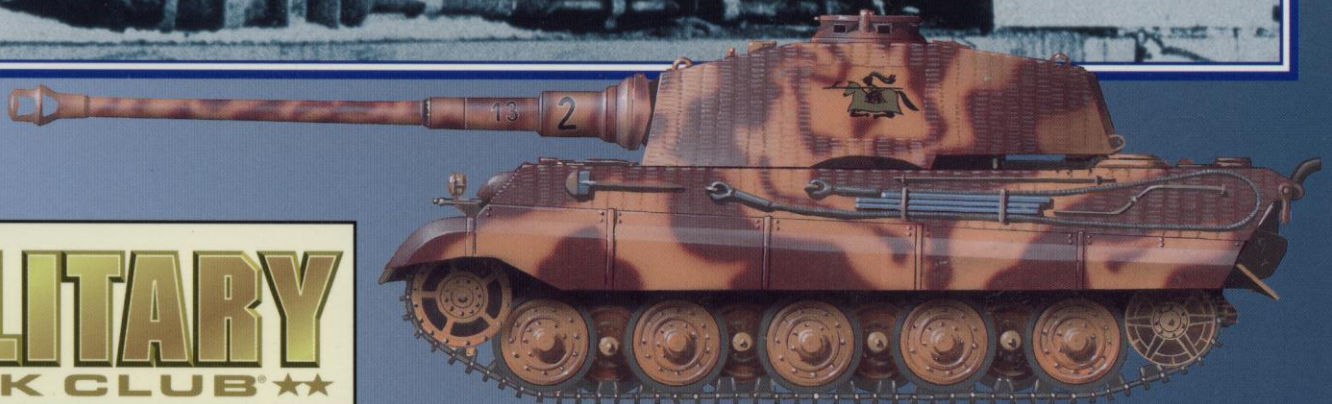
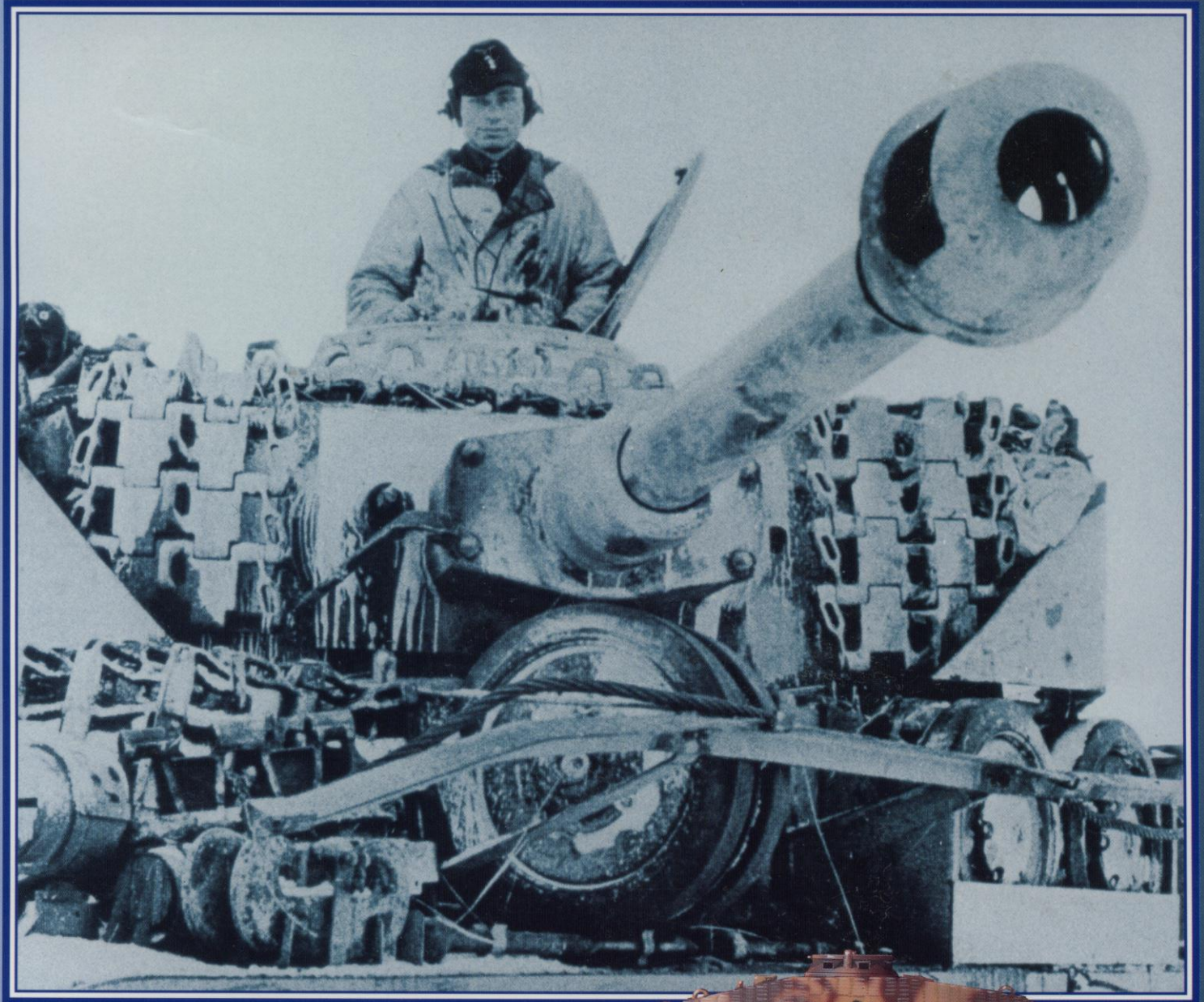


ARMOR AT WAR SERIES

PANZERS IN THE EAST

(2) Decline and Defeat 1943-1945

Robert Michulec



THE
MILITARY
BOOK CLUB ★★

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Text by Robert Michulec

Color plates by Arkadiusz Wróbel & Wojciech Klónski



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Introduction

On the Defensive - 1943

Hitler failed to secure the Kursk Salient with Operation "Zitadelle" in the early summer of 1943. Beginning in July of that year and continuing through the remainder of the war, the German Army in the East would be almost constantly on the defensive.

Following the struggle for Kursk, the Russians launched a massive counter-offensive. Its first success was the recapture of Kharkov in August. By September the Eastern Front stretched south from a point west of Leningrad, down the Dnieper River, and ending at the Black Sea. During combat near Smolensk in the north-central sector of the Front, the Germans were able to effectively employ their assault guns to slow the Russian advance, inflicting heavy losses on the communist forces. Nevertheless, Smolensk fell on 25th September. In late autumn, the Russians pursued the retreating Germans across the Dnieper. Sharp fighting near Zhitomir allowed the Russians to establish a strong presence west of the river. In November the Germans were driven from Zhitomir and Kiev in the southern part of the Eastern Front.

During the second half of 1943 alone, the Panzerwaffe lost 3,092 tanks and 1,194 StuGs and Panzerjägers — losses that were higher than for the whole of 1941! Units armed with heavily armored self-propelled guns (mainly the StuG units) lost three times more vehicles than during all of 1942. Almost all of these losses were inflicted by the Soviets.

In January 1944 the Russians opened the Leningrad offensive at the northernmost tip of the Eastern Front. By the end of the month, the city was recaptured and the siege that had plagued the city for 900 days was lifted. In April the Russian spring offensive in the south forced the Germans out of the Ukraine.

The Fourth Summer - 1944

After lengthy preparation for fighting against the Western Allies, the German armies of the Eastern

Front had become very weak by June 1944, and the Wehrmacht had no chance to prepare for the upcoming summer offensive. On 15th June the Heer had only 18 Panzer divisions and 9 Panzergrenadier divisions on the Eastern Front, and all of them were less prepared for combat than the divisions concentrated in France. This fact is illustrated by the following data: in June there were only 1,792 tanks (an average of 99 tanks for each Panzer division) and 1,959 self-propelled guns on the Eastern Front, but in France there were only 837 self-propelled guns, but there were 2,343 tanks. As of 1st June 1944 the whole Panzerwaffe possessed 6,311 tanks, but only 4,817 of them were the newest types: Pz.Kpfw. IVs, Panthers and Tigers. There were many vehicles missing in different units, and the Panzerwaffe suffered a lack of 2,584 tanks. The biggest deficiencies were in units which used Pz.Kpfw. IVs (1,643 vehicles under strength) and the lowest were in the Tiger units (only 12 vehicles under strength). Conditions were much better in the armored infantry battalions, which were equipped with 8,312 vehicles, where there was a lack of only 4,756 Sd.Kfz. 251s, and in the StuG battalions, which had 3,285 vehicles and only needed an additional 164 StuGs or StuHs.

The lorries, or trucks and (most of all) tractors, which had been limited in number throughout the whole war, made up the weakest part of the Panzer divisions during this period. At the beginning of June 1944, the German Army had 290,000 trucks, but there was a lack of 64,000 trucks in the various units. Of the 19,500 needed tractors, the Army had only 11,700. But the main problem was that there were too few supply sub-units, and the existing transport units were smaller than in 1941. The contingent of soft-skinned vehicles for motorized and armored divisions had grown smaller and smaller from year to year. In the early 1940s there were almost 2,000 cars and trucks in a

Panzer division; in 1944 there were only about 1,600 such vehicles.

The weakness of the Panzerwaffe on the Eastern Front during the fourth summer was most perceptible in the central sector, where the Soviets launched the first great offensive of that season, Operation "Bagration". When the Soviet offensive began, *Heeresgruppe Mitte* (Army Group Center) consisted of only 20., 18. and 25. Panzerdivisions, and Pz.Div. "Feldherrnhalle". They were supported by 9 StuG battalions and a few minor artillery units: Art.Abt.1/88, Art.Abt.845 (both armed with Hummel self-propelled howitzers), Pz.Jäg.Abt.519 (equipped with Nashorn self-propelled guns) and Pz.Jäg.Abt.66 (armed with 7.5cm self-propelled guns). Unable to survive the Soviet attacks, these meager forces were quickly defeated. The same devastating fate met all other armored units that were sent to this area of battle, as well as the other divisions and battalions used in other sectors of the Eastern Front. In the autumn of 1944, Russian advances against the German *Heeresgruppe Nord* pushed the front lines ever closer to Berlin. There would be no fifth summer on the Eastern Front for the Panzerwaffe.

The Final Months - 1945

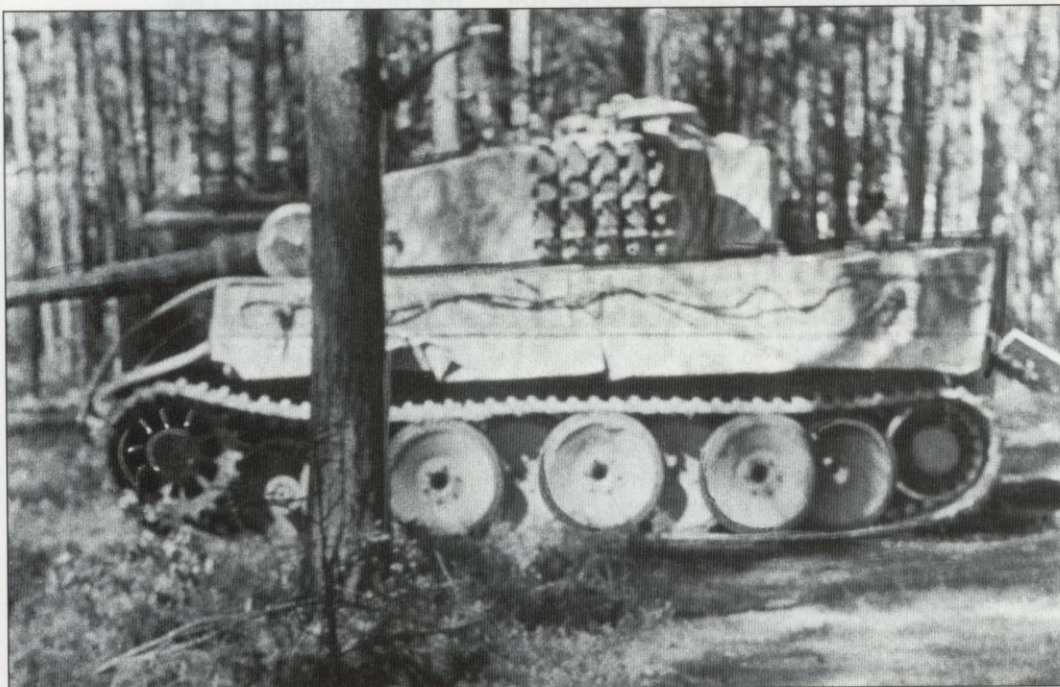
In the early months of 1945, Panzer units in Hungary and Austria in the south and East Prussia in the north were being routed. By the middle of March, Pomerania to the northeast of Berlin was under Russian control, and Vienna fell to the communists in April. All German resistance had been smashed. The Russians were now ready to carry out their final assault against Berlin itself. Following a bitter struggle, Berlin was encircled on 25th April and officially surrendered on 2nd May 1945.

Though overwhelmed in the end by sheer numbers, the Panzers in the East were able to secure a place for themselves in history as an elite force that remained a serious threat to the enemy even when in retreat.



