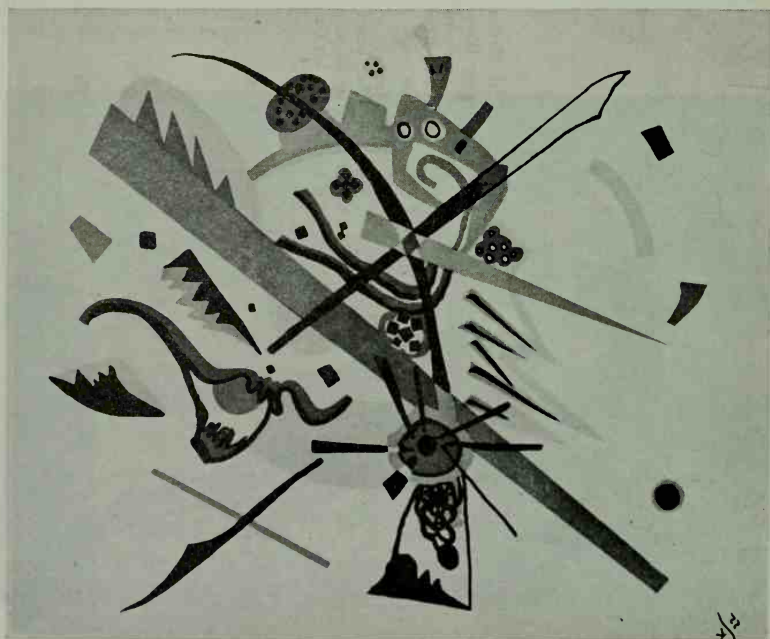




Fig. 19,29 Soutine, *Page Boy at Maxim's*, Buffalo, Albright Art Gallery, 1927.



Fig. 19,30 Soutine, (right) *Side of Beef*, Buffalo, Albright Art Gallery.



Fig. 19.31 Salvador Dalí. *Soft Construction with Boiled Beans: Premonition of Civil War*. Philadelphia Museum of Art. The Louise and Walter Arensberg Collection, 1936.



Fig. 19.32 The "Russian Model" Revolver. 1870.

Fig. 19.33 Double-barrelled shotgun. Model 21. 1930.



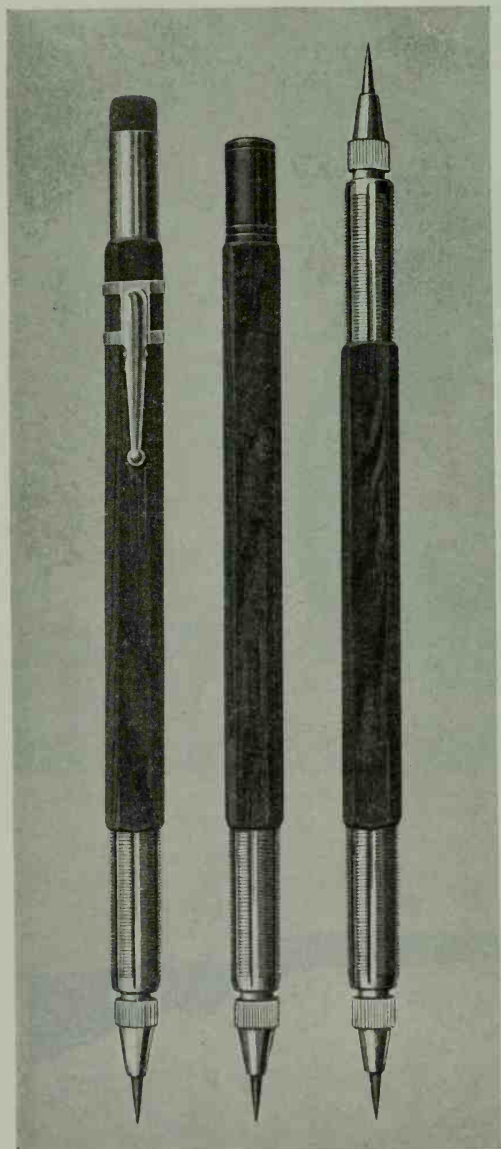


Fig. 19.34 Pencil for artists and draftsmen.



Fig. 19.35 Screw driver.



CONTEMPORARY ART

Modern art is confusing, and has yet to stand the test of time. We cannot estimate the stature of Picasso and Matisse with the same assurance we use in describing the greatness of Giotto. Certain things are nevertheless as clear today as they ever will be; there is no reason for the critic to retreat to an agnostic position, and certainly there is no excuse that will condone a refusal to put forward hypotheses and make predictions. All men must do that whenever contemporary affairs are under discussion. The risk of error must be assumed.

In approaching the subject, we must first take account of the critical situation as it now stands with respect to contemporary art, and we must offer the reader some guidance through the immense amount of printed matter which already exists, and which purports to deal in one way or another with the latest developments. The literature falls into two distinct and widely separated classes.

Because modern art is by no means popular, one is bound to encounter statements to that effect. Some of them have been eloquent; but since it stands to reason that those most familiar with the history of art are the least likely to be startled by something new, the reader should always inquire into the professional qualifications of the persons who damn things out of hand. He should also ask himself whether the particular statement under review is in fact an aesthetic analysis having to do with works of art, or whether it is merely an exposition of the writer's feelings. If the latter, there is little to be learned.

The negative bias to which we have just referred did not result from any desire on the part of these writers to be unkind or unfair; it merely reflects the feeling that modern art, like all past art, ought to give satisfaction. The second category of critical writing is devoted to the ideal that public sympathy will follow close upon knowledge. It therefore endeavors to expound and explain what modern artists are driving at, and for the most part consists of exhibition catalogues and monographs. Taking them as a class, the authors thereof are much better educated for the task than those who express dislike of mod-

ernism; but it is impossible to read very far without realizing that they are also invariably on the side of the artists about whom they write. In a sense we should not be surprised. Exhibitions are always arranged to demonstrate something worthwhile, and the attendant publicity properly stresses the positive. In similar fashion, no one writes a book about an artist unless he believes the artist deserves a place in the sun. The writers of monographs may therefore be forgiven if they too have erred, though on the side of praise.

The author of a general work is not entitled to the same privileges. His obligation is to give every period even treatment, and in the case of 20th-Century art, to place it in context and to see it in proportion. It is not the business of the present chapter, therefore, to urge the reader to approve or disapprove, much less to wear his heart on his sleeve. Dissatisfaction with the old styles exists, and that in itself is a good reason for seeking a new style. But it is a question of fact whether a new style has yet come into being. If it is here, its worth is not to be measured by the enthusiasm of those who cheer for it, but by whether it does or does not give satisfaction. The satisfaction mentioned, moreover, must cover the complete artistic transaction: it must be that of the artist on the one hand, and that of some significant section of the community on the other.

The above will explain why the author refuses to be an advocate for modern art, modern artists, or indeed for the modern world. In writing what follows, it has been his intention to furnish a fair and balanced estimate. No one believes more firmly that there never has been, nor can there ever be, a good society without a strong art; but that belief does not imply a personal capacity to find order and meaning where none may exist. Much less does the author feel in a position to assure his readers that everything is coming out all right in the end, as it does in a fairy tale. In fact, some of the best features of modern art are those which both the author and the reader must like the least. We live in a cruel world where the artist is as worried as any other man. His business is not to beguile us with sweet nothings, and if he cannot find the silver lining, he may at least tell the truth as he sees it. Artists are, of course, liable to error; but history shows they are less so than most of us. It is therefore of the utmost importance that we try to ascertain the meaning of modern art. It cannot be dismissed as an accessory or peripheral part of our civilization; on the contrary, there is no other vehicle which offers a more penetrating and central perspective upon the course of events.

Modern art is much more traditional than it is usually thought to be. Like Cézanne (pages 908 ff), most recent artists have learned from the museums. Instead of a single contemporary fashion, we therefore are confronted with the

greatest variety of styles and manners ever to be exhibited contemporaneously. More often than not, the very things that seem like offensive novelties reflect the direct influence upon the contemporary artist of some mode, technique, or stratagem observed in the work of an earlier period. As a general statement, it is possible, in fact, to declare that no style in use today is without precedent. Persons inclined to set up the judgment of their own taste as against the rationale behind recent work had better tread lightly; embarrassment may ensue when one learns the name of the authority he has just defied.

At the same time, modern art is a break with the past. Insofar as we are now able to judge, the break signifies the end of the Renaissance and the commencement of another era as different from the last as the Renaissance was different from the Middle Ages. Modern pictures usually look very different from traditional pictures, and modern artists, more often than not, have a point of view equally different. The average citizen who came to maturity before the First World War is ill equipped by his background to make the necessary adjustment of taste. Those who came to maturity before the Second World War are in better case, but not much.

A rereading of Chapter 18 may help to explain why. Inheriting from the High Renaissance, the Neo-Classical movement taught us that art should exist on the sublime or epic level. Beauty was the language of art, according to the same doctrine, and the purpose of art was to edify. The Romantics taught that art should evoke feelings of thrill achievable less through simple beauty than by way of dash, glamor, and distinction. Insofar as Impressionism ever succeeded in teaching anything, its lesson was to associate art with aesthetic sophistication.

It should be emphasized that such presuppositions, which usually coexist in the taste of the same individual regardless of the fact that they tend to be mutually exclusive, are of very recent vintage and cannot be applied to about nine tenths of the art in our six thousand years of recorded history. Inconsistent medley that they are, the notions mentioned die hard, or perhaps will not die at all. For persons whose artistic standards are already fixed, modern art has nothing to offer but trouble. For those still able to change, it can offer the increase of wisdom which always results from serious aesthetic experience.

THE CONTEMPORARY TREND IN ARCHITECTURE

The history of architecture from about 1750, where we left it in Chapter 17, to about 1900 can be described in one word. It was predominantly eclectic. The authority assigned by Alberti (page 699) to the classical style was presently assigned to every other style. The Beaux Arts remained the principal

agency of instruction for architects of all nations, and although the slant of the curriculum there remained predominantly classical, it presently came — along with the curricula of other schools founded in imitation of the *Beaux Arts* — to include the discipline known as “the historical styles.”

Every style was assumed to have possessed an internal logic which might be reduced to a set of rules. The presumption was historically incorrect; but it was nevertheless possible to construct a practical system for any style by a selective process. That is to say, the “best” monuments from every period were measured, taken out of context, and published in books of plans. They were thus made available for study in London, Berlin, Boston, Natchez, and Milwaukee as conveniently as casts might be obtained for studio work.

When offered a commission, the typical eclectic architect would first ask the patron to specify the style he happened to fancy. The building, whatever it might be, was designed accordingly. Some incongruous adaptations of course resulted; but in the main, it is remarkable how good eclectic architecture was. The best men, like H. H. Richardson, Stanford White, and Bertram Goodhue, so thoroughly mastered the styles in which they were interested as to make them their own.

Running quickly through the most important adaptations which still make the American city a kind of museum of reproductions, and following the historical order rather than the confused order of 19th-Century appearance, the sights described below will be familiar to all readers.

The Assyrian ziggurat gained a brief revival as the first response to the zoning laws of New York and Chicago, which required a “setback” for every rise of so many stories. The so-called “Greek Revival,” which lasted until the Civil War, might as well be described as a Doric revival, because that order — hitherto almost never used — became popular for structures which otherwise fitted into the scheme of the High Renaissance. Most Classical detail continued, however, to be Roman, as indeed did most ground plans. The Harvard Stadium, the Yale Bowl, and the numerous other football theatres copied Rome precisely, and for the same purpose. Except for a few fine synagogues, the Byzantine style has had little vogue, but the Romanesque became positively a fashion under the inspiration of Richardson. His adaptation of the Salaman-tine Lantern for Trinity Church in Boston was excellent; but of the railway stations and libraries either designed by him or derivative from him, the less said the better. Goodhue had a similar gift for the Gothic; but although that style was popular for churches — especially for steeples, most of which resemble the south tower of Chartres — almost no one else understood it. Thomas Jefferson not only used the style of the High Renaissance but was in fact an authentic High Renaissance architect, and one of the best. The “Georgian

Colonial," as such work came to be called in this country, is still in general use. Because white columns and red brick are attractive, many clumsy manipulations make a passable impression if not studied closely. The full Baroque and Rococo were never appealing to the chaste taste of America, but a whole series of curvilinear staircases attests to the ability of known and unknown architects to clean up the latter style and make it simple.

Although still taught in the conservative schools of architecture, eclecticism is today extremely unpopular with art historians and with progressive architects. The reasons are not necessarily those usually given. It is, in the first place, unwise to attempt a damnation of eclectic architecture by reference to physical quality; the imitations have been too clever and too good. It is equally unwise to attack the historical styles as impractical for modern use. It is extremely difficult, for example, to make any significant improvement upon a Gothic church, and there is probably no improvement possible in the football stadia, where the modern problem is identical with the Roman. It might seem that the office building, being a distinctively recent phenomenon, would fetch to the surface the inadequacies of past styles; but sadly for the advocates of "modern architecture" some of the "Romanesque" and "Gothic" skyscrapers have made an annual profit, while many of the "modern" ones have not.

The most cogent complaint against eclecticism is philosophical, namely, that the spiritual motives which called each of the historical styles into being are absent from our society. Therefore, no building newly designed to look Greek or Gothic can possibly give the same satisfaction it gave during the 5th Century B.C. or the 13th Century A.D. Neither can it give us the same satisfaction we get from an authentic historical monument of either period. It is not easy to say why the latter may be true; but it is. The difference is as the difference between stage scenery and reality.

