

The Focal Press Costume Topics Series

### ELIZABETHAN COSTUME

{ Design and Construction }

Helen Qizhi Huang, Kelsey Hunt, Emily Hoem

### Elizabethan Costume Design and Construction

# THE FOCAL PRESSCOSTUME TOPICSSERIES

Costumes are one of the most important aspects of any production. They are essential tools that create a new reality for both the actor and audience member, which is why you want them to look flawless! Luckily, we're here to help with The Focal Press Costume Topics Series; offering books that explain how to design, construct, and accessorize costumes from a variety of genres and time periods. Step-by-step projects ensure you never get lost or lose inspiration for your design. Let us lend you a hand (or a needle or a comb) with your next costume endeavor!

#### Titles in The Focal Press Costume Topics Series:



### Elizabethan Costume Design and Construction

Helen Q. Huang

**Emily Hoem** 

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{ dedication.}

To Li Qiang and My Students

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For the 2003 production of *Mary Stuart* at the Milwaukee Repertory Theatre, I was fortunate to collaborate with a team of truly exceptional costume artists and technicians. I owe a sizeable debt of gratitude to Joe Henreddy, Costume Director Marcia Newman, Costume Design Assistant Rachel Laritz, Head Draper Julie Kennedy, Senior Draper Alex Tecoma, Cutters Heather Coiner and Louella Powell, First Hands Ray Dobeck and Jef Ouwens, Stitchers Daisy Calhoun, Jessica Hartman, Sarah Heberlein, Robin Roske, and Carol Ross, Crafts Artisan Supervisor Jennifer Kilander, Crafts Artisan Katherine Bailey, and Wardrobe Staff Amy Horst, Carissa Dixon, Kimberly Gaska, Ralph Holcomb, and Amy Luckow. I would also like to acknowledge Tessa Lew for her contribution to the Men's section, Lisa Burgess for her contribution to the Accessories section, Ben Walker for his sewing help, and the Costume Shop at the University of Maryland's Clarice Performing Arts Center for their patience and support.

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### PART 1 The design process

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# INTRODUCTION

Each theatrical production is unique and unrepeatable. Because of this there are no universal laws that can be expected to govern good design. As a professional costume designer and theatre educator with over 25 years of artistic and academic experience, I have found great success in teaching by example rather than by principle. By guiding my students through my own artistic process I can share with them my passion and help them develop their own approach to design. In this text, I attempt to replicate that experience by exploring the design and construction of my design for the Milwaukee Repertory's 2003 production of Fredrick Schiller's *Mary Stuart*. I am not a historian or an authority on the period. Rather, I am an artist sharing with you the process of creating her art. I have written this work with the young designer in mind, in hopes that showcasing my own process will guide early career designers to a deeper level of artistry and execution in their own work.

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### COLLABORATION ANDINITIAL CONVERSATIONS

In 2003 I was contracted to design costumes for a production of *Mary Stuart* at the Milwaukee Repertory Theatre, to be directed by Joseph Henreddy. *Mary Stuart* is a play by Friedrich Schiller that depicts the final days of Mary, Queen of Scots, who was imprisoned by her cousin, Queen Elizabeth I, because of her potential claim to the English throne. The plot revolves around an attempt to rescue Mary from prison and Elizabeth's indecision over whether or not to have her executed. I began the design process with a careful study of the script to thoroughly understand both its emotional tone and physical requirements. I found myself thrilled by this remarkable play with its powerful language and dynamic rhythm.

Having initiated my own relationship with the script, the next step was a series of discussions with Joe Henreddy, the director, which focused on the rhythm of the script and the concept of power. Having been struck by the accessibility of Elizabeth and Mary in the script, I was particularly interested in discussing the play's multi-faceted commentary on women in a position of power and in bringing a sense of realness and humanity to these historical figures. Joe saw the script as a sophisticated analysis of political process and found parallels in Elizabeth's decision to execute Mary Stuart with the 2003 US invasion of Iraq and the ensuing national debate on the validity of preemptive attack. The foundation of our working relationship was laid while engaging these points. We did not endeavor to create a final design during this initial meeting. Rather, we let the conversation establish our connection and mutual understanding of the play. Subsequently,

I allowed that connection and understanding to work within me as I continued on to the next stage in the process by collecting research.

Joe and I continued our collaboration by responding to this research imagery together and expanding upon our initial conversation about the themes and motifs present in Schiller's work. During these conversations, the play's connection to contemporary US politics became paramount in our approach to the work. We knew the national debate over preemptive attack and its attendant dynamics would be in the fore of Henreddy's mind while directing the performers and yet we felt creating a direct visual comparison through costume would be heavy-handed. Rather, this principal parallel found its expression in costume by analyzing the embodiment and expression of power.

Together, Joe and I noted that individuals in a position of power or authority in today's society, much as in the Elizabethan period, adopt a very still and controlled body language. Gestures are kept small and seem to gain all the more significance for it; often, the person leaping about or waving their arms is the least powerful in the room. Additionally, Joe noted that the two principal females in the show, Queen Elizabeth I and Queen Mary Stuart, occupy the stage for long periods of time as each had long poetic speeches that could last up to seven or eight minutes. For this reason we wanted to create a world of striking contrast, costuming Elizabeth and Mary in ways which would visually separate them but would also create a powerfully focused image when they took the stage alone and needed to command attention for long spans of time.



Figure 1.1 The striking contrast of two queens. Deborah Staples as Queen Mary and Laura Gordon as Queen Elizabeth.

From these impulses, I developed a color concept in which each queen existed in a distinctly separate color "world." Elizabeth appeared in a deep red: the color of blood, passion, and power. It dominated the eye and played sharply off her chalk-white makeup and the glossy black of the set. Mary, by contrast, was shrouded in a blue-toned grey: soft and touchable, weary and worn-over.



Figure 1.2 The color concept for the court of Elizabeth was red, gold, and white.



Figure 1.3 The world of Mary was in various shades of grey.

The logic of this initial color concept was extended throughout their respective courts. The "world" of Elizabeth's court was red, gold, and white while the "world" of Mary's court appeared in various shades of grey, blue, and black. With such a limited color palette, the proportions and intensity of the colors I chose for each character in the court became incredibly important. Using these properties of color, I was able to convey the position and status of each character within the courts. For example: Elizabeth's counselors, William Cecil and George Talbot, both wore the red of Elizabeth's world. Cecil's use of the shade, accented with dashing moments of gold and white, conveyed a regal bearing and prideful sort of authority. By contrast, Talbot's particular shade was deeper and more subdued, framed by black velvet and suggesting a power drawn from the wisdom amassed in his many years of service. The Earl of Leicester, Elizabeth's romantic interest, used the color red to a lesser degree than the counselors. His light hand with the color suggested the ultimate subordination of romantic feeling to political power that would play out in the text. The agents of Elizabeth's machinations, guards, messengers, and the illfated Davidson, took on the color of the queen at her most powerful-the deep crimson of the riding gown in which she confronts Mary. Mary's blue-toned grey was shared with her nurse, Kennedy, and her attending ladies, their statuses being denoted by the quality of their fabrics. The ghosts of Darnley and Bothwell appeared in a washed out version of that same grey, and the double agent Mortimer took on the color cues of both queens in a black and deep

red ensemble. When Mary appeared for her execution she was at her most strong, her most beautiful, and her most transcendent; her grey lightened to the delicate pale hue of her ghostly visitors. When death came, when she was finally defeated by Elizabeth, she removed the bodice of her gown to reveal a blood red corset.

In silhouette, I was particularly conscious about the size of Elizabeth's gowns. Her gowns were at their fullest when she was at the height of her political power and when she was operating in her most formal capacity. From that apex, the volume of her silhouette fell as her unease with her decision mounted. I deviated from historical realism slightly and had the queens' gowns constructed without hooped farthingales. This decision allowed an otherwise rigid period to experience moments of flow and drape. I much preferred the movement of the skirts with just a layered petticoat and bum roll underneath. Through my research, I was exploring ideas about the translation of period style to a modern eye and wanted to construct the gowns in a delicate and graceful manner that would help reveal the humanity of these long-fabled historical figures to a contemporary audience.

Each production will reveal its own particular path and develop at its own pace. I find the most important part of the first design meeting is to develop a relationship with your director and fellow designers, if you are so fortunate as to have them present at the first meeting. This relationship will serve as the basis for the creation of your shared art in the weeks to come. This page intentionally left blank

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### COLLECTING AND WORKING WITH RESEARCH

The next step in the creative journey for *Mary Stuart* was the one I've always found most fascinating. Research is the process by which the conceptual understandings of the play and its objectives as well as the director's interpretation are transformed into visual ideas. The journey from the abstract concept to the concrete visual art form is guided by the artist's "peculiar power": the imagination. This journey, this transformation, is the very heart of the creative process.

I began my creative journey from a reference point grounded in the historical realities of Elizabethan England. The Elizabethan period encompassed the reign of Queen Elizabeth I from 1558 to 1603. Friedrich Schiller's play is set in the later half of the age as Mary Stuart was executed in 1587. The Elizabethan period was a rich, complex age with great depth and variety in clothing line. English painting of this period was dominated by portraiture and I was able to locate a number of works depicting the historical characters within Friedrich Schiller's play. I further expanded my research to include portraits of men and women of similar rank and status (Figures 2.1 through 2.4).

During this process, I was careful to make note of the date and country of origin for each image. As I gather research images I begin training my eye to detect the subtleties of taste and fashion within the time—I begin to understand the "language" of the period's clothing. Artists I referenced for *Mary Stuart* include, but are not limited to, Nicholas Hilliard, John de Critz, George Gower, Marcus Gheeraerts the Younger, Robert Peake the Elder, and Hieronimo Custodis.

### Examples of Elizabethan Painting Pulled for Costume Design Research



Figure 2.1 Queen Elizabeth I, Nicholas Hilliard.



Figure 2.2 Robert Dudley, Earl of Leicester, Artist Unknown.

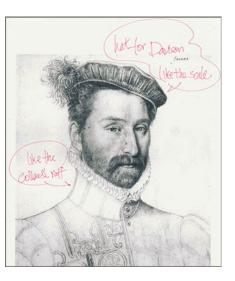


**Figure 2.3** Sir Francis Walsingham, Artist Unknown.



**Figure 2.4** Mary Queen of Scots, John de Critz the Elder.

Figure 2.6 Notes on a copy of Léonard Limousin's art.



In our modern age of rapidly developing technology it is becoming increasingly easier to conduct research through the Internet. However, I still find it immensely valuable to the artistic process to have a hard copy of all of my research. As my collection of research for *Mary Stuart* grew, I gathered the lot into a binder and sorted the images out by character.



Figure 2.5 My image research binder for Mary Stuart.

While collecting and reviewing these images, I noted directly on each page what attracted me to them. I'd ask myself: "Is this particular headdress what attracts me to this image? Perhaps it is the color of the gown or the crispness of the silhouette? Am I attracted to the overall composition of this painting, the sparseness of its color palette, or just the moment of detail on a sleeve?"

It is tempting to go about cherry-picking elements from historic costume, assembling them together into a rough pastiche of period style and I try my best to avoid this. I believe it is important to respond to your source material as both documentations of historical style and as works of art. When you can gather research which speaks to you not only of historical realities but also resonates with you on an artistic level, and when you can identify what about each image makes it successful for you, then you will be able to synthesize that research into an informed and organic new work of art. While gathering research for this project I was particularly attracted to the drawings of a French artist named François Clouet. Clouet's drawings eliminated 400 years of time between me and the characters of the play. His work was able to link me to the humanity of these people and was absolutely instrumental in establishing my emotional connection to these otherwise mythic and unapproachable figures. Through the work of Clouet I was able to finally "meet" my characters.

#### Examples of Clouet's Drawings used to Establish an Emotional Connection

I also included a number of contemporary fashion images in my research binder. These images appealed to me because of their ability to translate historical fashion ideas into a modern context.



Figure 2.7 Mary Stuart by François Clouet.



Figure 2.8 Antoine d'Aure by François Clouet.



Figure 2.9 Antoine de Crussol by François Clouet.



Figure 2.10 An haute couture image which bridged the past to the present for my design of Mary Stuart.

Images such as these bridged the past to the present and I could sense that something in them would help me interpret these historical figures for a modern-day audience. Later in the process, I discovered that utilizing the shape of these contemporary skirts and their full but soft drape on a moving body, rather than the period-accurate yet awkwardly stiff Elizabethan farthingale, would assist tremendously in translating historical style to the tastes of the modern eye.

My design philosophy rejects slavish copying of reality. Therefore, I often allow my research to expand

beyond the bounds of traditional period resources. Inspiration can be found in haute couture, street fashion, photography, contemporary art, and any number of other sources. I thoroughly believe that through the theatre's unique collaborative process a new and independent work of art can be created. However, for a play as rich in history as *Mary Stuart*, the freedom to create new worlds is often found only after rooting one's work in a thorough investigation of period realities. This page intentionally left blank

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## THE COSTUME SKETCH

After studying the play, connecting with the director on major themes and ideas, and gathering research and inspiration, I was ready to move the newly formed thoughts and images from my mind to paper by sketching. The function of sketches is both creative and communicative; through sketches the designer can work with their ideas and develop their design as well as share his or her ideas with colleagues and collaborators so that conceptual and practical elements may be fully considered.

#### "Shopping" from the Research

The costume rendering does not emerge from a designer in its finished form. Rather, sketching is a tool of discovery, a process through which creative ideas yield onto the drawing board. I like to begin my sketch work by exploring the research I have gathered. I find it helpful to have my research in hardcopy form rather than stored electronically. For me, the ideas flow freer and develop more organically when I can develop a tactile relationship with my research. I will lay the images I am most interested in out in front of me and begin what I call "shopping". Shopping is pulling out the elements from the research that I am most drawn to and quickly sketching them out. The goal of this first step is simply to begin translating the research from the original source into my hands, to build a bridge to the work, and allow the core elements of the design to reveal themselves. I am not committed to any of these ideas yet. A designer wants to feel a great deal of freedom during this processrunning through thoughts quickly, sketching boldly, and speaking loudly to the paper.

A reproduction drawing of contemporary fashion images inspired the Mary's gown silhouette design



Figure 3.1 Doodling design ideas from the research images for Mary Stuart's final costume.

#### Developing the Character through the Costume Sketch

"You must find the imperfect body for a perfect character"—Ming Cho Lee

After developing a rendering relationship with my research through "shopping," I am ready to begin sketching my characters. Each sketch begins with finding a pose for the figure that will best communicate character. Finding this pose is the genesis of character development through visual art. To find a pose, I consider the most important moment of each character within the play then attempt to capture that particular posture and gesture, essentially creating a snapshot of the character in their most defining moment. Working this way allows my sketches to serve in the larger collaborative conversation, rather than exclusively as diagrams of costumes. By sketching key moments within the show, I am able to inform the director and actor's process in a much more direct and cohesive way.



Figure 3.2 Initial sketch of Melville.

**Step 1:** When I began sketching the character of Melville, Mary's former chief steward, I imagined him visiting Mary on the eve of her execution. I saw him in my mind's eye at the very moment he enters her chamber and sees her. This was the pose, with all its undercurrents of solemnity and resignation that I attempted to capture in my first figure sketch.

> I begin by sketching the figure lightly, keeping the pencil point sharp and placing my grip towards the back of the instrument. Now is not the time to bear down and commit to dark marks on the paper.



Figure 3.3 Building the sketch.

- Step 2: Working quickly and lightly, I begin building the foundation of the rendering. As I work, I think about the weight of the body particularly as it ages. As I find lines and proportions that are successful, I can darken those marks. It is important to remain conscious of the weight of fabric as I render. Melville's outermost layer falls straight down from his rounded shoulders. If this layer closely followed the lines of the body it would be a misrepresentation of the garment and its finished form. A designer must be fully aware of the choices they are making during this step. It is not enough to decide to render a long coat, one must decide whether the coat lands at the knee, an inch below the knee, or three inches below it. Sometimes I find it helpful to sketch the options out lightly before committing.
- Step 3: As I continue to refine the sketch, I begin eliminating marks that are no longer necessary. Removing these internal marks results in unbroken planes of space, which can communicate volume. Note that the heaviest marks appear towards the base of the body and in moments of shadow. Because these renderings communicate character as much as they do clothing, faces are essential to imbuing the rendering with a sense of humanity. I prefer to reference the actor's headshot if it is available.



Figure 3.4 Completed sketch for Melville.

### Working from the Inside Out

My renderings of Mary Stuart and Elizabeth needed to reflect the changes in their bodies that would occur once corseted. I drew their figures as they naturally stood, then went back to render the hard sides and high flattened chests their corsets would effect. Before beginning work on sketches, it is wise to fully understand what undergarments you will use and how they will affect the shape of the body and the drape of the outer costume.



Figure 3.5 Female sketch with undergarments.

Figure 3.6 Female sketch with finished look.

#### Color Concept and Color Control

Color is a very powerful component of costume design and must be considered carefully. Color will register with an audience before line or detail—it is your first impression on stage and one of your strongest tools in shaping an emotional response from the audience. My initial impulses towards color begin as early as the first reading of a play. All of us have an innate understanding and response to color; if you can develop an awareness of your own responses and interactions with color in your daily life, you can begin to develop an awareness and mastery of it in your art. Because of its deep connection to our emotions, color is often one of the first areas a designer and director explore together. An appreciation for the power of color alone cannot result in a successful design. For that, a designer must exert some level of control over the color palette of the show. In the same way that a master painter composes the colors on their canvas, you must craft a plan for the use of color in your work. This is what we often refer to as a color concept.

For *Mary Stuart*, I was interested in establishing two distinct worlds onstage with color. I found inspiration in my research for the range of reds and golds that I wanted to use to define the English court. I created an inspiration collage from these sources and referenced this guide constantly, mixing my paint colors to reflect what I saw there. The collage is critical because it is the foundation of many future decisions. It will be your guide when you get lost in your own work. With the aid of my collage, the color palette for my renderings was tightly controlled, pulled from a thoroughly researched and prepared plan.



Figure 3.7 Using an inspiration collage to maintain color control.

On one level the color concept can help underscore relationships in a design. In Mary Stuart, the courts of Elizabeth and Mary are defined by their contrasting colors, and relationships within those courts are denoted by the value and proportion of each color on individual characters. On another level, color can communicate emotional information about each character. Consider the way in which Elizabeth's red reaches its fullest intensity in her riding ensemble, the costume in which she has her climactic confrontation with Mary. Color can also be used to manipulate and support the emotional rhythm of the play. For example, the audience's emotional journey with Mary swells with tenderness and compassion when she appears for her execution in a pale dove-grey gown. At the moment of her death, she removes that gown to reveal a crimson corset, the violent symbol of Elizabeth's power. This contrast results in a visual jolt for the audience, leading to a sense of shock and broken-hearted disbelief that the design team was quite consciously crafting.

The sophisticated execution of a color concept requires a sophisticated understanding of color. A designer must recognize the nuances of a color's value, intensity, and undertone. Clear parameters for these qualities in a color must be set before using them in a rendering or in a fabric. Though it may be tempting to settle and compromise along the way, such looseness will surely show in the final product. When a designer defends their color choices they are able to maintain integrity in the design.

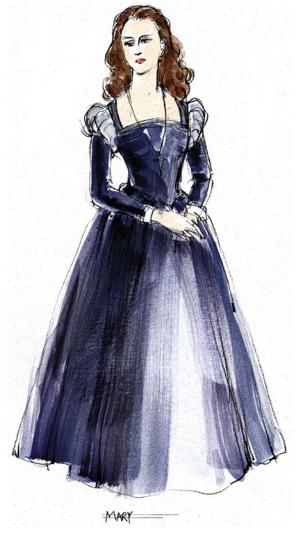


Figure 3.8 Mary in her Execution Gown.

### Painting the Final Renderings

Your final renderings may well be expressive and artful, but they function as both an independent piece of art and as a communication tool so they must also be accurate. Sketches define the basic lines and feel of the character and costume, but painting allows you to impart light, texture, and mood into the final rendering. This step can be intimidating; a designer may worry they will ruin a good sketch with a mistake while painting. I recommend making a photocopy or scan of your sketches to eliminate this fear. With a clear scan of your renderings you can print out multiple copies and feel free to try color ideas without risk of losing your work.

Additionally, those who are particularly adept at drawing often feel the need to keep their brush on the page for long periods of time. In effect, they are trying to use the brush like a pencil. These are two very different instruments and are used with different rhythms. Experiment by making a series of short quick strokes on the page, turning the brush at different angles, varying the pressure, and ending strokes in different manners. You will discover a wide range of effects can be achieved from a single brush, and some experimentation will be necessary in order to learn the tool. Step 1: Begin by laying out your workspace. I prefer to work with a translucent watercolor palette. I find the palette allows me more freedom in mixing my colors than using tubes, and I feel I can achieve a richer quality of color with translucent watercolor paints as opposed to the opaque versions. I also use a ceramic palette tray and I prefer to work with a filbert head paintbrush. Choose a brush size large enough to allow you to cover the largest sections of your rendering in two or three strokes. If you want a smaller or thinner line you can achieve this by turning the brush or lessening the amount of pressure you are using. If you use a smaller brush you may find your renderings appear streaky, full of repetitive strokes. Keep a towel near you to dab the brush on as necessary and keep a bit of paper towel on hand to dab your paper should you use too much water or want to lighten a freshly applied stroke.



Figure 3.9 Laying out the workspace.

**Step 2:** The first few strokes of your paintbrush define the quality of the costume and establish where the paint will live on the page. Your goal is *not* to fill in the lines of your rendering. You want to leave



sections of your rendering unpainted in order to sculpt the figure. Light reveals the form of an object, hence, the figure should remain white where the light most directly hits the figure. Before you begin painting you should determine what direction and what angle the light is coming from. If this concept seems thoroughly alien to you, I suggest experimenting with leaving a sliver of white on your paper at the outer edges of the figure and at the outermost edge of major fabric folds. Think of your first few strokes as painting in the shadows on the figure. This layer is the foundation of the final rendering.



Figure 3.10 Painting the figure.

Figure 3.11 Painting the face.

Step 3: The next layers of paint reveal the dimensions of the folds in the fabric, carving out the areas that exist in the most shadow. Additionally you can begin working with the value of the garments themselves. Value is the darkness or lightness of a particular color. You generally want to express a range of value in your rendering. For this purpose you will need to consider how the color of your garment appears when in shadow and when in light. When you look at your rendering identify those areas that are most in shadow and paint them accordingly. Identify those areas which are moderately illuminated and paint those accordingly. In this way you are painting a range of values into your rendering. This gives the rendering depth and liveliness. Try to avoid painting in a flat and even manner—you will find your final product far more effective if you think of painting as a process of building up layers of color, carving in shadows, sculpting folds, and identifying highlights rather than filling in lines.



Figure 3.12 Develop the painting.

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### Painting the Face



Figure 3.13 Steps in painting the face.

I lay my lightest value skin tone in around the eyes, at the temples, under the hollow of the cheeks, and down one side of the nose depending upon the direction of the light source in the sketch. A deeper, yet still warm, skin tone is laid onto one side of the face and at the deepest shadow points of the nose and cheek. Finally, a cool tone is added to indicate shadow on one side of the face. Lines are reinforced with pen or pencil, particularly around the eye sockets.

### Skin Tones



#### Figure 3.14 The colors I use to mix skin tones.

Painting skin can be intimidating because it requires a nuanced understanding of undertones. In my own work I find the slightest dab of yellow ochre watercolor and red ochre watercolor to be most effective in creating Caucasian skin tone. This combination can be augmented with Vandyke brown and cobalt blue to achieve deeper skin tones. The ratio of water to paint is key to capturing the translucency—a white paint and the opaque pigments have a tendency to deaden the final color.

### Color in Fabric



Figure 3.15 Working with color in paint.

A red dress is not uniformly red all over, the interplay of light will bring out a wide range of values and tones. I begin painting my sketches by establishing the locations of both the deepest and lightest of these colors. As I continue to build up my rendering, I can further refine my placement and expand upon the color variations found in the fabric.

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## FABRIC SELECTION

After a great deal of planning, preparation, and collaborative work, I began the process of selecting fabric and, in doing so, took my first step towards lifting the design from the page and realizing it on the physical stage. Similar to casting, fabric selection is a formative step in the life of a theatrical production. Choices made at this stage will resonate throughout the finished work.