The aftermath of the Battle of Kursk, where heavy losses were inflicted on both the German and Soviet armies. This Pz.Kpfw. VI Tiger I, which was a unit commander's vehicle, was damaged by the Soviets and abandoned by its crew. Note the Cyrillic inscription on the side of the superstructure and the penetration holes. The tank was captured by the Soviets on 10th August 1943 near Grajvoron.

German Pz.Kpfw. IVs and a Sd.Kfz. 250 knocked out by the Soviet defenders near Orel in August 1943. The nearest Pz.Kpfw. IV was completely demolished following an internal explosion of ammunition. It is interesting to note that the turret was blown up along with the main part of the superstructure, which was quite weak, being welded with other parts of the superstructure and the hull.



A Tiger I hidden in the woods awaiting the next phase of action. Though not too clear, the photo shows an interesting pattern of green camouflage over dark yellow background. The tank doesn't show any tactical number, only the national cross is painted on the superstructure side.

The crew of this StuG III Ausf. G is seen taking a group picture. The bolt-on armor to the superstructure and the hull front is evident.



The most feared Panzerjäger (tank hunter) was surely the Nashorn. Armed with the mighty 8.8cm PAK 43/41, these self-propelled guns decimated Soviet tank formations from distances of over 3,000 m (3,028 yards). These vehicles are seen here crossing a narrow ford. Both are finished in plain dark yellow.

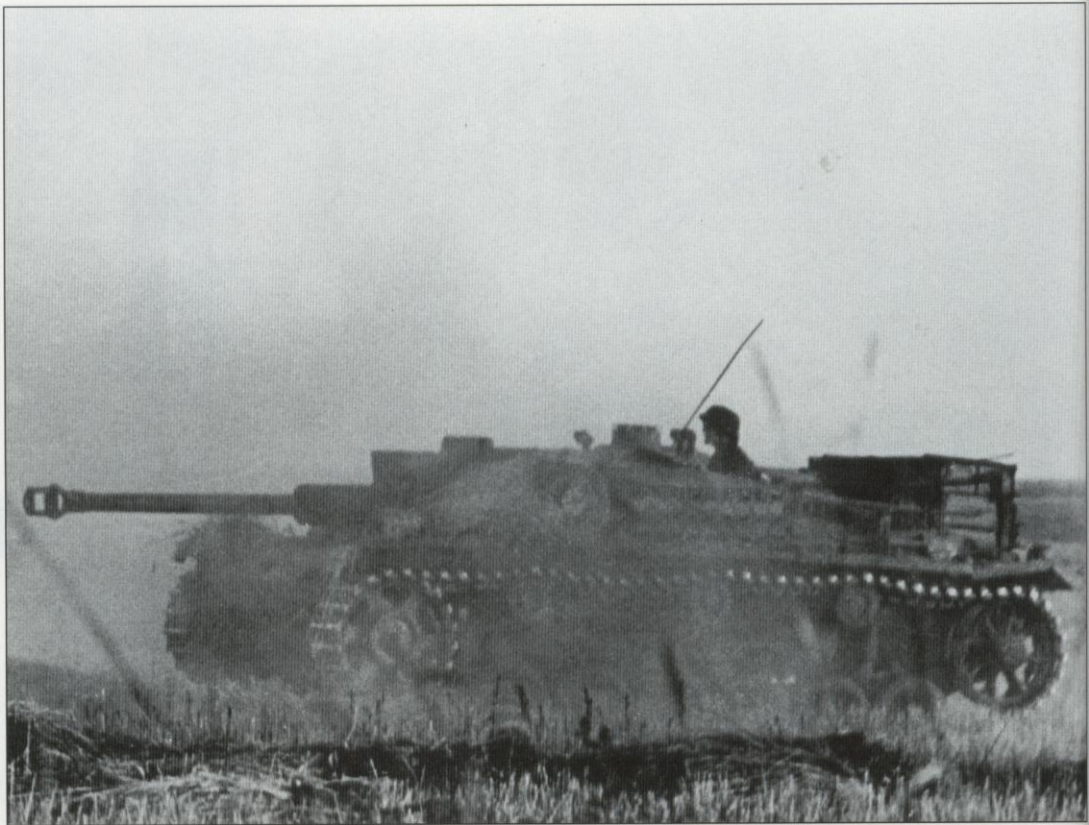


Windmills were a common sight in the Ukraine. The one seen here serves as a backdrop for a heavily camouflaged half-track fitted with a 3.7cm Flak 36 anti-aircraft gun. The main role of Flak units at this stage of the war was not defense against Soviet aircraft, which was the job for the experienced German fighter pilots, but fire support for attacking infantry.



Here another successful tank destroyer, the Marder II, passes by one of the ubiquitous windmills. This vehicle was composed of the Pz.Kpfw. II chassis and the 7.5cm PAK 40/2 gun. The vehicle is not painted in a camouflage pattern. Instead it has wire affixed to it for attaching foliage or tall grass.

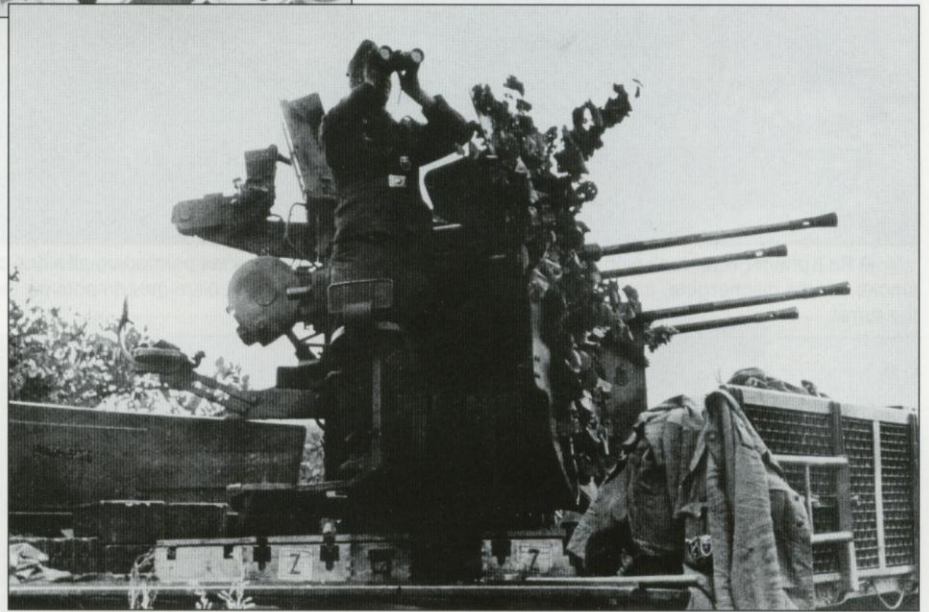
A StuG III Ausf. F in the heat of the action. Some of the Ausf. F vehicles were armed or rearmed with 7.5cm StuK 40 L/48 guns — visible in this photo — in place of the original StuK 40 L/43 guns. Note the vehicle's commander peering out from the vehicle. The lack of visibility from this position was a serious problem for the commanders of pre-Ausf. G StuGs, and very often they were forced to open their hatches during combat.



Another shot of Ausf. Fs in a similar situation. Note that both vehicles are equipped with side skirts with additional armor on the frontal plates of the hull and superstructure. Both modifications, which were originally designed for the Ausf. G model, indicate that these vehicles were modernized in the factory during overhauls.



A Sd.Kfz. 251/1 armed with the Wurfrahmen 40 for six 28cm rockets. This sort of artillery had a short range, but this posed no problem during the support of Panzergrenadier attacks. WGr 280s could be fired at various targets at ranges of 750 -1,900 meters (820 - 2,078 yards). They could be used during the entire attack, from their own lines to the final stage of attack, when the advance of the armored units began. The rocket was very effective due to the highly destructive power of the warheads, which exploded about one meter above the ground.



A Sd.Kfz. 7/1 is shown here during a pause in the action. While one crew member scans the horizon for enemy aircraft or troops, the rest of the four-man crew is probably sleeping or eating a meal near the vehicle. Life was dangerous for these Sturmflak troopers as the vehicles offered no armored protection.



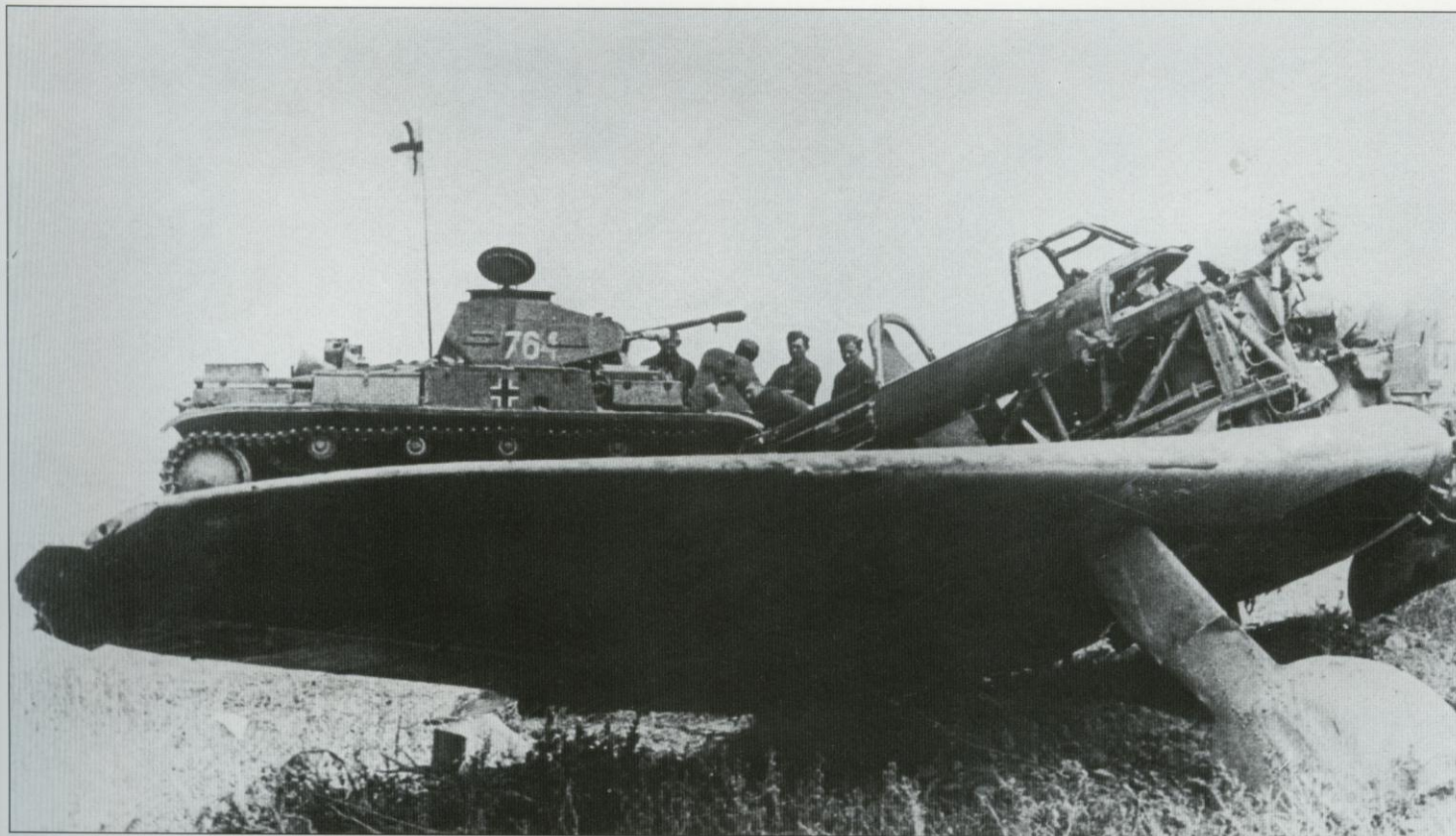
A platoon of late production StuG III Ausf. Gs passes in review for the camera along a dusty road. All the vehicles lack their side skirts, but large wooden logs have been mounted for protection instead. The lead vehicle is fitted with the late-style "Saukopf" mantlet.



A Pz.Kpfw. VI Tiger tank with tactical number "334" and national crosses painted on all sides of the turret. The tank carries a Nazi flag for air identification, smoke candle dischargers, and is most probably camouflaged with small olive green spots on the superstructure and a bigger pattern in the same color on the turret.



Soldiers support a Pz.Bef.Wg. III Ausf. K. Operation "Zitadelle" was the last battle in which this type of tank was used in large numbers. There were around 50 vehicles of this version produced from December 1942 to February 1943. By late 1943 it had become obsolete.



This photo shows the repair of a Pz.Kpfw. II that is being used as a command vehicle for an officer of medical service in a Panzerregiment. The tank's tactical number is "764", and it is painted in dark yellow. The remains of a Yak-9 Soviet fighter are visible in the foreground.