The obvious remedy is to bring about a new architectural style having the same autochthonous relation to our age as the historical styles had, each to its own period. No cultural enterprise now in view enjoys anything like the same popular support. Everybody is asking for "modern architecture"; architects who offer plans for a Gothic gymnasium, as actually happened at a certain college recently, find themselves on the defensive. The main outlines of the contemporary demand, while all too often expressed in hortatory imperatives, are clear.

The modern style must make an end of imitation; its buildings must have a new appearance, unlike anything earlier. The modern style must be "functional" — not an easy word to define narrowly, as we shall see. It must be expressive of the modern world. The modern style must find itself by casting off

ancient materials and techniques, and by following out the logic of new materials and techniques. All such stipulations are mixed up together in the public mind. The ramifications are rarely appreciated, and the implications rarely accepted; but the general insistence cannot be overlooked. It amounts to a cultural ground swell, and it must now be our business to inquire how much has been accomplished.

The Industrial Revolution provided architecture with two new media, steel and glass. At any date prior to the American Civil War, metal of every kind had been a luxury item necessarily reserved for nails, screws, hinges, locks, and the like. During the latter half of the 19th Century, it became available in large pieces and at low cost. The principal use of the material to date has been in one of three forms: as wire rope, as reinforcement for concrete, and in beams.

Glass in significantly large plates had been literally unknown before. Big windows, when made at all, were necessarily assembled from many small panes. Larger panels appeared long before 1900, but the very large ones which are commonplace today were still a special item before the First World War. At this writing, glass is actually a raw material for architecture.

In the whole history of all the arts, there had never been a comparable situation. Even the arrival of the oil vehicle (page 613) did not change the conditions of painting to the extent that steel and glass altered the architectural outlook. Any estimate of modern architecture must therefore take into account the necessity for experiments on the lowest level of primitive groping — the kind of trial and error which results from blank ignorance and which, for every other known architectural medium, took place so long ago as to have escaped history. We have no right to be surprised, therefore, if some experiments turn out very badly indeed, as some have done. An immense number of failures must be accepted as the cost of ultimate success.

It is still too early to say what the ultimate effect will be. To whatever extent the modern style of architecture has arrived, the novel appearance of the latest buildings seems to key in with a more and more complete understanding of the internal logic of steel and glass. Up to date, steel has been the dominant medium; but a shift of emphasis toward glass is apparently now in progress. The most important monuments of modern architecture have so far been called into being by commerce (office buildings) or by the transportation system (bridges), and the principal effect to be noted is a vast increase in scale. Bridges span openings hitherto undreamed of. Single buildings of immense volume and dizzy height, notable in any earlier era merely for their size, are today a routine performance all over the Western world.

The mechanical principles of modern steel construction are not new. Some of the most spectacular modern forms are, as forms, of primeval antiquity. The important advances made during the past century were easy enough to figure out in the imagination, but hitherto were forbidden in practice simply for the lack of the right material. From the standpoint of its absolute capacity to carry out any plan the architect can visualize, the special qualities of steel opened up a new world, and made architecture more literally a liberal art than ever before.

As noted in Chapter 7, the fire-resistant properties of steel are exaggerated in the public imagination; nevertheless the material has certain great advantages. As compared with stone, the principal difference is that steel may be put under tension. A host of compact and efficient assemblies are therefore practical which were completely out of the question so long as architecture remained an art of masonry.

As compared with wood, which is still the lightest known material for a given strength, steel members may be fastened together more compactly and more securely. The assembly shown in Fig. 19.44, for example, would be impractical with wood. The ends of the beams would split open, and triangular bracing would be required to secure the assembly against any stress which might give either member a tendency to turn over the other with the joint as a center. The point is well illustrated by what usually happens when an abandoned barn finally collapses; the beams and uprights rotate at the joints, and the building subsides one way or the other.

The modern bridge has assumed four different forms, as illustrated by Figs. 19.36-39. The choice has depended upon the footing available, and similar considerations having to do with the site and sometimes with the special purpose of a particular bridge. The so-called steel and concrete "arches" shown

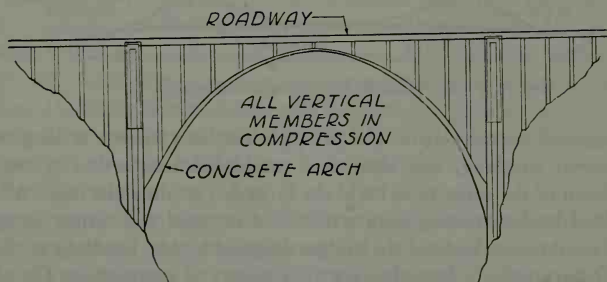


Fig. 19.36 Bridge supported by a modern arch of ferroconcrete.

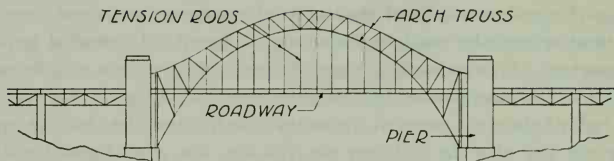


Fig. 19.37 Bridge carried by a steel truss in the form of an arch.

in Figs. 19.36–37 are not in fact arches (pages 183 ff) but trusses hogged up in the middle to resemble the profile of a true arch. If loaded heavily enough, either might exert a slight thrust, as would any member of the same shape; but the triangular bracing, which is visible in Fig. 19.37 and concealed by the cement in Fig. 19.36 makes both forms very stiff indeed.

The cantilever bridge is merely a pair of big steel brackets which stick out over the river to be spanned, and meet in the middle. As drawn in Fig. 19.38,

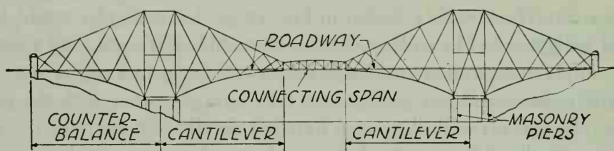


Fig. 19.38 The principle of the cantilever bridge.

the bridge might be called a balanced cantilever, because each extension has its equal and opposite to the other side of the fulcrum.

The suspension bridge (Fig. 19.39) has a power over the imagination not

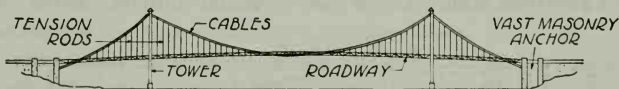


Fig. 19.39 The principle of the suspension bridge.

even suggested by the others. The principle has been known as long as men have known anything, and there is a primordial satisfaction in our final achievement of the capacity to build the form as it ought to be built. All other methods of bridge building seem wasteful of material and clumsy in appearance by comparison. Some of the bridges designed by Mr. Roebling at the turn of the century were, in fact, the very quintessence of engineering. The suspension bridge has one fault, however, and it is a bad one: like its primitive pro-

totype made of grass rope in the jungle, the modern suspension bridge can swing and sway. In a few instances (apparently when the wind sets up a vibration in key with the period of the wires) dangerous conditions result, and traffic has to be suspended.

By comparison with the bridges, the construction of steel frame buildings seems prosaic; but there can be no question of its utilitarian virtues. The availability of large steel beams made feasible the now familiar "bird cage" system of framing, as illustrated by Fig. 19.40. With respect to the problem of spanning openings between vertical supports, the method is simply a special application of the post and lintel system (page 182), longer spans being permitted because steel beams may be given a cross-section which makes for stiffness. It is important to note, however, that the whole pattern of the fabric has been immensely simplified as a result of the compact joining of members possible only when metal components are used. The beams cross the columns at a right angle. Triangular bracing of any sort is conspicuous by its absence. Such a fabric, moreover, forms a structural integer in a sense hitherto unknown. It may even be bolted down to bedrock like a flag-

pole, and, in theory at least, will be damaged by waving in the wind or by earthquake shock no more than will a fishing rod. The expedient mentioned has been tried innumerable times in the case of water towers, windmills, and other comparatively small structures. As yet, all large buildings depend for stability upon their own weight. As construction gets lighter (for it is now a possibility that various extremely light alloys may presently replace steel), it is actually conceivable that one day a skyscraper may be blown over by the wind. Doubtless bolting down will then become popular; as it is, to feel our present buildings sway as the squalls hit is to feel a bit like the giant Antaeus when Hercules hoisted him off the ground.

William LeBaron Jenney (1832-1907) is believed to have designed the first building in the world in which both the floors and the exterior masonry (which merely kept out the weather) were supported by a bird cage of steel beams bolted to steel columns. It was the Home Insurance Building in Chicago, opened in 1883, and ten stories high. Louis Sullivan (1856-1924), who had

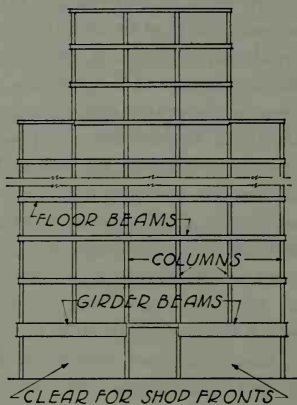


Fig. 19.40 Modern steel construction.

worked in Jenney's office, became the first articulate philosopher of modern architecture. His Wainwright Building in Chicago (1890) was the earliest design which made any significant or successful attempt to work out an aesthetic theory by reference to the mechanics of steel construction — much as the medieval builders had worked out a theory (page 411) on the basis of the stone arch. The Guaranty (now Prudential) Building in Buffalo, of 1896, was perhaps Sullivan's best design; in the opinion of the author, it remains the handiwork of all steel frame buildings.

The work of Sullivan and others was illustrative of a trend almost unconsciously accepted by architects and public alike. Business was in the process of rapid centralization. It seemed to be a prime desideratum to accommodate the largest number of businessmen within the smallest possible area. Pronounced even in the prairie cities where horizontal movement was the natural thing, the trend assumed extreme proportions in New York because of the limited amount of space on Manhattan Island. Architecturally, the result was to give currency to the notion that the efficiency of an office building was identical with its height. Steel was therefore devoted to the construction of taller, taller, and still taller buildings. We should mention in passing that such a development would have been completely out of the question except for the availability of wire rope — that marvellous and little celebrated material without which the modern elevator would be impossible.

There were two schools of thought with regard to the aesthetics of skyscraper architecture. Sullivan represented one. He, and those who followed him, did everything they could to multiply vertical lines on the exterior. They also did whatever needed to be done to suppress horizontal lines. Sullivan had used a cornice to top off the Prudential Building in Buffalo, but other designers, notably Raymond Hood, borrowed Gothic detail for the skyline, and with some reason. Gradually, the prejudice against eclecticism forbade even that, but the emphasis on verticality remained. The end result of the linear school of thought may be seen in Rockefeller Center.

Another group of designers became impressed with the cubic capacity of the immense new buildings. They were also impressed with the possibility that aesthetic guidance might be found in the zoning laws and their requirement of a "setback" after every rise of so many stories. Taking inspiration from the ziggurat, they drew up a number of boxy buildings composed, as we were told, "in volumes." The Hotel Shelton on Lexington Avenue was one of the best. While such architecture formed a logical counterpart for the cubist movement in painting and sculpture, the certain knowledge that its great blocks were thin and hollow took the power out of them.

If the reader will reflect upon what has gone before, he will see that most

designers of skyscrapers have even to the present day been very much preoccupied with the matter of exterior appearance. Their point of view was actually the same as the formalism of the High Renaissance (page 696) even though the resulting architecture looked different.

A certain reaction presently set in. The idea became current that the building should be designed not "from the outside in" but "from the inside out." The accommodations provided indoors, said this newer theory, were paramount. Good accommodations often demanded a serious compromise with respect to exterior design; but, continued the argument, we can't have everything. If a choice had to be made, the human element was more important than the aesthetic conceit of "expressing the medium" or "expressing the vertical dimension."

So far, the result of such thinking has been to make glass the primary medium, and to make steel the servant of glass. The idea was anything but new. Some of the very first "modern" buildings, like the Crystal Palace in London (1851) had walls almost entirely of glass. Every small town in America, moreover, possessed at least one greenhouse, the special virtues of which were a matter of common knowledge. The application of glass walls to the tall office building was first suggested, it is believed, by Mies van der Rohe, and the possibilities were demonstrated by his model shown in Fig. 19.1.

Steel frame construction makes it possible to locate the vertical supports of a building in a number of different ways. In Fig. 19.41 we see the columns placed well in from the outer surface. The floors are then extended out for a considerable distance beyond the columns. The latter do not cast shadows across the windows as they must when used to make vertical lines on the exterior, as Sullivan had used them. In theory, the entire wall might be made of glass. Such an arrangement is feasible because the steel beams may be extended outward from the columns for a reasonable distance, in which case they are known as *cantilevers*.

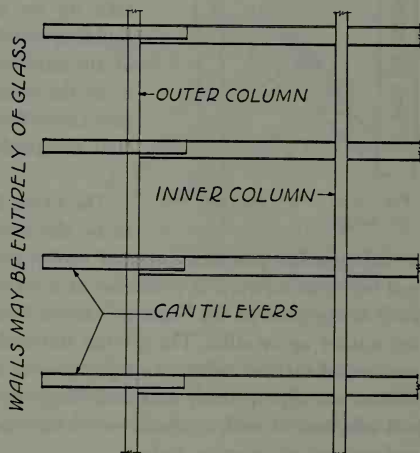


Fig. 19.41 Use of internal columns and extending cantilevers in modern steel construction.

Figs. 19.42-44 demonstrate the principle of the cantilever. A cantilever is a bracket. A bracket is a cantilever. The mechanical principle is the same whether we use wood or metal, and whether the cantilever holds up a kitchen shelf or a directors' meeting. As applied to the floors of a building, where the loading is light in proportion to stiffness, steel cantilevers have the merit of being extremely compact. They take up no useful room. The McGraw-Hill Building was one of the first to make frank use of the cantilever method, which now appears to be the currently popular construction. The new Lever Brothers Building (1952) was similarly designed.