Effective decision-making while shopping begins with a thorough knowledge of fabric types and qualities. There are a variety of texts that can inform designers about fabrics. However, I believe it is most effective to acquire this information first hand by visiting fabric shops, often to touch and experience various textiles. As a costume designer, I shop for fabric with my hands as much as my eyes, making note of the weave and fiber content of the fabrics. Doing this allows the designer to develop a familiarity with fabric and an ability to employ textiles in much the same way one utilizes paint on paper.

### Creating an Inspiration Collage

When preparing to shop for fabric, I like to create a collage to guide my choices. Working with my research, I select examples which speak to the overall texture, color, and quality I wish to achieve in the show. For *Mary Stuart*, the collage crafted for the court of Elizabeth I spoke to the wealth and power of her position. Sumptuous textures such as brocade, velvet, and heavy silk were chosen and some of the selections were cropped very closely so as to highlight a particular pattern or texture at work in the fabric. Because the design for *Mary Stuart* held a particular challenge in its limited color palette, the collage needed to be carefully constructed to



Figure 4.1 Bolts of fabric in a shop.

place parameters around my color decisions. While it was clear that the court of Elizabeth I would be dominated by red, colors can have a nearly infinite range of variations. By exploring, selecting, and documenting the exact range of reds I wished to utilize, I was able to create a tool that maintained the integrity of my design. When I went fabric shopping I brought this collage with me in addition to my renderings. The two informed each other and worked as a pair to influence my decisions. With my collage and renderings in hand, I was finally ready to begin swatching the show.



Figure 4.2 Fabric collage for the Court of Elizabeth I.

### The Process of Swatching

For *Mary Stuart*, I began swatching in the garment district of New York. I find it takes a while for the artist's eye to "warm-up"; the first few samples will likely not be the strongest options, but with persistence I began the process of refining my choices.

on the front cover. The renderings are loaded into every other sleeve so there is always one blank page across from each rendering. This provides me with a sleeve in which to collect swatches associated with each rendering. Should I gather any swatches I cannot readily assign to a character, I will collect them in the unassigned pockets in the back of the book.



Figure 4.3 Portfolio book with renderings and collected swatches.

As a designer gathers swatches it will become necessary to organize and arrange them. I like to bring along a portfolio book which can serve as an organizational system for both my swatches and my paperwork. I have found an 8.5" × 11" soft cover book with clear top-loading sleeves to be the most manageable. In this book is a list of all of the fabrics I am hunting for, my renderings, while my inspiration collage is posted



Figure 4.4 Marking swatches with prices and locations.

My assistant and I also carry several pens and permanent markers as well as some small Post-it notes and label stickers, sometimes called swatch cards. These are used to note the price of each swatch as well as the store it was sourced from. All of this information will be vital once you begin the process of sorting and selecting from your collection of swatches.

### Working in the Fabric Store

As I collect swatches, I take note of the weight and drape of each fabric. It is important to consider not only the color, pattern, and texture of a fabric, but also how that fabric will move onstage, how it will fold and fall out from pleats and gathers, how it will hold the shape of the design, and how it might interact with light onstage. Such things cannot be determined while the fabric remains on the bolt. I often pull the fabric from the bolt and drape it over an arm or other bolts in the store. Stepping back, I observe the fabric from a distance. Sometimes, certain patterns which seem garish when viewed up close will blend and become quite graceful when seen from the distance of an audience member. At times I may need to observe the flow of the fabric as it is drawn through the air or how it pools on ground.



Figure 4.5 Fabric viewed dropped off the bolt.



**Figure 4.6** Fabric that forms thick full pleats.



**Figure 4.7** Fabric that forms soft thin pleats.



Figure 4.8 Pattern viewed up close.



**Figure 4.9** Pattern viewed from a distance.

## Sorting and Selecting from the Swatches

Once I have collected the swatches, I can begin the process of sorting through them and making final selections. I laid out my sketches for *Mary Stuart* on a wide table and began arranging my swatches next to each rendering. This process cannot be rushed and I give myself ample time to work through the design: removing unhelpful samples, moving swatches between renderings, replacing, rearranging, reconsidering, and editing. I remain mindful and deliberate in my decision-making throughout this process and liken this step to final callbacks for actors, because choices made here must be carefully tested and explored before committing to them. Keeping my inspiration collage and renderings close by, I compose my swatches in an artful manner that reflects the proportions of each fabric in the composition of the final costume. Working through the arrangement or composition of my swatches not only preps them for presentation to the director, it is a tool through which I continue to further develop and refine my design.



Figure 4.10 Swatches beginning to be sorted.



Figure 4.11 Composed swatches for the Earl of Leicester.



Figure 4.12 Composed swatches for Queen Elizabeth.

### A Note on Fabric for the Elizabethan Period

Research into Elizabethan textiles reveals a strong preference for fabrics with stiffness and body. The sculptural quality of the Elizabethan silhouette was achieved with silks, satins, taffetas, velvets, and brocaded damasks, which were either woven with the appropriate level of stiffness or augmented with much interlining. Fustian, a heavy cotton canvas, was typically used for linings although it was occasionally employed for outer garments. In my design for Mary Stuart I consciously blended the conventions of Elizabethan style with contemporary fashion ideas. It was my goal to soften some of the historical stiffness of the period, to introduce an element of flow and graceful movement which would humanize the powerful characters and allow the audience to connect with them on a personal level. A designer concerned primarily with historical accuracy will naturally gravitate towards fabrics crafted for upholstery or drapery. In my design, I chose to employ brocade, heavyweight silks, and some lighter upholstery fabrics which would accommodate this core concept of my design. Be advised that many modern upholstery fabrics are crafted with stain-resistant synthetic fibers or glue backing which will affect their usability in costumes.



Figure 4.13 Glue-backed upholstery fabric.

Brocades were immensely popular in the Elizabethan period; however, these patterns were created on small framing devices and the resulting patterns were relatively small in scale. As such, the modern costume designer should be cautious when selecting brocades from contemporary upholstery or drapery fabric. Such patterns typically are quite large and are meant to be viewed spanning across a space of several feet as opposed to the space of several inches which a body provides. Choosing an appropriate pattern scale is critical to any designer working in the Elizabethan period. For this reason, it is advisable to view all fabrics from a distance and in relation to a figure.



Figure 4.14 Brocades appropriate for the Elizabethan period.

Wool was the common fabric used for more practical garments and the lower classes in the Elizabethan age. It should be noted that wool can be spun and woven in a variety of ways, and a wide range of weights and qualities can be achieved in contemporary woolens. However, given the effects of stage lighting and the distance from which any costume may be observed on stage, a designer would be well served to focus on communicating texture when choosing a wool. Color has great impact on the appearance of texture in a fabric, so pay special attention to the variations of color present in your selections and consider how you may support the communication of woolen texture by adding in color variation. Raw silk has a lovely texture, which can be strengthened with paints and dyes, and may be an alternative to true woolens.



Figure 4.15 Woolens with readable texture.

Veils were typically crafted in silk gauze, while ruffs and collars were lawn or lace. For *Mary Stuart* I was particularly interested in selecting thin and delicate laces. Care will need to be exercised in selecting a lace which doesn't appear contemporary or manufactured. I would advise against selecting laces with very crisp edges or very glossy synthetic fibers.



Figure 4.16 Examples of delicate lace.

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## DEVELOPING THE DESIGN THROUGH FITTINGS

Once a design concept has been crafted, renderings have been completed, and fabric selections have been finalized, a costume designer's job is only partially complete. Theatre is a living art and the realization of a designer's effort lies in the costumes on stage. It is important to understand that a design continues to develop and grow throughout the fitting process.

For *Mary Stuart*, I was fortunate enough to collaborate with the Milwaukee Repertory Company's costume shop. I have great respect for the artisans and technicians who endeavor to translate a designer's two-dimensional renderings into three-dimensional garments, and I feel it is important to build a relationship of mutual trust and communication with these collaborators. The first step in working with the Milwaukee Repertory Company's costume shop was a phone conference with the draper in which we talked though the renderings and confirmed our understanding of each costume. Next, I flew out to Milwaukee to attend the mockup fittings. A mockup is an invaluable tool by which the draper and designer can explore fit, refine design choices, and communicate decisions before moving into final fabric. Let me provide you with some examples.

### Fitting Process for the Role of Leicester

In *Mary Stuart*, Ted Deasy performed the role of the Earl of Leicester. Ted is a well-proportioned beautiful performer and seemed a natural fit for this pivotal character. Compare the following images:



Figure 5.1 Original rendering of Leicester.



Figure 5.2 First mockup for Ted Deasy as Leicester

The original rendering, approved by the director, conveyed a sense of proud masculinity with a full and arching upper body. This rendering was given to the capable costume shop who then produced the mockup. The initial mockup was an accurate reproduction of my rendering. However, it lacked the energy and excitement of the rendering. The mockup revealed a series of adjustments necessary to the design and fit of the costume in order to achieve the intent of the original rendering on Ted's figure.



Figure 5.3 "Doodling" on the original sketch.

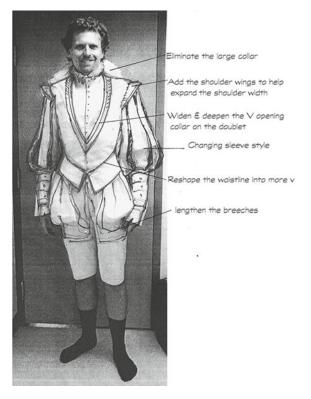


Figure 5.4 "Doodling" on the mockup photo of Ted Deasy.

By "doodling" onto a copy of the original sketch, I refined my design to accommodate the performer. Working on the sketch ensures that the continued development of the costume is guided by the original ideas. Through comparison of the original sketch to the mockup and consideration of the artistic goals of the final design, I was able to identify and notate the adjustments necessary to achieve our goal. These were thoroughly discussed with the shop and are further explained on the next page. The following adjustments to the mockup were necessary to achieve the proper effect for the role of Leicester:

- Width: While there were several factors at work, we were primarily lacking the width of the original sketch. Shoulder wings, a traditional Elizabethan detail, were employed to add more width to our performer's shoulders. Additionally, we changed the sleeve style to one which ballooned out just below the elbow and gathered in at the shoulder to create more fullness. Working with the draper, we discovered the proper proportion of fullness and width for both the character and the actor. Armed with this information, I was able to draw the additions onto the fitting photo and clearly communicate these developments.
- 2. Length: The deep V-opening in the center front of the doublet was not long enough to flatter our actor's height and was too narrow to communicate the swell of the chest that I desired. We were able to draw the new depth and width of the center front



Figure 5.5 Side view of Ted Deasy as Leicester.

opening directly onto the mockup. We also found it desirable to lower and tilt the angle of the waist so that it elongated his torso and tapered lower in the center front. Creating this sharp V-shape at the waist accentuated the center front opening and added a sense of arching movement to his silhouette.

- 3. **Collar:** In the original rendering, Leicester had a large standing collar, a high small neck ruffle, and longer hair. In the fitting, we discovered these elements simply did not have the room to co-exist together. Additionally, we wanted to maintain some differentiation between the line of shoulder and the line of the neck. In order to achieve this we chose to remove the outer collar altogether and let the neck ruffle stand on its own. This decision showcased the strong horizontal line of Ted's shoulders and thus contributed to the overall sense of width in the upper body.
- 4. Breeches: Finally, we decided to lengthen the breeches to a level just past the length of his hands. Ted is rather tall and the additional length helped balance out the length of his legs. Additionally, the contemporary eye does not readily accept shorter lengths on a man, be they period correct or not. It was important to us that Leicester be viewed by our contemporary audience as handsome and I decided to lengthen the breeches slightly in acknowledgement of modern tastes. As I have stated elsewhere in this book, I believe costume designers are interpreters of history rather than replicators of it. However, the decision to deviate from historical reality must always be informed and deliberate. In this case, the decision to lengthen the breeches was consciously done in an effort to underscore Leicester's masculinity and attractiveness.

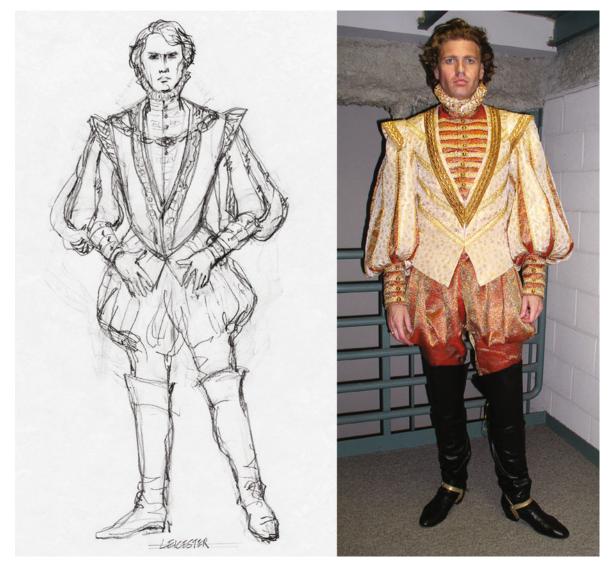


Figure 5.6 Revised rendering for Leicester and Ted Deasy's final costume.

After implementing the adjustments discovered in the mockup fitting, the final costume for the Earl of Leicester emerged as dashing and dynamic as we had hoped.

### Fitting Process for the Role of Davidson

A different fitting challenge presented itself with Davidson, Queen Elizabeth's unfortunate undersecretary who falls victim to her political maneuvering. Lee E. Ernst, performed the role.



Figure 5.7 Rendering of Davidson.



**Figure 5.8** Original mockup for Lee E. Ernst as Davidson.

Initially, I was satisfied with my original rendering for this character despite creating it on a somewhat small scale. This small scale would prove problematic later on. In the fitting, we realized that rendering on such a small scale had inhibited my ability to work through the details of his costume. When executed on a living body the costume lacked depth and dimension, it didn't seem quite finished.



Figure 5.9 Supplemental drawing for Davidson.



**Figure 5.10** Finished costume for Lee E. Ernst as Davidson.

Working on top of a copy of my finished rendering, I added moments of detail while maintaining the original silhouette. These were communicated with the shop through supplemental line drawings which indicated the additions. The finished costume remained as simple and vulnerable as the original design but the additional trim helped develop Davidson into a character capable of moving in the ornate world we had created.

### Considerations for Working in the Elizabethan Period

**Ruffs:** Ruffs and whisks are common design elements of the Elizabethan period. However, the scale of such features should be carefully considered in relation to the frame of your actor. Clear differentiation between the horizontal line of the shoulder and the vertical line of the neck is often necessary to present your performer at their best. Of course, in some instances a designer may intentionally obscure the neck of a performer for comic effect or for purposes of characterization. In either case, the size of such elements needs to be proportional to the height of the actor's neck.

Breeches: The length and volume of breeches must be determined not only in relation to the height and frame of your actor but also in relation to audience receptivity to period style. In modern western society, men's legs are not often on display and a costume designer may exploit this societal convention to his or her advantage. Additionally, the volume of the breeches must not overwhelm the overall silhouette of your costume, nor should it appear overly limp and unsupportive of the upper body. A taller man such as our Leicester benefits from the balance provided by a longer set of breeches where a shorter man may need the height implied by a briefer pair. Take your time in determining a final length of breeches, as the placement of a horizontal line on the legs is not an easy decision and the difference of a few inches can have great impact.

**Doublets:** The waist can be defined as the narrowest part of the torso and any costume designer should be able to easily identify a performer's natural waist. However, when determining the placement of the waistline on an Elizabethan doublet, the natural waist may not always be the best line to follow. A long torso was desirable in this period and many doublets were constructed with waistlines hitting 2-3'' below the natural waist. In my own experience, most figures benefit from a little lengthening of the torso when on stage. Additionally, many doublets of the period were constructed with sloping waists and you will need to consider the angle of the waistline which will best suit your actor. However, it should be noted that this period favored sharply angled waistlines, which added a sense of arching or swaying to the male figure. This taste also expressed itself in, and contributed to, the development of the peaseod bellywhen the doublet was padded in the lower abdomen. In Mary Stuart, I chose not to utilize the peased belly as I found it to be distracting and ill-understood by the modern eye. Finally, waistlines must be considered in relation to sleeve choices. If a sleeve terminates at the same level as the waist, a designer risks visually severing her performer in half. When working in a mockup fitting, consider how raising, lowering, or tilting the waistline might add a greater sense of three-dimensional flow around the body and between the sleeves and the torso.

**Bodices:** As with men's doublets, the Elizabethan period favored long torsos with angled waistlines that ended in low deep points at the center front of the body. This distortion of the natural waistline is often too extreme to accommodate the movement of the modern actor, and designers will quickly find themselves considering the relative merits between historical accuracy and performer comfort and mobility. In my design for *Mary Stuart*, I opted to lower the waistline of my bodices to a point roughly 2" below the natural waist and, while the

waistline was level in the back, I chose a sharp V-shape in the front of the bodice which allowed for actor movement yet still communicated the period style. Bum rolls were used and were also placed 2" below the natural waist in a continued effort to lengthen the torso. The corsets underneath the bodices were the firm conical style of the period and I feel this shape is a particularly strong communicator of period. Do not be tempted to alter the cone shape of the Elizabethan female torso in an effort to highlight a slim waist or shapely bust. If you desire shapeliness in your actress, look for it in the interplay between the bodice and the bum roll. A clearly defined angle, moving from the horizontal line of the bum roll into the vertical line of the back, communicates the curves of the female form while working within the parameters of the period.

Skirts: Skirts of the Elizabethan period employ cartridge pleating. I find arranging the pleats so that more fabric is pleated toward the center back of the garment than at the front of the garment adds a graceful drape to the garment. Petticoats or even hooped farthingales will need to be employed to hold the skirts away from the legs. Consider the weight of your skirt fabric when choosing a petticoat; a heavy skirt fabric will require a multi-layered full-bodied petticoat, where a lighter fabric will require an equally suited petticoat choice. In Mary Stuart, I chose not to use farthingales and instead supported the skirts with petticoats built of firm taffeta and netting. This decision was born out of a desire to achieve a sense of grace and movement with the skirts of my queens. The Elizabethan period can be very stiff, hard, and seemingly frozen. I chose to underscore the humanity and vulnerability of my queens by allowing them to break the Elizabethan convention of firmness and be seen in period clothing which accommodated movement. You will

need to evaluate what effect your design is attempting to achieve and choose the understructure of your garments accordingly.

### Advice on Working in the Fitting Room

Working effectively during a fitting requires designers to trust themselves and their artistic instincts-it requires confidence. Resist the urge to "perform" for the draper or the actor. Instead, I urge you to ask for what you need. Do you need to see this costume from a distance? Do you need to see the actor posed like your rendering or reciting lines from the script? Do you need to reference your research or your sketch? With experience, you will be able to identify solutions more readily and make decisions quickly. Speed in decision-making can be quite valuable in the fitting room and I advise you not to take too much time second-guessing your decisions. Focus on making confident and informed decisions-know what you want and why you want it. You will need to develop the skill of "eyeballing" measurements and additions. Do you know what 2" or 4" looks like? Are you asking for a hemline to drop an inch when you really mean two inches? Most designers acquire this sense naturally through repeated experience with common measures. Additionally, you will need to cultivate the ability to "see" your rendering on a body and to "see" additions and alterations to a garment. I always bring my renderings into the fitting room and refer to them often. In your mind, try superimposing your rendering onto the living actor in front of you. Think of it as drawing in 3-D. Though initially difficult, developing this ability allows you to identify the direction you want to move in and allows you to confidently communicate your decisions to a draper.

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Maintaining a positive and mutually supportive relationship with the costume shop should be a top priority. The shop's staff are the means through which your work is realized and it would be unwise to treat them with anything less than graciousness and respect. These are collaborators, fellow artists, and should be recognized as such. Acknowledge the draper's skill, seek their opinion in matters of fit or construction technique, greet the stitchers by name, and absolutely be on time for your fittings. Developing a deep and genuine appreciation for the talent and effort of the shops you work with will reap enormous benefits throughout your career.

All in all, the best advice I can give you is to know yourself as an artist and to trust your instincts when working in the fitting room. Know that your work will continue to grow and deepen when you give yourself the liberty to approach the fitting from an artist's perspective. PART 2 CONSTRUCTION This page intentionally left blank

# INTRODUCTION

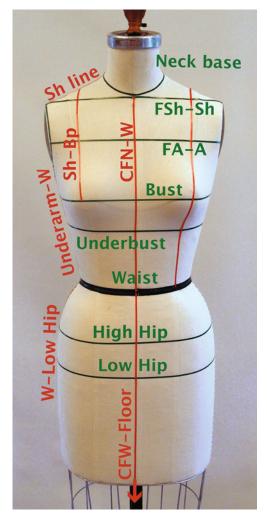
For the purposes of this book, I have asked Emily Hoem, a well-respected draper and tailor from the DC area, to reinterpret the exceptional work of the Milwaukee Repertory costume shop and walk the reader through the steps necessary to create a close approximation of the costumes used in the original production. My hope is that by working through the examples in this text, the reader can gain a thorough but flexible understanding of the craft of costume construction as it relates particularly to the design of the Elizabethan period for the stage. six

## CONSTRUCTION BASICS

### Measurements

Before beginning any construction project, accurate measurements should be taken of your performer. Bodies are constantly in flux and it is best not to rely on any measurements older than nine months. On the following pages you will find descriptions and an illustration of measurements common to theatrical costume construction. Because Elizabethan undergarments can greatly alter the size and shape of the body, it is best to take these measurements over any undergarments you will use in the production. For this reason, a measurement session with an actor often doubles as an undergarment fitting.

Neck Base	Measure around the neck where it meets the torso. Be careful not to pull too tightly.
FSh-Sh	(Front Shoulder to Shoulder) Measure across the front of the body from shoulder tip to shoulder tip.
FA-A	(Front Armscye to Armscye) Measure across the upper chest from the edge of one arm to the other.
Bust	Measure around the body at the fullest point of the bust. Keep the tape level with the floor.
Underbust	Measure around the ribcage, just under the bust.
Waist	Measure around the smallest part of the torso. This is not necessarily where your pants sit or where your navel lies. If you have trouble locating your natural waist, bend to the side and note where your body naturally indents—this should be your natural waistline. It may be helpful to tie a string around the body at this point so you can clearly identify the waistline.
High Hip	Measure around the body at the hip bone. Keep the tape level with the floor.
Low Hip	Measure around the body at the fullest point of the derrière. Keep the tape level with the floor.
Sh-Line	(Shoulder Line) Measure from neck base to tip of shoulder.
SH-BP	(Shoulder to Bust Point) Measure from the shoulder line to the apex of the bust. This measurement can be greatly affected by choice of undergarments.
CFN-W	(Center Front Neck to Waist) Measure down the center of the body from the base of the neck to the waistline.
CFW-F	(Center Front Waist to Floor) Measure down the front of the body from the waistline to the floor.
U–W	(Underarm to Waist) Measure down the side of the body from the edge of the armpit to the waistline.
W–Low Hip	(Waist to Low Hip) Measure down the side of the body from the waistline to the low hip line.
Around Armscye	Measure around the armpit. Keep the tape loose and comfortable. Measure where you ultimately want the armhole seam to land.
CBN-W	(Center Back Neck to Waist) Measure down the back of the body from the base of the neck to the waistline.
BSh–W	(Back Shoulder to Waist) Measure down the back of the body from the center of the shoulder line to the waistline.
CBW-F	(Center Back Waist to Floor) Measure down the back of the body from the waistline to the floor.
BSh–Sh	(Back Shoulder to Shoulder) Measure across the back of the body from shoulder tip to shoulder tip.
BA-A	(Back Armscye to Armscye) Measure across the back of the body from the edge of one arm to the other.



**Figure 6.1** Placement of common measurements. Front view.

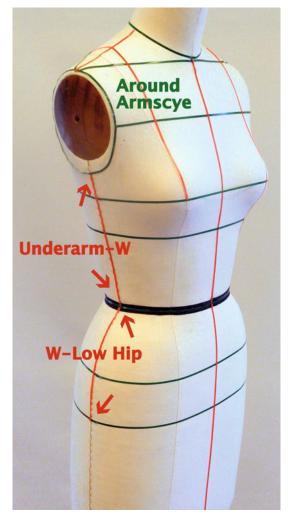


Figure 6.2 Placement of common measurements. Side view.