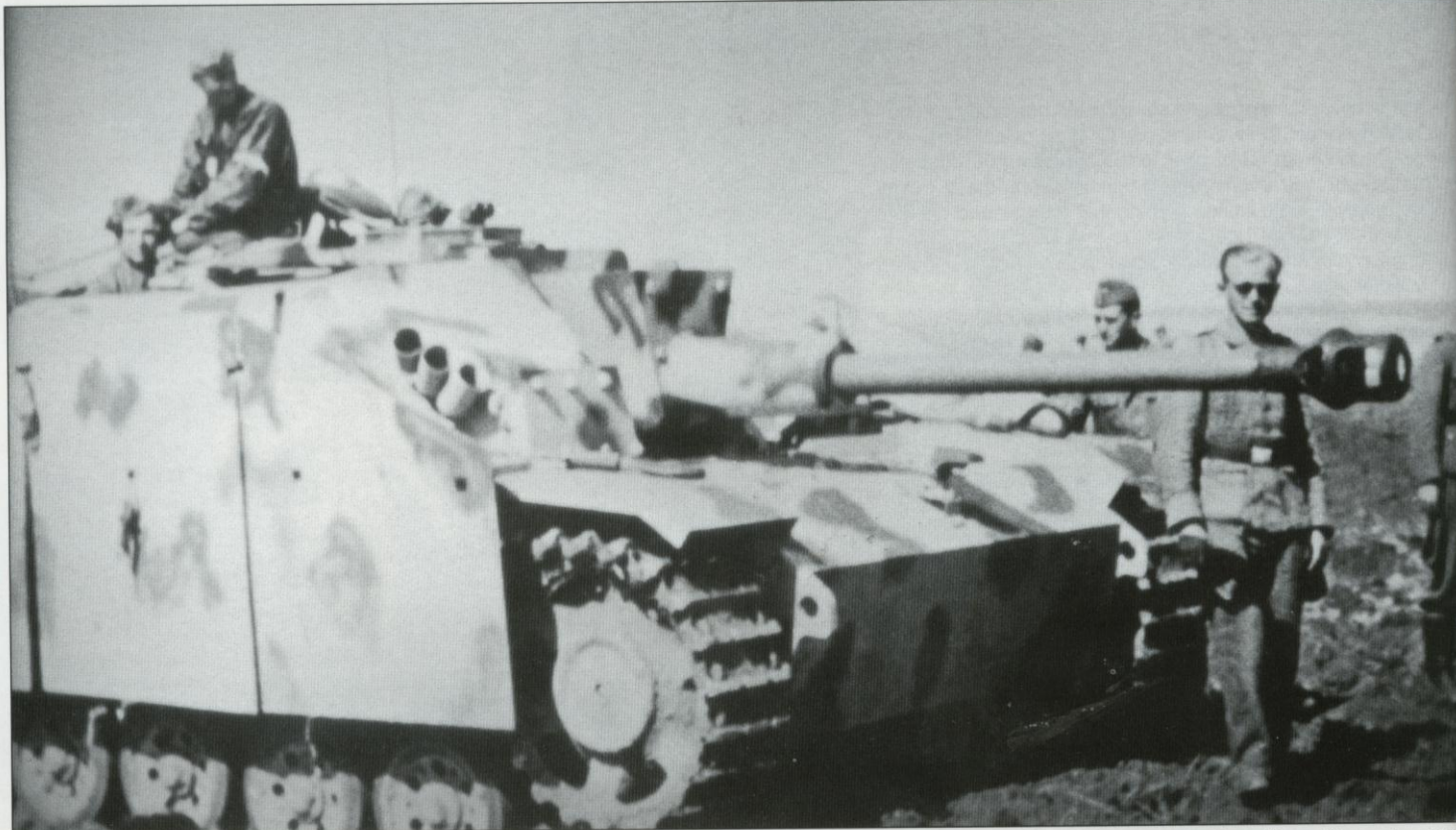
A tank crewman inspects a souvenir left behind by a 76mm shell, which created only a minor dent. The Soviets were very familiar with German tanks prior to the beginning of "Zitadelle" and had taught their troops to fight them, not fear them. Soviet soldiers received such limited training that they started to claim hundreds of destroyed Tigers from the time the battle began. In their opinion all German tanks — even Pz.Kpfw. IIIs — looked like Pz.Kpfw. VIs.



The crew of this Tiger was unlucky. Their vehicle was knocked out, abandoned on the battlefield and then used by Soviets as a target for weapons training. The pitiful wreck could be seen in the Russian forest as recently as 1994.



A StuG III Ausf. G advances to the front, with a Russian T-70 light tank littering the roadside. It is fitted with side-skirts and bolt-on front armor. The crew seems to be relaxed and enjoying the ride.



Another Ausf. G with its crew taking a breather. The vehicle is in very good condition. A total of 7,720 Ausf. Gs were produced from December 1943 onward, with an additional 173 converted from Pz.Kpfw. III in 1944.



Brand-new (but with one already featuring damage on the front part of the mudguard) StuG III Ausf. Gs are seen on their way to a unit concentration area after arriving from Germany by railway transport.



This StuG III Ausf. G waits with support troops for the order to attack. The practice of bolting additional armor to the front of the hull and superstructure is well illustrated in this photo. The meaning of the "2/E" marking is unclear.



A late production Pz.Kpfw. IV Ausf. G gives a few troopers a lift. Additional armor was welded to the front of the hull. Note the turret spaced armor attachment points for armored skirt on the right side of the tank. Usually only turret skirts were installed; tank crewmen preferred their use over the full set of skirts. Also note that the tactical number is painted only with a white outline in the manner that was typical from the autumn of 1943.

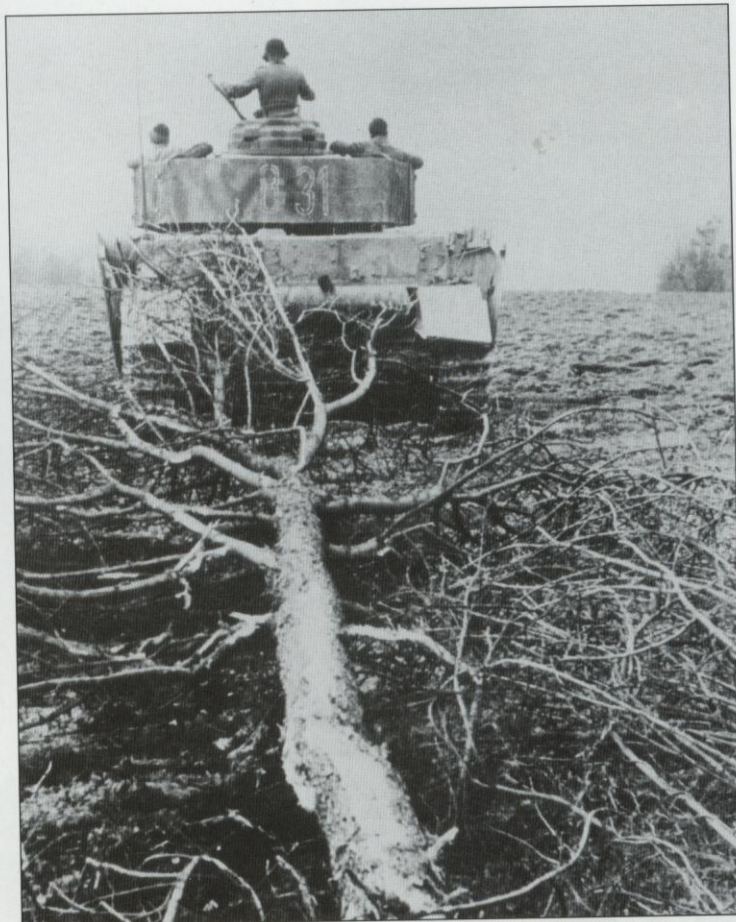
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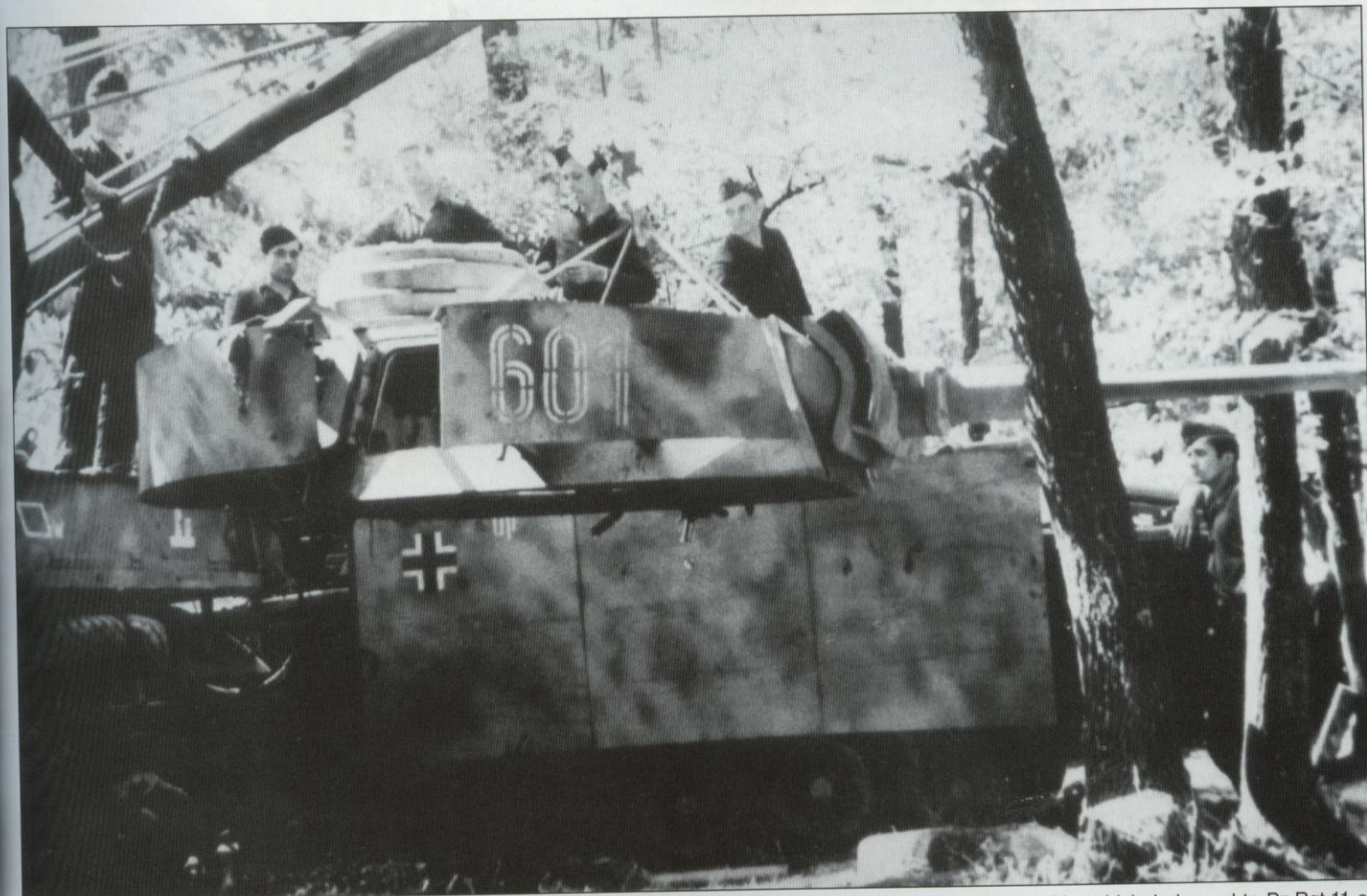
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Photographed in September 1943, vehicles belonging to an armored division cross a river. At the left is a Sd.Kfz. 7 tractor, at the right a Pz.Kpfw. IV Ausf. G is visible, and in the background is a StuG III. All vehicles are painted in the three-color (dark yellow, olive green, red brown) camouflage scheme introduced in the spring of 1943.