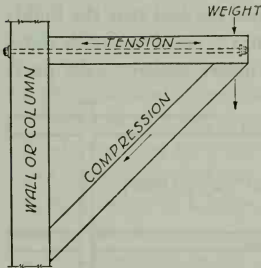


Fig. 19.42 The principle of the cantilever.

The Lever Brothers Building is believed also to be the first large fabric to take advantage of still another possibility opened up by steel frame construction. The idea had been put forward in a number of drawings and in several houses actually built to the plans of the French architect Le Corbusier: the bulk of the building was set up on stilts. The ground story, that is to say, was eliminated. The number of vertical columns was reduced to a minimum, and the intercolumniation was appropriately increased. One may walk at will underneath. A general adoption of such a scheme — which would not at all involve a complete replacement of existing architecture — may in time prove to be the cure for the infamous congestion in New York.

The great office buildings of New York and Chicago have furnished modern architecture with its focus and certainly with its most conspicuous monuments. The reader, like the author, would doubtless be happy to shift attention to the matter of the modern house. It is regrettably impossible to tell him what he wants to hear.

The use of modern materials has so far been largely restricted to big buildings where nothing else will do, and to the work of contractors who have made an immense investment in the ponderous machinery required. Steel beams are

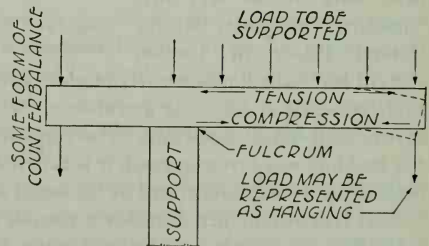


Fig. 19.43 Forces upon a steel beam used as a cantilever.

still too expensive for the lighter loads imposed by domestic buildings. Concrete reinforced with steel rods is likewise dear; it requires expensive moulds. A number of houses have been built from one or both materials, however, but at high cost in relation to the accommodation provided. Future developments, both economic and mechanical, may render the house carpenter obsolete; but he is still more efficient than all the machinery on earth if he knows his job and if the job is within his capacity.

Many owners have nevertheless insisted upon having a modernistic home even if compelled to use conventional materials. The author has inspected a number of them. He has yet to see an example which can be described as better than the same arrangement of rooms enclosed within a traditional exterior; and in every instance recalled, serious faults have been noted. It is not easy to improve upon the folkways of the house builder. The forms he is accustomed to build did not result from aesthetic fancy. They are expressive of the virtues, and defensive with respect to the faults, of wood and masonry. When the old-time mechanic says, "This is the proper way," the university-trained engineer had better listen.

The word *functional* has been the battle cry of the modern movement in architecture; but more often than not, it would seem that the adjective has been used as a vague term of praise, and with small understanding of what was meant. It is by no means an easy word to define.

The skyscrapers were functional in the sense that their design called for a clever use of material to accomplish something previously impossible, but from the standpoint of human values, they are among the worst buildings ever built. No conceivable system of transportation can fill and empty such monsters at the beginning and the end of the working day, and the wonders of the New York subway system are canceled out by its offense to decency. Williwaws worse than those which blow down from the heights above the Straits of Magellan are familiar in the manufactured canyons of New York; and the pedestrian, delayed by elevators but supposedly free to enjoy the beatitude of being within walking distance of everything, is often the victim of dirt and germs carried in stinging barrage on the wings of the squall. It now appears, in fact,

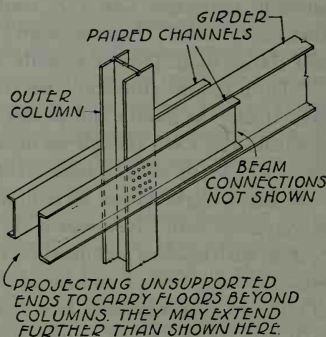


Fig. 19.44 A method of using steel beams as cantilevers.

that our teachers were mistaken when they told us thirty years ago that the skyscrapers were the modern architecture for which the world was waiting. Too little weight was then given to the special conditions on Manhattan; high buildings have fortunately never become popular elsewhere. From the beginning they were much more of an aesthetic exercise than we first permitted ourselves to appreciate. Our very confusion of mind about them makes it plain that the so-called "functionalism" of modern architecture needs examination and clarification. Does it actually exist? Is it an intelligible aesthetic theory?

"Form follows function," we are told. The statement is attractively rhythmic. It fills the mouth and pleases the ear. It seems vigorously in line with a scientific age. Even though we never hear a demonstration that the words tell the truth, we all want to believe them; but what do they mean?

Reduced to the lowest level of survival, the statement would appear to be synonymous with "Necessity is the mother of invention"; but as used in connection with modern architecture, there is always a plain implication that *form* means *beauty*. If so, a number of perplexities lie in our path — also a number of outright contradictions. *Function*, unfortunately, has many shades of sense, each with its own set of connotations.

Does function mean *efficiency* in the performance of some mechanical service? Why, then, is the Thompson submachine gun not handsomer than the duelling pistol? And why is the atomic bomb not prettier than both? What is the trouble with the liner *United States* that she is a poor thing, aesthetically speaking, by comparison with the tea clipper *Cutty Sark*? Does anyone really want to cast out the Parthenon because it scarcely had any utility at all?

Does *function* mean *economy*? If so, the function of human comfort and convenience is often at war with the monetary function. The reader does not need to have it pointed out to him that when one saves money, he usually takes it out of his hide. The cheap house is the "best" house only by reference to the account book; the proportion of cheap buildings that are even attractive in appearance is low.

If economy and mechanical efficiency be set up as our prime desiderata in architecture or any other art, what gives us the impression that fulfilment of either or both is to be sought along the lines of modernistic style? Why take a chance on modern chairs when Rococo designs are not only better looking but much more comfortable? Why purchase a coffee-pot shaped like a bullet which neither fits the hand nor hits the mark when the shops are full of 18th-Century designs that do both? Why streamline a refrigerator which will never feel the resistance of a fluid medium while in motion?

The answers to such questions, and a host of similar questions, must give pause to readers who entertain the popular assumption that the forms of mod-

ern architecture are in some way governed by functional requirements. Progressive architects have been overly ready to permit that impression to grow, but responsible critics have no business keeping it alive. The truth is that modernistic architecture is aesthetically self-conscious to a degree; if considered merely as exercises in abstract sculpture, many of the modern buildings are splendid (Fig. 19.2).

As to whether they are also more economical and efficient than traditional buildings, and as to whether any particular bulge or hollow has some mechanical purpose, it is extraordinarily difficult to say. No one can tell from a couple of photographs; financial information is usually kept secret, and complete plans are rarely released. In the absence of such information, the question with regard to any particular building must remain open. Numerous reports which have reached the author by direct channels suggest, however, that claims of superior efficiency be accepted with reserve. Owners too often describe modern houses by famous architects as worse rather than better than others. Office buildings of fascinatingly modern appearance can be arranged on the inside with incredible stupidity; some of them demand a wasteful expenditure for air conditioning during the hot months, and the superb modern windows sometimes leak.

Insofar as a general statement is permissible, it is the opinion of the author that functional requirements have furnished guidance toward good form in modern architecture only when the function was simple and direct. Roebling's bridges have already been mentioned as a case in point. The Kleinhans Music Hall in Buffalo (Fig. 19.3) may be cited as illustrative of modern architecture devoted to a more complex function, but still a well-defined one. The plan and elevation of its two auditoria were determined by acoustical principles. Except for the color of the walls and ceiling, there is no interior decoration whatever to compete for attention against the music. For that reason, the interior is almost painfully without meaning whenever empty, but suddenly comes to life when put in use. There is not another place on earth where concerts may be presented and heard with such ease and advantage. The circulation of the large audience upon arrival and departure is notably easy and comfortable. The same is true of the provision for automobile traffic, a most important matter in so bad a climate. In appearance, both inside and out, the building must be regarded as experimental and forward looking, not as beautiful.

It is the further opinion of the author that the word *functional* as applied to modern architecture does not mean exactly what it says, no matter how we ramify the sense. Elimination has been the principal symptom of functionalism

to date: the omission and removal, that is to say, of temple fronts, pilasters, mouldings, and historical detail of every kind until even the face of one's watch becomes purified by the absence of the pretty Arabic numerals. The tendency described seems to be the expression of a deep but inchoate yearning, the nature of which is not yet plain and the meaning of which we can only guess.

One guess is that it is part of the evidence which spells the end of the Renaissance. The stern elimination of "unnecessary" detail looks like a strong negation of the artistic concept of life which began with Alberti (page 696). As we pointed out at the time, the Renaissance ideal did not apply to all mankind, but presupposed the control of society by a superior group of persons. That theory of social organization did not exclude the average citizen. It furnished him, rather, with an ideal toward which he might aim, and every generation had its roster of men who had started at the bottom, demonstrated superiority, and gained membership in the upper orders. Such men were entitled to think of buildings as a setting for themselves.

Is the contemporary interest in functionalism a sign of disillusionment with that ideal? Do men no longer think they can accomplish as much as they can imagine? Must we accept what we can get from life, and be content with architecture at the subsistence level, which is what some of the most articulate proponents of modernism seem to be telling us? Or are we witnessing a shift in the control of society, which to date has always resided wherever the direction of artistic taste might be found? Is it the art of the court alone that is going? Are we actually about to achieve the true art of democracy?

THE CONTEMPORARY TREND IN SCULPTURE AND PAINTING: THE PRIMACY OF CÉZANNE

Paul Cézanne (1839-1906) is well established as the occupant of a historically pivotal position. His art brought French Impressionism to a dead stop and opened the door upon a new era. No small man could have had so important an effect. We may be misled, however, when we accept at face value the assertion that authority for almost everything that has happened since may be found somewhere either in the painting or in the utterances of Cézanne. Such a conclusion by no means follows from the fact that his career proved to be a turning point. Neither does it follow from the merit or demerit of his art. Contemporary painting and sculpture have many branches and numerous ramifications; it is exceedingly difficult, if not impossible, to establish a one-to-

one connection between Cézanne and many of the recent movements in art. The sanction-from-Cézanne should therefore be scrutinized narrowly in every instance.

Cézanne started out as an Impressionist. He got most of his early inspiration from Pissarro. He became dissatisfied with Impressionism and turned his back upon it. From about 1877 onward, he isolated himself and lived in seclusion at Aix-en-Provence, where he had been born. He painted continuously, but he never attempted to sell pictures. A niggardly weekly allowance enabled him to subsist until the death of his father; after that, he was modestly well off. Because he was almost forgotten by the world, the potential influence of his art remained in abeyance. In 1895 Vollard gave him a one-man show. In 1900 he had three works at the centennial exhibition. In 1904 he had a whole room at the autumn salon; and in 1906, the year of his death, there was a retrospective exhibition. His emergence as a major figure seems to date from the last two exhibitions mentioned, and his great influence upon Picasso, Braque, and others started at about that time.

The professional artists who saw his paintings on exhibit in Paris presumably absorbed the influence directly, but even they must have gained assurance from the fact of Cézanne's acquisition of a champion in the person of Roger Fry (page 733). Fry spent the rest of his life writing on aesthetic matters, and his writings are notable for the dogged reiteration of a central theme: namely, that Cézanne's art was no passing phase, that every touch of his brush carried great and absolute authority, and that the man belonged to the ages.

Largely as a result of Fry's sincerity and eloquence, Cézanne today occupies a unique position among artists. He is the only recent master anyone dares mention in the same breath with Giotto, Donatello, Leonardo, Michaelangelo, and Titian. His admirers are firm in their faith as they are firm about nothing else. It may fairly be said, indeed, that he has become a myth and a cult, a modern dogma not lightly to be challenged. Unfortunately, an adequate explanation of his wisdom and profundity (if it can be made) is so difficult to locate that it may be described as nonexistent. Fry's writings, persuasive though they have proved to be, offer no such thing, and the same may be said of the polemical and even more stimulating essays by the American collector and critic Albert Barnes. Our business here is not to take sides, but to inquire and find out. If Cézanne was a great master, the bare elements of his greatness ought not to elude us. Even though greatness must forever remain imponderable in some measure, its existence has always been indicated by obvious facts.

The first such fact is that Cézanne acquired his artistic education in a new way. "I have wanted," he said late in life, "to make of Impressionism some-

thing as solid and durable as the art of the museums." The statement sounds almost like a platitude today; but it was a new idea during the period of Cézanne's formative years. The public museum of art was then a novelty, one of the democratic developments. The Louvre, as an art museum, dates only from the time of Napoleon. The National Gallery in London was founded in 1824. The Metropolitan Museum in New York was incorporated in 1870. If we allow for the length of time it ordinarily takes for a museum to gain momentum, it will be seen that Cézanne availed himself of an advantage hitherto not conveniently at hand. In earlier generations, the training of artists had proceeded according to a straight-line tradition; one learned from a master, who had in turn learned from his master. Artists of originality borrowed where they pleased at all periods, of course, but the sweep of the particular movement to which they belonged was far more important as a formative pressure. Cézanne's break with Impressionism, therefore, was more than a mere exercise of personal taste. It was a step so strongly independent as to be almost unprecedented.

By taking that step, Cézanne probably set the modern pattern, for it is today literally a physical impossibility not to be influenced by the works of art on exhibit in museums — which is to say that artists will henceforth learn from the whole history of art, as contrasted to the closed channel of stylistic transmission which previously held sway. Cézanne learned a great deal in the museums, as we shall indicate from time to time in the paragraphs below. It is the opinion of the author that most of his so-called "inventions" were not new, but reflect the benefit of intelligent study and assimilation. Much is still to be learned along those lines, but readers with an interest in technique will find common sense in a preliminary paper by Mr. James M. Carpenter (*Art Bulletin*, Vol. 33, No. 3, September 1951).