Figure 6.3 Placement of common measurements. Back view.

## Pad the Dress Form

Accurate fit is an essential component of any garment construction, but is particularly crucial to the sharp sculpted lines of the Elizabethan period. As you begin construction on your Elizabethan garments, you will need access to a dress form which replicates the body of your performer and allows you to fit and alter from all possible angles. Most costume shops will be outfitted with fabric-covered forms in a select range of sizes. Home sewers will likely have access to a sectional form with can be adjusted both vertically and horizontally. Either style may be used: however, you will soon discover that even the highest quality forms rarely match your performer's measurements exactly. Some manual adjustments will be necessary. This is particularly true for women's wear of the Elizabethan Age. Corsets of this period compressed the breasts into a smooth conical shape with little if any definition under the bust and resulted in a high swell, which effectively shortens the Shoulder to Bust Point measurement. I recommend taking front, back, and side photos of your actor in their production undergarments during your undergarment fitting/measurements session. This way you have a visual reference in addition to your measurements when padding the form.

Begin with a dress form slightly smaller than your actor's measurements. Wrap batting or another soft material around the dress form to achieve the dimensions of your performer's body and the shape of that body in period undergarments as documented in your photos. Padding out a form is not entirely a mechanical process and there is a good deal of artistry involved in this step. Take your time and check your measurements often, as this will be the foundation upon which you build your final garment.



Figure 6.4 Padding the form. Front view.



Figure 6.5 Padding the form. Side view.

Once you have achieved the shape and dimensions you desire on your form, you will want to cover the form so that the padding is preserved and will remain in place through repeated fittings. I have found the simplest way to do this is to choose a close fitting t-shirt, snip off the sleeves and sew a seam to close the armholes. Your T-shirt should fit smoothly over the padded form with no gaping or blousing. If your performer is particularly small and you find your T-shirt is hanging too loosely over the form, simply seam the shirt up the side until it fits snugly.



Figure 6.6 Covering the form.

## Place the Style Lines

Now that you have a form altered to accurately replicate your performer's measurements, the next step is to secure the corset, bum roll, and petticoat(s) onto the form. Once these are in place you can begin arranging the style lines of your desired garment. Working with colored twill tape or ribbon and straight pins, begin to mark out the placement of the neckline, arm-hole, and bodice



Figure 6.7 Placing style lines. Front view.

hemline. Refer to your renderings for the placement of these elements. The goal of this step is to establish the proportion and scale of your renderings on the threedimensional body. Again, this is a foundational step so take your time, step back, and observe your work in relation to the rendering. If you are draping for another designer, you may even consider consulting with them about the placement of your lines. A brief consultation at this stage may result in a more accurate mockup later on.



Figure 6.8 Placing style lines. Side view.

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# THE FEMALE BODICE

## Elizabethan Bodice

In this chapter we will explore how to drape and construct the bodice of Elizabeth I's court gown from

the 2003 Milwaukee Rep production of *Mary Stuart*. This chapter assumes you already have an Elizabethan corset for your performer. If you wish to create your own Elizabethan corset, please refer to Chapter 10.



Figure 7.1 Queen Elizabeth's costume.

Figure 7.2 Elizabethan bodice.

**Step 1:** Cut a piece of muslin to cover the center front section of the bodice. Match the grain line of the muslin to the center front line and pin to the form. The grain of a fabric is the direction of the strongest threads woven within the fabric. For muslin, the grain line will run parallel to the selvedge edge. Mark your style lines, as indicated by the twill tape, onto the muslin piece with a pencil. In Figure 7.3 the solid line is the grain line while the dotted lines are style lines (which will later become seams). Trim away excess muslin leaving about one inch of fabric for seam allowance.



Figure 7.3 Draping the center front bodice piece.

Step 2: Cut another section of muslin which covers the side front section of the bodice. The grain line should be aligned with the side front style line. Again, note that the solid line in Figure 7.4 is the grain line of the muslin piece while the dotted lines are the style lines. Mark all style lines. Add notches or large dots where seams cross. Later you will align these notches to ensure accurate joining of the bodice pieces. The fabric will not want to curve smoothly around the body. To achieve this you will need to snip into the seam



Figure 7.4 Draping the side front bodice piece.

allowance up to the waist style line every inch or so. Be careful not to snip beyond the waist line. Note that the shoulder seam for an Elizabethan bodice does not align with the top of the shoulder, rather it moves across the shoulder blade in a diagonal line. Also note that the armscye is marked generously enough to allow for rotation of the arm. The circumference of your armscye mark should measure at least that of your armscye measurement from Chapter 6.



Figure 7.5 Draping the side front bodice piece.

**Step 3:** Cut a third piece of muslin which covers the back section of the bodice. Align the grain line of the muslin with the center back line marked on your dress form. Mark all style lines. Again, the fabric will not want to curve smoothly around the form

and you will need to snip up to the waist style line in order to make the curve lie flat. Additionally you will find it necessary to snip into the armscye seam allowance. Trim away all excess muslin.



Figure 7.6 Draping the center back bodice piece.

**Step 4:** After you are satisfied with your markings, remove the muslin from the form and lay out on a cutting table. If your markings are shaky or uneven you can smooth them out with a clear

ruler or French curve. In Figures 7.7 and 7.8, the original lines are marked in black and the corrected versions are marked in red.

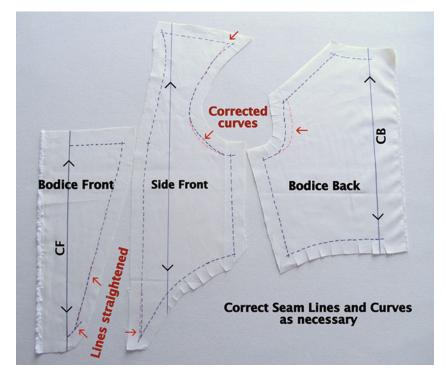


Figure 7.7 Smoothing and correcting pattern lines.

Step 5: At this point you have what amounts to a muslin pattern. However, you will want to transfer this pattern to paper as a paper pattern will allow you to replicate your garment and document it for future use. Pin the muslin pieces securely to a sheet of paper spread out across your cutting table. You may use traditional pattern paper for this purpose or brown butcher's paper found at a craft or stationery store. Using a tracing wheel and tracing paper, transfer your markings onto the paper. You should only need a moderate amount of pressure to do this. Be sure to transfer your notch markings as well. Go over the markings created by your tracing wheel with a pen or pencil to create smooth clear lines. Use a ruler and a French curve to keep your marking accurate.



Figure 7.8 Transferring pattern to paper.

Step 6: You now need to true your straight lines.

Trueing a line means ensuring that the lengths of corresponding seams, such as side seams or shoulder seams, are the same measurement. To do this, it is helpful to go ahead and cut out your patterns along the straight lines—do not cut the curved lines and leave a few inches of excess at the end of each straight line. Compare the measurements of each straight line and its corresponding line on other pattern pieces, then add or subtract as necessary and smooth out the line. When trueing a line, it is advisable to align the seams at the top and make your adjustments at the bottom. Two examples have been included on the following page.

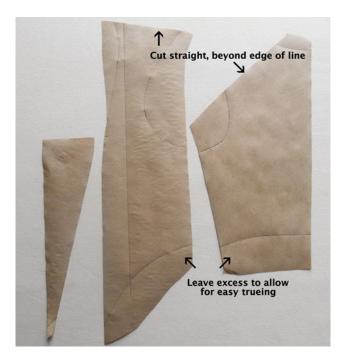


Figure 7.9 Trueing pattern lines.

Step 7 Examples: Figure 7.10 shows the connection between the front pattern piece and the side front pattern piece. The straight line of the side front piece is slightly longer than the straight line of the front piece. To true the line, the straight line of the side front piece is shortened and a new waistline has been drawn. This new line is noted in red. Figure 7.11 shows the connection of the side front pattern piece and the back pattern piece at the waist curve. The side seam line of the back pattern piece is slightly longer than the side seam line of the side front piece. To true the line a new waistline curve has been drawn, which is noted in red.

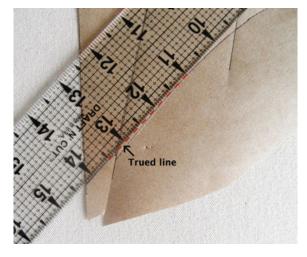


Figure 7.10 Trueing a straight line.

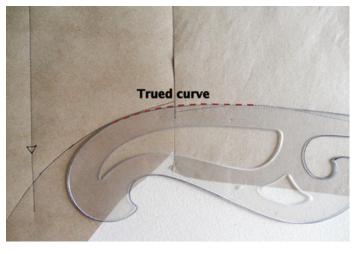


Figure 7.11 Trueing a curved line.

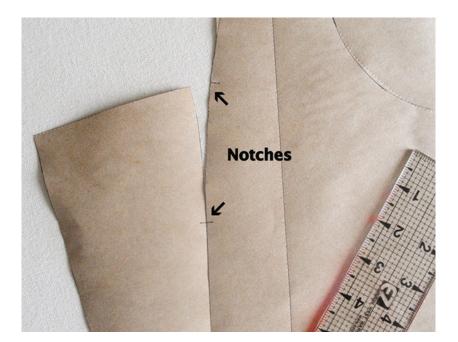


Figure 7.12 Notch placement.

**Step 8:** In Step 5 you should have transferred notch markings from your muslin to your paper pattern. These notch markings indicate how pattern pieces align or intersect. The notch at the top of Figure 7.12 shows where the edge of the bodice front intersects with the side front seam. Because the side front seam begins to curve as it moves towards the top of the body, you want to place a notch along the straight part of the seam to ensure proper alignment when stitching. Notches may be indicated by a simple dash across both pattern pieces.

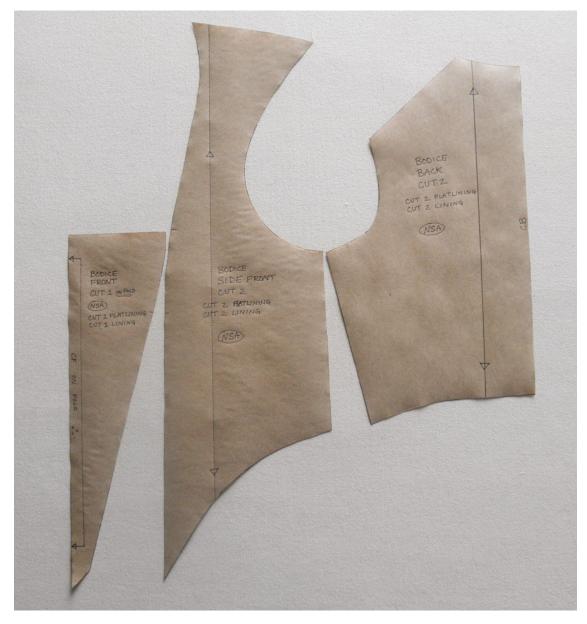


Figure 7.13 Step 9: Cutting information included on pattern pieces.

Step 9: Cutting information should be added directly onto the pattern piece. Even if you are constructing this garment yourself, it is advisable to add the following cutting information for future reference:

Piece Name	In this example we have a front, side front, and back.
Cut Number	In this example, you will cut 2 of the back and side front pieces but only 1 of the front piece. Indicate this with "Cut 2" or "Cut 1."
Cut on Fold	You will want the center front edge of the front piece cut on a fold. Indicate this on the pattern with a bracket running the length of the seam and the words "Cut on Fold." Center Front or Center Back lines: indicate these with "CF" or "CB."
Grain line	The grain line should be marked with a line running the length of the pattern. In this example, the grain of the front and back pieces runs parallel to the CF and CB lines, while the grain of the side front piece runs parallel with the side front seam.

In this example we have not included Allowance seam allowance on our pattern. This is indicated by the abbreviation "NSA." I choose not to add seam allowance to my patterns to make them more flexible. For example: If you are creating this garment for a single use you may desire a  $\frac{1}{2}$ " or 1" seam allowance to reduce bulk. However, if you expect this garment to be reused by multiple performers, then you may want up to 4" seam allowance to make it easily alterable. If you choose to add seam allowance to your paper pattern, be certain to indicate the amount on each pattern piece.

Seam

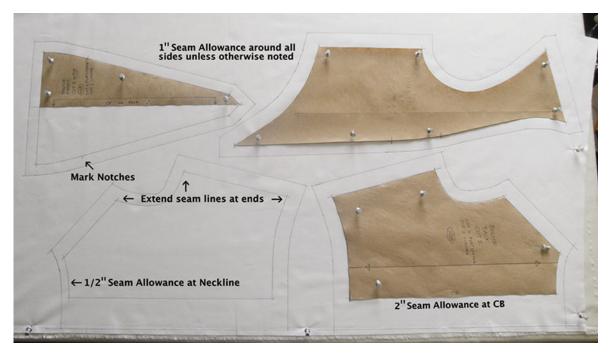
Congratulations! You now have a paper pattern for your Elizabethan bodice. The remaining steps will guide you through cutting out and constructing a muslin mockup of that bodice.



Figure 7.14 Layering fabric for cutting.

Step 10: Lay your mockup fabric out on your cutting table facing down. Typically muslin is used for this purpose. However, if you are using a particularly thick fabric for your finished garment you may consider using a bulkier mockup fabric. Fabric should be laid face down so that markings are made on the back of the fabric. Align the selvedge edge with the edge of the table to ensure that the grain line is straight.

Because construction of the bodice will require flat lining cut from the same pattern, you can save time and effort by cutting both fabrics at once. Lay your flat lining fabric on top of your mockup fabric facing down. Again, selvedges are aligned with the table edge. Pin your fabric to the table every 6"–8" and resist the urge to unpin while cutting out your pieces.





Step 11: Lay your pattern pieces, right side up, on your prepared mockup fabric. It is advisable to lay all your pieces out at once to ensure you have enough fabric available for the project.

> The grain line you marked on your pattern pieces should run along the grain line of the fabric. For muslin and most traditional woven fabrics, this will be parallel to the selvedge edge. You may confirm that the grain line of your pattern has been laid out on "the straightof-grain" by comparing the measurement from one end of the grain line to the selvedge edge of your fabric with the measurement of the other end of your grain line to the selvedge edge of your fabric (measurements run perpendicular

to the selvedge edge of the fabric). When the measurements match you know your grain line is level with the selvedge edge.

Trace around the sides of your pattern pieces with a sharp pencil. Because these are the seam lines of my mockup, I like to ensure the corners are clearly marked by extending each line just past the edge of the pattern piece. Notches are marked with long dashes starting on the seam line and extending into the seam allowance. Pieces that need to be cut on the fold can either be placed along the folded edge of the fabric or flipped over to the opposite side after the initial trace, as I have done with the bodice front pattern piece. At this point, seam allowances are marked at a standardized distance from the seam line. The allowances I prefer are:

- $\frac{1}{2}$  inch seam allowance at the neckline
- <sup>3</sup>/<sub>4</sub> inch at armscyes
- 2 inches at side seams, this generous amount allows the garment to be altered later
- 2 inches at center back or center front openings

- 4 inches at the hemline, this generous amount allows the garment to be altered later
- Step 12:After clearly marking your pattern, remove the<br/>paper pattern pieces and pin all layers together.<br/>Try to keep the fabric flat as you pin and<br/>avoid "scooping" the fabric, as this misaligns<br/>the fabric layers. Pins should be placed<br/>perpendicular to the seam lines and completely<br/>within the cut lines.



Figure 7.16 Pinning fabric for cutting.

- Step 13: Cut out all pieces along the marked cut lines. Do not lift the fabric from the table and do not remove the straight pins you placed earlier.
- **Step 14:** Flat line the layers together by machine stitching along the marked seam lines with a long basting stitch. The stitches should not turn corners, rather they should extend from one edge of the fabric to the other. These are basting stitches and thus should not be backstitched.

Sometimes this basting stitch is made 1/8"-1/4" to the outside of the seam line, within the seam allowance. This is a matter of personal preference, but I find that basting on the seam line ensures a higher accuracy when sewing the garment together. Removing the flat lining after the garment is completely finished is also a matter of preference, but if the seams are properly sewn they will not really be seen, especially when on stage or from a distance.



Figure 7.17 Cut pattern pieces.

**Step 15:** Construct the bodice by stitching the side front and side back sections together at the side seams and the shoulder seams, aligning corners and notches as marked. Next, stitch together the side front and center front sections, aligning the corners and notches as marked. Press your seams and check the fit of your mockup on a dress form. Press under the edges of your neckline and hemline along the marked seam line, clipping into the seam allowance as necessary.



Figure 7.18 Bodice mockup sewn and on dress form (front view).



Figure 7.19 Bodice mockup sewn and on dress form (side view).



Figure 7.20 Bodice mockup sewn and on dress form (back view).

**Step 16:** Zigzag plastic boning into the seam allowances of the side and side-front sections as shown in Figure 7.21. This method of inserting boning is

for fitting the mockup. After your mockup has been properly fitted you will replace the plastic boning with spiral steel boning in casings.



Figure 7.21 Bodice mockup with bones included for fitting.

Step 17:Try on the bodice mockup, pinning out excess<br/>as needed for a better fit. In Figure 7.22 you<br/>can see that I needed to take some length out<br/>of the side front pieces near the armscye in<br/>order to achieve a proper fit. Adjustments such<br/>as these are transferred to the pattern either by



Figure 7.22 Bodice mockup sewn and fit on performer.



Figure 7.23 Bodice mockup sewn and fit on performer.

making the same folds in the paper pattern and taping the paper into the corrected position, or by tracing the new shape of the muslin pattern piece onto a new piece of pattern paper. Once your adjustments have been made to the pattern, cut out your pattern in both fashion fabric and flat lining. Flat line your pattern pieces by basting each muslin piece on all sides to its corresponding fashion fabric piece. Sew the shoulder seams together. Step 18: To add piping to your bodice, pin a length of narrow piping along the neckline edge from center back down to the bottom of the "V" on the side front piece. Pin a second piece of piping along the top of the front bodice piece at the neckline. Using a zipper foot, stitch the piping in place as close to the cording as

possible. Pin the front bodice to the side front bodice and sew together with a zipper foot so your stitches lie as close to the cording of the piping as possible. If you are using plastic boning in your bodice, now is the time to stitch the boning into the seam allowance on either side of the bodice.



Figure 7.24 Pinning piping.







Figure 7.26 Pinning front and side bodice.



Figure 7.27 Sewn bodice pieces.



Figure 7.28 Adding boning.

Step 19: To finish the inside edge of your bodice, pin bias binding along the edge of your piping on the outside of the bodice, as shown in Figure 7.29. Topstitch the bias binding in place



Figure 7.29 Pinning bias binding.



Figure 7.31 Pressing bias binding to inside.

with a zipper foot, placing your stitches as close to the cord of the piping as possible. Press the bias to the inside of the bodice, pin in place, and hand-stitch to the flat lining layer.



Figure 7.30 Sewing bias binding.



Figure 7.32 Pinning bias binding to flat lining.

Step 20:Stitch side seams together and press the seam<br/>allowances open. Create the bodice waistline<br/>facing from the scaled pattern included at the<br/>back of this chapter. Pin the bodice waistline<br/>facing to hem of bodice and sew place. Grade

seam allowances and clip into them to allow for easy turning at curves of hem. Understitch facing to hem seam allowances. Press the facing up and pin the edge in place as shown. Cross-stitch the facing to the bodice flat lining.



Figure 7.33 Waistline facing stitched in place.



Figure 7.34 Clipping curves.



Figure 7.35 Understitching facing.



**Figure 7.36** Cross-stitching facing pinned in place.

Step 21: To add a back zipper closure, baste the center back seam closed. On one side of the seam, snip a thread every inch. Press the center back open. Starting from the bodice hem, center your zipper on the center back seam and pin in place. Secure your pins perpendicular to the zipper and pin only into the tape portion of your zipper. Turn bodice right side up and, with a zipper foot, sew the zipper to the bodice, ¼″ from either side of the center back seam. Carefully open the center back seam and remove all basting stitches.



Figure 7.37 Baste center back closed.



Figure 7.38 Pinning in zipper.



**Figure 7.39** Stitching zipper from right side of garment.

**Step 22:** To finish the bodice, iron the center back seam flat and add a hook and eye to the top of the seam. Cross-stitch all excess center back seam allowance to the bodice flat lining.



Figure 7.40 Iron back seam flat.



Figure 7.41 Add hook and eye.



Figure 7.42 Cross-stitch excess fabric flat.

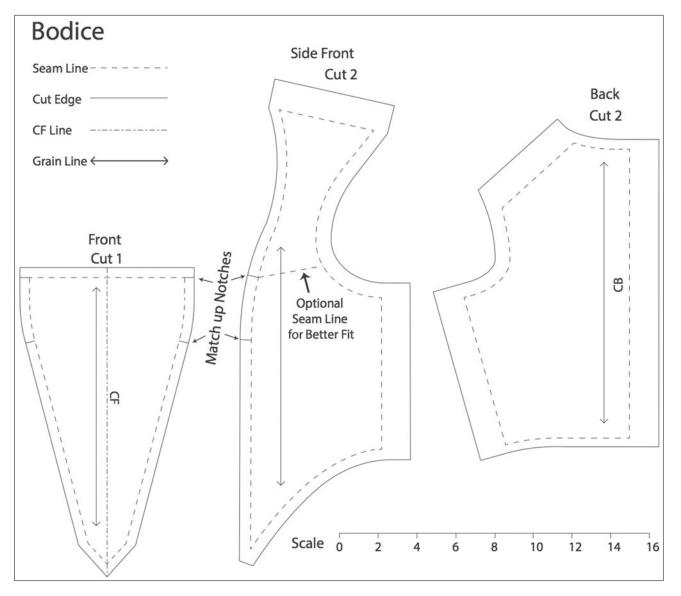


Figure 7.43 Scaled bodice pattern (scale in inches).

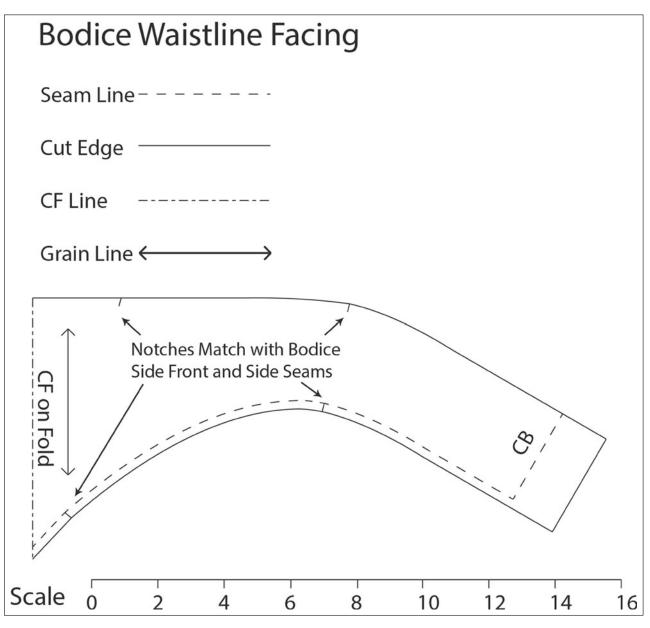


Figure 7.44 Scaled bodice waistline facing pattern (scale in inches).

eight

## THE FEMALE SLEEVE

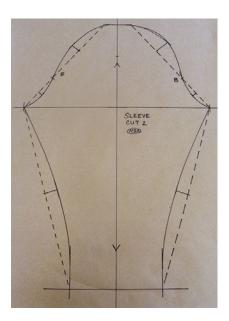
## Elizabethan Sleeve

In this chapter you will learn how to draft a sleeve pattern using a mathematical formula rather than draping it on a dress form. You will also learn how to cut and apply your sleeve to the Elizabethan bodice constructed in Chapter 7. A scaled version of this pattern is included at the end of this chapter.

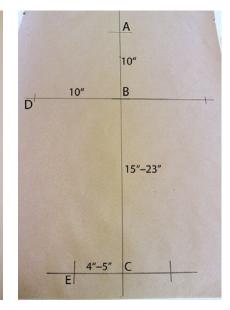
### Step 1:

• Draw a center guideline on your pattern paper or brown craft paper roughly 30" in length.