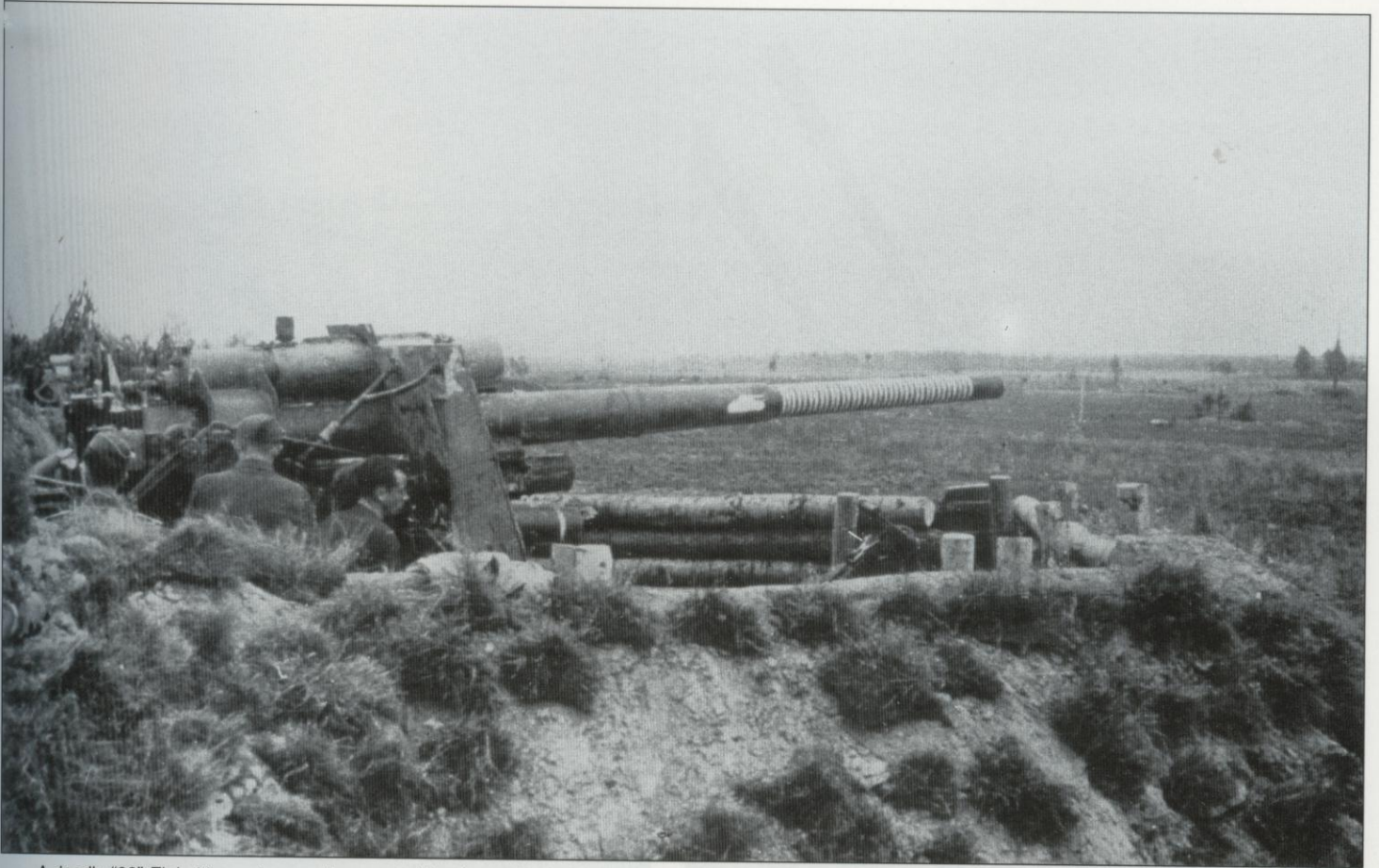
The crew members of a Pz.Kpfw. IV Ausf. H demonstrate that a tree is no obstacle for a German tank. This photo shows to advantage the system of installing side skirts on the superstructure. The tactical number is painted in the standard way — the first figure, which indicates the 8th company, is separated from the two others, which indicate the 1st tank in the 3rd platoon, the vehicle was used by the platoon commander.



This Pz.Kpfw. III Ausf. M is having its turret lifted for repair works. The "Op" marking on the side skirt indicates this vehicle belonged to Pz.Rgt.11 of 6.Panzerdivision. The regiment fought near Belgorod during "Zitadelle" as part of III.Panzerkorps. The camouflage consists of olive green and red brown patterns sprayed over the dark yellow base.



The vehicle shown here, the Sd.Kfz. 138/1 Grille (cricket) heavy self-propelled gun (SPG), was rarely seen on the Eastern Front. It was built on the Pz.Kpfw. 38(t) chassis and was armed with a 15cm sIG 33 gun. About 100 of these vehicles were produced between the beginning and autumn of 1943. They were used in the artillery units of infantry regiments in Panzer divisions.



A deadly "88" Flak 18 gun in a well-prepared battle position. On the barrel are no less than 36 victory rings won during combat against Soviet tanks. These markings indicate that the crew was quite experienced in their lethal work.



Another 8.8cm Flak 36/37 gun. This one was photographed while firing on a target across an open field. Note the interesting camouflage pattern painted on the Ford 2-ton truck visible behind the gun.



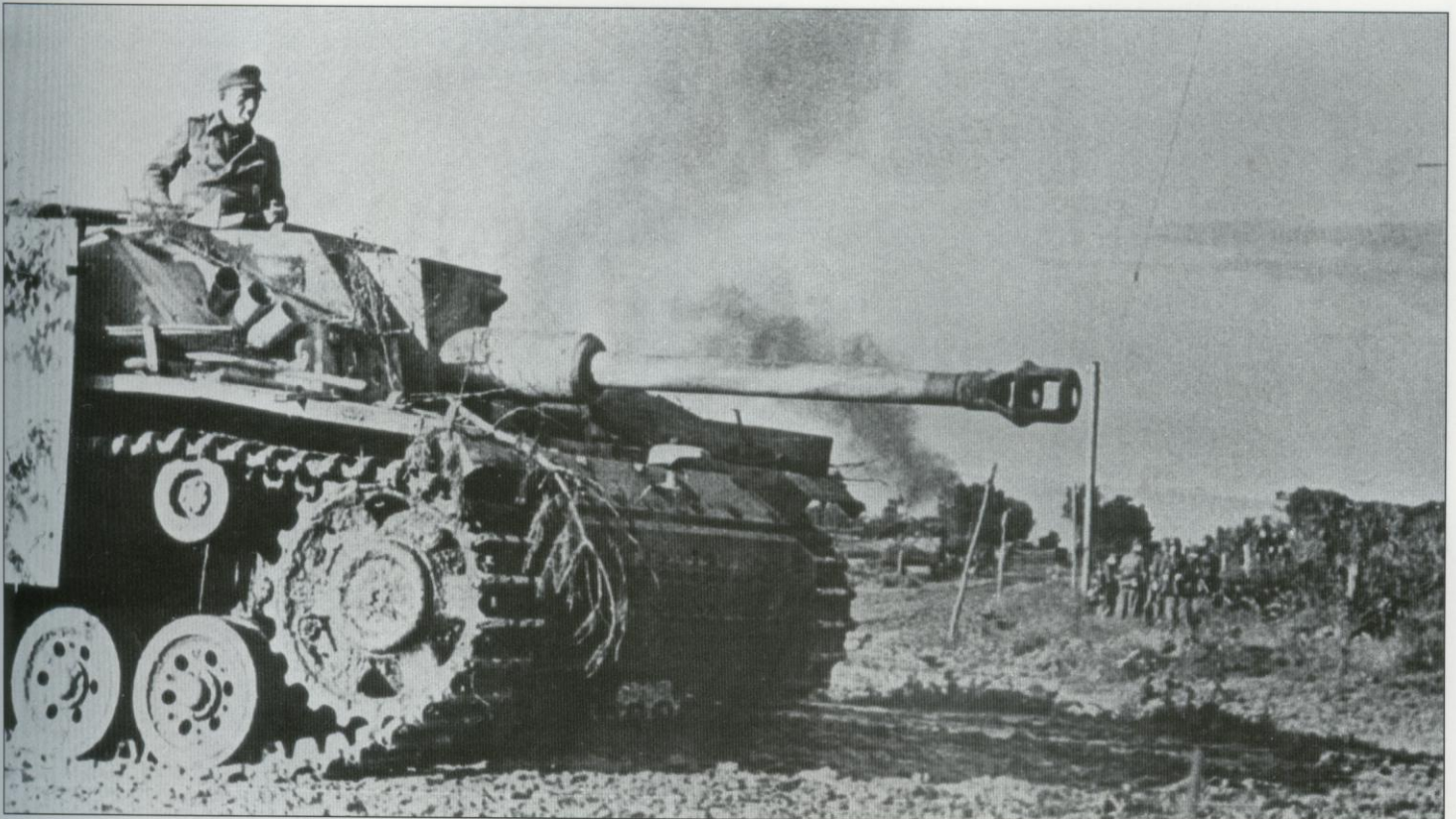
Another very successful anti-aircraft weapon: the 2cm Flakvierling 38 gun, which was usually installed on half-tracks. It is decorated with 30 victory markings, which indicate that the crew scored that many victories over enemy aircraft, and the silhouette of tank that fell victim of the anti-tank shells fired from the gun. The letter "P" is visible between the barrels.



StuGs are loaded onto a flatbed railroad car for shipment to the front lines. The photo shows that the vehicles were transported from the manufacturer without side skirts, which were usually installed in divisional workshops.



Sturmgeschütz I Ausf. G assault guns are prepared for loading onto railroad cars prior to being transported to the front lines to support the infantry. Note the factory markings. On the front plate of the hull is the serial number of the chassis — FG 96286.



This photo shows a StuG III Ausf. G in action. The front part of the right set of skirts is missing, so the smoke grenade launchers are clearly visible. The muzzle brake illustrates the typical German practice of painting the muzzle brake of tanks and self-propelled guns a very dark color — usually dark gray. During combat in the autumn of 1943, the Panzerwaffe lost the largest number of StuGs since the beginning of war against the Soviets — about 200 vehicles per month. Most of them were lost on the Eastern Front, of course.



Because the foliage camouflages the existence of this StuG assault gun so well, it is difficult to see just exactly what these men are up to. They are actually in the middle of performing a rather unusual task — loading ammunition that appears to have been transported by . . . a motorcycle!



Generalleutnant (Major-General) Schrerer embarks on a trip through a lake in the Velkiye Luki area in his very clean Schwimmwagen in October 1943. The Volkswagen's amphibious vehicle, probably the best "Jeep" on the Eastern Front, was exalted by soldiers serving in the reconnaissance units of the motorized divisions.



Major Martin Buhr, the commander of StuG.Abt.202, is seen here reviewing a map with his successful crew, which had 29 Soviet tank kills to their credit. Major Buhr was decorated with the Knight's Cross on 11th September 1943. Note the victory rings painted on the barrel; every fifth one is thicker than the others.



Tiger tank number "311" from s.Pz.Abt.502, which operated under Heeresgruppe Nord (Army Group North) during the summer and autumn of 1943. The 1st platoon of s.Pz.Abt.502 was the first Tiger-equipped unit that was rushed to the Leningrad area in August 1942. The tank is from the early series and has smoke candle dischargers installed in the corners of the turret. The tactical number is painted in black on the sides of the turret and hull. The camouflage is composed of an olive green pattern on a dark yellow background.

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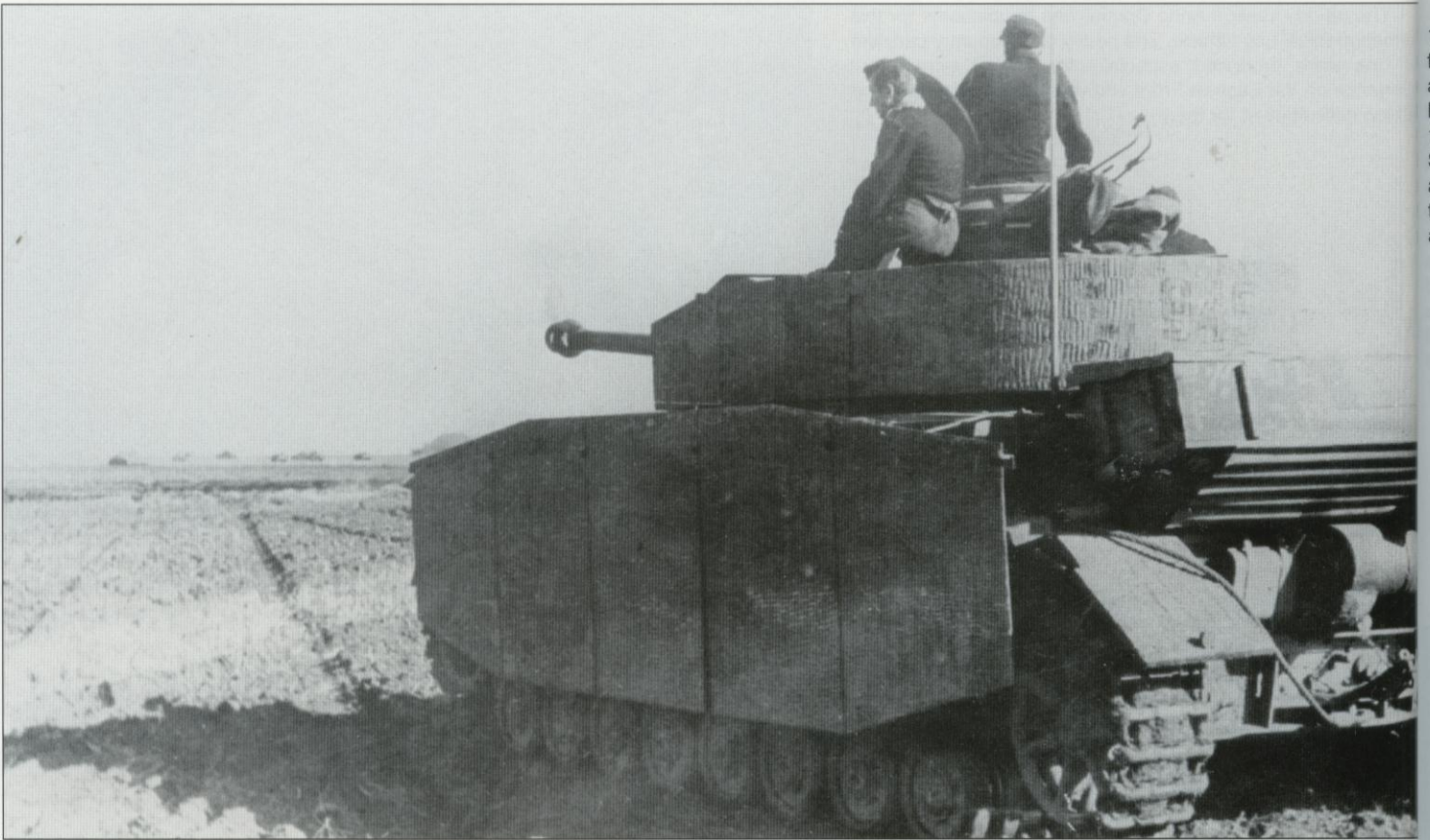
The muddy season Anno Domini was troublesome for this German medical unit vehicle. The heavy cross-country cars like this one were produced especially for difficult terrain, but experience on the Eastern Front showed that the Russian mire was too difficult even for them.