Although he left the Impressionist movement, Cézanne took many of its essential doctrines with him. His coarse handling of the paint, and the rough surface peculiar to Impressionist pictures, remained with him the rest of his life, although he devoted them to different ends. The Impressionist concept of art as research (page 864) was fundamental in his whole career. He remained so steadfast in that faith that both his art and his manner of life stand out as the extreme illustration of the experimental method. Except for what he might discover, he had literally no interest in his own paintings. When convinced that a particular project was sterile, he dropped it at once. When successful, he cared almost as little for the vehicle of his success. Madame Cézanne had to tag after him, picking up canvases he abandoned in the woods. He let children amuse themselves by cutting holes with knives where he had painted doors and windows. The cook cleaned the stove with some of his work when rags were

in short supply. Inevitably a great many paintings were preserved in an unfinished state. A large number of those still in existence must have been thought failures by the artist himself, but today they possess a gratuitous sanctity. The extra difficulty of arriving at a sound estimate of his stature will be obvious. The truth is that we cannot even be utterly certain about his intentions.

It is clear from the evidence at hand that Cézanne looked forward to giving the world a full-scale theory of painting. He once alluded to his isolation as the result of a decision to remain silent until "the time I felt myself capable of defending theoretically the result of my efforts." In later years he wrote, "I am too old. I have not realized, and shall not realize now. I remain the primitive of the method I have discovered." Provocative as such statements are, they seem to have been passing statements, even chance statements. We have no right to weigh every word as we might weigh the words of the formal exposition the painter never wrote. We can nevertheless make out the drift of what he had in mind.

It is plain that Cézanne had forgotten Romanticism; for him, painting was an exceedingly deliberate activity to be directed by the mind. It is also plain that his preoccupation with technique was an immense preoccupation; but other things make us see that he had passed beyond the Impressionist notion that technique might in itself be the purpose of art. While his paintings are a better index than his remarks, there is some guidance in the enigmatic conversations quoted from memory by such friends as Émile Bernard and Maurice Denis. Even though the material comes to us decidedly secondhand, two ideas stand out as central simply because Cézanne mentioned them so often. The first is that art ought to become "classic" again, and the second is the firm stipulation that art must proceed according to nature even while in the act of becoming classic. Frequent allusions to the name of Poussin suggest that, for Cézanne, pictures by Poussin came close to epitomizing what he visualized as "classic."

Taken in conjunction with his work, such remarks would seem to tell us that Cézanne retained from Impressionism a faith that art ought to remain in gear with natural phenomena, and that he refused to create a well composed world straight out of the imagination, as Poussin had done.

The same statements seem also to say that he expected to find something in nature not yet properly understood by mankind or portrayed by painting. His departure from the Impressionists apparently took place because he could no longer stomach their doctrine that visual happenstance (pages 867 ff) was equivalent to reality. As to the significance he sought, there is much to ponder in his use of the word *solid* in immediate connection with the word *durable*.

The juxtaposition may be construed as a statement that he considered permanence to be the paramount value, and that he felt permanence might find its best imagery in the tactile quality of mass. Philosophically, his position was highly similar to that of Giotto (page 559). Undoubtedly his studies had made him familiar with the Mode of Relief (pages 582 ff), but his experience with the Impressionist technique apparently suggested to him that an even better way might be found to accomplish the expression intended.

The statement that he wanted to paint "like Poussin" invites still another inference. Nicholas Poussin (1594-1665) was a Frenchman who spent most of his life in Italy. Baroque in date but not Baroque in spirit, he carried on into the 17th Century the more sober and classical elements of the style of the High Renaissance. If he can be characterized in a word, he was the heir of Raphael; in a great series of landscape paintings, he carried even further forward the implications inherent in the design of such pictures as *The School of Athens* (Fig. 16.19). Cézanne's reference to Poussin seems tacitly to say that he expected to find in nature not only intelligibility and order, but a grand formal design.

As it had been with the Impressionists, color was the prime reliance in the system of painting he worked out; but instead of devoting color to the representation of light, Cézanne devoted it to the plastic description of mass, and to the description of the placement of masses within the space represented by the painting. The reader is bound to encounter a number of essays which leave the impression that his research brought about a new science of representation, dependent almost exclusively upon hue, the implication always being that he discovered certain hitherto unknown "principles" having to do with local tones, the action of tones in modeling, and with complementaries. In the opinion of the author, such allegations are largely misguided.

His representative techniques are best explained as a new combination derived on the one hand from French Impressionism and on the other from his study of Venetian painting. His methods included everything listed as typical of the Venetian Mode (pages 752 ff), a fact which has often escaped attention simply because his handling of the paint was coarsely impressionistic, the colors he used were different, and his subject matter altogether unlike. Allowing for those points of contrast, he might fairly be described as a close follower of Tintoretto.

Any estimate of Cézanne as a representative artist must take into account, moreover, the factor of his drawing. One does not read objects seen in his pictures as being near or far merely because they are set off from each other by contrasts of tone. Common sense and linear perspective play their usual part.

Objects placed in front of other objects by the drawing, and more or less plastically described, make it imperative to understand that the painter meant to indicate placement forward and away within the space represented.

In typical pictures by Cézanne (Figs. 19.4-5) the existence of space, miles or inches as the case may demand, is declared not only by color, but by mechanical barriers or "fences." Cézanne appears to have preferred in most cases to run his "fences" parallel with the plane of the canvas, or nearly so. The method was the method of a cautious man, and one is reminded of early investigations by Donatello (page 622). In order to indicate the distance between the thing in front and the thing behind, he used the device of disconnection (page 755). He strengthened the upper edge of the near silhouette by an arbitrary shift of value or of intensity, or he changed the hue entirely. It is the author's opinion that such useful modulations of tone were not governed by a strict theory consistently applied. Scrutiny indicates, rather, that any particular instance was a matter of convenience, and that the painter's choice of the trick to be used was improvised at the moment.

Nothing that has been said above is to be construed as suggesting that color relationships were not extremely important in Cézanne's representation; but had they possessed the total function sometimes claimed for them, black and white photographs of his work would be unintelligible. Interestingly enough that is true of a certain number of his sketches, notably the sketch in oils, one of his very last pieces of work, known as *Morning in Provence* (Fig. 19.9). In everything which might be considered a finished painting, however, Cézanne seems to have maintained an almost conventional reliance upon drawing.

In attempting to apply the foregoing to various paintings, the reader must be prepared for occasional perplexity. Over and above the inevitability of seeing pictures that did not come off and which have survived more or less against the painter's own better judgment, it must be realized that Cézanne was not a great technician. He was not even a first class technician; he never gained the control over his hands which would have permitted him to show his competence as Giotto did the day he drew the famous circle. We thus find ourselves rather often in the extraordinary position of giving him credit for what we believe he aimed to do, and not, to use his own word, for what he realized.

There is no other painter, in fact, whose work permits a like variety of understanding and misunderstanding. It is not uncommon for two different persons to entertain different readings of what they see while standing together in the same room looking at the same picture. We refer not to estimates of aesthetic worth, but to the mundane function of the colors and brush strokes as they perform, or fail to accomplish, the humble service of representative de-

scription. Some people testify that whenever Cézanne painted the human figure, he gave it solidity and weight; others fail to get that impression. To some people his houses and rocks seem flat and light; others declare them monumental. The simple objects in his still life pictures seem to some admirers literally animate with power; others, even when they want to feel that sensation, simply do not.

Surely we have said enough so that the reader can not possibly be ignorant of the difficulties. What can we now say to sum up the essential worth of Cézanne's art?

As a designer, Cézanne was a paradox, at once reactionary and radical. The pictorial forms he used were more often than not strictly conventional. His *Card Players* (Fig. 19.5) and the so-called "Large Bathers," now in Philadelphia, reflect a literal borrowing from the triangular compositions first introduced by Leonardo (page 722) and popularized by Raphael. For landscapes he made routine use of the composition which depends upon a balance between mass and distance (page 763). Sometimes he put the distant vista in one upper corner (Fig. 19.4), and sometimes he put it in the middle (Fig. 19.7) in the manner of Poussin and Claude Lorrain.

In a certain number of paintings, he seems deliberately to have set himself technical problems of extreme difficulty. Typical examples are the landscapes where the entire background is closed by solid material, and where almost no space at all is assigned to the sky. In such compositions, Cézanne seems to have attempted to describe the placement of things within his represented space not by the drawing, as usual, but entirely by means of tonal relations. Black and white reproductions can give only the most inadequate indication of what is meant. Fig. 19.9 shows such a painting, however; it is an especially interesting and very perplexing example because the *tour de force* of representation just missed, and the composition accordingly did not quite come off. Fig. 19.6 may give a better suggestion of the point at issue.

Throughout his mature career, Cézanne was also notable for introducing abstract rhythms and harmonies (pages 28 & 54) into his work. Doubtless he got the idea from Titian (page 764), but the resemblance is one of principle and not one of visual fact. His handling of the paint was usually in bigger and broader touches than had been common even with the Impressionists; and in any particular canvas, he seemed to prefer to maintain a substantial uniformity in both the scale, the proportions, and the direction of the single stroke — a technique that seems at first to be plodding, but ultimately evokes a sense of ponderous and even lofty harmony. No modern painter was more sensitive to the repetition and the contrast observable in both the shape, the color,

and the outline of forms in nature, or in the works of man. The blocky houses in Figs. 19.4&8 are a case in point, and in Fig. 19.6 we see similar blocks of architecture brought into contrast with the crotches of the trees.

In view of his claim to be interested in painting "after nature," some of the things that Cézanne did are exceedingly hard to explain. The most obvious was his cavalier disregard for the facts of human anatomy. The man who sits in the middle of Fig. 19.5 is, for example, a mechanical impossibility; how are we to imagine that his knees hook up with his torso? And what kind of body would account for the bulk and silhouette of the man at the right?

The popular explanation is that the artist indulged in "distortion for the sake of design." The phrase is a weak one. To design is to plan. To plan is to foresee. To foresee competently is to provide for every situation that may arise. A farsighted designer would therefore plan to distort, or he would plan not to distort; and he would carry out his plans. He would never be caught in a jam, and he would never have to violate any convention he cared about in order to produce good compositions.

Although he is familiar with the contrary opinion of certain other critics, it is the author's guess that Cézanne rarely if ever designed his pictures in the sense of visualizing them in minute detail before he started to work. On the contrary, the evidence of the paintings seems to suggest a continuous process of improvisation as he went along. Distortion of the human anatomy was often a convenient way to fetch an arrangement into composition. It was similarly easy to make table tops, furniture, or anything else take up more or less room on the canvas by throwing them out of drawing — the device which so often was equivalent to shifting the apparent eye point of the observer. It is a mistake to praise Cézanne as a great composer because he did such things. The truth is that his compositions are not in the least better than those of many other painters, most of whom did not distort.

We may therefore pass over the compositional utility of Cézanne's distortions; the point is trivial. His free resort to distortion was nevertheless tremendously important. It is to be considered not in relation to design, but with reference to his total career, and in special connection with his negation of Impressionism and his departure into solitude at Aix.

The French Impressionists had been sophisticated city men. Most of their canvases show scenes in Paris or the suburbs. Whenever the views are bucolic or at the seaside, it is unmistakable that the artist looked through metropolitan eyes and felt with the feelings of a visitor, not the feelings of a resident. For Monet (Fig. 18.24) the banks of the Seine were places to enjoy, not places to work. Manet's interest in the channel steamer (Fig. 18.18) was a passenger's

interest, and his picture does not even remotely suggest the attitude and outlook of the captain who made the run every day.

It would be incorrect to say that Cézanne retired from such a life into the existence of a peasant, but it is evident that he expected to find reality and permanence in coarser, simpler things. No one has yet stated what he found, if he found it, but his numerous pictures of Mount Saint Victoire, and a few of the compositions that contain architecture, furnish us with an inkling. In his hands, extraneous details were sternly eliminated; his paintings are extraordinarily free from trivia of every kind. Such acts of suppression made it possible for him to clarify his description of the fundamental elements in view. The procedure always seemed to result in endowing the contours of a hill, the curve of a road, or the angles of a house with energy. His mountains seem animate with geologic power. His buildings are kinesthetic phenomena. Even a peach or an apple, as seen in his still life, becomes a shape full of potential grandeur.

The real advantage gained for him by distortion is suggested in the lines of the last paragraph. Meticulous adherence to the convention of accurate drawing and accurate anatomy would have delayed him. Resort to distortion not only speeded up his progress toward what he wanted, but also was sometimes useful as a means for giving special emphasis to a figure, an object, or to part of either. Any understanding of Cézanne's distortion must be predicated upon the idea that he was working his way toward the expression of certain elemental facts in our visual experience — truths which he himself understood only in part, but felt deeply.

In that connection, the important thing to see is not that he chose to distort, but that he didn't care. He could not have omitted to care unless he had already arrived at a new orientation. What narratives do his pictures tell? What insight do they offer into character? Into personality? Have they to do with religion? With patriotism? With hope, joy, or despair? Do they thrill us? Do they even entertain us?

Cézanne's ultimate and final place in history will depend upon the answers to such questions. No man is today in a position to give the verdict. A prediction may nevertheless be made. Judging by what he did, and by what has happened since, it would appear that Cézanne was the first important master to set aside the representative convention (page 539) by which art had been governed since the 15th Century. Still further, he completed a process begun by the Romantics. Géricault had hinted that modern man might be defeated by the environment. Courbet had demonstrated that the majority of men were neither noble nor beautiful. The Impressionists as a group had moved the human figure out of its previously central position in art. Degas seems frankly to

have disliked people. Cézanne painted any number of human figures, but it may be questioned whether he ever painted a human being. By doing that, he finally canceled out the humane subject altogether. It is likely that he thereby gave the signal for the end of humanism as a guiding philosophy (page 522). It is likely, too, that future generations will point to him as the first artist who belonged wholly to a new era, and not at all to the Renaissance.