- Mark a point near the top of this guideline and label it point A. This will be the apex of your sleeve.
- Measure 10" from point A and mark a line perpendicular to the center guideline. This is line B.
- Measure the length of the underarm measurement (usually 15"–23" on an average female) down from Line B and mark another line perpendicular to your center guideline, this is Line C.
- On Line B, measure 10" out from the centerline and label point D. This measurement affects the overall fullness of your sleeve. You may reduce or increase the







**Figure 8.1** Completed Elizabethan female sleeve pattern.

**Figure 8.2** Completed Elizabethan female sleeve.

Figure 8.3 Beginning sleeve draft.

fullness of the sleeve by altering the length of this line. However, 10" is an appropriate level of fullness for this particular period.

• On Line C, measure 3<sup>1</sup>/<sub>2</sub>"-5" out from the center guideline and label point E. The exact length of this measurement should be half of the desired final circumference of the sleeve hem. The desired final circumference of the sleeve hem can be determined by adding an inch or two of ease to the wrist measurement of your performer.

#### Step 2:

- Draw a dashed line connecting point D to point E. This line is not a final cut or stitch line.
- Locate the center of line D–E and mark a 1" line extending perpendicular to line D–E from this point. This 1" line should extend towards the center of the sleeve and should be labeled point F.

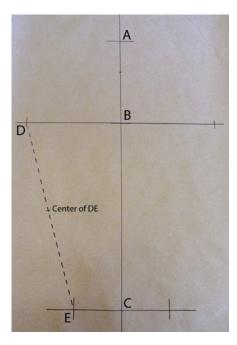


Figure 8.4 Connecting D to E.

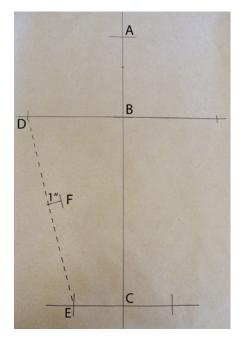


Figure 8.5 Marking point F.

### Step 3:

- With a hip curve, draw a gently sloping line from point D to point F.
- Extend point E up 3" perpendicular from line C. This is now line E.
- With a hip curve, draw a gently sloping line from point F blending into line E.

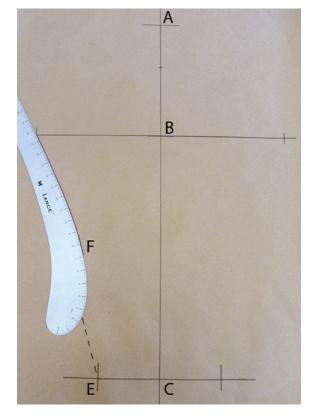


Figure 8.6 Connecting D and F.

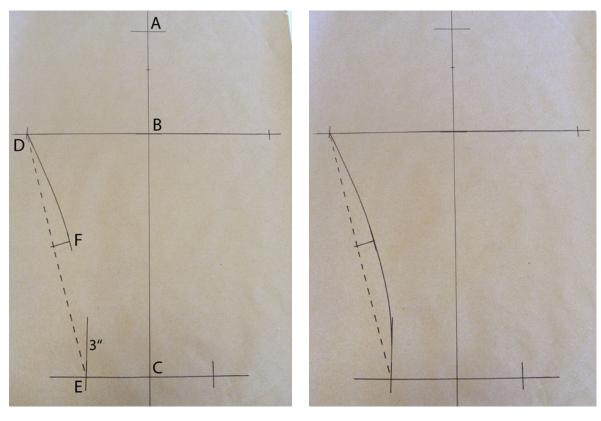


Figure 8.7 Extending point E.

Figure 8.8 Connecting F to E.

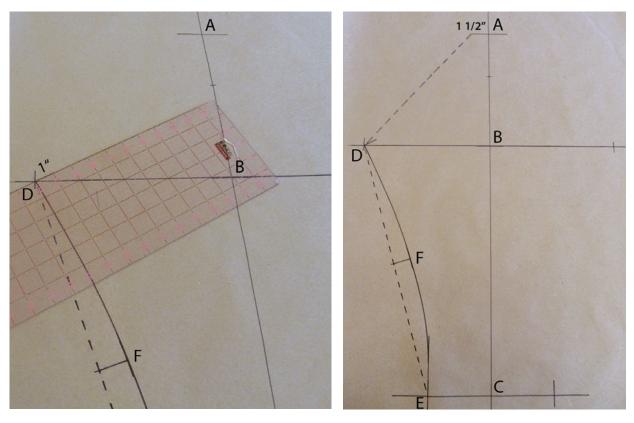


Figure 8.9 Drawing a 1" line at point D.

#### Step 4:

• Draw a 1" line at point D that extends into the center of the sleeve and is perpendicular to line D–F–E.



- Extend point A 1½" on either side of the centerline. This is the top of your sleeve.
- Draw a dashed line connecting point D to line A. This line is not a final cut line.

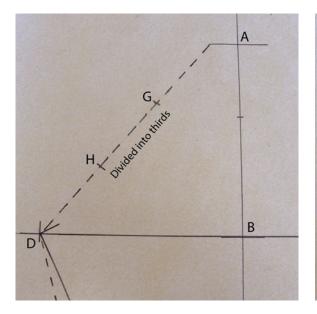


Figure 8.11 Establishing G and H.

## Step 5:

- Divide line A–D into thirds. Label the two dividing points G and H.
- Find the center of line segment D–H, label this point J.

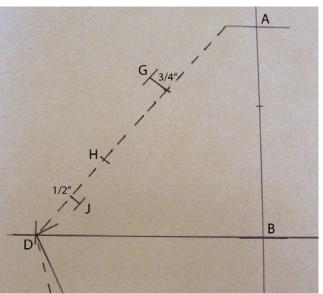


Figure 8.12 Extending from point G and point J.

- Draw a <sup>3</sup>/<sub>4</sub>" line from point G, extending to the outside of the sleeve.
- Draw a 1/2" line from point J, extending towards the inside of the sleeve.

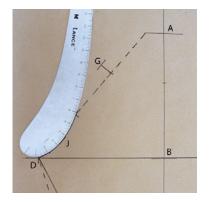


Figure 8.13 Connecting D–J–H.

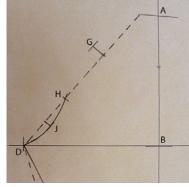
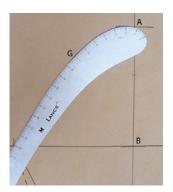
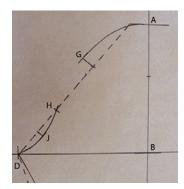


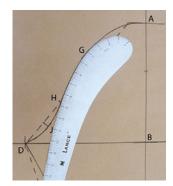
Figure 8.14 Finish line D-J-H.



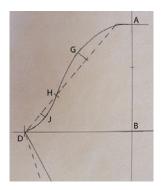
**Figures 8.15** Connecting top of H–G–A curve.



Figures 8.16 Connecting top of H–G–A curve.



**Figures 8.17** Connecting bottom of H–G–A curve.



Figures 8.18 Connecting bottom of H–G–A curve.

#### Step 6:

- Using a hip curve, draw a line connecting D–J–H. This line should curve into the sleeve.
- Using a hip curve, draw a line connecting H–G–A. This line should curve away from the sleeve.

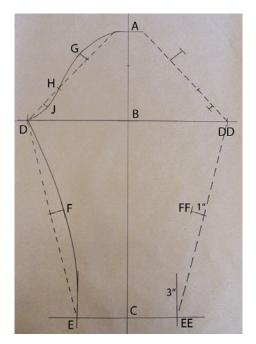
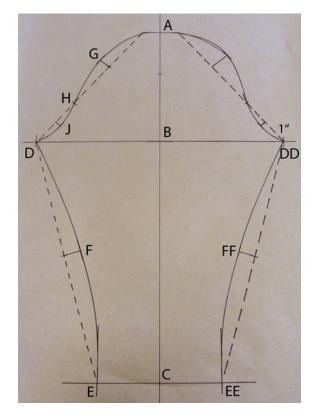


Figure 8.19 Connecting DD and EE, placing line FF.

Note: For Steps 7–9 we will be drafting the remaining half of the sleeve by essentially repeating the process outlined in Steps 2–6. However, the measurements used to create the upper section of the sleeve will be slightly different, resulting in a slightly different curve.

#### Step 7:

- Draw a dashed line connecting point DD to point EE. This line is not a final cut or stitch line.
- Locate the center of line DD–EE and mark a 1" line extending perpendicular to this line at this point. This 1" line should extend toward the center of the sleeve and should be labeled point FF.
- Extend point EE up 3" perpendicular from line C. This is now line EE.



**Figure 8.20** Drawing sloping lines from DD to FF and from FF to EE.

### Step 8:

- With a hip curve, draw a gently sloping line from point DD to point FF.
- With a hip curve, draw a gently sloping line from point FF blending into line EE.
- Draw a 1" line at point DD which extends into the center of the sleeve and is perpendicular to line DD-FF-EE.

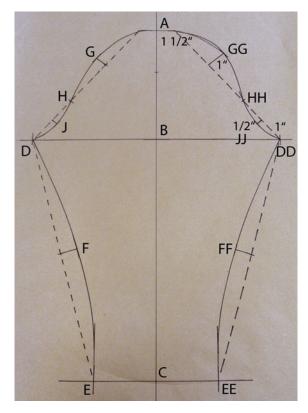


Figure 8.21 Drafting curved lines DD–JJ–HH and HH–GG–A.

# Step 9:

- Point A should already be extended 1<sup>1</sup>/2" on either side of the centerline.
- Draw a dashed line connecting point DD to line A. This line is not a final cut line.
- Divide line A–DD into thirds. Label the two dividing points as GG and HH.
- Find the center of line segment DD–HH, label this point as JJ.
- Draw a 1" line from point GG, extending to the outside of the sleeve.
- Draw a 1" line from point JJ, extending towards the inside of the sleeve.
- Using a hip curve, draw a line connecting DD–JJ– HH. This line should curve into the sleeve.
- Using a hip curve, draw a line connecting HH–GG–A. This line should curve away from the sleeve.

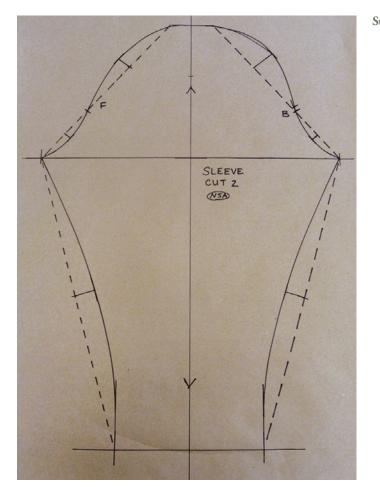


Figure 8.22 Completed sleeve draft.

Step 10:Congratulations! Your sleeve pattern is now<br/>complete. Label your pattern with the cutting<br/>information outlined in the previous chapter.<br/>For this sleeve we have not included a seam<br/>allowance directly on the pattern, the grain<br/>line runs parallel to line A–B–C, and your cut<br/>number is 2. Also, mark the front and back of<br/>your sleeve pattern. The back of your sleeve is<br/>the side with a larger shoulder curve.

In the following steps we will be cutting out your sleeves and inserting them into the bodice from Chapter 7.



Figure 8.23 Sleeve pattern piece cut out.

Step 11: Lay out your mockup fabric out on a cutting table. Refer to the previous chapter for further instructions. Lay your sleeve pattern, right side up, on your prepared fabric. Align the grain line of the sleeve with the grain line of the sleeve pattern and pin firmly in place. Trace around the outside edge of your pattern—this is your stitch line. For the second sleeve, turn the pattern over and move to another area on the fabric. Align the grain, pin the pattern in place, and trace. At this point, you will need to measure and add a seam allowance to the perimeter of your pattern. Suggested seam allowances for sleeves are:

- 2" at sleeve hem
- 1" at underarm sleeve and around armscye

After marking all seam allowances, cut out your sleeves. Refer to the previous chapter for additional information.



Figure 8.24: Assembled mockup sleeve.

Step 12: Create your sleeve mockups by pinning and stitching each sleeve together along the underarm seam, making sure to properly align the marked stitch lines.

> Compare your sleeves after they are constructed, to confirm that they are mirror images of each other as opposed to duplicates. Remember that each sleeve has a front and back orientation which must coincide with its proper place on the body.



Figure 8.25: Aligning the sleeve into the armscye.

Step 13:To establish the placement of the sleeve into the<br/>bodice armscye, pin the sleeve in place on the<br/>bodice on the dress form. Begin by matching<br/>the underarm sleeve of the seam with the bodice<br/>side seam. Continue aligning and pinning the<br/>lower armscye portion of the sleeve, stopping<br/>halfway around the armscye as shown.



**Figure 8.26–27** Placing the top of the sleeve into the armscye.

Step 14:Working from the outside, match the apex of<br/>the sleeve (point A from your sleeve draft) to<br/>the bodice shoulder seam and pin the remainder<br/>of the sleeve into the bodice armscye. You will<br/>need to add gathers or pleats to the sleeve cap<br/>to fit the fullness into the armscye. Note that

this is the standard placement of a sleeve in a mockup garment. While fitting the garment, you may find it desirable to place the apex of the sleeve at a point in front of or behind the bodice shoulder seam.



Figure 8.28 Creating gathering stitches.



Figure 8.29 Gathering the sleeve cap.

Step 15: Once you are satisfied with the style and placement of the sleeve on the dress form, remove the sleeve and machine baste from point H to point HH, ½" on either side of the solid marked stitch line—these are gathering stitches. By pulling evenly on these stitch lines, you can adjust the fullness and quantity of the gathers necessary to fit the sleeve into the bodice armscye.



Figure 8.30–31 Pinning the sleeve into the armscye.

Step 16: You are now ready to pin the sleeve into the bodice for stitching. Remove the bodice from the form and turn it inside out. Slip the sleeve, right-side out, into the bodice and align the armscyes. Be sure to confirm that right sides are together and that the front of the sleeve is aligned to the front of the garment. Working from inside the sleeve, pin the sleeve in place at the bodice side seam and the bodice shoulder seam. Adjust the gathers as necessary with your basted gathering stitches to fit the sleeve into the bodice armscye, pinning as you work. Place your pins perpendicular to the stitch lines of your sleeve for easier removal during stitching.

Step 17: Once you are satisfied with your pinning, stitch the sleeve in place. Confirm the placement of the sleeve on the dress form. Make any alterations necessary to achieve proper fit and transfer those to the paper pattern. Once you are satisfied with your mockup sleeve you may proceed with creating the final sleeve in fashion fabric.



Figure 8.32 Stitching the sleeve in place.



**Figure 8.33** The final mockup sleeve (front).



Figure 8.34 The final mockup sleeve (back).

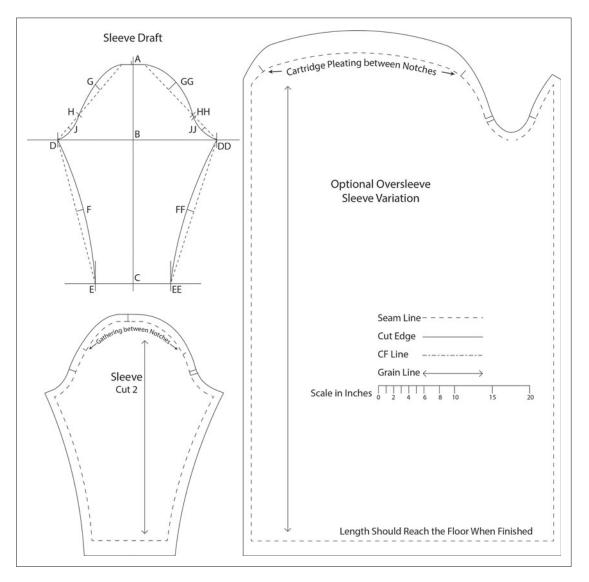


Figure 8.35 Scaled sleeve pattern (scale in inches). Instructions for cartridge pleating are in chapter 9.

nine)

# THE SKIRT BASQUE AND SKIRT

# Elizabethan Skirt

In this chapter you will learn to drape and construct the Elizabethan basque and the Elizabethan cartridge pleated skirt. Scaled patterns are also included at the end of this chapter. This chapter assumes you already have an Elizabethan corset, farthingale and/or petticoat, and bum roll for your performer. If you wish to create any of these, please refer to Chapter 10.



Figure 9.1 Completed Elizabethan cartridge pleated skirt.



Figure 9.2 Completed Elizabethan cartridge pleated skirt.



**Figure 9.3** Draping the basque along the waist.

Step 1: To drape the skirt basque, begin with a 10" × 20" piece of muslin. Mark a center front guideline 1" from the 10" long edge. Mark a waist guideline 3" from the 20" long edge. Working on a dress form and over your bodice mockup, pin the basque center front to the waistline center front. Smooth the fabric a few inches along the

waistline and pin to the bodice waistline. You will discover the fabric does not want to do this smoothly. If you snip into the fabric from the top edge to just above the waistline, the fabric at the waist will be free to curve smoothly around the body. Continue pinning and snipping around to the side seam.

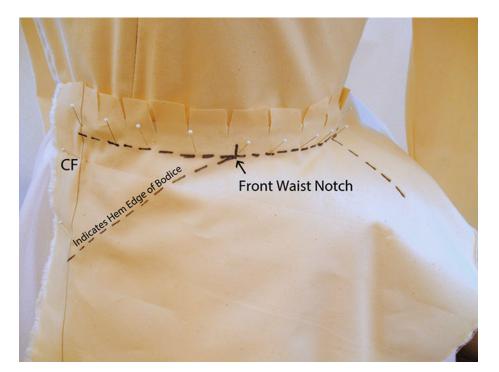


Figure 9.4 Marked basque drape.

Step 2: Mark the waistline and the side seam. The side seam should run perpendicular to the waist seam. Mark the placement of the front bodice edge by tracing the lower edge of the bodice while on the form, as shown. Add a notch mark where the waistline and bodice meet. Make note of the distance between this mark and the center front of the waistline—this distance will be used later when draping the skirt.





Figure 9.5 Draping the back of the basque.

Figure 9.6 Marking the back of the basque.

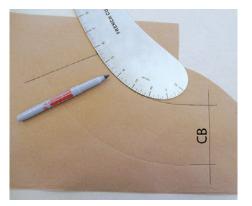
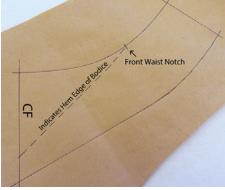


Figure 9.7 Transferring markings to paper pattern.



**Figure 9.8** Extending the bottom edge of the pattern.

- **Step 3:** Repeat this entire process for the back section. Remove both pattern pieces from the dress form.
- Step 4: Lay both pattern pieces out on pattern paper.Transfer lines using a tracing wheel and tracing paper. The width of the basque should measure 3" down from the waistline. Mark this width on

your paper pattern. At the center front, the width of the basque extends to 1" below the bodice placement line. Using a ruler, blend the 3" width line down to the point on the center front line that lies 1" below bodice placement. Using a ruler and French curves, true the lines.

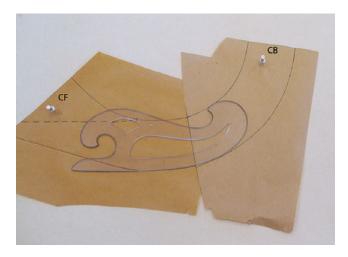


Figure 9.9 Truing the seams on the paper pattern.

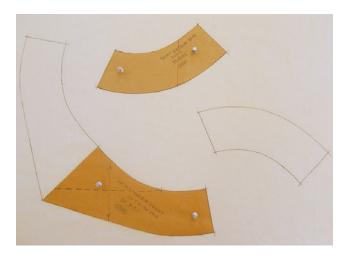


Figure 9.10 Cutting information added to pattern pieces.

Step 5: True the seams and cut your patterns from paper. Mark with the appropriate cutting information. The front piece should be cut on the fold and you should cut two of the back pieces. Also note that the grain line on these pieces should run on the bias. This means the grain line is marked at a 45 degree angle from the center front and center back lines.

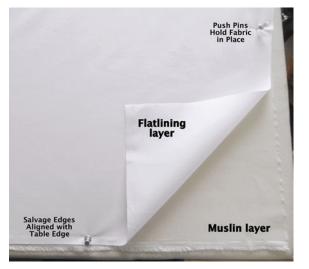


Figure 9.11 Fabric laid out for cutting.

- Step 6: On a cutting table, lay out your skirt mockup fabric as well as flat lining fabric. Pin all layers together, lay your pattern pieces out and pin into place. Trace all seam lines and add seam allowances by measuring out from the perimeter of your pattern. Suggested seam allowances for this basque are:
  - 2" at center back
  - $\frac{3}{4}$ " at the waistline

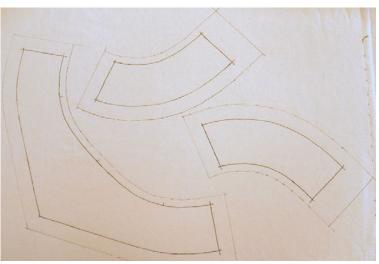


Figure 9.12 Seam allowances added to pattern pieces.

- $\frac{1}{2}$ " at the hem
- $1\frac{1}{2}$ " at the side seams

Cut out your basque pieces, keeping the layers of fabric together by pinning in the interior of your marked basque pieces. Refer to chapter 7, step 9–17 for more detailed instruction on laying out fabric and patterns, adding seam allowances, pinning, and cutting.



Figure 9.13 The basque during construction.

Figure 9.14 Checking fit.

**Step 7:** To construct the skirt basque, baste stitch the flat lining fabric to your mockup fabric on the marked seam lines. Serge the edges together around each piece and sew the side seams

together, matching marked stitch lines. Press the side seams open. Place on a dress form after construction to check the fit.



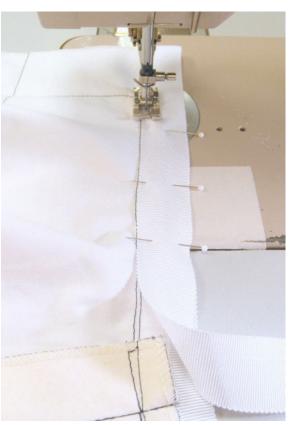
**Step 8:** Pin grosgrain ribbon to the waistline, aligning

for your cartridge pleated skirt.

the bottom edge of the ribbon with the waistline seam. Sew the grosgrain ribbon to the waistline making sure the ribbon is smooth and flat as it is sewn. Snip into the waistband seam allowance at regular intervals to allow the ribbon to lie flat against the body. Do not cut into the ribbon itself. Sew a second length of grosgrain ribbon to the back of the first ribbon, stitching along both the top and bottom edges. This effectively encases the raw edge of the waist and builds a sturdy base

the basque.

Figure 9.16 Seam allowance snipped to accommodate curve.



 $\label{eq:Figure 9.17} Figure 9.17 \quad \mbox{Sew second length of grosgrain ribbon to seam} \\ allowance of basque.$ 



Figure 9.18 Completed basque.

Congratulations! You have completed the skirt basque. In the following steps you will learn how to draft and construct an Elizabethan skirt, which will use this basque as the anchor for the cartridge pleats.

**Step 9:** Begin draping the skirt with a length of muslin 8-10" wider than the center front waist-to-floor measurement for your performer and 21/2 yards long. If you desire more fullness in your skirt you will need to cut a longer piece of muslin, but 21/2 yards is an appropriate level of fullness to start with. The fabric will be oriented on the body so that the selvedge edges run parallel to the floor. Draw a center front guideline 2" in from the cut edge of the fabric; this line should run the full width of the muslin. Mark a point on this line 4" down from the top selvedge edge; this mark indicates the level of the waistline at the center front. Mark another point on this center front guideline that extends below your original waistline equal to the distance of your performer's waist-to-low-hip measurement. In our example this was 8" down from the waistline. This point indicates the placement of the horizontal balance line. Extend this into a line that is parallel to the selvedge edge of the fabric and runs the full length of the fabric. Pin the fabric to your dress form, matching the center front waistline mark on your fabric to the center front waistline of your form. This should be done over any undergarments such as a petticoat or bum roll.