This photograph captures the moment when an 8.8cm Flak 18 gun crew makes initial preparations to go into action against Soviet armored units. Of interest is the marking on the mudguard of the gun carriage.



The same gun crew as seen in the above photo are shown here in the final stages of setting up their "88". In the background the battery commander uses binoculars to monitor the activity of the distant enemy. Note the camouflage pattern on the gun shield.



A Pz.Kpfw. IV Ausf. H with a full coat of *Zimmerit* anti-magnetic paste applied to its exterior. Note the non-standard stowage box added to the rear of the vehicle. By the autumn of 1943, the German Army was in full retreat. The Soviet Army fielded 2,600 tanks between Smolensk and Rostov with the intention of pushing the Germans back to the Dnieper River before the year's end.



The commander of an *Eisenbahnpanzerzüge* with 8.8cm Flak gun studies the kill marks painted on the armored shield of one of his guns. The eight markings indicate victories over enemy tanks. The ten kill rings with the silhouette of an aircraft seen on the barrel of the gun represent the number of aircraft downed by the gun. This gun belonged to the "armored railway trains" that had achieved success as an anti-tank, anti-aircraft and artillery support weapon since 1942.

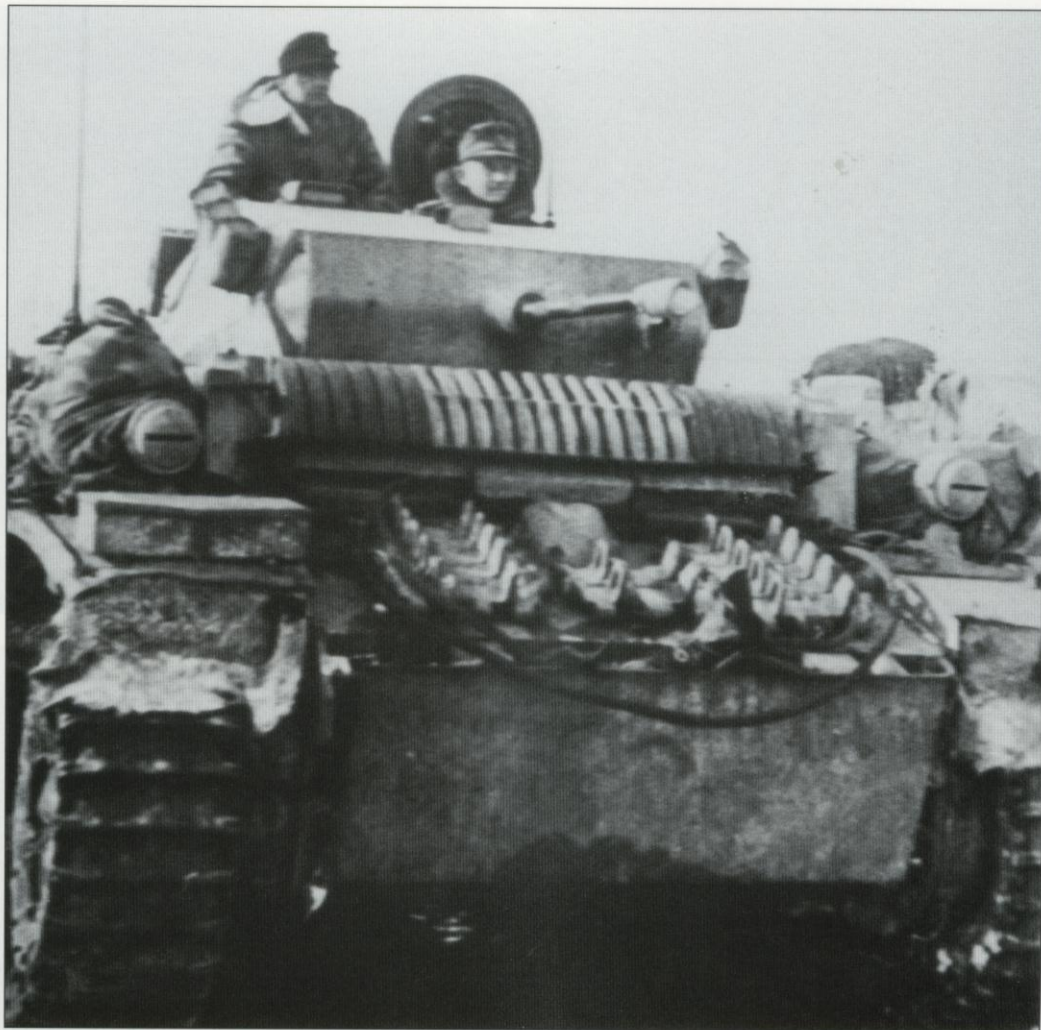


Another "88" gun from the same *Eisenbahnpanzerzüge* displays its successes: 26 tank "kills" on the gun shield and seven or eight air victories on the barrel. Note the damage to the right "armor plate" (composed of sand in a wooden framework), and that the gun has a dark gray barrel and a sand-colored shield.

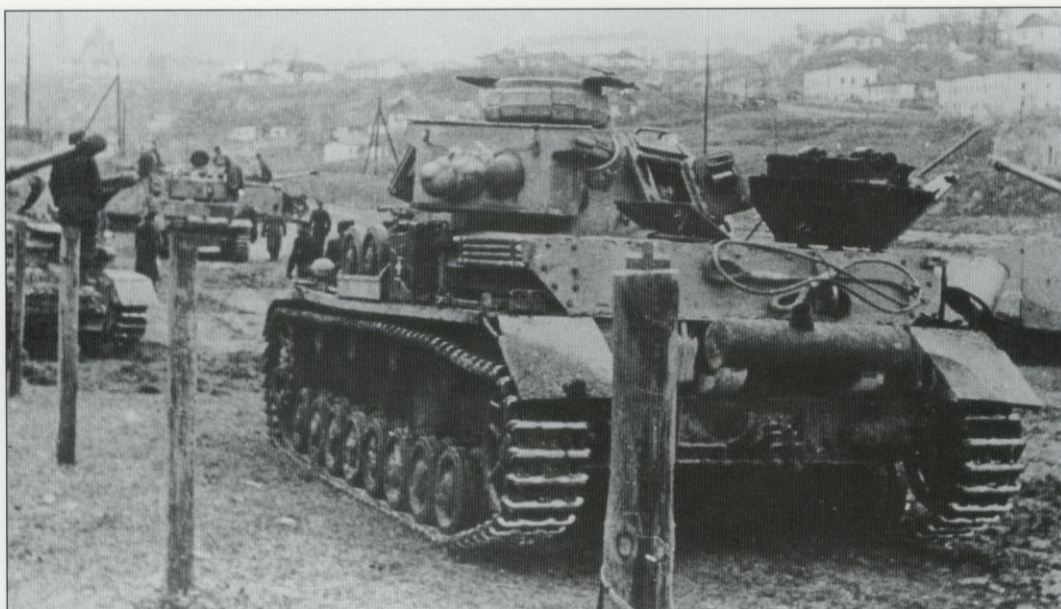
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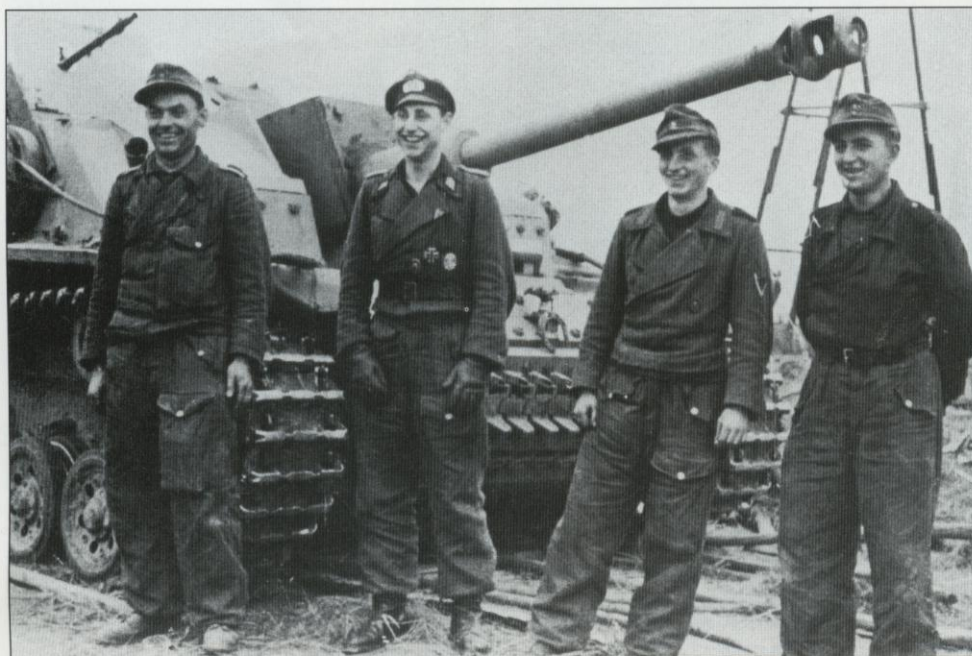
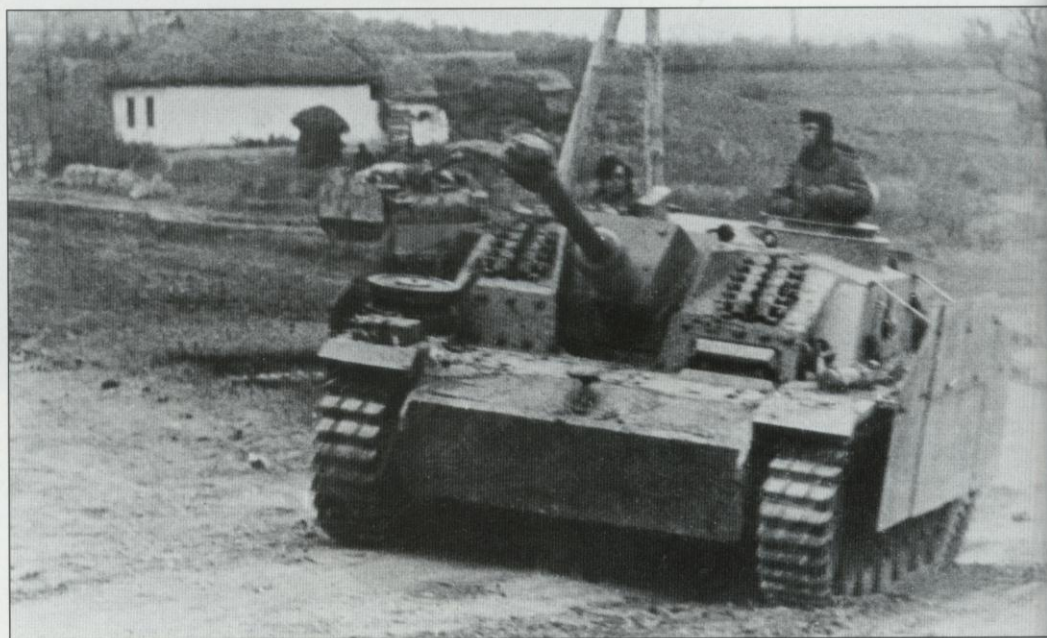
A Luchs of Pz.Aufkl.Abt.19, 10.Panzerdivision preparing to move forward. This reconnaissance vehicle was armed with a 2cm KwK38 L/55 gun and had very good cross country speed. About 100 vehicles were produced from September 1943 on, and issued to the armored reconnaissance detachments of the Panzer divisions. Note the additional armor on the nose plate.



A Pz.Kpfw. IV Ausf. H transports a squad of infantry during the fighting in the autumn of 1943. It is interesting to note that the soldiers are wearing reversible parkas to protect the hull. Those installed on the left side were lost, probably as a result of combat. The soldiers wear reversible parkas, normally gray and white, but this photo shows that the parkas of two of the soldiers have dark (black?) interiors.



A pair of StuGs pass through an Ukrainian village. Note that the first vehicle is equipped with two sorts of frontal armor: on the hull is standard 80mm armor plate, but on the superstructure are 50mm plates with additional 30mm plates bolted on.



The crew of StuG.Brig.667, commanded by Hauptman Zettler, which destroyed the 1,000th Soviet tank to be added to the unit's score. The victory was claimed in the Smolensk area on 29th October 1943. This was one of the most successful StuG units on the Eastern Front.

A tank unit armed with Pz.Kpfw. IVs takes a rest in an Ukrainian town. Opposing von Manstein's Army Group South were four Ukrainian Fronts aiming to outflank and isolate the German Army Group A in the Crimea and then liberate Ukraine. It was a race for the Dnieper River. The retreat of nearly 750,000 Axis troops was chaotic and Army Group South was lucky to survive, crossing the Dnieper at Kanev on 1st September 1943 with the Red Army hot on its heels. But von Kleist's Army Group A, composed of 650,000 German troops, was eventually trapped in the Crimea.