STANDARDS OF TECHNIQUE IN CONTEMPORARY ART

Traditionally and properly, the art object has been an article of choice. The artist has always worked with his hands, but the word *artist* has in every previous generation denoted a person endowed with manual skill quite beyond the physical capacity of lesser craftsmen. Similarly, the phrase *work of art* has been taken to denote an object brought close to physical perfection by the devoted labor of a man who had such skill to use.

Intellectual and moral qualities were involved in those definitions. Manual skill of the highest order demands much more than physical coordination. The cunning hand must be directed by knowledge and judgment. The time and labor needed to make a perfect thing are immensely greater than the time and labor required to make a very good thing. No one can be induced to put forth so generous and seemingly so extravagant an effort unless driven from within by ideals. Physical quality, in the artistic sense, is the logical conclusion one would reach by the ultimate application of honesty and intelligence in craftsmanship.

Until very recent years, the superior quality of the work of art was obvious to everybody. It took no special insight, much less any technical knowledge, to tell the difference between the product of the masters and the product of the amateurs. However, the ideals summarized in the last two paragraphs no longer apply. "Technique? Of no importance! Color? Put it anywhere!" said the painter Braque in a recent interview. Anyone who has studied Braque's work will appreciate that he hardly meant what he seemed to say; but from the standpoint of the average citizen, there is an imposing corpus of evidence which suggests that Braque intended to be understood literally.

We waste time if we do not admit that mere sketches, often roughed out in the hastiest fashion, frequently go on public exhibition with the same hanging as Michaelangelo. We waste more time if we do not also concede that juries no longer demand high technical standards. At a recent exhibition in England, for example, there was a picture cited in the press as "a fine specimen of modernism." Whatever else may have been true of it, the technique lacked nothing in dash; for the author, who turned out to be six years of age, had merely spilled

a saucer of pigment materials, sat therein, invited his cat to walk across, and let things ride. If such tales were exceptional, we might have nothing to worry about. Unfortunately, similar anecdotes (rarely untrue or even exaggerated) are commonplace. An explanation is required, perhaps an apology. The question is whether we must cite a debased technique as one of the conspicuous features of modern painting and sculpture.

The first question to answer in that connection is whether the more radical modern masters have significant skill to call upon if they want it. The answer is an emphatic yes. If the reader will take the time to review the entire catalogue of work by any of the famous contemporaries, he will find a number of conventional paintings splendidly executed. The question is therefore more complicated than it seemed: not whether good technique exists (for it does), but why those who possess it do not bother to avail themselves of their full range of resources. Why is the artist satisfied with something less than he might have done? What right has he to ask us to be satisfied with it? Is it possible to demonstrate that he created value by refraining from the exercise of part of his available talent? Did he protect something that might have been destroyed by a more complete application of his skill?

Regardless of the interpretation we may ultimately place upon the incumbent condition of technique, the history of 19th-Century art furnishes an explanation which is at least rational. We are merely witnessing the logical conclusion of tendencies set in motion by Romanticism and by French Impressionism, both of which still operate cogently within the psychology of the modern artist.

The Romantic insistence upon the supreme value of excitement (page 857) in the end became a dogma. Spontaneity is often cited as the special value of coarse, rapidly painted pictures. In place of the worth that inheres in completeness and finish, we are offered (so the argument goes) the natural expression of a creative personality caught, if we may use the word, at a moment of intense focus and high inspiration. We get, if the picture is a success, the pure thing uncorrupted by extraneous influences, a direct penetration to the heart of the problem in hand. We get also the value of brevity, for it is possible in art as in every other kind of communication, to dwell upon the same point too long. Such pictures, the argument concludes, offer no hiding place for inadequacy, and test the power of an artist more mercilessly than any others in history.

Another explanation derives from the experimental point of view first put forward by the French Impressionists (page 864) and continued by Cézanne. The concept of the artist as a research man invited the concept of the single

picture as a mere step in some program of investigation. If we accept that idea, we put ourselves under an obligation to look at the picture not for itself, but with reference to the light it may shed upon the problem the artist set himself. Thus, one painting may be thought of as a preliminary note. A second might stand as the solution of the first point in the program. A third carries the matter another stage further; and so on, until we reach the artist's final report on the whole program. Matisse's so-called "Pink Nude" exists, for instance, in approximately twenty states.

One can easily see why an artist might not care to waste time on meticulous or finely finished work when he was merely interested in a particular problem. What is the use of a beautifully glazed surface when one simply wants to explore two or three color relationships? Why bother with the strict geometry of perspective when the immediate issue is to discover a way to make the brush strokes impart a sense of motion? It is such narrowing down of the function of the single picture into the solution of a single pictorial problem, or part of one, which accounts for what often looks like grossly careless execution.

Demonstrations which at first seem outlandish often make perfect sense if one can merely identify the problem the artist set himself. The rest of the chapter will largely concern itself with such problems, which are now so numerous and so various that no list can be complete. The work of Matisse, however, will furnish us with an immediate example of the kind of thing to which we have referred.

Unlike a number of other masters, Matisse (born 1869) has retained an interest in representation and in decorative painting. In its representative aspect, his work can be described as a most successful attempt to handle the Venetian Mode (pages 752 ff) strictly in terms of line and flat tone. The placement of objects within the represented space, that is to say, is accomplished solely by the contrast between the local tone of a near field and the color of the background. Fig. 19.10 shows an example where the effect carries over unusually well in black and white; but such an instance is exceptional. In most paintings by Matisse, the adjustments of hue are prodigiously delicate — so utterly precise, in fact, that the general run of colored reproductions are even less intelligible than ordinary photographs. When a normal amount of fading takes place over the next century, it is a question whether even the originals will remain legible.

In its decorative aspect, the very same work is most often a tour de force of tonal rhythm and balance, also ultimately to be derived from the practice of the Venetians (page 762). From the Impressionists, Matisse took the habit of using intense hues. He scarcely ever has aimed at a tonality comparable with

the "Venetian glow"; most often he has worked toward a balance between the various hues. Those which tend to attract attention most, for example, he used sparingly and placed carefully in order to make sure they would not pull the eye more strongly than he wished.

It is obvious that tonal relations of the kind described demand a profound knowledge of the painter's business. Among contemporaries Matisse is conspicuous, however, for concealing his skill from the common man by indulging in elaborately erudite sloppiness as the colors are laid on. The question still assails us: why?

In part, the reason is again to be found in the 19th Century. Dropped from the economic system, without an invitation to significant social responsibility, without honor, artists as a class still live in the secret garden to which they then retreated. There can be no doubt that many of them are deliberate in their choice of a style which is likely to puzzle and antagonize everybody except those with special knowledge. Such a situation is, of course, abnormal. So far, it has been sterile as well.

The present abandonment of traditional standards in the matter of design and finish may also have an even deeper and more general significance. Heritage though it is, it seems also to be an intimately accurate reflection of contemporary manners. In what earlier generation would a President begin a document with "Dear Alben," or refer to a trusted assistant as "Tommy the Cork"? Why do public men use *damn* and *hell* not only in conversation, but in political speeches and when interviewed by the press? Why are ceremonies of every kind, including those of the church, much shorter and brisker than they were fifty years ago? We are an increasingly brash people, for whom a brash art is the natural thing. When our entire society is moving away from the decorum of the High Renaissance (pages 711 ff), are we to be surprised that art abandons the decorum of technique?

PAINTING AND SCULPTURE SINCE CÉZANNE

Half the 20th Century is already over, and its painting and sculpture, seen in broad outline, appear to have four distinct divisions. The representative convention has continued with real strength, but for better or worse has become closely identified with popular rather than serious art. Abstraction in two forms, the analytical and the psychological, has so far proven to be the most original movement of the period; but there is fear it is now hoist with its own petard. Expressionism in one form or another (page 624) is almost as important as abstraction, with which it sometimes overlaps. The so-called "Indus-

trial Arts" got well under way before the century began, and attained a high level of merit which has not been maintained. They seem, however, to offer the chief hope of the future. We shall discuss each of the four topics in the order named.

Popular Art

The popular school is more numerous than members of the public seem to realize. It would be literally impossible to mention all the names, but the following persons have been turning out every year, and year after year, an immense number of pictures which belong to the representative tradition and are in every respect "normal."

Norman Rockwell is famous for his magazine illustrations. Usually they deal with some quaint aspect of American life. They have charm, humor, and genuine sentiment.

Shortly after the First World War, regional schools began to announce their existence in various parts of America, mostly under the leadership of artists with European training who then returned home. Charles Burchfield, an extremely competent water colorist, is identified with upstate New York and particularly with the Niagara Frontier. His pictures will stand as an authentic document of the region in our time: the decaying Victorian houses, the smoke, the trains, the ruts in the snow, the wonderful opulence of summer and fall. Grant Wood, Thomas Benton, and John Steuart Curry are the most important painters who have emerged in the Middle West. Identified respectively with Iowa, Missouri, and Kansas, those men represent in art the new cultural self-confidence of that region, which has ceased to feel inferior to the Atlantic seaboard, upon which it has turned its back, and which now looks to the Pacific Coast and to the Orient rather than eastward toward Europe. The various regional schools to date have suffered from the limitations of their subject matter. Epic content can probably be found in American history; but however much we may dislike to admit it, our country as of this day has lost the zest and color of pioneer times and has yet to achieve a culture comparable to Siena, Chartres, and Canterbury. The regional schools, especially those of the Middle West, have tended to err on the side of special pleading.

We must also recognize a whole class of artists who, in one way or another, have undertaken to celebrate the modern sports which undeniably occupy as big a place in our life as those of ancient Greece. Marin-Marie, the French yachtsman, is perhaps the best of the artists who devote themselves to the sea. His sincerity and knowledge are attested by two crossings of the Atlantic singlehanded, and no one has done better at painting the authentic majesty of great liners like the old *Mauretania*. Rockwell Kent is the most overt and pow-

erful personality among popular painters. His strong oils of the Maine coast in winter and his woodcuts of Labrador and the Straits of Magellan deserve serious attention. In addition, there are any number of artists who deal with fishing and gunning, among them Lynne Bogue Hunt. The American sporting prints which illustrate the several "outdoor" magazines are, as works of art and as works of reproduction, so very good that nobody who cares about art can afford to neglect them; and they appeal greatly to a public which knows guns, rods, dogs, and horses so very well that the "imitators" of whom Plato complained (page 924) are fortunate not to be here.

In sum, it is a fact that a very large section of modern art celebrates the familiar, the pleasant, and the good in modern life. For every instance of cubism or Surrealism, there surely are at least two Scottie dogs by Marguerite Kirmse and a view of the yachts at Larchmont by Tore Asplund. A man who feels superior to such work is a man whose taste for Matisse and Braque will bear watching; one wonders whether he reacts to visual stimuli or to the vogue in certain circles. For it is a fact that much modern popular art is, as art, competent to a degree. Why is it, then, that so few scholars and so few museums take such work seriously? The answer is all too seldom stated.

The popular artist is guided by the existing taste of the public. He bewares of offending it. He eschews the controversial subject. He studies our preferences with meticulous care; indeed, they may be precisely the same as his own. If not, he changes his own. By a combination of calculation and intuition, he finds out what we like, and paints it. If such an artist is both intelligent and sensitive, as many are, it is not surprising that he pleases a great many persons and may even make a great deal of money.

The objection to following popular taste is that popular taste is largely a habit. People are much less progressive than they say they are. There are few who welcome edifying or even pleasurable experience of a new kind. Most prefer to repeat the routine of an experience known to have been satisfactory before.

At certain periods (the Greek 5th Century and the French 13th Century, for example) the current of public thought and the current of social and artistic progress have run together in a strong, creative movement. In the 20th Century, that is not so. Our habits of taste are radically out of place in a society which, if we may judge from two World Wars, is in a process of change and adjustment.

The difference between popular art today and serious art, now or any time, has to do with the values sought, and especially with the value of getting at the truth. The truth is often harsh and cruel; but the serious artist is not concerned with congratulating people upon the ideas they already entertain. We

must remember that this is either the greatest century since the 15th, or the worst since the 3rd. Art is no geisha girl to help us pass the time, and we have more to worry about than pretty girls, quail shooting, and school days during the 90's.

The Abstract Movement in Contemporary Art

Abstraction is one of the constants of modern art. It is rare to see a picture or statue which does not indulge in it to some extent, and there is probably not a single contemporary artist who eschews it altogether. To a very slight extent, abstraction and distortion are the same thing; but if carried out to the end, the two tendencies are discrete. Distortion exaggerates fact. Abstraction denies that art need maintain a connection with anything observable in the world by the normal and accurate eye.

Cézanne is ordinarily cited as the father of recent abstraction in art, and Roger Fry, the chief expositor of Cézanne, has done the most to make the movement acceptable to contemporary taste. Cézanne once wrote in a letter that all aspects of nature are contained in "the cylinder, the sphere, and the cone." It is uncertain what he meant, but the remark smacks of Plato; one is particularly reminded of the *Philebus* 51-52, where Plato said:

My meaning is certainly not obvious, and I will endeavor to be plainer. I do not mean by the beauty of form such beauty as that of animals or pictures — which many would suppose to be my meaning; but . . . understand me to mean straight lines and circles, and the plane or solid figures which are formed out of them by turning lathes and rulers and measurers of angles. For those I affirm to be not only relatively beautiful like other things, but they are eternally and absolutely beautiful. They have peculiar pleasures, quite unlike the pleasure of scratching. And there are colors which are of the same character, and have similar pleasures. Now do you understand my meaning?