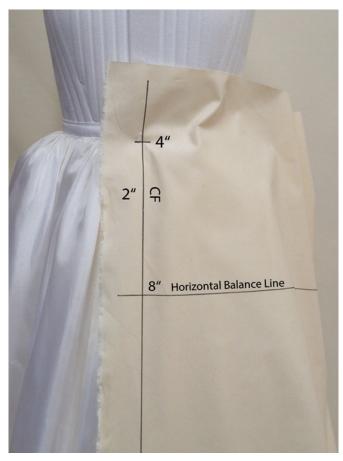


Figure 9.19 Draping the skirt.



Figure 9.20 Pinning fabric in large sections.

Step 10: Keeping the horizontal balance line parallel to the floor and the center front grain line perfectly vertical, pin the fabric to the waistline in large sections moving around the body to the center back. Allow the circumference of the hem of the skirt to lay flat against the petticoat. Some drapers will find it helpful to use a length of elastic pinned around the waistline to help control the fabric as they work. Fabric may be pinned to the waistline in either pleats or gathers.

Figure 9.21 Pinning fabric around the body.



Figure 9.23 Pleating under an elastic band.

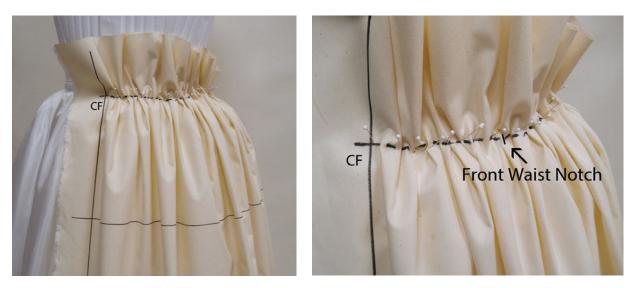


Figure 9.24 Marking waistline on skirt.

Step 11: Continue gathering or pleating the fabric around the waistline, working each larger section into a series of smaller gathers or pleats. Check your center front grain line and horizontal balance line often to ensure the skirt doesn't pull from the front and hangs level to the floor. Once you are satisfied with the fullness and arrangement of your skirt, mark the waistline directly onto the muslin. Also, transfer

Figure 9.25 Notch marking placed on waistline.

the notch marking you made on your basque in Step 2 to your skirt muslin. You can do this by measuring the distance from the notch mark you made in Step 2 and the waistline center front point on your basque. Then, measure this distance from the waistline center front point on your skirt muslin along the waistline and over all gathers. **Step 12:** Mark the placement of the side seam and the center back seam at the waistline. In order to extend these marks the full length of the skirt you will need to establish a plumb line to assist you in drawing a true vertical. Pin a length



Figure 9.26 Pinning string at center back mark.



Figure 9.27 Marking center back line.

of cord or string to the center back at the waistline. Attach a small weight to the other end of the line and let it hang freely. In this example I have used a small pair of scissors. You can use this line to mark the center back line.



Figure 9.28 Plumb line for center back marking.

Step 13: Now remove the fabric from the dress form and transfer to the cutting table. Using a hip curve and a ruler, smooth out all marked straight lines and curves. At this point, you will transfer the draped skirt pattern to paper. Lay your fabric out onto pattern paper and transfer the corrected lines to the paper with a tracing wheel. Remove the fabric, true the seams, confirming that the measurements of corresponding seams are the same, and cut out your paper pattern. Label your pattern with the necessary cutting information.

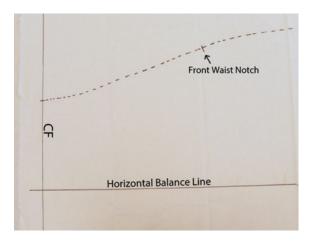


Figure 9.29 Skirt drape laid out on a table.

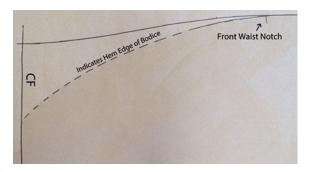


Figure 9.30 Markings transferred to paper pattern.

Step 14: Lay your mockup fabric out on a cutting table, aligning selvedge edges with the edge of the table. Lay your pattern pieces out on the fabric, aligning grain lines and pinning into place. Mark seam lines by tracing around your paper pattern, add seam allowances, and cut out your skirt pieces.

Suggested seam allowances are:

- 4" at the hem
- 2" at the center back seam
- 1" at the side seams, and
- 3" at the waistline.

Congratulations! Your skirt pattern is complete and you are ready to begin construction.

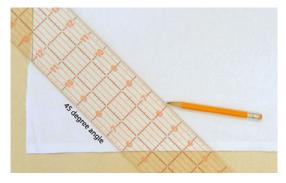


Figure 9.31 Measuring out bias strips.

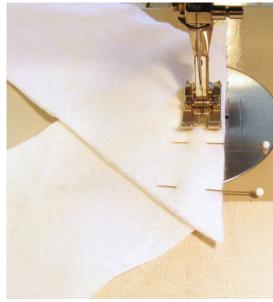


Figure 9.33 Sewing together bias strips.



Figure 9.32 Cutting out bias strips.



Figure 9.34 Completed bias strips.

Step 15: For the construction of this skirt you will need approximately 5 yards of 3" bias strips cut from baby flannel. These may be purchased or created. To create these strips from yardage of baby flannel, you will need to identify the bias grain of the flannel which runs at a 45 degree angle from the straight-of-grain. Draw six or more cutting lines 3" apart, cut out the strips, and sew the ends together as pictured in Figure 9.33. Press the seams open and trim the tips of the seam allowance even with the fabric edge.



Figure 9.35 Center front seams of skirt sewn together.

Step 16:Sew center front seams together along seamlines and press open. Sew two lines of bastingstitches 1/s" on either side of waistline between

the notches marked in Step 11. These are gathering stitches and will be drawn up later in the construction process.

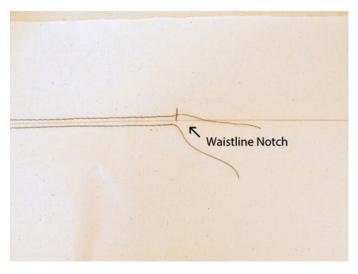


Figure 9.36 Two rows of gathering stitches between notches.

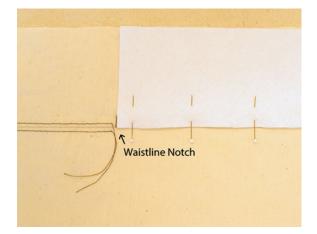


Figure 9.37 Bias strip pinned to seam allowance.

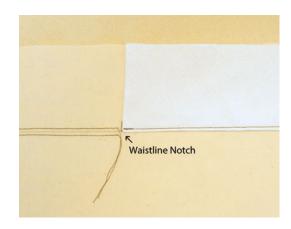
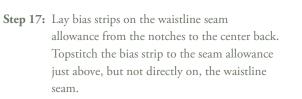


Figure 9.39 Bias strip sewn to seam allowance.



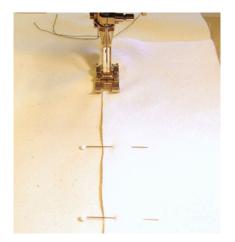


Figure 9.38 Sewing bias strip to seam allowance.

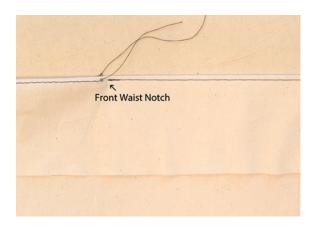
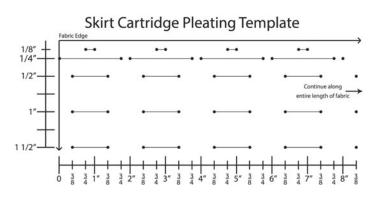


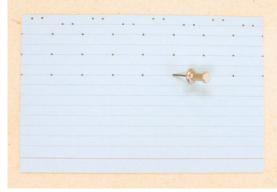
Figure 9.40 Bias strip and serged seam allowance folded over.

Step 18:Serge the edge of the skirt seam allowance with<br/>the bias strips facing down to reduce rumpling.<br/>Fold over the seam allowance at the waistline<br/>seam, along the edge of the bias strip, and press.<br/>At this point, the bias strip will be between two<br/>layers of muslin.

**Step 19:** To create your cartridge pleating you must first mark a series of placement dots, which will guide your sewing. To do this, refer to the Cartridge pleating template provided at the end of this chapter. Transfer the markings on this template to  $3'' \times 5''$  index card as shown in Figure 9.42. Punch a hole through each mark in the card to create a stencil for your dots. Mark the cartridge pleating dots along the folded edge, starting at the notch and continuing to the center back.









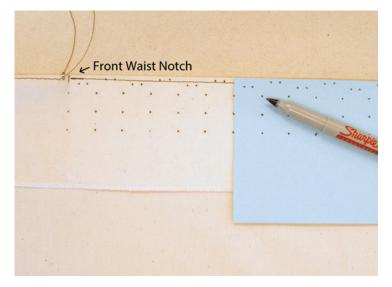


Figure 9.43 Marking cartridge pleating dots onto bias strips.

**Step 20:** Pin the skirt to the basque, oriented as shown in Figure 9.44 and matching center fronts and front waist notches. Pull basting threads on the skirt between the notches to gather the fabric up. Arrange and even out the gathers, pinning along the basque waistline.

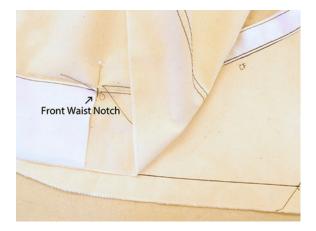
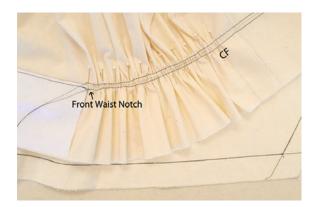


Figure 9.44 Aligning notches on skirt and basque.





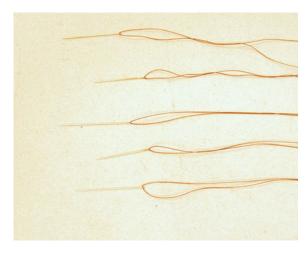
Step 21: Machine sew the skirt to the basque at the waistline from notch to notch. Sew through all gathering stitches.



Figure 9.46 Stitching skirt to basque between notches and through gathers.



Figure 9.47 Skirt and basque after stitching together between notches.



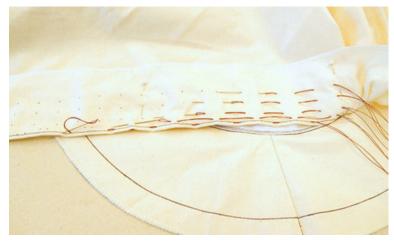


Figure 9.48 Long double-layer thread.

Figure 9.49 Threading though cartridge pleating dots.

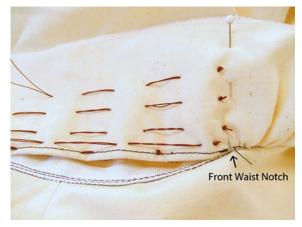


Figure 9.50 Knotted ends of thread lie to the front.

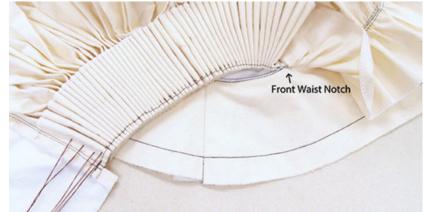


Figure 9.51 Threads pulled to create pleats.

Step 22: With very long double-layer heavy thread or Hymark, hand sew through the cartridge pleating dots. Begin threading at the front of the skirt so that the knotted end of the thread is secured at the the front waist notch. Pull the threads evenly to create pleats. For this step, I prefer to have five needles threaded and ready to go before I start. This allows me to sew and pleat entire sections at one time, rather than sewing each row separately.



Figure 9.52 Cartridge pleats evenly arranged.



Figure 9.54 Sew cartridge pleats from the underside.

Step 23: Line up the top edge of the pleats with the waist seam on the basque and evenly distribute the folds from the front waist notch to the center back. Pin the pleats to the waist seam and hand sew the top of the pleated folds to the basque at the waistline. If your fabric is especially heavy or thick, you may want to stitch each fold twice. From the inside of the basque, sew the lower edge of the pleated folds to the basque from the notches to the center



Figure 9.53 Hand sewing cartridge pleating to basque.





back. Make sure the pleats remain straight and are sewn perpendicular to the waistline, not angled. Add a skirt hook and bar to the waistline and snaps along the placket facing as closures. Try the skirt on over a corset and bum roll to ensure a proper fit. Adjust the cartridge pleating threads as necessary to even out the pleats around the body. Tack the end of the pleating to the basque to hold everything in place.







Figure 9.56 Bodice pinned to skirt.

Figure 9.57 Hand sewing together.

Step 24:Place the skirt on your performer or on a dress<br/>form with a waist to floor height adjusted to<br/>that of your performer. With pins, mark the<br/>hem level to the floor. This will show where the<br/>hem hangs evenly around the body. You can<br/>find the final hem level by measuring 1–3" up<br/>from the pins for your desired skirt length.

Add seam allowance to the hem and serge the raw edge of the skirt hem. Turn up the hem at the desired finish length and hem stitch in place.

Figure 9.58 Swing-tacking bodice.

Step 25: To attach the bodice to the skirt, put on all costume pieces, including the corset, petticoat, bum roll, skirt, and bodice. Align the center fronts of the bodice and skirt. Pin the bodice to the skirt at the waistline. Next, remove the costume from the body and, working with Hymark thread, hand sew the bodice to the skirt from the front bodice notch (where the cartridge pleating starts) around to a point 2" from the center back. Swing-tack the bodice center front point to the skirt, anchoring it through the basque layer.

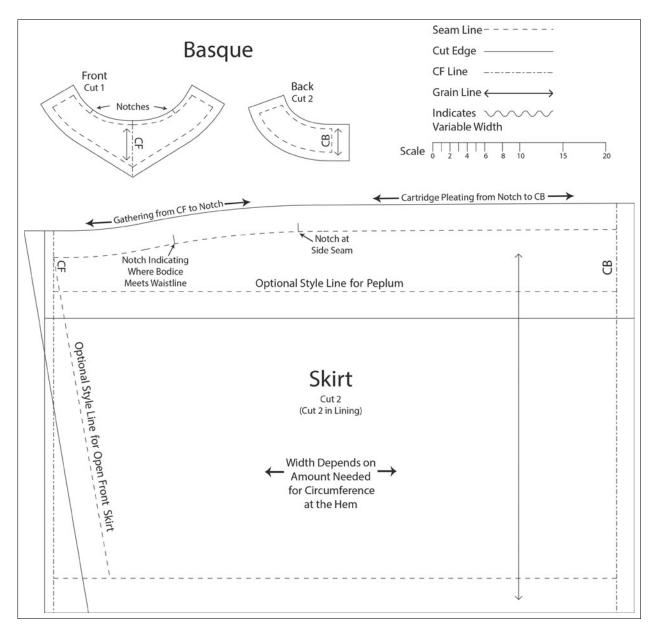


Figure 9.59 Scaled skirt pattern (scale in inches).

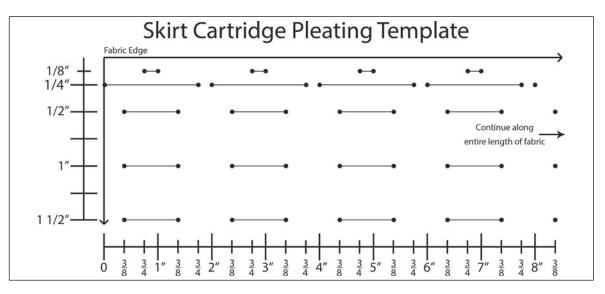


Figure 9.60 Scaled cartridge pleating template.

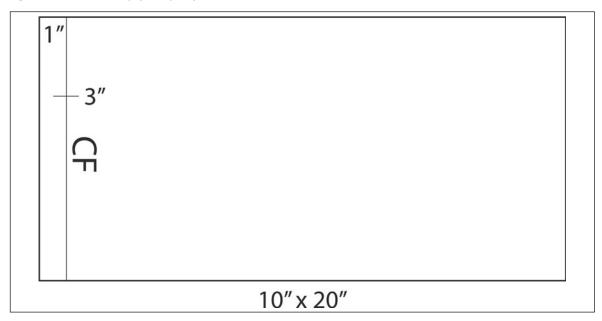


Figure 9.61 Beginning fabric dimensions for draping the basque.

ten

# FEMALE UNDERGARMENTS AND ACCESSORIES

In this chapter you will learn how to create a collection of women's undergarments including an Elizabethan corset, Elizabethan bum roll, and a ruffled petticoat. You will also learn to craft a removable whisk and a removable ruff element.



Figure 10.1 Elizabethan corset.

Figure 10.2 Elizabethan bum roll.





Figure 10.3 Ruffled petticoat.

Figure 10.4 Removable ruff and removable whisk.

#### Elizabethan Corset





Step 1: A scaled Elizabethan corset pattern has been included at the end of this chapter. Once you have a full-sized version of this pattern, lay two layers of coutil and one layer of fashion fabric out on a cutting table. Lay the pattern pieces out on the layered fabric. Trace the patterns in their entirety including the seam lines as shown in Figure 10.5. Pin all layers of fabric together inside the cut lines and cut out your pattern. Note that there are two versions of the front for this corset, one version is cut as a single piece and one version has a center front opening. You will need to choose your desired style prior to cutting out your pieces. In the following construction example we will be using the center front opening style.



Figure 10.6 Initial corset fitting: front view.



Figure 10.7 Initial corset fitting: side view.



Figure 10.8 Initial corset fitting: back view.

Step 2: Baste all seams together and try the corset on inside out. This will allow you to preliminarily fit the corset, adding length or width as necessary. Once you are satisfied with the fit, remove

basting from all seams, make any necessary adjustments to the original pattern and proceed with construction of the corset.

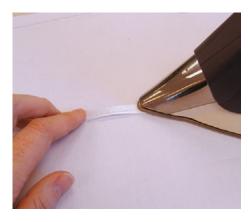


Figure 10.9 Pressing seam open.

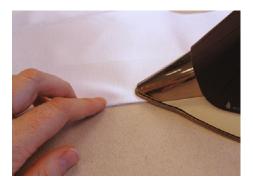


Figure 10.10 Pressing fold flat.



**Figure 10.11** Tracing the placement of stitch lines.



Figure 10.12 Stitching completed on marked lines.

- **Step 3:** Sew both center back seams together. Trim seam allowance to ¼"and press open. Turn the back pieces right side out and press the fold flat.
- Step 4: Locate the seams that connect the corset side piece to the corset back. With a regular machine stitch, sew together the two layers of coutil for each separate side and back piece on this seam line. We will not sew the side seam of the corset front pieces yet because boning is inserted into the channels that are sewn over this seam. This side seam will be sewn closed in a later step. With a pencil, draw the placement of stitch lines onto the corset pieces as shown, thus creating channels for boning. Sew along the drawn placement lines through all layers—this includes the flat lining layer for the front pieces. You may need to adjust the width of your channels if you are using boning that is larger or smaller than what is shown here. I have made my channels



Figure 10.13 Draw curve on back.



Figure 10.14 Establish grommet placement.



Figure 10.15 Cutting holes.

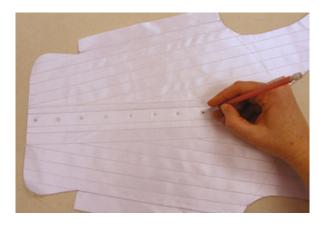


Figure 10.16 Transferring cut marks.



Figure 10.17 Setting grommets.

Figure 10.18 Finished back.

the center back opening. This can be done with the assistance of a buttonhole placement guide as shown in Figure 10.14 or by mathematically determining even intervals for the grommets. Determine the placement of a single grommet hole at the end of each shoulder strap, a picture of this can be seen in Figure 10.59. Create the holes for each grommet with a die cutter. Transfer the grommet placement to the second back piece using the holes of the first. Cut holes for the second back piece and set your grommets.

evenly spaced, but it may work better for your corset if the channels are unevenly spaced. Historically, these channels where small, about 1/4" wide and used with very narrow boning in every channel. For costuming purposes it all depends on how much available boning you have, what lengths the bones are and how easy it will be to alter those lengths, the preference of the designer, how best to utilize your time.

Step 5: Using a French curve, draw a curved line along the back piece as shown in Figure 10.13. Determine the placement of grommets along

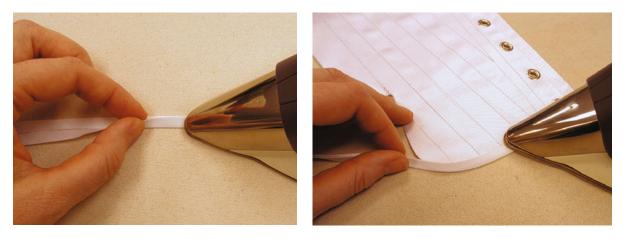


Figure 10.19 Ironing bias tape.

Figure 10.20 Placing bias tape.

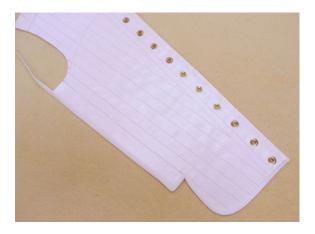


Figure 10.21 Bias tape placed along lower edges.

**Step 6:** Iron ½" bias binding in half, folding over one end. Place bias binding around the bottom and side edges of corset pieces, stretching gently around curves as it is ironed to set curve. Fold the bias binding around corners. Topstitch bias binding in place along bottom edges.

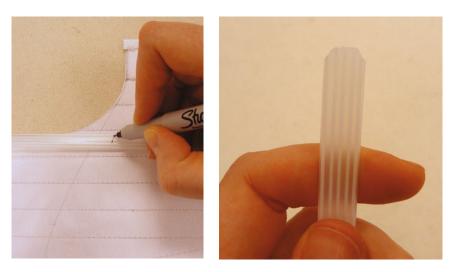


Figure 10.22 Marking boning height.

Figure 10.23 Smoothing boning tips.



Figure 10.24 Inserting boning in corset.

Figure 10.25 Inserting boning in corset.

Step 7: Determine which type of boning you will use: flat steel, spiral steel, or plastic. Measure and cut your bones for each channel, making them ¼" to ¾" shorter than the edge of the fabric. Your bones should not cross the curved line you marked earlier. Tip your bones in a manner appropriate to their type. In this example I used German plastic boning (found in varying widths at farthingalescorsetmakingsupplies.com) and was able to simply cut the tips into a rounded shape. Insert the bones into the channels you created earlier. Sometimes it helps to use a second length of boning to push the bone in all the way, as shown in Figure 10.24.

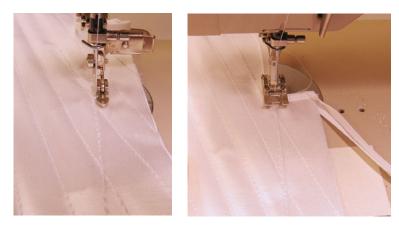


Figure 10.26 Sew center front seam closed.

Figure 10.27 Stitch on remaining bias tape.



Figure 10.28 Sew across back curve.

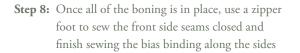




Figure 10.29 Sew side seams together.

of all pieces. Sew across the back curve line we established in Step 5: Figure 10.13. Pin side seams together and sew. Press all seams open.





Figure 10.30 Sew shoulder seams.

Figure 10.31 Trim corner of excess seam allowance.



Figure 10.32 Bind top edge of corset.

Step 9: Add bias binding along the shoulder seam allowance edge. Pin the shoulder seams together and sew across. Press the seam open and cut off the corner of any seam allowance which extends past the top edge of the corset. Bind the top edge



Figure 10.33 Bind around shoulder straps of corset.

of the corset with bias binding. If you find it difficult to pin the bias binding in place, you can use binder clips or bobby pins to temporarily to hold it in place.



Figure 10.34 Snipping center of piping.

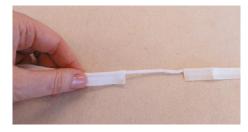


Figure 10.35 Pulling cording out from center of piping.



Figure 10.36 Pinning piping in place.