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Tiger tanks and a single Pz.Kpfw. IV from s.Pz.Abt.509. The leading tank has the tactical number "131" painted in the Soviet style on a dark (brown or black) background. Both Tigers are painted with a very dark camouflage pattern composed of brown patches on a dark yellow background. Note that the gunner's hatch of the first Tiger clearly shows that the brown pattern was applied on the upper surfaces of the tank as well. The battalion was organized in September 1943 and fought hard near Kiev and Kirovograd in the Ukraine from late 1943 to early 1944.

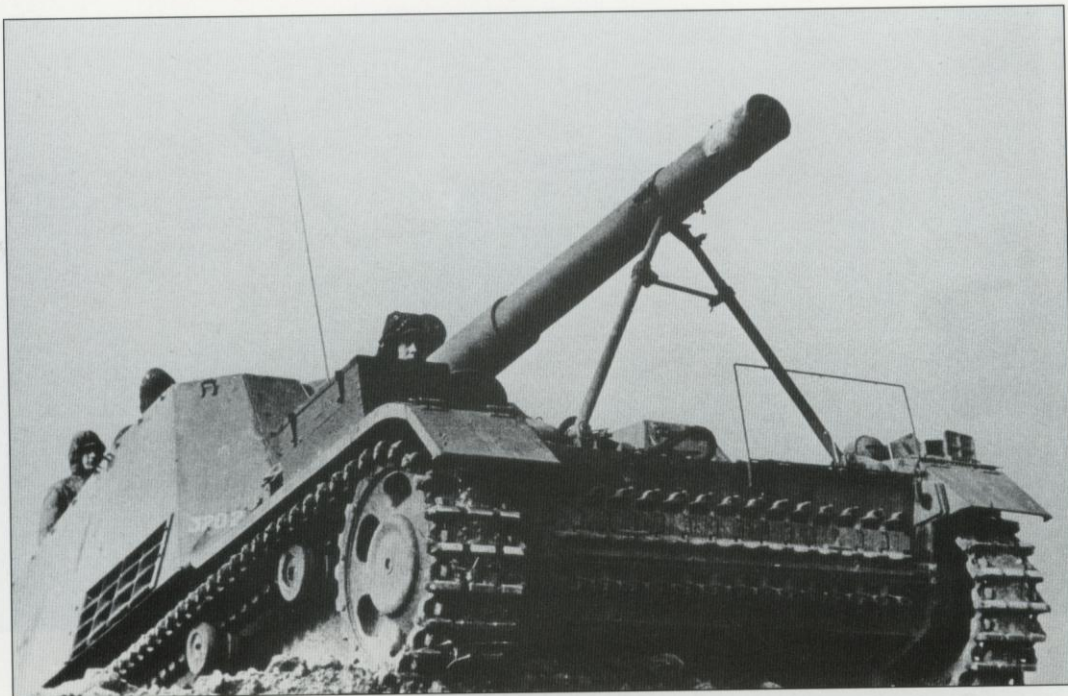


Another pair of Tigers, this time pictured as they prepare for upcoming combat. Visible on the frontal plate of the nearest tank's superstructure is the unit insignia of s.Pz.Abt.505 — a white charging bull. Note the wooden logs attached to the sides of the tanks; this is a rare piece of equipment for this sort of tank.



Tiger number "313" of s.Pz.Abt.505 has its tactical number painted in white on its turret. Besides having a paint scheme of red brown patches on a dark yellow base coat, the tank is camouflaged with loose hay or grass, which is seen in abundance in this photo.

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This Hummel self-propelled howitzer was captured on film as it drove negotiating a slope. This is a very rare Eastern vehicle, which is indicated by the lack of horizontal camouflage and the serial number painted in white on the dark yellow colored superstructure. The Hummel features a 15cm s.FH 18/1 mounted on a Pz.Kpfw. III/IV chassis.

The same Hummel is seen in the background of this photo with the gun crews gathering around during a council of war. We have a clear view of the vehicle's entire serial number — 320262. Hummels were issued to the heavy batteries of the armored artillery detachments in the Panzer divisions.



World War Two was a war of machines, though sometimes had to be "propelled" by horses. Here one of the historically reliable four-legged friends is used to pull a motorcycle and sidecar belonging to the "Großdeutschland" Division out of the mud. Note the many tactical and camouflage markings on the mudguard.

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The word "horsepower" has taken on a whole new meaning for the driver and passengers of this Kübelwagen. When fuel ran short on the Eastern Front it was not uncommon for the troops to revert back to the use of horses to get from one point to another.



A battery of Sd.Kfz. 4/1 15cm Panzerwerfer 42 self-propelled rocket launchers is seen here during a demonstration. The ten-barreled Nebelwerfer 42 was designed for use on the armored Opel Maultier, which offered mobility and protection to the Nebelwerfer brigades. However, the crew had to load the rockets outside the vehicle.



This close-up shot of the 15cm Panzerwerfer 42 shows the details of the rocket launcher and the mount for the 7.92mm MG34 or MG42. The vehicle is painted dark yellow overall. One battery of these vehicles could launch 40 missiles in about four seconds at a range up to 6,500 meters (7,105 yards).



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This photo shows over a dozen 15cm rockets ready for loading into the Panzerwerfer 42. The lightweight 10-kg (22-lb) warheads were installed in the rear of the missiles and when they exploded they had a terrible impact on any living target within a 13 x 40-meter (14 x 44-yard) area.

A battery of Sd.Kfz. 4/1 Panzerwerfer 42 rocket launchers prepares to fire sometime in the winter of 1943/44. The normal unit for the Panzerwerfer was the independent battery, and each battery consisted of two platoons of four vehicles. Since they were independent, the Panzerwerfer 42s were used by corps or army commanders. All vehicles in the unit were marked with letters. For example, the Sd.Kfz. 4/1 at left has a black letter "D" painted on left top corner of the rear wall and on the side of combat compartment. The vehicle in the background is marked with the letter "E". The same letter is carried by the ammunition carrier, the *munitionskraftwagen* (Sd.Kfz. 4), visible at right without the Nebelwerfer 42. This half-track is armed with an MG34 for anti-aircraft duties.



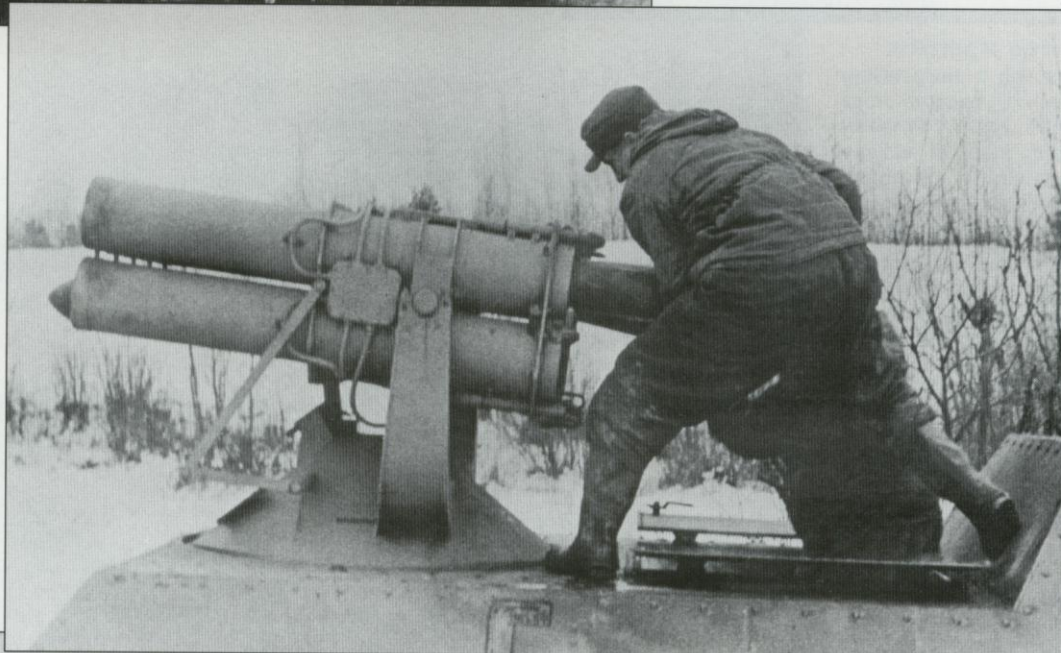
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The Sd.Kfz. 4/1 was an effective weapons system even though its rockets had a small range. Its production started in April 1943 in Opel factory, the vehicle being built on the base of the Opel Maultier half-tracked truck. There were 289 *munitionskraftwagen* and 300 Panzerwerfer produced between April 1943 and March 1944. Here we see the first step in loading a rocket into the launcher.

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A close-up shot of two crew members loading a 15cm rocket into a launching tube of a Nebelwerfer 42. The 15cm rocket had a weight of 34.7 kg (76.5 lb). Note the details of how the launcher was installed. Often, the rockets were loaded with the crew standing on the loading platform at the rear.



A 15cm Panzerwerfer 42 vehicle fires a salvo at an enemy target. The vehicle is marked with the letter "C" that is partially obscured by the dark yellow base color. During the firing, the crew was hidden within the armored body of the vehicle, so the half-track could move and change its position right after the last missile was fired.



A column of Pz.Kpfw. IV Ausf. Gs (indicated by the split commander's cupola and the antenna affixed to the right side of the hull) move up to the front. This version of the Pz.Kpfw. IV, armed with the 7.5cm KwK L/43 gun, was able to destroy almost any Soviet tank around in 1943. But due to its relatively weak armor it was no match for the T-34's 7.62cm gun.

StuG IIIs fitted with widened "Ostketten", or eastern tracks, which were designed for use in the East as one means of preventing the vehicles from sinking into soft ground. Though effective, these tracks were not too popular since they tended to get thrown off during rough turns.



During a short break in the winter fighting of 1943/44, a supply column of s.Pz.Abt.506 arrives with shells and fuel which are transferred to a Tiger tank stopped in an open snow-covered field. Note the unit emblem (a tiger and shield with the letter "W") painted on the stowage bin. It is also noteworthy that neither the rear nor top of the hull, nor the top of the turret, are covered with white paint.



A Panzer maneuvering through a village near the Soviet army beaten counterattack typical Panzerwaffe period, mechanized employed skillful maneuvering the main success. 251 arm carriers spare wheel the front as additional against The sand to protect machine

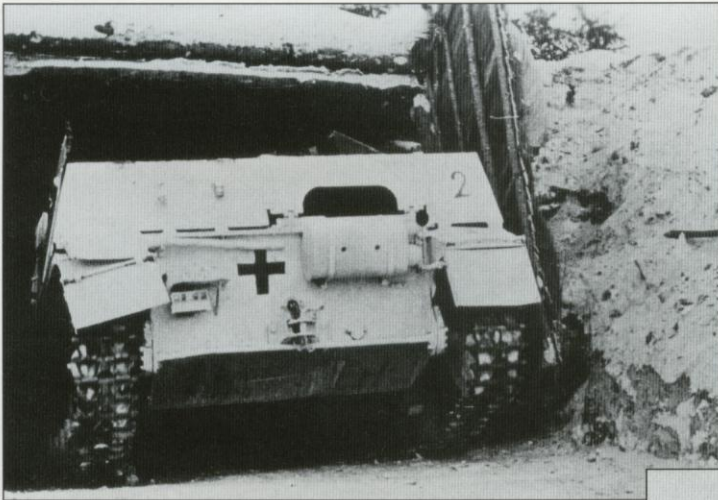
The Tiger proved to be the best tank for the vast Russian terrain, where its powerful gun could destroy any Soviet tank, even at long ranges — certainly at longer ranges than any Soviet gun was lethal. Note the camouflage on this Tiger; it has received a solid coat of white paint that covers all of its markings.



A Sd.Kfz.11 prime mover gives a ride to some troopers in the winter of 1943/44. The vehicle is from the motorized infantry regiment that belonged to the Panzer-Lehr Division. The tactical markings, which are clearly visible on both sides of this Sd.Kfz.11, represent the 10th company in a regiment armed with towed anti-tank guns (on the right mudguard) and identify it as a vehicle from the Panzer-Lehr unit (on the left mudguard).

A Panzertruppe unit maneuvers through a village near Zhitomir where Soviet armored units were beaten by a German counterattack. It was a typical battle for the Panzerwaffe during this period, when only mechanized troops were employed in the fight and skillful maneuvering was the main factor of German success. All the Sd.Kfz. 251 armored personnel carriers are equipped with spare wheels installed on the frontal plates of engines as additional protection against anti-tank rounds. The sandbags were meant to protect the soldiers from machine gun fire.