Because Platonism is ever present in the European mind and heart, it makes no difference whether Cézanne happened to know the passage quoted, or whether (in the act of abstracting) Picasso, Braque, Mondrian, and Lipchitz derive their impulse directly from Plato, from Plato as endorsed by Cézanne, from Cézanne as explained by Roger Fry, or whether they are completely unconscious of all those names. The abstract movement in modern art — popularly believed to be not only radical, but close to the lunatic fringe — has a solid foundation in the most ancient and honorable authority, and it reflects the contemporary artist's endeavor to participate in humanity's eternal effort to reach an understanding of fundamentals. It is a pity that the Platonic origin of the movement is so rarely pointed out.

As a matter of fact, it was Plato himself who wrote what is still the most

vigorous damnation of representative art to be found anywhere. Let the reader refer once again to the 10th Book of *The Republic*, where that eminent thinker really got down to work. He refers to all such artists as "imitators," and takes some trouble to make sure we thoroughly understand that the designation has an unflattering overtone. He compares the activities of imitative artists to the results one might get by looking at reflections in a mirror. He suggests that the ability to represent is tantamount to an infection with the virus of bluff and fraud. What else is to be expected, he suggests, from an art that enables men to make pictures of objects and activities they do not in the least understand — the resulting paintings being good enough only for those who know no more than the artist does, "and judge only by colors and figures"?

He adds a few words about the essential limitations of representative art. How can the artist investigate anything thoroughly when he must take up his station at some single vantage point? What can he hope to see except the mere appearance of his subject matter? And in addition to being mere appearance, whatever he sees is not even the whole appearance of the object, but only a single aspect of appearance. No wise man, he plainly indicates, could possibly be content with anything so incomplete and superficial.

Doubtless Plato had known some artists who were fools, as indeed we all have. It is hard to imagine that he would have thought John Van Eyck a fool (pages 609 ff); but if he could have believed representation bankrupt in the 4th Century B.C., how much more reason there is for the 20th-Century artist, looking back over 500 years of nothing else, to feel that the further exploration of representative technique no longer offers the hope of growth and increase which is the end result of all great and serious art!

Most people seem to have got their notion of contemporary abstraction not direct from Plato, but from the derivative writings of Roger Fry, which consist of a series of separate essays extending over some years and without systematic connection one with the other. Fry never worked his aesthetics through to a clear-cut theory; but insofar as a single statement may be made, we can say that he tried to explain the worth of Cézanne, and the good in all good art, by adducing a doctrine summed up by the phrase *significant form*.

Borrowing his investigative technique from the laboratory, Fry tried to isolate the aesthetic element in art by a process of elimination. His idea was to cast out everything which was not strictly aesthetic, thus narrowing the field more and more until nothing might remain under attention except that single element in the work of art which furnished the stimulus for aesthetic experience. He therefore advised a stern divorcement of one's interest from all collateral and extraneous material. He was particularly suspicious of subject

matter. Narrative subject matter of any kind was, he felt, almost fatally dangerous because of the probability (which he considered a certainty) that it would lure one away from the aesthetic values by suggesting other feelings and other trains of thought. It followed that the ideal painting must be a painting without content in any accepted meaning of that term. Everything else being gone, significant form would remain in a pure state.

Fry furnished no proof of his theory. His assertions about the psychology of the aesthetic experience were conspicuously dogmatic, and, to the author, seem incorrect. The negations he suggested — and the suggestion seemed to many like an invitation to faith — have been cordially embraced by any number of artists, museum directors, critics, and scholars. As a result, abstract art is unquestionably one of the most important phenomena of the middle 20th Century. It is no overstatement to say that more than half of the most earnest and intelligent artists have turned their back upon representation, which they believe to be worn out and sterile. It is beside the point whether the author, the reader, or anyone else likes or dislikes contemporary abstractions; the necessary thing is to have some understanding of the rationale which accounts for them. In general, two main trends may be discerned. One has to do with the analysis of visual phenomena. The other has to do with the analysis of visual imagery as it passes through the consciousness. The former is sometimes called "Analytical Cubism," and the latter, with less justification, "Synthetic Cubism."

"You're either a round-head or a square-head," the author was told one day. "Everything else about your head is an accident!" The speaker was Mr. Hooton, the anthropologist. No doubt he was correct; but had he been lecturing on art, he could hardly have made a more succinct statement about the theory of analytical abstraction. The movement derives from Plato's conception of the universe as an arrangement of scaled categories (page 290) going from the single and unimportant instance upward toward the general principle, with each upper level closer to fundamental truth than the one immediately below it.

The artist who wishes to indulge in analytical abstraction begins with some object or with some scene as it exists in nature. Contrary to what one might guess, such artists have nothing against representation; they merely use it as they think best, to describe whatever they decide is important. They act upon the assumption that everything they see is a composite of (a) accidental facts of appearance which have no bearing upon visual truth, and (b) a basic or fundamental shape not peculiar to the single object, but belonging to a universal category of objects. In accordance with the Platonic dogma that con-

ceptual thinking is superior to daily experience, it is assumed that the artist does well to eliminate from his picture or statue every single detail except those details which tend to describe and clarify the fundamental shape to which the object belongs. In other words, the steps in the technical process are to simplify, then to simplify more, and then to simplify still more and more and more.

At some point in the process of elimination and simplification, the essential form of the object should, in theory at least, emerge and become plain. Again in theory only, the appearance of the fundamental shape ought to be automatic. It should result from the character of the object under analysis. There should be no possibility of a mistake; if the analysis has been correctly carried out, the artist should arrive at the right result with utter inevitability. There is no room in the theory for his having any choice in the matter.

At this second point in their routine, the founders of the analytical movement did, however, interpose their own ideas. They forgot about the curvilinear forms mentioned in Cézanne's quasi-dictum of the cone, the sphere, and the cylinder. With an enthusiasm that was geologically naïve, to say the least, they seem to have fastened upon the notion that crystals were a natural demonstration of the irreducibly fundamental form. Because crystals shiver into prismatic fragments bounded by flat surfaces, straight lines, and angles, the analytical branch of abstract art soon became a veritable cult of the angular.

In 1908 Matisse looked in at an exhibition of such work by Braque and Picasso. Apparently he thought they had overdone it, for he exclaimed with good-natured derision, "Oh! See the little cubes!" The name stuck; and the word *cubism*, although strictly applicable only where it obviously applies, is today in colloquial use for abstraction of all kinds.

The cubists were of course mistaken in assigning to angular forms a reality and prestige beyond any other kind of shape. From the standpoint of public sympathy, no decision could have been more unfortunate. The word went round that "curves are going out"; and the application of the cubist formula to the human body caused an outburst of empathetic furore. No one liked the idea of being squeezed into so uncomfortable a mould, and the whole thing seemed to have something to do with electricity and the nasty shocks therefrom. It was small use trying to explain that no sinister conspiracy was involved. Neo-Classicism was still sufficiently alive to make people remember the soft contours of alluring Academic nudes. Romanticism still survived in sufficient force to maintain a demand for art that gave one an emotional kick. The total effect was to make abstraction unpopular and to discredit still further the whole thought of art as an intellectual activity.

At some point in the analytical procedure, the artist must, as previously explained, decide that he has gone far enough. The data then remaining must be organized into pictorial composition so that they may become intelligible for the observer. The whole affair has been described as "backing further and further away from nature" — with the stopping point always a matter of choice and degree.

Charles Demuth (Fig. 19.11) and Lyonel Feininger (Fig. 19.12) are artists who stand just beyond Cézanne in the abstracting process. One may at first be conscious only of a broad, clear style; but it soon becomes plain that innumerable details have been canceled out, and that a considerable simplification of shapes has taken place. Both artists seem to have participated in the crystalline theory to the extent of "splitting the image" as in prismatic vision.

A great many paintings by Picasso, and occasional pieces of sculpture (Fig. 19.13), demonstrate in excellent fashion the resolution of natural contours into angular facets; but it should be mentioned that so severe and doctrinaire a method did not appeal to all artists. Lipchitz (Fig. 19.16) used curves or angles as he pleased, and Brancusi (Figs. 19.17–18) rarely used the angular system at all.

The work of Brancusi brings up an aspect of the abstract movement which is rarely identified for what it actually is, namely, the importation of certain literary devices into painting and sculpture. Readers who, as school boys, may have found Sir Walter Scott on the required list know the terrors of complete description. They are in a position to commend those writers who have a genius for finding two or three words that are just right for the situation, that tell what needs to be told and tell it fast, that get the matter over with and get on with the tale. Yet the visual arts, through all history, have been accustomed to describe in infinite and often tedious detail. Brancusi is conspicuous among modern artists for experimenting, and with no small success, with the brief, striking statement which gets to the point at once. "The girl's head was a delicate oval, and her eyebrows sweeping curves," he seems to say (Fig. 19.17). "And the bird was a flash of gold!" (Fig. 19.18).

If carried far enough, the analytical process inevitably produces objects which are completely unlike anything ever seen on earth. In such instances, the genesis in nature is no longer obvious. Titles are required. Lucid, succinct titles (Figs. 19.19) are legitimate and welcome, as they always have been. They set one off on the right train of thought without any puttering about. But it is worth remarking, before we pass on, that titles have tended to become more and more representative as art has become increasingly abstract.

Against titles which are not only descriptive but also provocative, no warn-

ing can be too strong. If, in addition, the title seems *recherché*, or invites ridiculous ambiguity, the case is lost from the beginning. Fig. 19.20, for example, shows a figure in several positions. The figure-style is an instance of analytical abstraction rather far advanced. The several views are intended to represent the same figure in successive positions as it comes down the stairway, and the analysis of the action is similar to that furnished by a cinema in slow motion, or by the multi-flash photograph. The purpose was experimental: to see whether it was possible for painting to break through the restrictions inherent in the Greek unity of time (page 60). Technically, the work is excellent; and the picture has much to recommend it as an intellectual exercise. But the title could hardly have been more unwise. In an unenviable sense, the *Nude Descending the Staircase* is the most famous picture of our century. In clubs, Pullman cars, and at dinner parties the world over, it has been adduced a million times as prima facie evidence that the modern artist is crazy. Neo-Classicism — which in a mysterious way had made sensuality permissive in respectable circles — had taught people to expect, from such a title, something like an action portrait of *La Source* (Fig. 18.7). The average citizen becomes enraged when asked to settle for a painting which is explained to him as an attempt to deal visually with the continuum of space and time, plus a rarefaction of the human nude in the direction of its fundamental shape. Certainly the artist, as a free man, had the right to do as he thought best; but he also took his risks, and must pay his price. In a democratic society, the public is also free, and will accept or reject what it pleases.

“Synthetic Cubism” is an inaccurate name for the second great division of modern abstract art. It is cubistic only to such extent as it may occasionally duplicate the methods of analytical cubism; and it is synthetic only in a special sense to be described later. Its central purpose is psychoanalytical. It attempts to deal with the visual imagery which passes through the stream of consciousness. The same thing might be attempted by a strictly representative art, and in some instances has been undertaken, but it appears to be a fact that most of our visual imagery is fragmentary. The mind’s eye does not see things whole, or in full relation with a natural setting. They come, rather, in snatches. The literary counterpart for such art is to be sought in the writing of James Joyce and Gertrude Stein, and a notable feature of both the art and the literature is that ideas and images are presented in what appears to be an original disorder.

The last statement seems to suggest that the artist exerts no art; but that is not true. He exerts his art in another way. Traditionally, all artists and all authors have arranged their material in some sort of logical sequence. The order

thereby established is imposed upon the data, and is no characteristic of the data as originally obtained. On the whole, the act of organizing raw data conduces to convenience in presentation, convenience in comprehension, and ease of understanding.

The synthetic cubists do not attempt any such thing, although every one of them would doubtless concede the superior lucidity of compositions by Raphael (Figs. 16.16-19). Their art, they would contend, corresponds with the realities of our visual existence; for lack of neatness and order, it endeavors to compensate by being truthful. We don't see things singly, the argument would continue, nor even coherently. Even when staring hard at a particular view, the mind remains full of fancies and memories which flit across the screen of consciousness. Subjectively speaking, such visions are as actual as any others, including whatever objects may be in plain sight at the time.

Typical paintings of the kind (Fig. 19.21) are best understood as a collection of memories. Every object is presented on the canvas not in its entirety or as it exists; rather only those parts of it and such aspects thereof are presented as may come to mind when the visual impression is recalled. The method bears a strong analogy to the Egyptian convention of broadest aspect (page 22), but it differs therefrom in omitting to hook everything up in any fashion which might be construed as natural. Nothing has any necessary relation, in fact, to anything else. The only connection existing is the presumption that everything in view passed through a single mentality.

As compared with abstraction of the analytical kind, there is usually a marked difference of style. Analytical cubism, taking it as a whole, maintained a central interest in mass, and was therefore a strongly plastic art. Synthetic cubism has often been called "flat pattern cubism"; and there is a good reason for it. As in the design of textiles, the mode aspires toward line and flat tone (page 27). For the purpose in view, the customs of the textile designer are peculiarly apt. Textile patterns have no necessary boundaries or limits; they can go on and on, or be cut off anywhere, just like our visual consciousness. Our visual life, moreover, is not a series of pictures, each organically complete in itself (page 65), but a rhythmic alternation of small vignettes, often vaguely defined like the semi-abstract motives of the Near East.

We may now discuss the propriety of using the word *synthesis* in connection with abstractions which purport to deal with the stream of consciousness. The term may apply in at least two ways. The best painters compose their pictures extremely well; this is an apparent contradiction of their own doctrine, but it is necessary for intelligibility. By giving good pictorial form to imagery which, by definition, is formless, they perform an act of synthesis.