Figure 10.37 Stitching piping in place.

Step 10: In this step we will be using a length of piping to add a drawstring to the top of the corset. First measure the total length of piping needed by running it along the top of both sides of the corset and adding 8". Snip into the center of the piping from the bottom edge of the fabric to just past the stitch line. Be careful not to cut the cording inside. Pull the cording out of the way and continue to snip the casing in two. Pull 8" of cording out from the center and cut the cording into two halves. You should now have two lengths of piping with 4" of exposed cording on one end. Pin the piping to the top edge of the corset, from the center back to the center front, with the 4" of exposed cording hanging over the center back closure. The cording of the piping should show just above the top edge of the corset. Sew in place with a zipper foot. Fold the piping edge under at the center front edge and stitch across the piping to secure it in place.



Figure 10.38 Placket pieces.



Figure 10.39 Pinning placket together.



Figure 10.40 Turning placket out.



Figure 10.41 Placing placket on corset.



Figure 10.42 Stitching placket in place.

Step 11: Next we will insert the placket(s) into the corset. Note that the pattern provided in Figure 10.124 at the end of the chapter shows two plackets, one for the center back and one for the optional center front opening. Cut your placket from fashion fabric, then fold back and press the edge of one short side on each placket piece. Pin the two pieces together along the long side and the non-folded short side. Sew on the seam line, grade seam allowances and

clip across the corner to decrease the amount of bulk. Press the seam open on a sleeve board. Turn right side out and press flat. Pin the open end together and stitch closed. Pin the placket in place on the back of the corset—the long end of the placket should align with the second set of boning next to the grommets on the inside of the corset, as shown in Figure 10.41. Turn the corset over and sew along the stitch line next to the grommets.

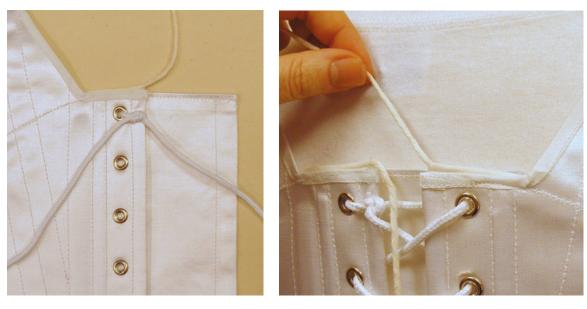


Figure 10.43 Corset lacing in top grommet.

Figure 10.44 Adjusting piping at top of corset.

**Step 12:** Thread your corset lacing into the top grommet on either the right or left back corset piece. Tie the center of the lacing into a slip knot to secure. This makes it easier to thread the two sides of grommets together with the lacing without it slipping, and ensures the lacing will end evenly. Put the corset on. Pull the cording in the piping slightly to tighten around the top of the corset and help it fit more snugly to the body. Pin the end of the cording in place and stitch it down.





## ------

Figure 10.45 Twill tape loop.

Figure 10.46 Stitching loops closed. Figure 10.47 Loops threaded on boning.



Figure 10.48 Loops placed on center front opening.



Figure 10.49 Preserving loop placement with tape.

Step 13: The optional center front closure includes a quick release mechanism, which was used to dramatic effect in the design of *Mary Stuart*. This mechanism hinges upon a length of boning which can be easily removed from a series of loops. In our example, we used 1/4" boning that was just slightly shorter than the length of the center front. To create this closure, cut a length

of twill tape or ribbon into several 2" sections. Fold each 2" section in half and pin together. Sew each folded section of twill tape or ribbon together 1/2" from the folded edge. Thread these pieces onto the tipped piece of boning, which will serve as your release mechanism. Space the ribbon pieces evenly, alternating direction down the full length of the boning. Place the ribbon pieces, still on the boning, on the inside of the corset at the center front line and finalize the spacing and number of ribbon pieces desired to span the center front length. Use removable masking tape to hold these pieces in place and remove from the corset as a unit. I have spaced my loops about 1" apart, but you may want to space them closer together or further apart. Also, I have allowed a 1/2" gap between the front corset pieces to more clearly show the application of this technique, but this is not necessary. On the original corset used in the production there was no gapping at the center front, which created a seamless look from the outside. Just make sure that you have left enough space between the boning channels to enable you to sew this mechanism to the corset!



Figure 10.50 Binding loops with bias.



Figure 10.51 Pin bias binding to each loop.



Figure 10.52 Stitching binding onto loops.

Figure 10.55 Pocket at base of loops.



Figure 10.53 Placing loops on corset.

Figure 10.54 Stitching loops in place.

Step 13 Continued: Iron bias binding in half and wrap the bias binding around the outer edges of the ribbon pieces, pinning in place. Remove the masking tape and sew the bias binding closed. Align the ribbon pieces back together and thread the quick release boning through the loops. Label the left and right sides of the corset fronts. Place the unit back onto the inside of the front corset pieces, pinning the bias tape to the corset between the first two bones at the center front

and sew along the outside edge of the bias tape. From the right side of the corset front, zigzag stitch between the first two bones. The bottom of the quick release boning needs to have a pocket to hold the boning in place. Cut a  $2\frac{1}{2}$ " piece of twill tape and fold the edges in 1/8", sew in place. Fold this piece of twill tape in half and sew along the long side to create a pocket. Sew this pocket to the bottom of one side of the corset front opening as shown in Figure 10.55.



Figure 10.56 Placing center front placket.



Figure 10.58 Completed corset half.

**Step 14:** For the center front opening placket, construct the placket in the same manner as the back placket in Step 11. Place the placket onto the inside of the corset; the center of the placket lining up with the center front edge of one side of the corset front and pin in place. Crossstitch the long edge of the placket to the inside of the corset. If you haven't already done so, add grommets to the ends of your shoulder straps then slip a 3" length of elastic through the grommet. You may adjust this length as



Figure 10.57 Cross-stitching placket in place.



Figure 10.59 Elastic in shoulder straps.

necessary. Fold the elastic in half and stitch in place on the corset as shown. You may want to try the corset on to locate the best placement of this elastic from the strap to the corset front.

A general note about corsets—they should foremost be used as a support for the heavy petticoats, farthingales, and crinolines that are worn on top of them at the waistline. While corsets do provide shaping of the torso, they should not be laced tighter than a gentle "snug" of pressure around the body.

### Bum Roll

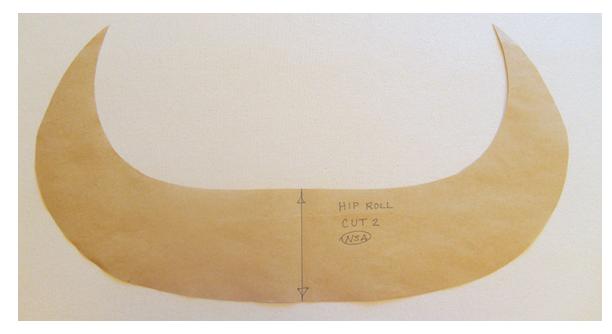


Figure 10.60 Bum roll paper pattern.

**Step 1:** To create the Elizabethan bum roll, enlarge the pattern provided at the end of this chapter using the scale provided. Cut out the pattern and lay out on a sturdy fabric such as cotton twill. Pin in place, mark all stitch lines, and add your desired seam allowance. I suggest 3/8" to 1/2". Cut the pieces out of fabric and sew the two layers together leaving a 3" opening at the center of either the inside or outside of the curve.



Figure 10.61 Bum roll stuffed and stitched closed.



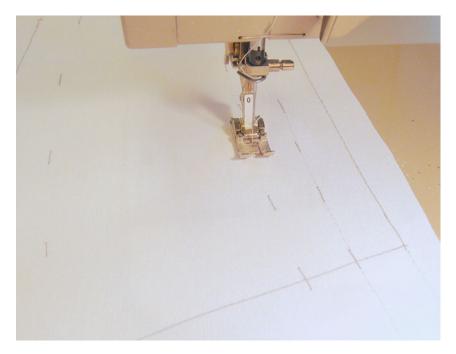
Figure 10.62 Elizabethan bum roll.



Figure 10.63 Bum roll placement.

**Step 2:** Trim seam allowances to ¼", tapering closely to the points. Snip into curved seam allowances, which will enable the curve to remain smooth, and turn the bum roll so the seams are now on the inside. Stuff firmly with batting and either machine- or hand- stitch the hole at center closed. Sew twill tape ties to the end points. The bum roll is worn between the third and fourth layers on the ruffle petticoat yoke.

#### Layered Petticoat



NOTE: Pattern included was made for a performer with a 30" waist, 40" hip, and a height of 5'6". You may need to shorten or lengthen the pattern for different heights. Be sure to alter each layer pattern in the top third of the pattern to maintain width at the hem and proper ruffle placement.

Figure 10.64 Stitch-marking yoke of ruffled petticoat.

**Step 1:** To construct the ruffled petticoat, first create a paper pattern by enlarging the scaled pattern provided at the end of this chapter. Transfer all stitch lines and marking, add the desired seam allowance, and remember to include cutting information. Stitch the two yoke pieces together at center front and stitch mark, or sew along the placement lines for each layer.



Figure 10.65 Attaching stay tape to ruffle layer placement line.

Step 2: As you cut out your ruffled petticoat layers, please note the cut numbers for each layer as they vary. Make sure to mark the ruffle placement lines onto the appropriate layers for future reference. Sew each layer together, from hem to waist, leaving one seam open from the waistline to a point 10" below the waistline. This opening will become the center back opening on your finished petticoat. It is advisable to sew the netting layer together with lapped seams. At this point you should have what amounts to a yoke and four separate skirts.



Figure 10.66 Ruffles attached to ruffle layer.

Step 3: To create the ruffle layer, first sew all five of the top ruffles together at the side seams and run a gathering stitch around the top edge. Do the same for the bottom ruffle pieces. Stitch a length of stay tape on the inside of the ruffle layer at the top and bottom ruffle placement lines. This is done to strengthen the attachment of the ruffles to the petticoat fabric. Gather each ruffle to match the length of the placement lines, ensuring that the gathers are evenly spaced around the skirt, pin together and sew in place.



Figure 10.67 Attaching horsehair braid to hem of skirt layers.

Step 4: Working in order from 1 to 4, stitch each layer onto the marked placement lines of the yoke. The 10" opening you left on each layer should correspond to the center back opening on the yoke. To achieve the proper fullness, attach 2–3"



Figure 10.68 Hemming skirt layers.

wide horsehair braid to the hem of each layer. Refer to the pattern at the end of the chapter for placement of each width of horsehair. Turn the hem up on the hemline and sew in place for each layer.



Figure 10.69 Completed petticoat.



Figure 10.70 Center back closures on petticoat.

Step 5: Sew a length of petersham ribbon to the waistline of your petticoat to serve as a waistband in the same manner as on the yoke, with two lengths for added strength. Fold over the ends of the ribbon to finish the edges and add hooks and bars for a closure. You may choose to add snaps to the layers along the center back opening to help keep the layers closed.

Try the petticoat on over the corset and with the bum roll. The length at the hem should end a few inches off the ground, so it won't peek out and show from under your skirt. If, at this point, you find your petticoat is too long, add some "grow tucks" around the circumference of the petticoat that measure 1"-3" wide and are located at least 8" up from the hem.

#### Removable Whisk



Figure 10.71 Paper mockup used to determine desired shape and size.

Step 1: Using a piece of brown craft paper, create a mockup of the whisk. Use this mockup to determine your desired size and shape so that you won't have any unpleasant surprises with in the finished product. You may want to make your whisk a bit larger or much smaller than ours. Trace the pattern for your whisk onto a large piece of paper to create a working template. All work will be done over this template. A scaled whisk template has been included at the end of this chapter for your reference. Make sure all construction lines are marked, as well as any special notations made. In this example, two different colors were used to indicate the use of two different gauge wires.

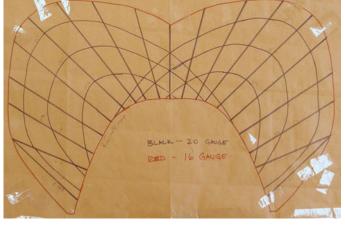


Figure 10.72 Paper template used to build whisk.



Figure 10.73 Exposing core of decorative piping.

**Step 2:** If you would like to use a covered wire, now is the time to prepare the wire. To accomplish this you will need a decorative cording; in this example I used a cording with a metallic gold finish that should be easy to find at most craft stores, especially during the winter holiday season. This process is actually much easier than it seems. First you must remove the inner core of the cording. Gently pull on the core and slide the outer coating off of the trim. Once the core has been fully removed, carefully slide the wire into the outer coating of the trim. You are now ready to use it to construct the whisk.



**Figure 10.74** Inserting wire into decorative piping outer coating.



Figure 10.75 Binding overlapping wires.



Figure 10.76 Completed wire perimeter.

**Step 3:** Begin by creating the outer perimeter of the piece. For this piece 16-gauge wire was used for the perimeter of the whisk. Leave 2" to 4" extra on the length of your wire for overlap. This overlap is then bound to hold the wire together. To bind the joint, wrap thin gold floral wire tightly along the length of the overlap. Floral wire is easy to bend and is relatively easy on the hands. This technique of wrapping wire will hold all of your joints and wires together for the project. As you are gently bending and working the wire into the shape you need, you can temporarily tape the wire in place if you would like to. Check to make sure that the tape will not damage your decorative coating before you use it directly on your project. These taped pieces will be removed as needed when the inner structure is added to your perimeter piece. When you have finished binding the perimeter, check to make sure that all the ends of the wire are tucked in and as smooth as you can get them.



Figure 10.77 Placing vertical supports.

Step 4: Now we will begin to add the inner structure to the whisk. Begin with the vertical supports, which will be constructed out of a double thickness of wire. Starting at one end of the whisk, work in a zigzag fashion across the piece, then work in the same fashion back to the point where you began. By working in this pattern you can create a structure where the outer perimeter and the vertical supports have a finished



Figure 10.78 Completed vertical supports.

thickness of two wires, bound by the thin floral wire. To create the tight bends and to help secure all the ends of the wires, I use needle-nose pliers. For the vertical structure, I use 20-gauge wire. By working over the template, you can bend and lay your wire out for the entire project at once, or you can work your way across the project, securing all meeting points as you go.



Figure 10.79 Tacking intersections with floral wire.

Figure 10.80 Completed intersections.

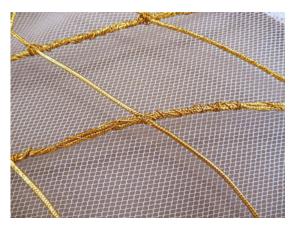
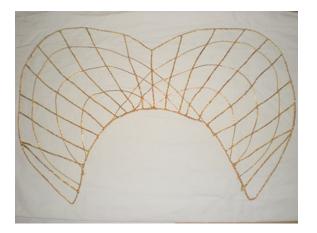


Figure 10.81 Completed intersections.

Step 5: Once all of the vertical wires are done, gently re-tape your structure to your working template. Measure the horizontal wire pieces, adding 3" to 4" to this length and cut your wire. Attach one end of the wire to the outer perimeter wire and then begin to place the horizontal wires as they line up with your template. Cut about 7" to 8" of the floral wire for each joint and slide it under

the intersection where the vertical supports and horizontal supports meet, then put a small twist in the floral wire to hold, or tack, the vertical and horizontal wires in place. Once all wires are tacked in place, secure the end of the horizontal wire and begin securing each tack point with the wire in an X pattern. This process is repeated for each horizontal wire and each joint point.



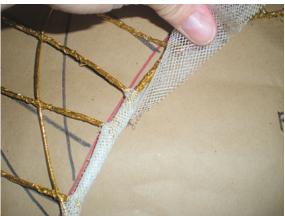


Figure 10.82 Wire frame complete.

**Step 6:** Once all the work with the wire is complete, inspect the piece to make sure that there are no sharp points sticking out. If there are, bend them back into the frame to make it as smooth as possible. We are now ready to start the covering process. Cut a 2" wide strip of the covering

Figure 10.83 Wrapping neck edge with net.

fabric. A thin netting works well. Fold this strip in half and use this to wrap the neck edge of the wire frame. Tack it in place with thread as needed. This will provide a little padding to help protect the actor's neck and the costume.



Figure 10.84 Net cut to shape with a seam allowance added



Figure 10.85 Raw edges pinned to back of whisk.

Step 7: Place a large piece of netting or other decorative sheer fabric on your working template. Cut the fabric with at least 1" of seam allowance on each edge. The extra fabric will be trimmed after sewing, so leave more if you like. Center your wire structure on the fabric. The "right" side of the fabric should be facing down on your work surface, and the side with the least amount of profile should also be facing down. The side towards the work surface is the side that will be closer to the actor's head (the right side of the project). Carefully fold the seam allowance over the edge of the wire and pin it in place using large sewing pins or safety pins. You may need to make small snips in the fabric to get it to make a smooth folded edge along all of the curves of the whisk. Whip-stitch over the wire, catching both layers of the fabric. The raw edge of the fabric should be towards the back side of the project. Once the cover is completely stitched on, carefully trim any excess seam allowance to make the back look clean.



Figure 10.86 Lace pinned to right side of whisk.

Step 8: Turn the project over. Pin any lace or trim to the right side of the whisk and sew on by hand. To make the pearl accents, cut about 10" of the floral wire. Slide three pearl beads onto the wire, center them, and bend the wire, so the beads create a triangle. Twist the ends of the wire together to hold the pearls tightly in place. Trim any excess wire and gently push the wire through the fabric where you would like the pearl decoration to be located. Bend the wire end to secure the bead decoration to the whisk. Leave a space of about 1" between the pearls and the wire frame.



Figure 10.87 Lace stitched onto wire.



Figure 10.88 Pearl ornaments.



Figure 10.89 Pearl ornaments inserted into whisk.



Figure 10.91 Bone casing centered on trim.



Figure 10.92 Trim ends folded over.



Figure 10.93 Trim folded in half to form pocket.

Step 9: Finally, we need to create a mechanism so the whisk may be inserted and removed from the bodice. To do this, create a casing for both the center back neck edge of the whisk and the center back neck edge of the bodice—a 9" bone will span between the two, holding the whisk in place. The casing on the whisk will be seen so it needs to be covered by decorative trim. Begin with a 9" length of trim. Center 8" of twill tape or sturdy ribbon onto the length of trim. Fold <sup>1</sup>/<sub>2</sub>" of each end over and stitch in place. Fold the entire unit in half and stitch along the side seams to create a secure pocket. Insert the 9" length of flat steel boning.

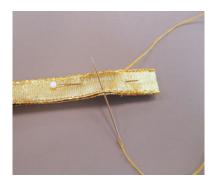


Figure 10.94 Stitching trim sides closed.



**Figure 10.95** Completed decorative bone casing pocket for whisk.

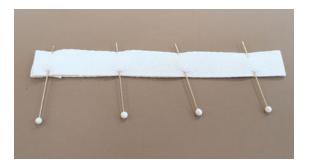


Figure 10.96 Create casing for bodice.

**Step 10:** To create the pocket on the bodice, cut an 11" length of twill tape or sturdy ribbon. Bone casing can also be used for this purpose. Fold 1/2" of each end over and stitch in place. Fold the entire unit in half and machine-sew down each side to create a pocket. Place the pocket just to the side of the center back zipper and stitch securely in place. Slide the flat steel bone with the decorative casing into the pocket on the bodice. Align your wire whisk with the right side facing up. The decorative casing should be placed directly beside the center vertical support on the whisk. Confirm that the casings are properly aligned and stitch the decorative casing securely in place.



Figure 10.97 Boning in bodice pocket.



Figure 10.98 Bone inserted into both pockets.

#### Removable Ruff

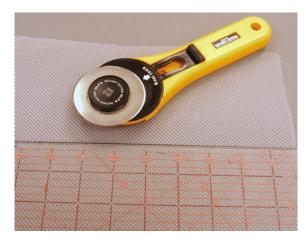




Figure 10.101 Netting folded over and pinned.

Figure 10.99 Rotary cutting net.

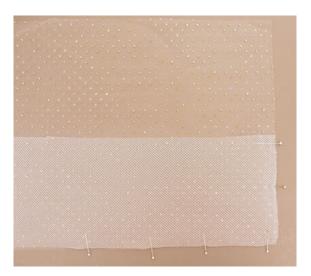


Figure 10.100 Heavy netting laid over decorative netting.

Step 1: To create the removable ruff, cut a length of heavy netting 6" wide by 5½ yards long. Please refer to the scaled pattern included at the end of this chapter. The easiest way to cut net is with a rotary cutter and cutting mat or with paper scissors. Cut another length of decorative netting or sheer fabric 12" wide and 5½ yards long. Place the heavy net on top of the decorative net and pin together along the bottom edge. Fold over the wide decorative netting and pin the folded edge. Also, re-pin the cut edge through all three layers.

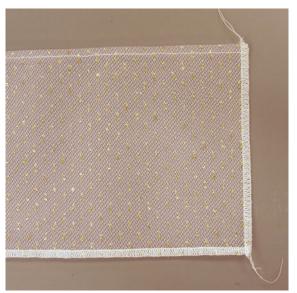


Figure 10.102 Serged netting.

- Step 2: Sew along both sides of netting approximately 1/4" from edge. Serge the cut the edges of the netting with a wide serge set on a very short stitch length. This will help cover all the prickly cut ends of the net, make it nicer to work with, and it will be less likely to catch on things as you work and when the collar is worn. Pin a decorative lace trim to the outer edge of the net and sew in place.
- Step 3: Now is the time to mark the net with guidelines for ruff cartridge pleating. Refer to the template provided at the end of this chapter and to Figures 10.104–109. First, mark the inner edge of the net at <sup>3</sup>/<sub>4</sub>" intervals (I used a marking pen for this). With Hymark or thick thread sew two rows of

Figure 10.103 Lace added to net.

cartridge pleat gathers, one at ¼" from the edge and one at ½" from the edge. It helps if the thread is at least 3 yards long so you have enough to do the entire length of the fabric and still have it lie relatively flat while you sew. Do not fully gather the threads yet, but you may tie together the thread ends to remove the needles.

Next, mark the outer edge with notches for the large ruffles. The notches are spaced at alternating 1½" and 2" intervals. With colored ball head pins, pin on the ruffle placement notches along the outer edge in the pattern as indicated in the template. Pin together the corresponding colors to create the outer ruffle, red to red, blue to blue, etc., along the entire length of netting.

To secure the ruffles together, either tack stitch the ruffles at each notch, or glue with a TINY spot of glue.

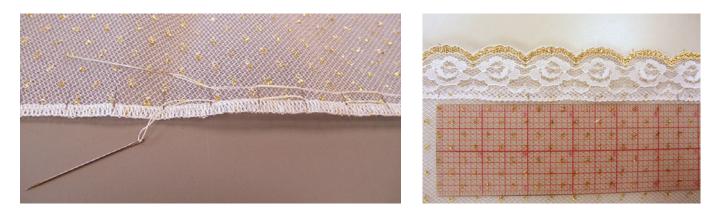


Figure 10.104 Cartridge pleating stitches along inner edge of netting.

Figure 10.105 Marking outer edge of netting.



Figure 10.106 Netting marked with colored pins as shown in template.



Figure 10.107 Matching colored pins.

**Step 4:** Please refer to Figures 10.110–115. Now you are ready to pull your cartridge pleating threads to the desired collar length. In this example, our collar length is 15" long. I have not yet secured the pleating threads, as the length may need adjusting while I'm sewing the pleats to the collar stand. Make a collar stand using the scaled pattern provided and pin the gathered pleats evenly. Sew

Figure 10.108–109 Tack or glue ruffles in place.

each pleat to the stand with a whip-stitch so that the pleats end up just slightly under the stand, as seen in Figure 10.112. When you have finished attaching the gathered pleats to the collar stand, tighten the gathering threads and knot thread ends together. The ends of the ruffle need to be tucked inward so the edge is concealed. Tack in place at the inner and outer edges of the ruffle.







Figure 10.111 Arranging pleating to collar stand.



Figure 10.112 Stitching pleating to collar stand.



Figure 10.113 Knotting.pleating



Figure 10.114 Tacking ruffles at top.



Figure 10.115 Tacking ruffles at bottom.





Figure 10.116 Ruff placed in bodice neckline.

Figure 10.117 Adding snaps to ruff.