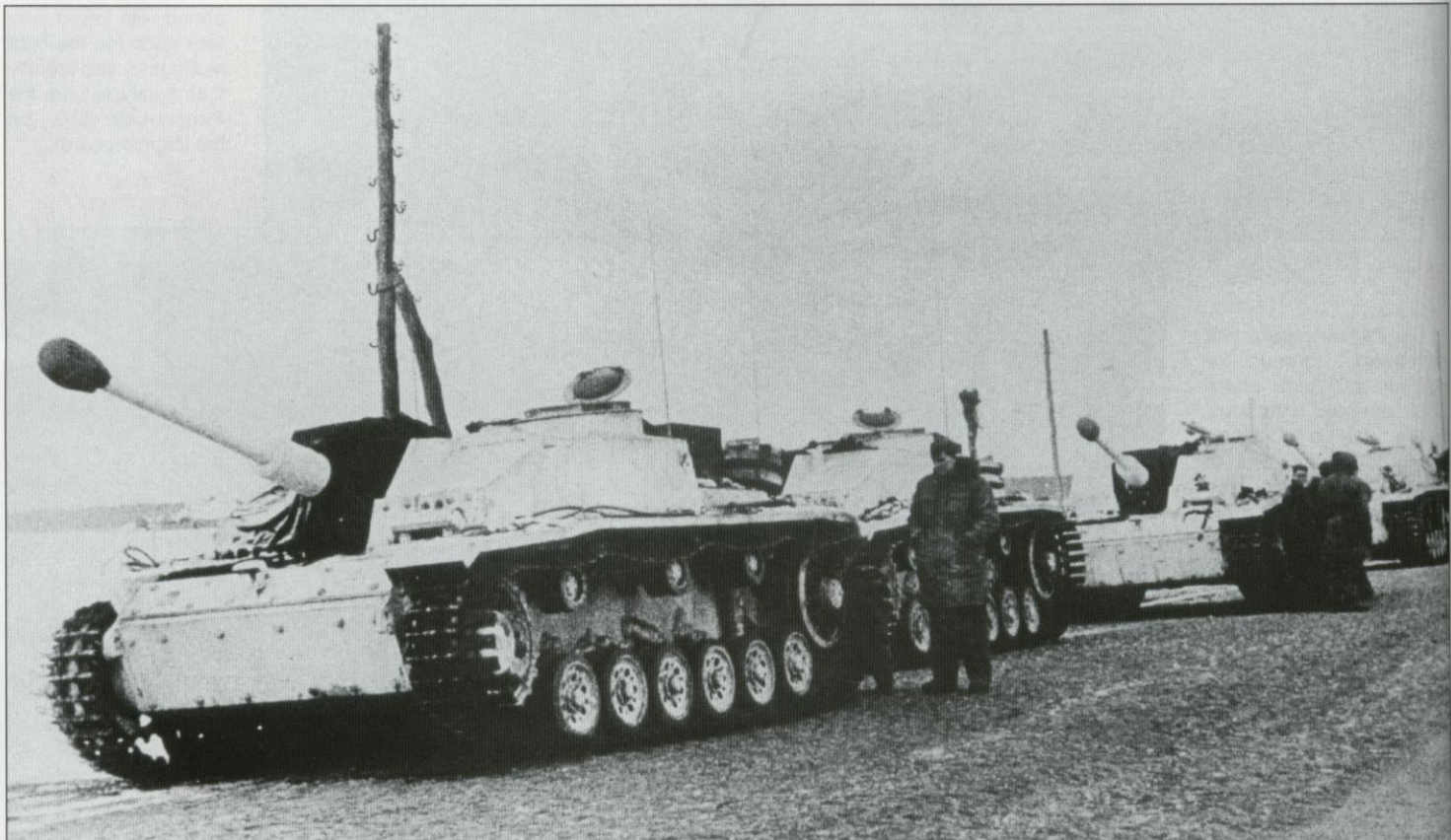
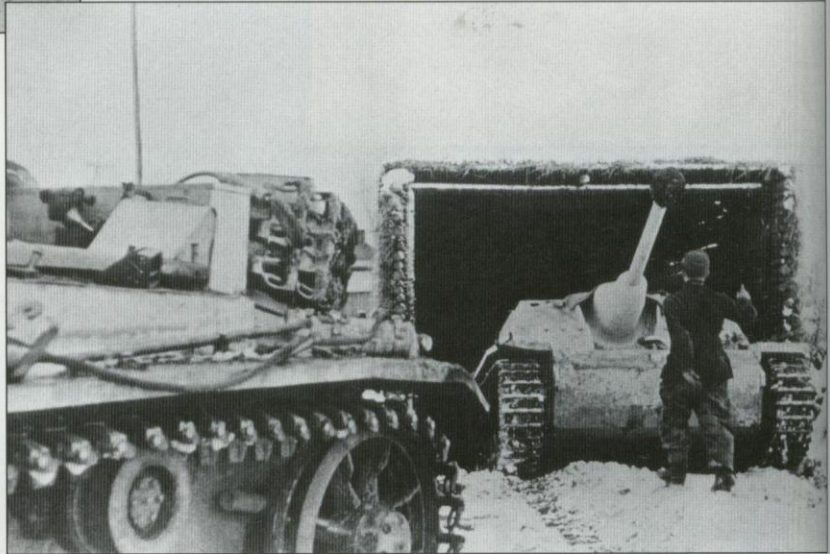




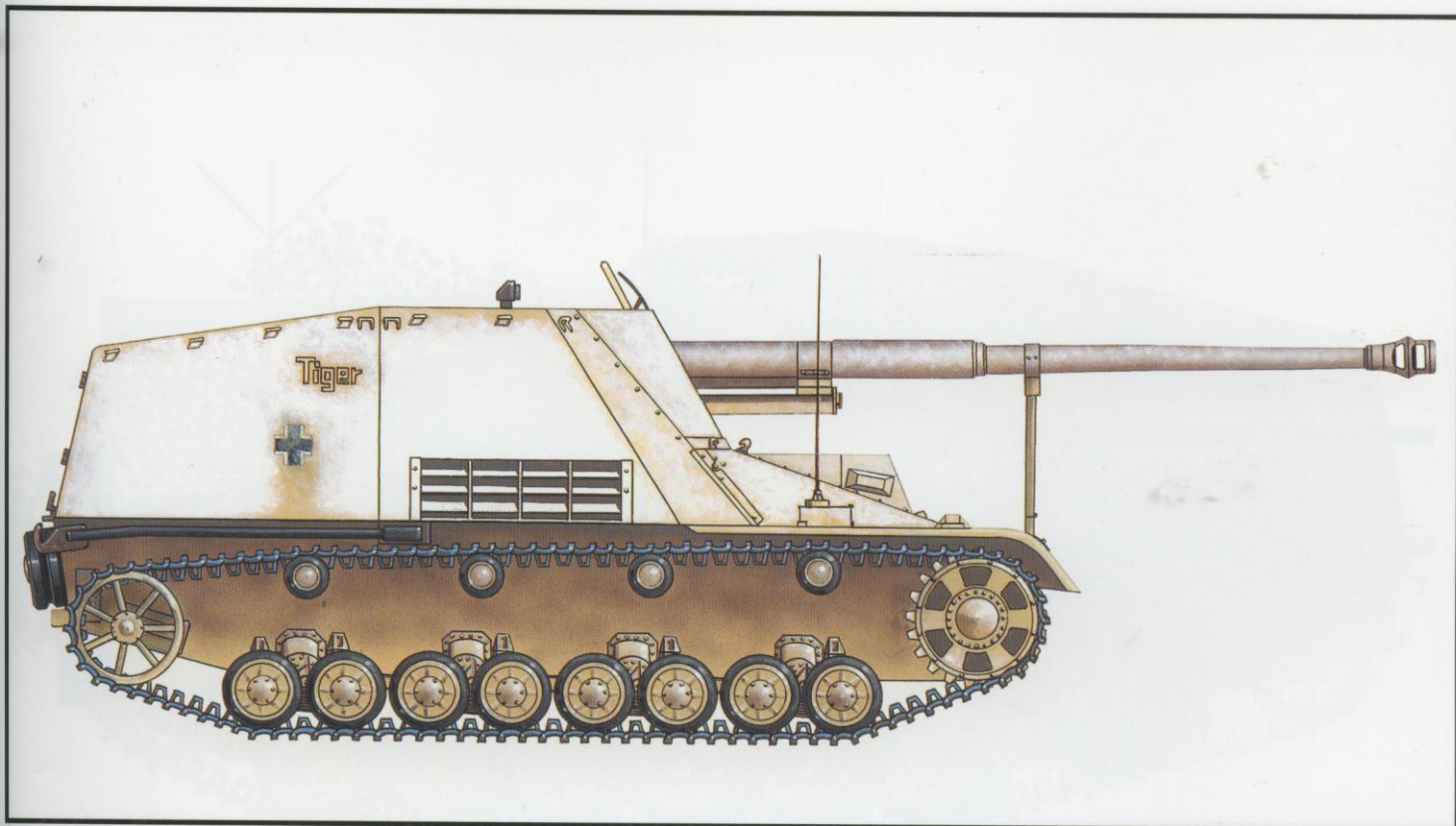
A Marder II marked with a strange one-digit tactical number "2" (in red?) is seen here emerging from a well-secluded "garage". Note how thoroughly the vehicle has been covered with white paint and how boldly the black national cross stands out against it.

Spring 1944
 A Marder II tank destroyer is seen here emerging from a well-secluded "garage". Note how thoroughly the vehicle has been covered with white paint and how boldly the black national cross stands out against it.

Two StuGs roll out from a larger, camouflaged "blind". Both vehicles are covered with winter whitewash. The rear vehicle is equipped with the "Saukopf" mantlet that was introduced in February 1944.

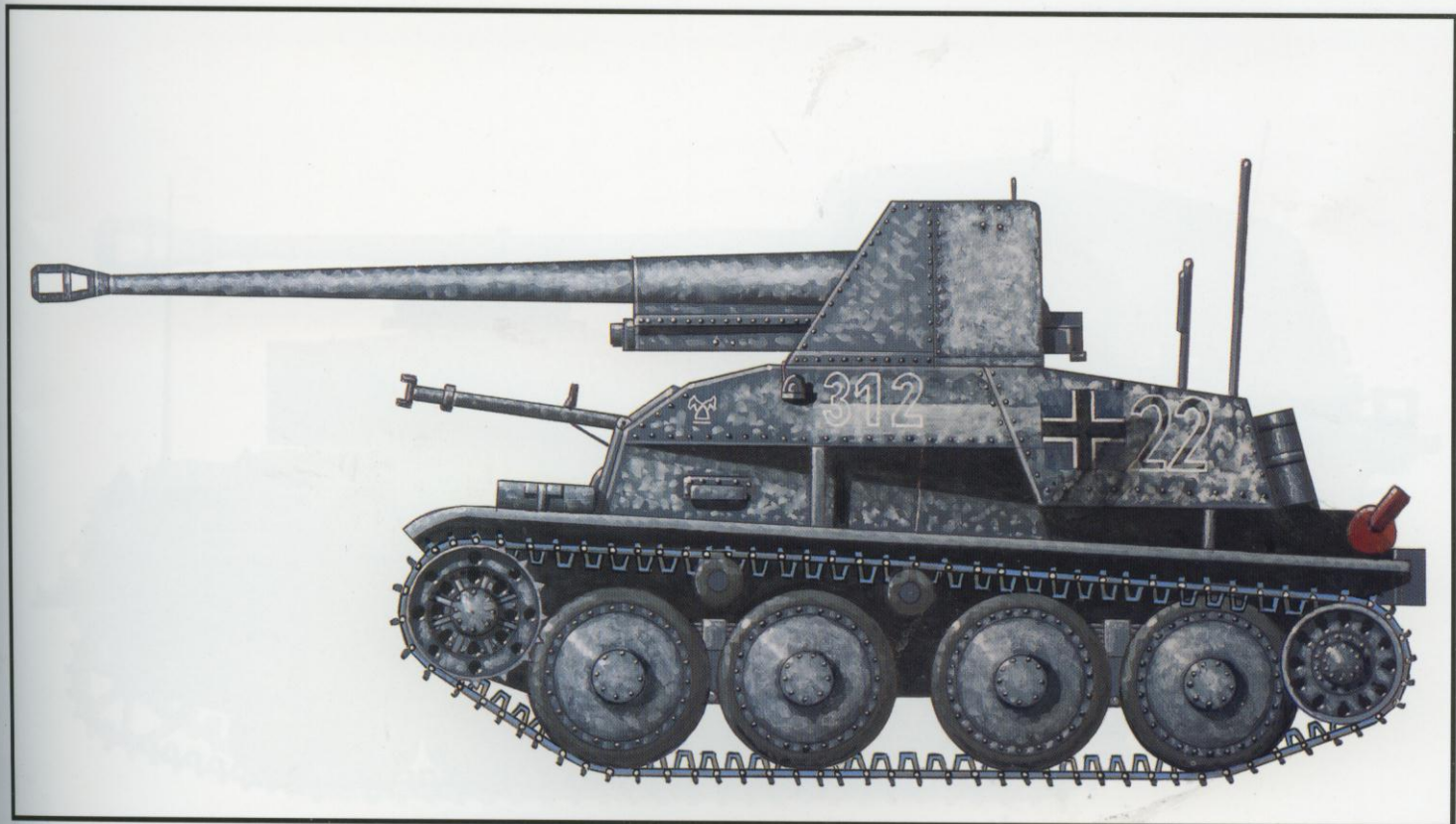


A battery of white camouflaged StuG III Ausf. Gs equipped with "Ostketten" tracks. The lack of any markings indicates that they are brand-new vehicles being transported to a unit operating on the front line.