The word *synthesis* may also have a bearing upon the ultimate state of

mind of the observer when he finally puts himself in possession of the work of art. Such paintings impose unusual demands. Contemplation of the ordinary kind is inadequate. The observer remains helpless unless he attempts to *participate* in the picture even to the extent of forcing himself through a course of stimuli and reactions which are emphatically and intimately his own. Obviously the value of the experience is to be measured by the calibre of the artist, and its authenticity by the artist's skill in presenting the most difficult subject matter yet attempted in the history of art. The worth of good examples may be assessed from the extreme difficulty of attempting to imitate either Picasso or Braque. Amateur painters try everything else, but they soon learn to leave synthetic cubism alone.

Of all the theories now operating in contemporary art, synthetic cubism seems most likely to eventuate in a great modern tradition. As yet, it must be conceded that most examples, while furnishing an authentic experience, lack scale: the experience is a small one. The trouble is that the theory itself invites the artist to let his mind wander and to let his art drift. It is interesting, however, that the single essay toward a "Grand Style" of modern abstract art falls squarely within the category now under review.

We refer to Picasso's *Guernica* (Fig. 19.15), where there is no drifting. The painting refers to a particular event in the course of the Spanish Civil War. A town called Guernica was bombed out of existence by the German Air Force. The military advantage to be gained was not at all in proportion with the resultant slaughter and destruction. On the contrary, it is believed that the action was ordered by the German command in a spirit of experiment: they wanted to know what their bombers could do. There is no need to mention the ethical implications of such an act. Time alone can tell whether Picasso was adequate to the solemnity and intensity of the idea; but there is no question that his estimate of the Spanish War was correct: the bell was tolling indeed.

Conceding that the *Guernica* is, in the scale of its conception, the most important painting of our time, all critics also concede that it is a very difficult picture. Picasso has never fully explained it, but he has intimated that many of the objects therein are symbolic. The nature of visual symbolism has been discussed above (pages 269 ff), and it has not changed. The fact is that without a rule book to name the denotation of each symbol, we must either guess or remain quite ignorant. Largely abstracted though they are, the things seen in the *Guernica* are nevertheless described with enough realism to be highly suggestive. The whole question of symbolism in modern art brings up, however, a situation which cannot be regarded as a happy one.

There exist a great many modern abstractions which lack titles. As pointed out a few paragraphs back, titles are often useful; without a title the abstraction may fail in its purpose of providing insight. We must never forget what happens when an artist begins to abstract. His pictures become less and less specifically descriptive, get further and further away from anything one is likely to recognize, and become increasingly obscure. At some point in the routine of backing away from nature, the train of thought may become fatally lost. The observer is then left helpless; he cannot even tell whether the artist worked in the service of psychological exposition, to analyze form, or something else.

The end result is summed up in some recent abstractions by Picasso (Fig. 19.14) and in work by Léger, Malevich, Pevsner, Van Doesburg, and others. The apogee is to be found in the abstractions of Piet Mondrian (Fig. 19.22). It is believed that he belongs more to the analytical than to the psychological cult. It is even said that he was accustomed to start with the appearance of steel frame buildings in New York. If so, the association is no longer sufficiently plain to impose upon anybody the necessity of believing it or caring about it.

The statement just made did not originate with the author. A number of artists have recognized the condition. Some of them have decided to make good use of it. As a class, such pictures seem to be the final result of the search for significant form. If so, what is to prevent one from getting right after significant form from the start? Why bother to derive it by going through a laborious analysis either of the mind or of some object? The artists who have adopted the philosophy just described like to call themselves "non-objective" — meaning that their work neither starts with nature nor attempts to maintain any relationship with it.

Non-objective art raises serious questions. It is unfortunate that such work is so often justified by reference to problems of design, although it is true that most of the non-objective artists are excellent and even distinguished designers. It is the author's guess, in fact, that Piet Mondrian was one of the best in the history of art; but his achievements in that department did not derive from his interest in abstraction, much less from his extreme use of it. He could have designed just as well without ever leaving the confines of representative painting. He did not design in the slightest degree better than Titian. Good design is no novelty; it is merely to be expected. Nothing can be made for or against any movement in art on that basis.

The crux of the matter is not whether non-objective art is handsome — which it is — but whether such work has meaning. In that connection, one

encounters an unfortunate tendency to intellectual conceit. There is plenty of innuendo to the effect that such art is not for everybody, but only for the educated. We are reminded that classical literature, music, and higher mathematics demand a soul-trying apprenticeship before they pay off; but the analogy is false. Anybody can learn Greek, counterpoint, or calculus if he wants to, but there is no resource in education that will ever enable him to penetrate the shell of privacy that encloses both the thought and the heart of those who paint secret abstractions. If such have significant form, what do they signify?

The above, brief though it is, will give the reader an accurate notion of the various departments into which modern abstraction divides itself. It remains to estimate the worth of the movement as a whole; and in that connection, the author takes a pessimistic view.

However much we may sympathize with the lot of the artist and no matter how hopeful we may be for a great modern art, it is time we bit the bullet. Contemporary abstraction has become occult. Badly navigated, it is hard aground and helpless to move down the channel of communication. But what else could we expect from a movement that cultivated the abstruse? What reason is there for supposing that solipsism, sterile everywhere else, might yield a harvest when let loose in art? So far, the function of the whole movement has been to make absolute the tragic separation of the artist from society.

The Expressionist Movement in Contemporary Art

Because of its novelty and because it challenges the intelligence, the abstract movement in contemporary art has received the lion's share of publicity and attention. Critics and historians have published a veritable corpus of literature about it. Exhibitions have featured abstractions somewhat at the expense of representative art. The result has been to create a disproportion of interest and emphasis which now requires adjustment.

A number of the most serious and skilful artists have refrained from subscribing to abstraction as a central theory. Its dangers and disadvantages (particularly with respect to intelligibility, and as a vehicle for communication) have proven a deterrent even though every well informed person, and especially every well informed artist, has been willing to accept and employ a certain measure of abstraction whenever convenient and suitable. For the most part, the artists to whom we refer may be described as expressionists, and *expressionism* requires recognition as a modern phenomenon equal in importance to abstraction, and with an approximately equal volume of production.

Expressionism is no new thing (pages 547 & 624). It begins whenever an artist chooses to abandon the position of expositor and interpreter, and himself becomes a participant in the emotional content of his work. But expressionism must do more than begin if it is to get anywhere. A second element is necessary in the situation to give it life and fire: the artist must also make an effective demand for emotional participation on the part of the observer.

The debt of Expressionism to the Romantic movement of the 19th Century (pages 852 ff) will be obvious; that second stipulation, however, explains much about our present situation which is not in plain sight on the surface. By its very nature, emotionalism was a danger to the Romantic artist; but for the expressionist of today, it has become an ever-present peril.

The reason is this: it is always the artist (and never the observer) who names the emotion. If the observer is already sympathetic, expressionism is just what he wants, and it goes like wildfire. If not, resistance occurs. In our confused century, serious artists cannot, in honesty, continuously furnish us with things we want to see. Thus, the expressionist movement has become associated with imagery most persons do not like. In order to make them look at it, the expressionist artists must apply forceful methods, with the result that expressionism as such often seems synonymous with violent color, radical distortion of forms, shock, and hysteria. It often tries to do too much too fast. The public simply retires behind a psychological barrier, and the art becomes as ineffective as the most unintelligible abstraction.

In the last paragraph we have referred, it will be understood, to baleful possibilities inherent in the expressionist tendency, not to general practice. Expressionism, it must always be remembered, is a point of view. It is not a style. Neither is it a special sort of content. The works of art it has called into being are various to a degree. Some of them are altogether moderate and restrained, and at first rather hard to associate with a theory which has produced so much art of quite another kind.

Modern expressionism even has a formal division composed of artists primarily devoted to the further exploration of medium and its relation to design. The sculptor Maillol (born 1861) is the most famous member of the group to which we refer. No artist has ever been more sensitive to the qualities of the stuff with which he worked and the capacity of the tools he used. In good examples (Fig. 19.23) there is an amplitude of form which is grandly appropriate to sculpture as an art of mass. The simple but not summary description of textures and of details is likewise in keeping with the restraints imposed by so coarse a medium. The heavy proportions give local strength to the individual parts of the body, which are in turn connected with each other

in a system of bracing that would do credit to the designer of a bridge. It is likely that Maillol's statuary will enjoy a greater permanence than most other art of recent years. Could there be a better or more thorough expression not only of what sculpture is, but of what sculpture ought to be?

Carl Hallsthammar's *Venus in Red Cherry* (Fig. 19.24) is a tour de force of representative technique which at the same time is intimately expressive of the grain of the wood. From so ostensibly conservative a demonstration, it may seem a far cry to the advanced abstraction of Henry Moore; but both artists appear to share with Maillol a common technical procedure which, in theory at least, takes off from the internal logic of the material in hand. Fig. 19.25 is a piece of Surrealistic imagery (page 772), but the imagery was developed from the flow of curves in the elm, which in turn defined the contours, much as contour lines drawn on a map describe the roll of the hills. Moore's Surrealism is bound to strike a sympathetic note, for it recalls one of the deeply satisfactory experiences of childhood, when the eye traced patterns in boards and rocks and found another world. Still further, Moore's work has an elemental strength not always to be found in similar essays: his chisels and gouges have brought out the shape which would probably have appeared in due time had the block been exposed to prolonged weathering and to the abrasive action of wind-blown sand.

From 19th-Century Romanticism, modern expressionism inherited a taste for the unusual (page 856); but in accordance with a general tendency to explore every heritage further, interest in the unusual has today become a cult of the exotic. Gaston Lachaise was an artist who shared with Maillol a love for the internal logic of the stuff in which he worked; where better than in Fig. 19.26 are we to find an objective demonstration of the tensile strength of bronze, its superb capacity in the matter of textures, plus the most elegant appreciation of the simplicity appropriate to large statuary? But over and above such values, the statue is full of strange overtones as rare and unknown as the Sirens' singing.

The sculptor Lehbruck (Fig. 19.27) may be taken as typical of the cult of the exotic in its pure state, virtually uncomplicated by technical considerations. He derives from Donatello (page 624). He also illustrates very well the freedom with which modern artists distort for effect, a habit which corresponds precisely with an exaggerated tone of voice in conversation and with the literary use of hyperbole.

A good many pictures which look like exotic imaginings are, however, nothing of the kind. Strangely enough, there is a whole class of expressionistic art

which is odd and even wild-appearing, but which depends squarely upon the sober contributions of science. The microscopic examination of minute structures has become a daily routine in our high schools and colleges, but our vision has been extended even beyond the range of the microscope. By a combination of reasoning and the imagination, it is now possible to describe the atom and the parts of the atom in visual terms. It would be an inconceivable oversight for artists to refrain from investigating what amounts to a newly won empire.

A picture by Piet Mondrian in the Museum of Modern Art seems to show nothing but a great many little crosses on a blank background; it may very likely have been suggested by the sight of a culture under the microscope — a guess that seems all the more likely because the field is circular and fades around the edges. Kandinsky's debt to a similar source is made unmistakable by Fig. 19.28. Much of Joan Miro's painting apparently springs from the same inspiration.

Sociological questions have assailed our generation almost as rapidly as science has changed our economy and way of life. Incredible though it may seem, there has been strong opinion to the effect that artists have no business venturing away from the standards established during the High Renaissance, but such inhibitions have had small restraining effect. Perhaps half of the paintings that fall within the general category of expressionism relate in some way or other to the issues and pressures which make the ceremonial concept of the good life (page 712) seem like a passing notion gone with the wind.

Soutine is one of the artists who has been conspicuous for paintings with a sociological impact. As a resident of the city where two of his most important canvases hang, and as professor of art in its university, the author has special knowledge with respect to Soutine. It seems impossible that any artist could be more unpopular. His bell-hop (Fig. 19.29) is despised because it shows a human being who is literally despicable, and it only makes matters worse to point out that the picture puts society to the question. Have the cards been stacked, or have they not been stacked, so that some people cannot play with a fair hand? Does the great tradition of Washington and Jefferson also belong to an unhealthy scroop of a person dependent for his dinner upon the base custom of the tip? And how unpleasant to realize that we dress such creatures in suits of strident red, like so many monkeys, and expect them to fawn as animals do!

The *Side of Beef* (Fig. 19.30) by the same painter is considerably more accomplished as a technical demonstration. By reference to the abstract elements of its design, one can make out a good case for calling it a beautiful pic-

ture. By reference to its content, which records the impact of the sudden sight of food upon one who has known hunger, we can show that it is a humane and tragic picture. By reference to history, we can show that it is in no way a radical subject, for Rembrandt did the same. None of those arguments have sufficed even to get a hearing, much less to carry conviction. It would be impossible to reproduce on these pages the anger, the frustration, the derision, and the venom of the voices which have been raised in comment. One is told the painter had no right to paint it in the first place, that the director had no right to buy it and should be dismissed, that it ought not to be put on public display, but should remain in the cellar.

Apparently, Soutine's sin was the failure to repeat the formula that humanity was made in God's image, with males handsome, strong, and brave and females refined and beautiful. Worse than that, he did not reiterate the text that by intelligence and moral strength humanity would rise above its problems, control the environment, and live the beautiful life contemplated by Alberti (page 696). His damnation — with respect to popularity — was the absence of some ray of hope, some suggestion of glamor even in the sordid.

Sociological expressionism is sometimes almost indistinguishable from the modern version of Surrealism (page 423) which attempts to explore the nether regions of the mind. Chirico has done a good many pictures of that kind, but the name of Salvador Dali has, in later years, come to be almost a synonym for the entire movement. Dali has now and again made statements about his own art; in sum, they say that he is attempting to portray with intense and vivid realism the visual imagery of an irrational intellect, perhaps an unbalanced one (Fig. 19.31). As for the significance of what he paints, he can sometimes make suggestions, but in the main he knows no more about it than we do.