Figure 10.118 Ruff snapped onto bodice.

**Step 5:** Next, we need to determine the placement of snaps to connect the ruff to the bodice. Pin the collar stand to the inside of the bodice neckline, matching the center back of each. Mark the snap placement at 1" to 1½" intervals. Sew snaps to the bodice and the stand. Figure 10.118 shows what the stand looks like when it is attached to



Figure 10.119 Add a hook and eye at safety pin.

the bodice. At this point, it is an option to have this as your finished look. If so, it can be attached to the bodice with hooks and bars at the ends of the outer edge ruffle as indicated with the safety pin placement. Otherwise, we will continue on to the next step that will join the whisk to the ruff.

### Combining Whisk and Ruff Collars



Figure 10.120 Completed removable ruff and whisk.



Figure 10.122 Completed removable ruff and whisk.

Step 6: To combine the whisk and ruff collars, snap the ruff to the bodice and place the bodice on the form. Insert whisk boning into the bodice casing. At this point the whisk is flat and will need to be gently bent to curve around the neckline and along the bodice neck edge. I have also gently bent the "wings" of the whisk into a subtle curve. At the bodice front neckline, gently pull the



**Figure 10.121** Completed removable ruff and whisk.



Figure 10.123 Completed removable ruff and whisk.

outer ends of the ruff down to the end points of the whisk and distribute the ruffles around the ruff collar. Pin the ruff to the whisk with safety pins, then tack the collar to the wiring of the whisk. Mark the location of hooks to be sewn at the end points of the whisk and bars to be sewn onto the bodice.

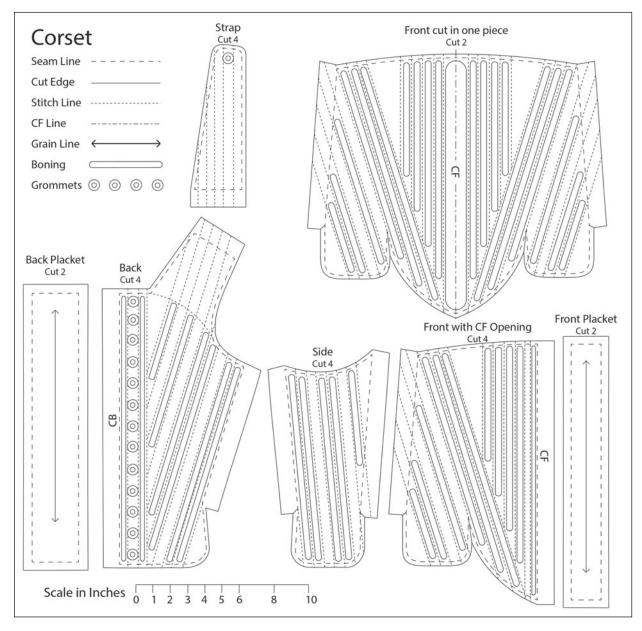


Figure 10.124 Scaled Elizabethan corset pattern (scale in inches).

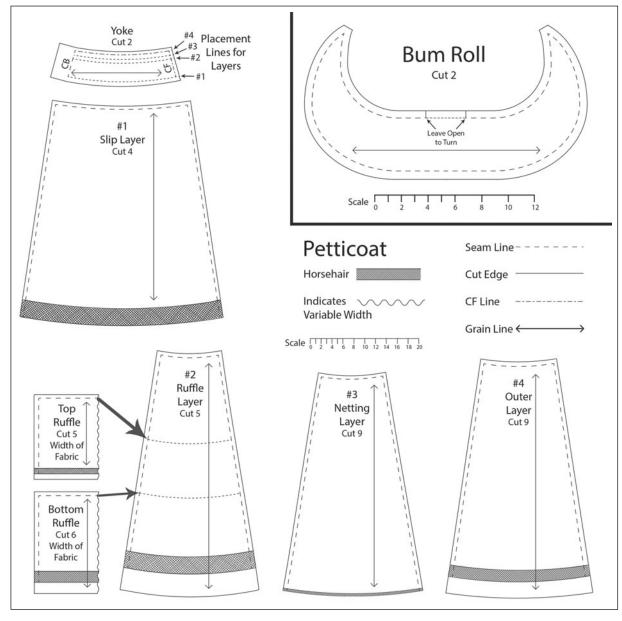


Figure 10.125 Scaled ruffled petticoat and Elizabethan bum roll pattern (scale in inches).

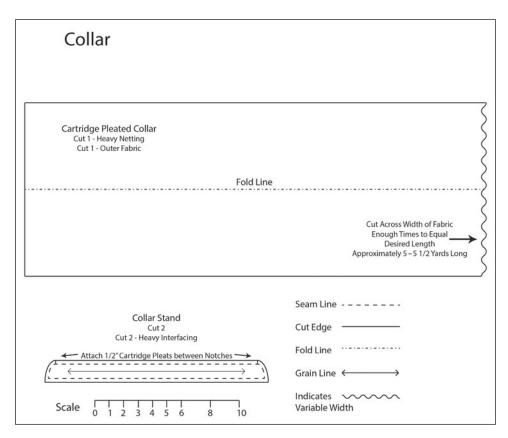


Figure 10.126 Scaled ruff and stand collar pattern (scale in inches).

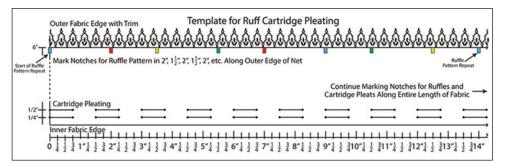


Figure 10.127 Scaled template for ruff cartridge pleating.

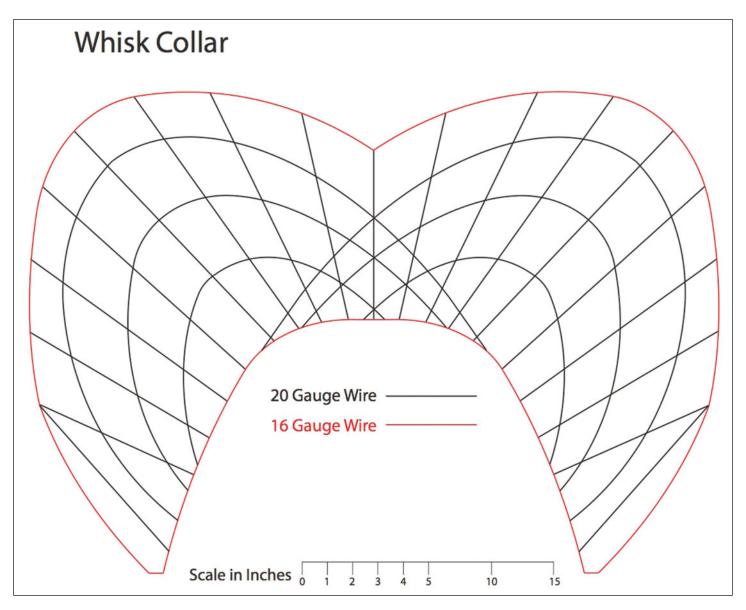


Figure 10.128 Scaled whisk template (scale in inches).

eleven

## THE MALE DOUBLET

In this chapter you will learn to drape and construct an Elizabethan doublet for theatrical use as seen in the costume for the character of Earl of Leicester used in the 2003 Milwaukee Rep production of Mary Stuart. A scaled Elizabethan male doublet pattern has been included at the end of this chapter.



Figure 11.1 The Elizabethan male doublet.





Costin C Shop

Figure 11.2 Style lines marked on dress form—front view.

Figure 11.3 Style lines marked on dress form—side view.

Figure 11.4 Style lines marked on dress form—back view.

**Step 1:** As with the female ensemble, the mockup for the male doublet begins with marking style lines for the finished garment on an appropriately sized male form. These lines include the center front, center back, neck edge, waistline, hemline, and major seams. Style lines are marked using twill

tape and should be placed in reference to the costume designer's rendering. Make sure the tape lies flat and smooth against the form, secured with enough pins so that it will not gape when draping over it.



Figure 11.5 Marking grain line on a length of muslin.

**Step 2:** Once the style lines have been established, we can begin draping each doublet piece within these style lines. Cut or tear a piece of muslin at least twice as large as the piece you are draping.

Finding the straight-of-grain on that piece, draw a line indicating the grain on the muslin. Do this for each piece of muslin as you drape the doublet.





Figure 11.6 Draping the doublet front.

**Figure 11.7** Draping the doublet front—excess fabric trimmed away.



Figure 11.8 Draping the doublet front—seam and style lines added.

delineated by the style line. The neck will not want to lie smooth, nor will other curves; these areas will need to be clipped to release the tension and allow them to lie flat. Be sure to clip only the seam allowance without clipping into the body of the garment itself. Trim away any excess muslin as you go and, using a pencil or marker, transfer the style lines onto the muslin.

Step 3: Begin with the front section of the doublet and place the muslin on the male form, keeping the grain parallel to the center front. Smooth the fabric up from the center, towards the shoulder, and secure with pins. Smooth the fabric from the center front out towards the armscye and secure with pins. Continue smoothing muslin, without distorting the grain or pulling, into the area



**Figure 11.9** Draping the doublet front inset piece.



Figure 11.10 Draping the double front inset piece—seam and style lines added.



Figure 11.11 Completed doublet front with inset piece.

Step 4: Repeat the process from Step 3 for the front inset piece—keep the grain parallel to the center front, smooth from the center out, and mark the style lines onto the muslin. When finished, fold under the marked edge of the doublet front along the edge of the front inset piece to simulate the look of the finished doublet. This will also allow you to ensure the length of the seam lines you have marked match.





Figure 11.12 Draping the doublet back.

Figure 11.13 Draping the doublet back—excess fabric trimmed away.



Figure 11.14 Draping the doublet back—seam and style lines added.

at the back shoulder, as shown in Figure 11.13. In this instance, cut into the muslin horizontally as shown and pin out the excess fabric. This modification will be transferred later to your paper pattern.

Step 5: Now we will drape the doublet back pieces.Again, keep the grain running parallel to the center back and smooth the muslin from the center out. Depending on the size of the male form you are using, you may or may not have excess



Figure 11.15 Draping the doublet side back.



Figure 11.16 Draping the doublet side back—seam and style lines added.



**Step 6:** Drape the side back piece using the same process used in Steps 3–5. Establish the grain line parallel to the center back, smooth the muslin from the center out, clip seam allowances of all curves, trim away excess, and transfer all style lines.

Figure 11.17 Completed double side back drape.





Figure 11.18 Draping the doublet collar.

Figure 11.19 Draping the doublet collar—pinning out excess fabric.



Figure 11.20 Draping the doublet collar—side view.

Leave the excess length around the side of the neck and, working from front to back, pin out the excess fabric. Mark the pinned out fullness when you are done. These marks will eventually create the individual collar pieces.

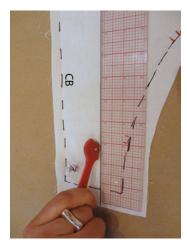
Step 7: To drape the collar, cut a rectangle of muslin twice as long as, and just slightly wider than, the height of your male form's neck. Mark the straight-of-grain on each end and pin to the neck style line at the center front and center back.



**Figure 11.21** Draping the doublet peplum.

Figure 11.22 Draping the doublet peplum—seam and style lines added.

Step 8: To drape the peplum, begin with a large piece of muslin with the grain indicated, just as you have for the steps above. The front edge of the peplum is on the straight-of-grain; however, this grain line is oriented slightly askew from the center front line. Smooth the muslin along the waistline toward the side seam. When draping the back piece, the grain is parallel to the center back line. Smooth the back peplum piece along the waist toward the side seam and pin the two peplum pieces together. If more swing is desired in the front peplum piece, make a slash vertically in the center, attach a scrap of muslin behind the original muslin piece, and spread the peplum pieces to the desired swing. Draw the hemline with a marker to the desired length based on the rendering.



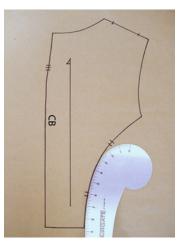


Figure 11.24 Transferring marking to paper.

Step 9: Once you are satisfied with the doublet body,

collar, and peplum, remove all muslin pieces

paper. Be sure the muslin pieces are flat and

from the male form and lay them out on pattern

smooth, pressing with an iron if necessary. Secure

the muslin pieces to the paper with weights or

pins and trace all seam lines and grain lines with

Figure 11.25 Truing up lines on the paper pattern.

Figure 11.26 Adding cutting information.



Figure 11.27 Adding seam allowance.

a tracing wheel. Take your time and be sure to trace accurately. Once all the lines are traced, go back with a pencil or marker and true all lines using a ruler and French curve. Check that the corresponding seams match and label all the pieces with cutting information.



Figure 11.28 Constructing the mockup.

Step 10: With the pattern pieces made, it is time to cut the mockup doublet out of muslin and assemble. To cut the pieces out, lay your mockup fabric out on a cutting table and arrange your paper pattern, ensuring the straight-of-grain indicated on the pattern matches the straight-of-grain of the fabric. Leave enough room around the pieces to be able to add a seam allowance in the next step. Trace around each pattern piece and mark any notches. Using a ruler, add 1" seam allowance to all sides of the pattern pieces. Cut all pieces

out on the cutting line—not on the lines you traced around the pattern piece. With the right sides of the fabric together, pin all seams along stitching lines, matching notches. Sew all seams along stitching lines and press open. For the strong curve of the side back seams, you may need to clip into the seam allowance slightly to release tension. Press these seams towards the center back. Press center front edges back, and press the peplum hem up. Congratulations! You have assembled the basic doublet body.

### Considerations for Constructing the Doublet in Fashion Fabric

When constructing the doublet in fashion fabric, as opposed to just muslin, certain additional considerations must be made. These include interfacing, seam finishes, closures, and pattern matching on the fabric. Interfacing will give the doublet the necessary internal support to hold its shape and add weight and stiffness to the

fabric. This doublet is unlined, with the exception of the peplum, so all seams will need to be finished on a serger or overlock machine. The peplum will be lined, and its lining will be used to finish the waist seam. For theatrical convenience, the doublet will close with a zipper at the center front.



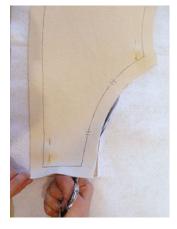


Figure 11.30 Cutting around canvas.

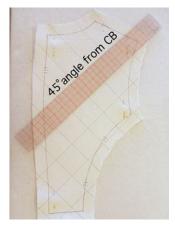


Figure 11.31 Marking diagonal grid.

**Step 11:** To interface this doublet, we will quilt layers

to flannel

11 To interface this doublet, we will quilt layers of cotton canvas and flannel, or felt, together. Begin by cutting out the canvas pieces as done for the muslin pieces, also using 1" seam allowances. Pin these pieces to the flannel and cut along the cut edge of the canvas as shown. Mark a diagonal grid pattern on each piece, lines approximately 2" apart. Starting on one of the center lines, sew both layers together along all the lines.



Figure 11.32 Quilt layer together along lines.

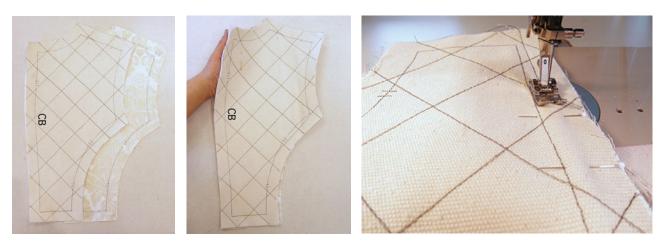


Figure 11.33 Fashion fabric and quilted layer.



Step 12: Once all pieces have been quilted, they will need to be flat lined to their respective fabric pieces. This will be done by machine. Begin by laying the flannel layer of quilting against the wrong side of the fashion fabric. Pin together in the center, being sure not to distort the grain. Working from the center out, and with a slight curve to the fabric as shown, pin the pieces together. To machine flat line pieces together, line up the stitching line with the edge of the



Figure 11.36 Peplum outer layer and peplum lining layer.

Figure 11.35 Flat lining layers together.

presser foot, and sew in the seam allowance. Note that this is slightly different than how the flat lining was sewn on the bodice. Both methods are acceptable and it often comes down to personal preference. Once the flat lining is complete, serge all the raw seam edges being careful to just finish the cut edge of fabric and without cutting away any fabric from the seam allowance. The doublet seams can now be sewn together.



Figure 11.37 Hand sew the lining to the canvas.

**Step 13:** For the peplum, cut lining pieces from either the same fabric or a different lining fabric. With right sides together, pin along the stitching lines leaving the waist seam open. Sew the pieces together and turn right side out through the waist. Pinning the right sides of the fashion



Figure 11.38 Tracing canvas pieces for the collar.

Step 14: To interface the collar, we will use a similar method of quilting and flat lining. Cut the collar pieces out of a stiff canvas with no seam allowance added. Pin these canvas pieces to a thin stiff interfacing, like verishape or broadcloth. With a ruler, draw on quilting guidelines, keeping one set of lines on grain, and one at a diagonal. Quilt these pieces together, pivoting the presser foot at the end of each line. Pinning the interfacing side to the wrong side of the fashion fabric, and lining the edge of the presser foot up with the edge of the canvas, sew all the layers together. fabrics together, sew along waist seam, making sure not to catch any of the lining in the seam. Press seams in towards the peplum and, with lining fabric seam allowance folded in along waist edge, hand sew lining to canvas fabric along waist seam.

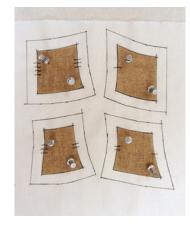
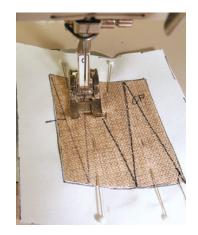


Figure 11.39 Canvas pinned to broadcloth with seam allowance added.



**Figure 11.40** Quilting the collar pieces together.



Figure 11.41 Pressing top seam open.

**Step 15:** The collar is also lined. Once all pieces have been quilted and flat lined, pin the pieces together matching stitching lines and notches. Sew the pieces together and press all seams open. Repeat with the lining pieces. Taking the assembled fabric and lining pieces, pin them together at the long top edge and sew along the stitching line. Press this seam open. Before you sew the short front seams, first press the top front seam toward the neckline to finish with a clean point. Pin the front seams together and sew along stitching line, catching the top seam that we just pressed down in the stitching. Similar to the peplum, the collar lining will be used to enclose seam allowances and finish the neck seam. With the right sides of fashion fabric together, pin and sew the collar to the neckline, being careful not to catch the lining in the seam. To finish the neckline, press the seam allowances into the collar, and cover this seam with the folded edge of the lining and hand sew the lining edge to neck seam. Now that the collar has been inserted, you can add the zipper closure. Refer to the zipper closure method outlined in Chapter 7.



Figure 11.42 Pressing top seam toward collar.



Figure 11.43 Completed doublet collar.

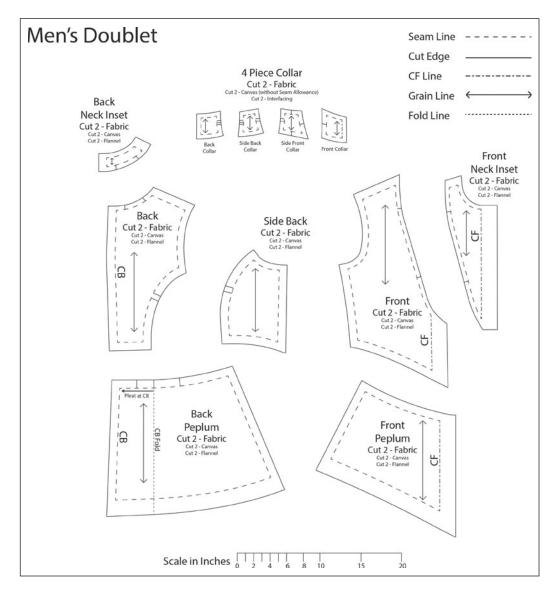


Figure 11.44 Scaled Elizabethan male doublet pattern (scale in inches).

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twelve

# THE MALE SLEEVES

In this chapter you will learn to draft and construct two different sleeve styles for the male doublet. The first style will be a bishop sleeve with cartridge pleating at the



Figure 12.1 Bishop sleeve with cartridge pleating.

sleeve cap and a cuff at the wrist. The second style will be a paned sleeve with a gathered inner sleeve, fitted lower sleeve, and sleeve liner.



Figure 12.2 Paned sleeve with gathered inner sleeve and sleeve liner.

### Bishop Sleeve with Cartridge Pleating

- **Step 1:** Begin by drafting the female sleeve outlined in Chapter 8, with the following adjustments to the draft:
- 1. The distance between A and B will be 8".
- 2. The distance from B to D is 8".
- 3. Eliminate point F. The sleeve seams will run straight from D–E.
- 4. Extend line A  $\frac{1}{2}$ " rather than  $1\frac{1}{2}$ ".
- 5. For the opposite side of the sleeve cap, repeat the instructions for finding points G, H, and J. This will result in both sides of the sleeve cap being identical.

Complete the draft with these adjustments. Do not include seam allowance. A scaled draft of the adjusted one-piece sleeve is included in the back of this chapter. Label sleeves and cut from pattern paper.

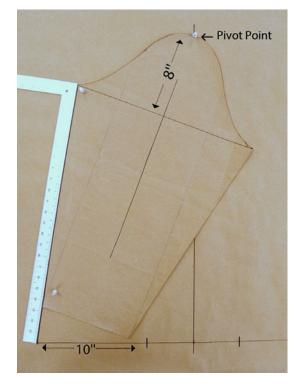


Figure 12.3 Pivoting the sleeve pattern to mark a new seam line.

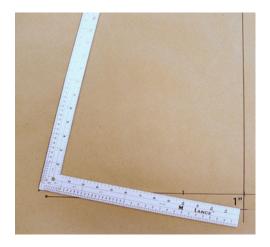


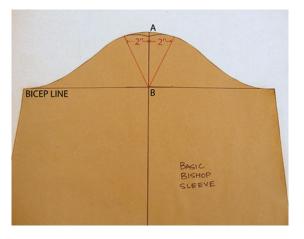
Figure 12.4 Drawing a hemline perpendicular to the new sleeve seam line.



Figure 12.5 Truing the cap with a French curve.

**Step 2:** Pin the original sleeve draft to a clean sheet of pattern paper. Begin by marking the center of the sleeve cap. Measure from the side seam at the sleeve hem and mark a line 10" out on each side as shown in Figure 12.3. Keeping the sleeve cap center mark aligned, pivot the sleeve to the end of the 10" line. Trace the sleeve side seam and sleeve cap. Pivot to the other side, and trace the opposite side seam and cap.

The hem of the bishop sleeve should be a gently sloping downward curve. To draft this, draw a 3" line perpendicular to the new sleeve side seam. On the center line, draw a mark 1" down from the original sleeve hemline. Use a hip curve to connect the center mark with the 3" perpendicular line, blending the lines into a gently curved sleeve hem. True the sleeve cap with a French curve. You now have a pattern for the basic bishop sleeve.



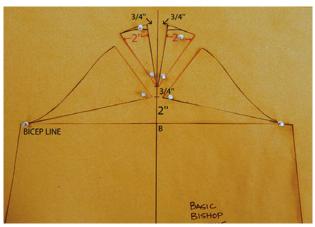


Figure 12.6 Marking the points of alteration.

Step 2 (continued): We will need to add ease to the bishop sleeve cap to adapt it for cartridge pleats. Lay the basic bishop pattern on a sheet of pattern paper and begin by marking the points of alteration. To do this, draw a straight line across the armscye at the bicep line. Mark a point 2" on either side of the center line of the sleeve cap. Slash and spread the sleeve cap as shown in Figure 12.7, raising the sleeve cap a total of 2¾" and spreading the cap ¾" from the center line. Trace the new sleeve cap. Label the new sleeve pattern and cut from pattern paper. Lay out on muslin, add the desired seam allowance, and cut out the sleeves.

Figure 12.7 Slashing and spreading the cap of the sleeve.

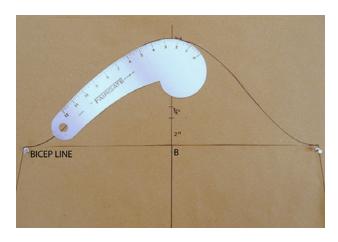


Figure 12.8 Truing the cap with a French curve.