Pending the further discoveries of psychology, it is probably impossible to interpret Dali's Surrealism in specific fashion; but there is no reason to doubt the authenticity of his effort. It is obvious that his canvases — so facile and urbane with respect to technique — record part of the mental torment which is indubitably an outstanding characteristic of our time. If the pictures are morbid, is not the world also morbid to a frightening degree? How can we ask every artist to lull us to sleep with a beauty that is not here?

THE INDUSTRIAL ARTS

James Watt got his patent for the steam engine in 1769. Its first practical application was to pump water out of a coal mine. The installation was set up

in 1776, and this event may prove to have been a more important turning point than the American Declaration of Independence that same year. The mechanical power introduced by Watt has changed the economy of the whole world, and today, our life has its center of gravity not on the farm, as before, but in the factory.

The impression is current that works of art ought to be produced by the very same industry which produces everything else. The idea is good; in fact, there is no suggestion in sight which seems more likely to correct the unfortunate situation of the artist in society, or to bring about the great modern democratic tradition for which the whole world has been yearning since the French Revolution (pages 844 ff).

There is any amount of proof, moreover, that the project is practical. Much of Raphael's immediate rise to international fame resulted from the sale of prints taken from his paintings. During the 18th Century, the Englishman Hogarth realized that the artist must ally himself with the printing press; most of his mature work was designed from the beginning with mechanical reproduction in mind. During the 19th Century, the Frenchman Daumier raised the newspaper cartoon to the level of great art, and the American firm of Currier & Ives sold innumerable colored prints which, if not great pictures, are at least collector's items today.

As a demonstration of what might be done, however, the chief credit must go to several firms of American gunsmiths who undertook the mass production of small arms and made the names Winchester, Colt, Remington, and Smith & Wesson known to every child alive. All four firms, and some others that have passed out of the picture, soon were producing weapons as good as those previously turned out by individual craftsmen. The price of an excellent gun was reduced from a hundred dollars odd to a third or even a quarter of that amount. Because the mechanical merit of a gun is easily and frequently tested, the firms mentioned appear never to have considered even so much as an experiment with inferior materials. Workmanship has been uniformly first class on the cheaper models, and superb on the more expensive. It is also too seldom pointed out that design was often equally good.

In the department of aesthetic sense, the Smith & Wesson company has always held a lead over the others. It seems incredible that its so-called "Russian" model (Fig. 19.32) was first sold in 1870, at the very moment when American taste in almost every other class of object could scarcely have been worse. The fundamental design, moreover, has never been surpassed, and remains better than most others since, including those of the same company. The reader may or may not be interested in firearms, but there is no denying that the piece is an object of choice. Considered as a demonstration in ab-

tract design, it is physically as fine as any sculpture by Brancusi (Figs. 19.17-18) or Archipenko (Fig. 19.19).

Our facilities for refined production have been immensely extended since the end of the 19th Century. The modern foundry can produce casts of a complexity no one dared attempt even thirty years ago, as evidenced by the cylinder blocks of the latest gasoline engines. Machine work of every kind has attained an unbelievable precision. Chemistry has furnished inks, paints, and enamels of impressive quality. Yet it cannot be said that industrial design has maintained the momentum it had fifty years ago, or lived up to its apparent promise at that time.

As yet, modern industrial design is bad design. The author makes the statement with regret after having had the opportunity to inspect a veritable host of objects produced by factories here and abroad. The list includes everything from entire steamships and locomotives through Diesel engines, furnaces, furniture, typewriters, instruments, clocks and watches, down to kitchen knives and olive forks. Very few concerns stand out in the memory as fulfilling the excellence which our productive machinery holds out to us like a promise. It is rare, in fact, that the so-called "modern design" is better than the traditional thing. All too often, indeed, some essential feature has been omitted or streamlined out of existence.

Wonderfully fine things nevertheless are to be found on the market. Without suggesting that other firms have not done equally well on occasion, the author would cite the following items merely as examples of excellence.

The latest Bausch & Lomb binoculars are prettier, lighter, stronger, more nearly dust and moisture proof, and more efficient at transmitting the light than anything available twenty years ago. The Winchester firm has introduced a series of inexpensive and increasingly better rifles and shotguns, and at the same time, in addition to producing target rifles which are the world's standard for extreme accuracy, has undertaken the most exacting task of all, the double-barrelled gun. Their Model 21 (Fig. 19.33) was introduced in 1930. It is equal in beauty and workmanship to the best products of the famous London, Belgian, and Austrian makers; it is equal, also, in the indefinable quality of "feel" which makes all the difference between a hit and a miss. As an example of engineering, it is superior to any other double gun in the world. The price, while high, is something like one fourth the cost of a similar gun handmade.

Guns and binoculars are rather expensive and complicated articles, and as a general rule it may be said that it is much easier to improve a complex assembly than a simple one. What has our industry done for us in that latter category? On the whole, not a great deal as yet; but there are some brilliant exceptions.

To the Revere firm goes the credit for harnessing science to the cooking pot. Their line of stainless steel vessels, with copper bottoms welded on, is so much better than anything ever known before that there is no comparison whatever: infinitely stronger and more durable, about three times as easy to keep immaculate, and handsomer than most silverware.

The modern steel-shafted golf club, as made by several firms, is another instance of superb design; but lest the reader suppose that all good modern items must shine with chromium, let us turn to humbler things. One hammer, for instance, looks very much like any other hammer; but if you read Maydole on the label, you know that the power will flow smoothly into the head as you swing and that you will presumably hit the nail square and true. One might suppose, to cite another example likely to escape attention, that nothing could be done in our generation to improve the simple screw driver; but that is not so. Fig. 19.35 shows an example from the Yankee line; similar tools are made in a variety of sizes. The maker's name has long been synonymous with quality and with ingenious design, but the author doubts whether any of the more pretentious items actually received the time and thought which obviously were expended upon this simple one. In all sizes, the handles are of the right scale to give an elegant balance. The handles are also painted with a special enamel which is not in the slightest degree abrasive, but which at the same time does not slip, even though the hand be wet with perspiration. The grooving of the handle, moreover, permits the application of a powerful torque, but it does not hurt the hand. The knurling of the ferrule, finally, is just right for starting the screw with thumb and forefinger.

Pencils, to add still another illustration of what is possible today, have been long in use; and it might seem a waste of time to attempt improving upon so ancient and so elementary an instrument. The author probably owns and has owned as many of them as the next man; and in the main, one is as good as another. Fig. 19.34, however, is the great exception. The size and the balance are just right. The fingers fall naturally onto a grip which is grooved in two directions. The chuck is easy to operate and holds the lead perfectly; its length below the grip, moreover, seems ideal. There are no rough surfaces or sharp corners to irritate the fingers. All in all, the tool is without equal if one has any special interest in precise control of the point; and like the hammer and screw driver just mentioned, it may be cited as an instance where every apposite and available technique has been applied in an effort to create a perfect thing. The makers are the Messrs. Theodore Altoneder of Philadelphia.

Surely the articles listed above are worthy of the name art; but why do they stand out as remarkable exceptions? Why isn't every manufactured article

equally good? What is the matter? Why can we find so little to cheer about when circumstances seem to say we should have so much? The reasons can only be surmised; but the following offers food for thought.

Our entire system of production and distribution is speculative. Very few articles originate with an order placed by the consumer direct with the producer. Most, including those we have praised so highly, are made at the factory, pass through the hands of middlemen, and arrive to wait on the retail counter. A buyer may or may not come. When he does appear, the salesman's problem is to persuade him to accept the item in stock: and from the standpoint of making the sale, it is beside the point whether the article is precisely what the purchaser wants. The system is an excellent one, nevertheless, whenever the wants of many buyers can be ascertained within reasonable limits, and whenever, also, a multitude of buyers can be counted upon to want the same thing at something like the same time. Is it possible that the stipulations mentioned could ever apply to the art market? Is it conceivable, that is to say, that both the expressive needs of the artist and the aesthetic needs of the buyer can ever be made to coincide, thus making standardization and mass production feasible?

The history of art tells us that standardization of the sort described is not only possible, but in the past has been the normal thing. During the Greek 5th Century B.C., during the Gothic period, and even during the Renaissance it would have been a sound business venture to manufacture statues and paintings. People knew what they wanted, agreed that they wanted very much the same kind of thing, and were more concerned with common beliefs and with shared values than with self-expression. A reverse situation presently obtains, and to an extreme degree. There is no unanimity of taste today, and at the moment, management has reason to default from the risk of industrialized art.

The chaotic nature of public taste has often combined with economic pressures to defeat enterprises which might otherwise have eventuated in an aesthetically important alliance between art and industry — the Disney studio, for example. Although it is an organization of talented men under a responsible head in whose name everything is issued — and no different in that way from the Raphael firm, the Rubens firm, or the Sir Joshua Reynolds portrait industry — its work has been restrained by fear of the box office. Serious questions are conspicuously absent from its films, although entertainment is certainly there.

The same thing applies to the newspaper cartoon. Milton Caniff may stand for all the rest. Technically speaking, his work is superb, and it is amazing to see what excellence can be carried over from the drawing board into the cheap medium of newsprint. But when he introduced the subject of death (i.e., the

death of Raven Sherman) editorials were published about the event. The artist, we were told, had broken an unwritten law. He had spat in the face of an American tabu. He might suffer for it. It is good to realize that he did not; but it is unreasonable to expect great art to emerge wherever maturity is inappropriate or unacceptable.

Various firms of "industrial designers" have been in existence for some years, and a notable recent development is the tendency to include their names in the advertisements for the product. While they too offer hope for a period of first class industrial art, the day is not yet. Those who have designed automobiles may serve to explain the situation.

In the first place, they have not designed the automobiles at all. The modern car is an assembly of disparate elements. The engine comes from one source, the chassis from another, and the "designers" mentioned usually have no say about anything but the appearance of the body. The division of responsibility is inimical to good results. In some ways the machine is a mechanical marvel; however, there is not one car on the market which does not exhibit some atrocious bits of engineering. As for the bodies, few of them have been comfortable, and most are a Cubisto-Romantic phantasm in sheet metal, chrome, red lights, and costume jewelry. The element that is lacking is faith that the good thing will outsell the bad thing, and that the best thing will survive the good. Perhaps it is true that the manufacturers are not aesthetically housebroken, but can we assert that the public knows or wants anything better?

As to the artists, have they been any wiser than their potential patrons in industry? Unfortunately not; or so it would appear. Most of them remain helplessly resentful of the Industrial Revolution, and demand to do business as it was done during the 18th Century when the single work of art was executed to the order of the individual patron. The size of the average statue or painting is in itself an indication. There might be an outlet for statues a foot high or less, and weighing not more than 25 pounds; but our sculptors insist on a scale suitable for the grounds of Blenheim Palace. With most of the world living in small quarters, paintings have not contracted to correspond. Most of those presented to the jury at our various local exhibitions run a dozen square feet at the minimum and sometimes are six feet high. Our printing establishments, moreover, are ever so much better than those available to the famous print makers of Japan; but so far, our artists have defaulted from the opportunity to design prints. Thus the printing industry, by selling reproductions from masterpieces of the past, is in competition rather than cooperation.

The reader will find happy exceptions to the story of frustration and failure outlined above; but in sum, it is as stated. An equally hardheaded realism

demands the mention, however, of certain important indications that another situation may obtain fifty years hence.

Most important of all is a better understanding of the good life. Economic success is meaningless except for what it will buy; and the entire population has, within the span of the author's lifetime and observation, become steadily and increasingly conscious of its aesthetic needs. So long as those remain unsatisfied, there is no happiness and no prosperity within any permissible construction of the term. Art is today a standard part of the educational curriculum, from nursery school to graduate school. Museums of art have been founded here, there, and everywhere. The question of beauty begins to impinge upon everything from shampooing the hair to the plan of a city. One lesson of history is that the people get what they want in the end. If they want a great modern art, they will get it.

Against all the cynical arguments to the contrary, we may cite the history of music during the past fifty years. As clear as yesterday, the author remembers the general opinion that the phonograph, while ingenious, would kill music in the American home. Why sing when one could crank up Caruso? Then again, the radio was going to be sure death to the sale of records — for who would buy them when the same might be had by turning the dial? We need not summarize the present condition of music; it speaks for itself. The lesson to be learned, apparently, is that the good thing will indeed flourish if it is only made accessible.

INDEX

NOTE ON THE USE OF THE INDEX

The Index is supplementary to the Table of Contents; consult the latter for a list of the major styles, periods, and topics covered by the text.

Because technical terms are defined and discussed at some length in the body of the text, the Index undertakes to perform the function of a Glossary. Page references to definitions and definitive passages are printed in **bold face**.

References to illustrations appear in *italics*.

References to buildings and museums are indexed according to the city, then alphabetically by name. Unless otherwise indicated, the reader may assume that the principal museum of the place is indicated. References to illustrations of works of art housed within museums, churches, etc., simply give the page number in *italics* and omit the figure numbers.

Whenever custom has made a prefix part of a proper name (i.e., *de, della, le, van, von, etc.*), the name is indexed according to the initial letter of the prefix. Because surnames became universal only within recent centuries, a number of artists are indexed by reference to the initial letter of the first word of the Christian name.

There is no established usage which might offer guidance for the indexing of the numerous aesthetic, critical, and philosophical topics to which the text from time to time refers. These have been indexed, therefore, in accordance with the author's best guess as to what might be in the mind of a reader searching for information, seeking to refresh the memory, or on the prowl for argument. If all such readers will be kind enough to run the eye down the columns, perhaps they may find what they want!

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