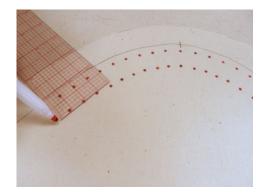


Figure 12.9 Dots marked for cartridge pleating.

Step 3: To prepare the sleeve cap for cartridge pleating, you must first mark a series of pleating guides on the muslin. Center the first set at the center line of the sleeve cap, mark the first dot ¼" in from the stitch line and a second dot ¾" below that. Add another set of dots ½" away from the first set and continue in this fashion until there are nine pairs of dots on each side of center. With a double layer of heavy thread, stitch through each row of dots to create cartridge pleating. Refer to Chapter 9 for further illustrations of cartridge pleating.

If you wish to add more stiffness to the pleats to help them stand out, trace the sleeve cap onto a piece of felt or other stiff interfacing. Extend this interfacing 1" into sleeve cap, and add 1" of seam allowance. Sew this to the inside, or wrong side, of the sleeve cap at the stitching line. Fold the seam allowance along the stitched sleeve cap, and cartridge pleat as previously instructed.

**Step 4:** To create the bishop sleeve cuff, mark a line 4" (or other desired height) up from the sleeve hem

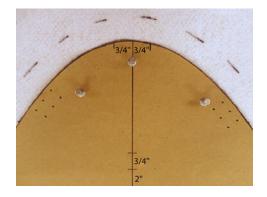


Figure 12.10 Cutting felt to stiffen pleats.



Figure 12.11 Stitching in felt to stiffen pleats.

on the adjusted one-piece sleeve from Step 1. This is your bishop sleeve cuff line. Retrace the cuff portion onto a new piece of pattern paper and true the sleeve hem edge. Lay the adjusted one-piece sleeve pattern and this new cuff pattern onto muslin and trace around the sides and hem of each pattern. Remove your paper pattern pieces, add seam allowance and cut out all the pieces.



Figure 12.12 Hand-stitching pleats to right side of sleeve.

Step 5: To assemble the sleeve, pin and sew the cuff along the side seams. Press the seams open. Sew the long underarm sleeve seams together and press open. Sew gathering stitches along the hemline of the bishop sleeve and gather to match the circumference of the top of the cuffs. Remember to arrange all the gathers evenly around the cuff. With the right sides together, match the stitching lines of the cuff and sleeve and sew the seam. Set the sleeve into the armscye by matching all the notches and stitch lines. Clip into the seam allowance next to the cartridge pleats on either side and sew the sleeve in by machine from one side of the pleating to the other. Hand sew the pleats to the right side of sleeve as shown in Figure 12.12. The sleeve is now complete.



Figure 12.13 Completed bishop sleeve with cartridge pleating.

#### Paned Sleeve with Gathered Inner Sleeve

Step 1: This sleeve variation will require the creation of a two-piece sleeve pattern draft. To do this, begin with the one-piece sleeve pattern draft outlined in Step 1 of the bishop sleeve variation. Once you have completed this draft, extend the hemline out 5-6" and square down from point D and DD at the bicep line to the new hemline. Cut this sleeve pattern from paper, leaving an extra inch of paper at the hem. Locate point B at the intersection of the center line and bicep line. Fold both long edges in to meet the center line and mark these creases with a pencil. The point where the bicep line intersects the crease on the right-hand side of your pattern is point K, as shown in Figure 12.15. Measuring from point B, mark a point on the bicep line which is two-thirds the distance from B to K. Label this point X. Next, fold both long edges to point X and trace the armscye curve onto your paper. This step can be seen in Figure 12.16.

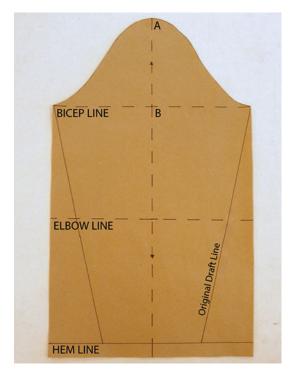


Figure 12.14 One-piece sleeve draft squared down from armscyes and cut from paper.

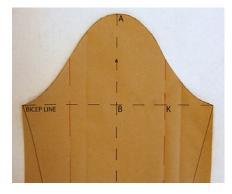


Figure 12.15 Creases and point K marked.

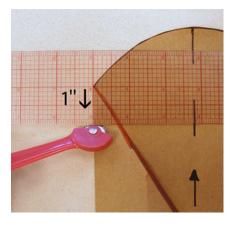


Figure 12.17 Measure down 1" on the folded edge.

**Step 2:** Next we need to establish four points: Y, Y1, Z, and Z1. Points Y and Z will be used to make the undersleeve, and points Y1 and Z1 will be used to make the oversleeve.

To establish point Y, measure down 1" along the right-side folded edge of your pattern. Mark this point and trace a horizontal line through it with a tracing wheel. The point where this horizontal line intersects the newly drawn armscye curve on your paper is point Y. The point

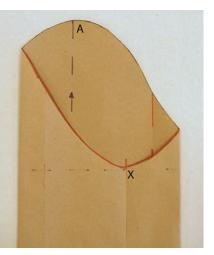


Figure 12.16 Cut edges folded in to point X.

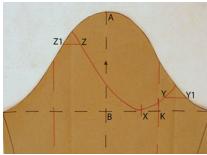


Figure 12.18 Marking points Y, Y1, Z, and Z1.

where this horizontal line intersects the cut edge of your original armscye curve is point Y1.

To establish point Z, measure down 1" along the left-side folded edge of your pattern. Mark this point and trace a horizontal line through it with a tracing wheel. The point where this horizontal line intersects the newly drawn armscye curve on your paper is point Z. The point where this horizontal line intersects the cut edge of your original armscye curve is point Z1. Step 3: To complete the undersleeve (lines shown in red in Figure 12.19), draw a dashed line down from points Z and Y to the hem. These will be called line Y and line Z, and they should be parallel to the underarm seam line. These lines are dashed to indicate that they are not final stitch lines. Establish the elbow line at a level half way between the bicep line and the hem of the sleeve (or, the midpoint between D and E). At the elbow line, mark a point 3/8" to the inside of line Y and a second point 3/8" to the outside of line Z. Using a French curve, create a gently sloping line from the top of line Y, through the new elbow point, to the end point of line Y at the hem of the sleeve. For point Z, draw a curve through the second elbow point and to a point that is  $\frac{1}{2}$ " in from line B and  $\frac{3}{8}$ " below the original sleeve hemline. Connect the end of line Z with the end of line Y to create the new hem of the undersleeve. You now have a completed undersleeve. It is advisable to trace this new undersleeve pattern onto a separate

piece of paper before continuing to draft your uppersleeve in Step 4.

Step 4: To complete the uppersleeve (lines shown in green in Figure 12.19), create line Y1 by drawing a curved line parallel to line Y, starting at the armscye point and continuing down to the hemline. Create line Z1 by marking a point on the elbow line 1" to the outside of the dashed Z line. Shape and draw a curved line from point Z1 at the armscye, passing through the point at the elbow line, and meeting at the same point at the hem as line Z on the undersleeve. Finish the hem by connecting the end of line Z1 to line Y1.

\*Note that the side of the sleeve with points Y and Y1 are the front of the sleeve and the side of the sleeve with points Z and Z1 are the back of the sleeve. The undersleeve has a sleeve cap section that curves downward, while the uppersleeve uses the original sleeve cap pattern shape.



Figure 12.19 Drafting the undersleeve and uppersleeve.

Step 5: On a clean sheet of pattern paper, separately trace both the undersleeve and the uppersleeve pattern pieces, including the grain line. True all seams and the hemline. Label your pattern pieces and cut them out from the paper. This two-piece sleeve pattern will be used as-is for the sleeve liner and adapted to make the cuff. To do this, draw a line on both pieces 12" up from the hem. This will be the cuff line. To make the sleeve liner in muslin, lay the sleeve patterns right side down on muslin and trace around them, adding 1" seam

allowance, and transferring the newly marked cuff line. Cut these pattern pieces out and sew each long side seam. Set the sleeve liner aside for now. Turn the patterns right side up, trace the lower half of the pattern up to the 12" cuff line. Trace across the cuff line, remove the patterns from the fabric and add 1" seam allowance to all sides. This is your cuff. Cut these pattern pieces out and sew each long side seam together. Press the seam allowance at the top edge of your cuff in towards the wrong-side and set aside for now.



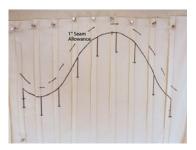




Figure 12.20 Pattern laid on panes.

Figure 12.21 Pattern laid on panes.

Figure 12.22 Press seam allowances to back.

Step 6: For the sleeve panes, cut out eight to ten strips of muslin 2" wide and roughly 18" long, with 1/2" seam allowance on each long side. Lay the strips down on the table, overlapping seam allowances so that the 2" widths of each strip meet along the sides. Using the two-piece sleeve pattern, place the pattern pieces onto the strips as shown in Figure 12.20, lapping the pieces just slightly at the armscye to make them fit from the end of a 2" strip on the left side of the pattern to the end of a 2" strip on the right side of the pattern. Trace the curve of the sleeve cap onto the strips, adding 1" seam allowance above the cap line. Mark a point 2" below the cap line on both sides of each pane and connect this point to the cap line. This point is where the seams of the panes will release, exposing the gathered inner sleeve and creating the look of the panes. We will call this 2" line the stitching guide line. To assemble the panes, cut away any excess fabric above the added seam allowance. Pin the panes together along the stitching guide lines, and sew from the top of the



Figure 12.23 Adding gathering stitches onto panes.

pane to the release point 2" down. Press seams open, and press remaining <sup>1</sup>/2" seam allowance towards the back of each pane. Add gathering stitches along sleeve cap.

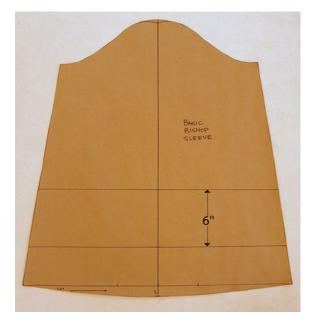


Figure 12.24 Shortening bishop sleeve pattern.

Step 7: To create the gathered inner sleeve we will use a shortened version of the bishop sleeve pattern. Shorten this pattern 6" by drawing a line perpendicular to grain line midway down the sleeve. Draw a second line 6" below the first line. Fold the pattern so that the lines meet up. Using a ruler, true the new underarm seam lines from the armscye to the hem on each side. Once you have your pattern, trace it onto the muslin, add seam 1" allowances and cut it out from the muslin. Add gathering stitches along the sleeve cap and at the hem. Sew the underarm sleeve seam and press open. Slide the sleeve liner created earlier into the gathered sleeve, wrong sides to wrong sides. Gather the hem of the gathered inner sleeve and pin evenly onto the 12" cuff line of the sleeve liner. Sew the gathers in place.



**Figure 12.25** Gathering stitches at base of shortened sleeve.



Figure 12.26 Stitching gathered hem to cuff line.



Figure 12.27 Setting all three sleeves into armscye.

Step 8: At the sleeve cap, gather the inner sleeve onto the sleeve liner. Match the notches and baste in place. Slip the paned sleeve over these two sleeves, right side out, and gather onto these two sleeves. Baste all layers together, being sure to match all stitching lines. Pin the sleeve into the doublet armscye and sew into place. Place the doublet on the male form and pin the panes into

Figure 12.28 Setting panes along top of cuff.

place along the top of the 12" cuff line, overlapping the panes around the sleeve as necessary to make it fit. The panes should just gently support the bishop sleeve, allowing it to puff, and should not be pulled tightly down. Trim away any excess length and sew the panes in place onto the sleeve liner around the 12" cuff line.



Figure 12.29 Trimming away excess pane material.

**Step 9:** The sleeve cuff will finish off and enclose all these seams. Line up the folded edge at the top of the cuff with the sewing line of the upper sleeves and hand sew into place. Turn under the hem of the liner sleeve and the hem of the cuffs to that the seam allowances face each other and hand sew together to finish. This sleeve is now complete.



Figure 12.31 The paned sleeve with gathered inner sleeve and sleeve liner is shown at the left side of the picture.

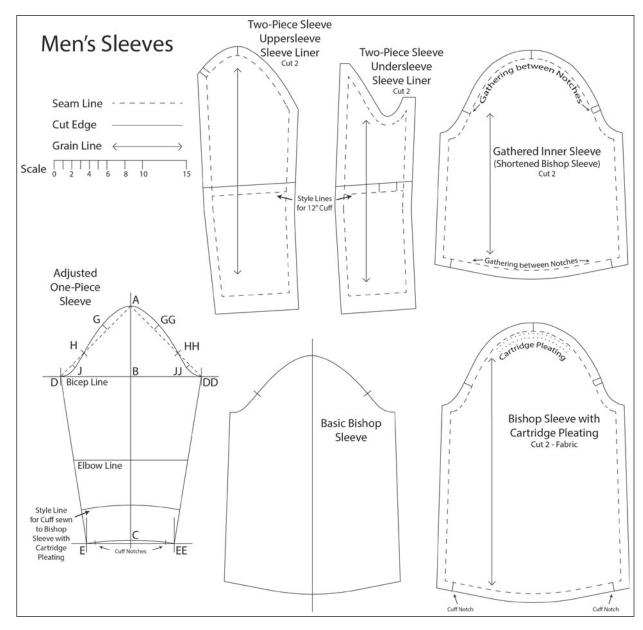


Figure 12.32 Scaled patterns for men's sleeves (scale in inches).

thirteen

## THE MALE BREECHES

In this chapter you will learn to draft and construct a mockup of a pair of Elizabethan breeches. These breeches have a slimmer inner pant to help support the bulk of the pleated or gathered outer leg. Both layers are finished at the waist with a yoked waistband and at the knee with a knee band. A Men's breeches pattern has been included at the end of this chapter. We will refer to the breeches as pants throughout the instructions, as this term is a bit more familiar with most readers.



Figure 13.1 Elizabethan male costume.

Figure 13.2 Sewing the inner pants.

Step 1: Using the scaled pattern provided, create a pattern for your inner pant leg. As we did with the doublet, lay the front and back pant pattern pieces on the muslin, making sure that the grain lines of the pattern pieces and the straight grain of the muslin correspond. Add 1" seam allowance to



Figure 13.3 Placing style lines-front view.



Figure 13.4 Placing style lines—back view.

all seams and cut out each pant piece. With wrong sides together, pin the inseams together following the stitching line and matching all notches. Sew the seam together, press open, and repeat the process for the outseam. You may set the inner pants aside for now.



**Figure 13.5** Controlling fullness in the inner pant.

Step 2: To drape the pant yoke pattern, refer to the designer's rendering and pin style lines on an appropriately sized male pant form with twill tape. Slide the inner pant leg onto male pant form, matching center fronts and center backs, as well as along the waistline. There may be some slight fullness in the back pant leg through the side back waist and hip area. This fullness can be reduced by adding gathering stitches and gathering the fabric down to match the waist. Mark the fullness to be gathered by pinning a small dart in the mockup, as shown in Figure 13.5. Using a pencil or marker, trace the bottom of the yoke line onto the pant mockup. We will use this

yoke style line in creating the gathered over pant pattern.

Step 3: Remove the inner pant from the form, lay it over your front and back pant pattern paper, and trace the yoke line onto the patterns with a tracing wheel. This line will become the new waist seam stitching line that will connect the gathered outer pant to the bottom of the yoke. True the line on the pant patterns and cut along this line. True the line drawn on the mockup, mark a 1" seam allowance above that line, and trim away excess pant waist fabric.



Figure 13.6 Tracing the bottom of the yoke.

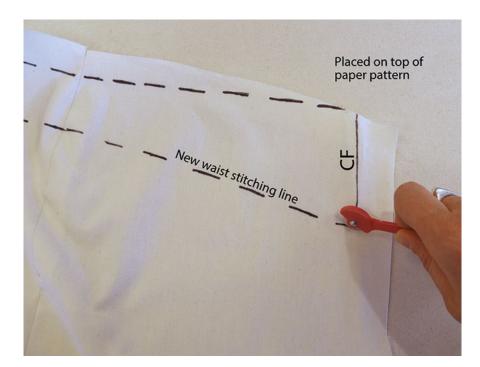


Figure 13.7 Transferring the new waist stitching line.



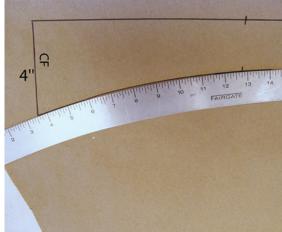


Figure 13.8 Drafting the yoke pattern.

Step 4: To make the yoke pattern, place the L-square ruler on a piece of pattern paper. Trace a line on the long arm of the ruler equal to half of the original waist measurement of the the male pant form or of your performer. Divide this line in half and mark with a point. Trace a line on the short arm equal to the height of the center front yoke measurement, in this case 4". Using a hip curve, and referencing the style lines on the form,

Figure 13.9 Trueing yoke curve.

draw a gently curved line to create the bottom line of the yoke. The grain is parallel to the center front line. Label the pattern and cut it from the paper. Trace the yoke pattern onto muslin, as well as a medium weight fusible interfacing, and add 1" seam allowance to all pieces. Fuse the interfacing to the wrong side of the muslin, being sure the glue side is against the fabric and using a press cloth to protect the iron plate.



Figure 13.10 Marking a line midway through the leg.

Step 5: To make the outer gathered layer of pattern, we will need to further modify our existing pant pattern. Mark a line about midway through the leg above the knee. Divide the width of the pattern roughly into thirds along the waist line on both front and back pattern pieces. Cut each pattern apart on these lines. Spread the pattern pieces apart on pattern paper, creating the desired fullness and length. Be sure to keep all lines square and the grain accurate. For this project, 4" of length was added at the midway line and 3" of width between each vertical segment (for a total of 12" overall between both front and back pattern pieces). Secure these pieces to the paper and trace around the original outside edge of the pant pattern. With a ruler, connect the spaces that were created during the spreading process. True all vertical lines and blend curves as necessary. Mark the grain on these new pieces, label,

Figure 13.11 Dividing the width into thirds.

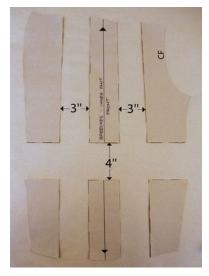


Figure 13.12 Spreading pattern pieces apart.

and cut out of muslin in the same manner as for the inner pants.



Figure 13.13 Sewing gathered outer layer to the inner pant.

**Step 6:** Sew the side seams on the gathered pant layer as you did for the inner pants. Add two rows of gathering stitches along the hemline, one row on the stitching line and the second by lining up the edge of the presser foot with the first stitch line. Slide the assembled inner pant inside the

Figure 13.14 Completed gathered hem.

gathered layer, with wrong sides together, and match up the hemlines. Match the two inseams and outseams together and gather the outer layer down to the inner layer. Pin along the hemline and sew the two layers together.



Figure 13.15 Pinning yoke to inner pant.

Figure 13.16 Direction of pleats.

Step 7: Pin the yoke and inner pant layer together along the waist seam stitching line. Slide the leg onto the male pant form matching waistlines, center front, and center back. Starting near the center front, create pleats from the fullness of the gathered pant and pin the pleats down to the inner layer and yoke. Continue pleating around to the center back, trying to keep the depth of each pleat even, and referencing the design rendering if necessary. Alternately, the outer pant can be gathered onto the inner pant for a variation of style. Mark the placement of your pleats on the muslin so you can transfer them to the paper pattern.

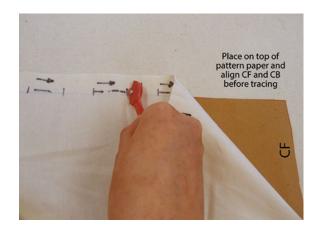


Figure 13.17 Transferring pleat markings.

Step 8: Remove all mockup pieces from the male pant form and unpin the inner pant from the yoke. On the outer layer of the pant, secure the pleats or gathers in place by sewing across them just above the stitching line in the seam allowance. Pin both outer and inner pants layers to the yoke, and sew all parts together along the waist seam stitching line. The knee band can now be applied. To do this, trace the pattern piece onto muslin, as well as the same fusible interfacing, and add 1" seam allowance to all pieces. Cut out each piece. Fuse the interfacing to the muslin in the same manner as the pant yoke. Sew short sides of the knee band together and press the seam open. Fold the long side along the fold line and press to make a crease. With right sides together, pin and sew the top half of the knee band to the hem of the pants. Bring the remaining seam allowance of the knee band to the

inside of the pant, and fold the seam allowances into the knee band, enclosing any hem seams. Hand sew to finish.

Step 9: To complete the pants, cut and assemble the second leg including the yoke and the knee band, making sure to cut the mirroring pieces of each pattern. For the final pants made from fashion fabric, the yoke will receive that same interfacing as the doublet collar: canvas quilted to broadcloth, and applied in the same manner. The yoke lining is sewn to the interfaced yoke pieces, and used to finish the waist seam, also as for the collar. To join the legs, match the stitching lines of the crotch curve, and sew together from the center front to the center back, stopping 8″ from the top of the yoke at the back of the pant. The gap this creates at the center back will be used for the center back gusset and closure.



Figures 13.18–19 Inserting gusset into pants.

Step 10: With the crotch seam sewn, we can now add the gusset and center back closure. The size of the gusset can vary depending on the width and depth of the opening desired. For these pants, the finished gusset will be 8" wide and 6" deep. The depth measurement corresponds to where you stopped stitching at the center back seam. To make the gusset, draw on pattern paper a diamond shape that is equal to the finished width, here 8", and twice as deep, here 12". The sides of the diamond shape should each measure 8". Cut the pattern from the paper and trace onto your fabric. Add 1" seam allowance to all sides and cut the gusset from the fabric. Fold the gusset in half along the width, wrong sides together, and serge the fabric edges together along the two cut sides. The finished gusset will be 8" by 6", plus seam allowances. To insert the gusset, pin the gusset to the center back seam, from the waist line to the 8" mark, along the stitching lines as shown in Figure 13.18. Sew the seam together,

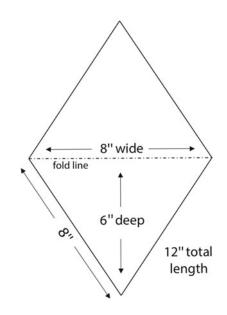






Figure 13.21 Pressing seams.

stopping at the 8" mark. Repeat on other side. Press the seams open, then press the seams in toward gusset, as seen in Figure 13.21.

Step 11: These pants will close at the center back, the left side over the right side, with trouser hooks and bars sewn on the yoke. Depending on the size of the yoke, you may need additional, or fewer, closures. Bring the left side of the pant over to the right side to match the gusset seams, making sure the gusset is fully concealed. As shown in Figure 13.23, securely sew in all trouser hooks and bars.



Figure 13.22 Gusset set into pants.



Figure 13.23 Pants closure.

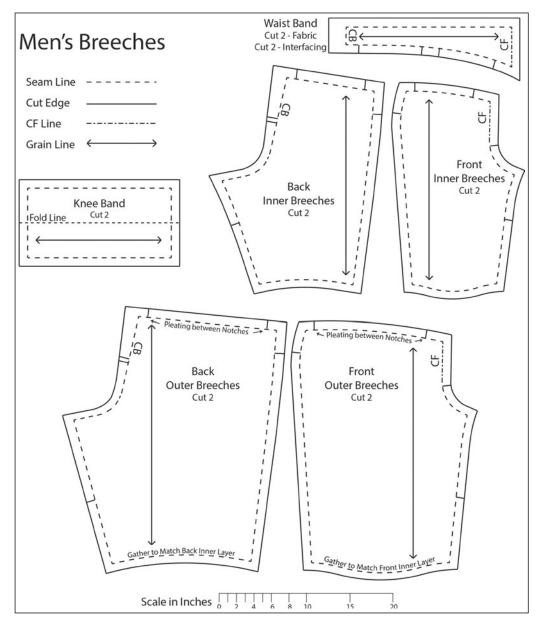


Figure 13.24 Scaled men's breeches pattern (scale in inches).

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