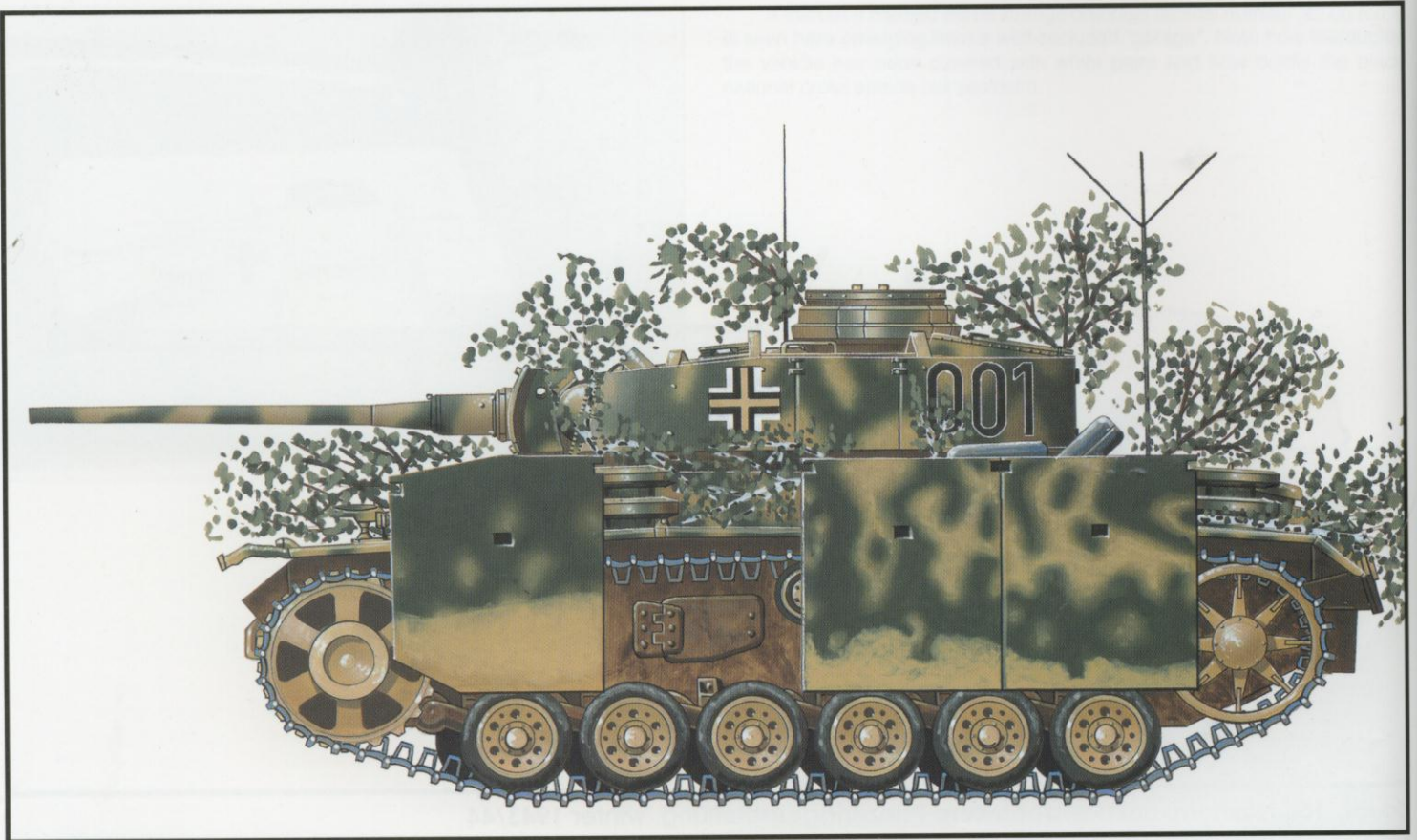
Sd.Kfz. 164 Nashorn, unknown schwere Panzerjägerabteilung, winter 1943/44

The Nashorns were highly effective self-propelled anti-tank guns. They were issued to heavy Panzerjäger detachments, which were independent units attached to a Korps or Armee. This Nashorn wears a winter whitewash over a dark yellow base color. The name of the vehicle "Tiger" is in dark yellow with black outline. The unit emblem was usually painted on the left part of the superstructure rear and on the left front part of the superstructure. A national cross is painted on the right rear part of the superstructure.



Sd.Kfz. 139 Marder III, 58.Infanterie-Division, Russia, early 1944

Self-propelled anti-tank guns became increasingly important as the war progressed. To counter the superior Russian armor, one make-shift solution was to mount a captured Russian 7.62cm gun onto the chassis of an obsolete Pz.Kpfw. 38(t), resulting in the Marder III. This Sd.Kfz. 139 is camouflaged with an uneven smeared coat of white paint over a dark gray background. To the right of the unit emblem is the tactical number, with another two-digit number to the right, the meaning of which is unknown.



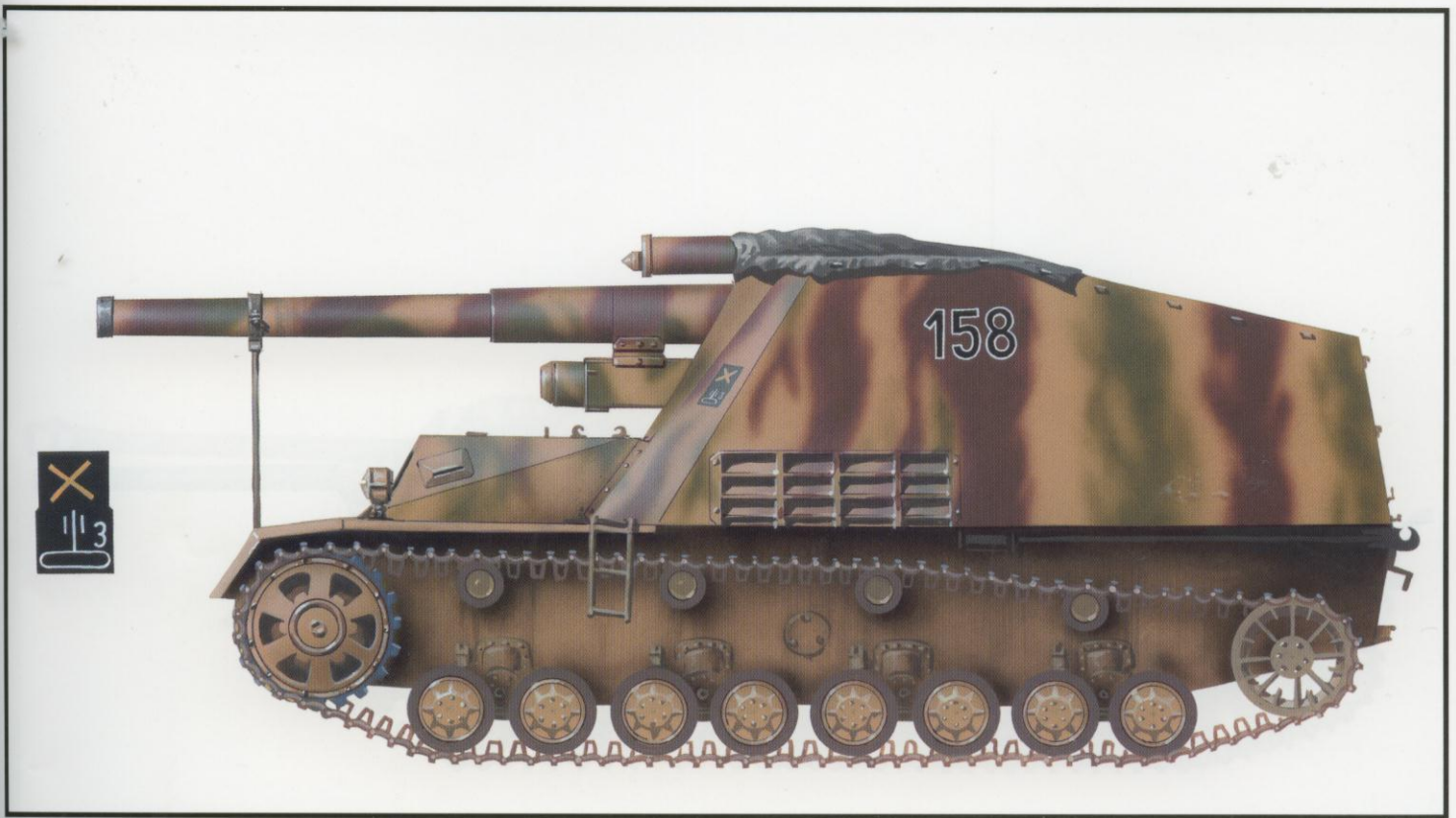
Pz.Bef.Wg. III Ausf. K, staff company, unknown unit, spring 1944

Unlike other Panzerbefehlswagen IIIs, the Pz.Bef.Wg. III Ausf. K retained the 5cm KwK L/60 gun. Up until mid-1944 they served as command tanks in armored detachments equipped with Pz.Kpfw. IVs. The star antenna is very noticeable, and the vehicle is equipped with *Schürzen*. Camouflage consists of patches of olive green sprayed over a dark yellow base.



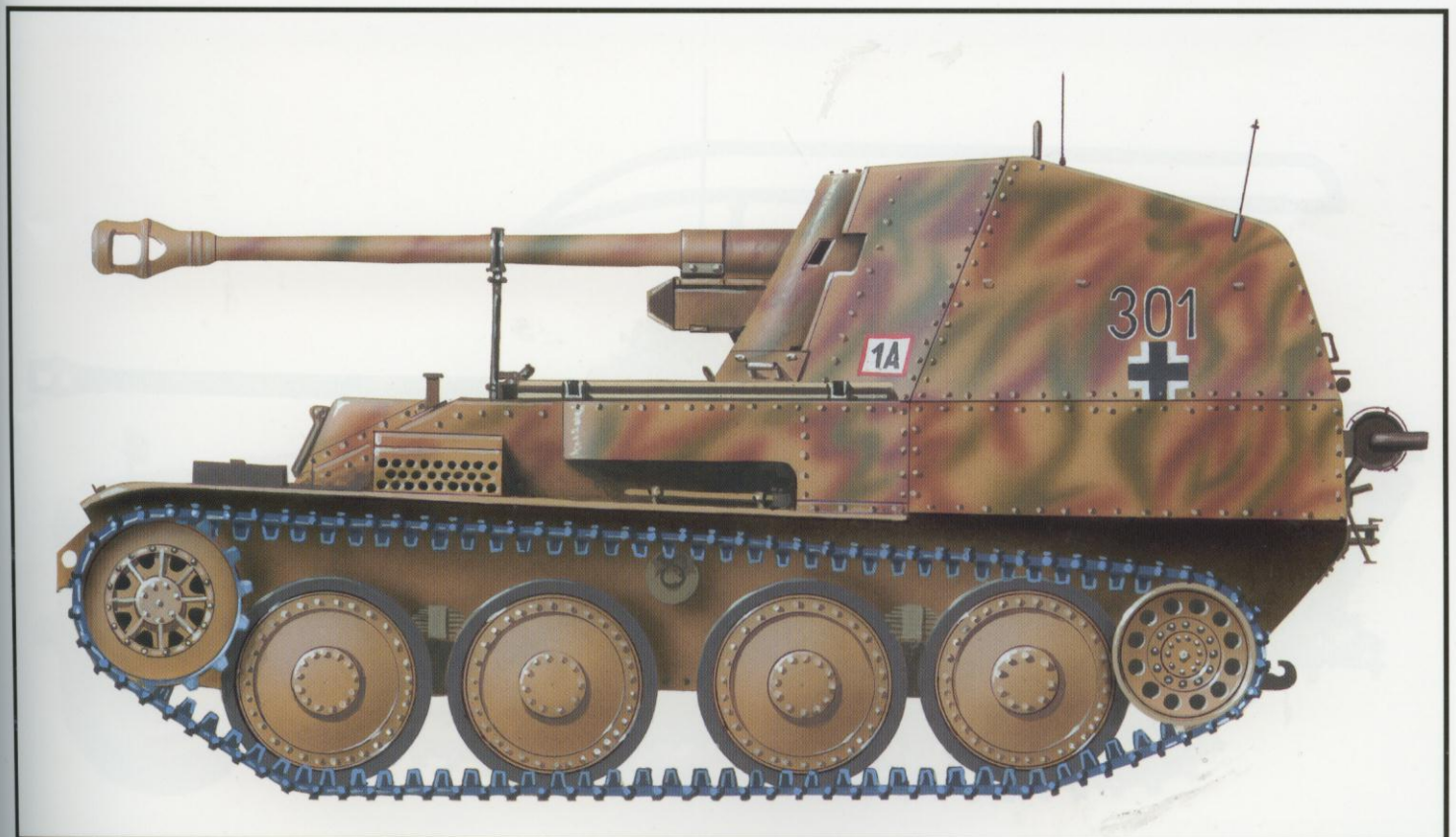
Pz.Kpfw. IV Ausf. H, 3.Panzerdivision, Romania, spring 1944

This Pz.Kpfw. IV Ausf. H tank has an unusual pattern of olive green camouflage over a dark yellow background and carries colorful markings — the tactical number in red and the unit emblem of the black "Berlin Bear" in a white shield. The vehicle has *Schürzen* attached to both sides of the hull and around the turret.



Sd.Kfz. 165 Hummel, Art.Abt.3, 5.Panzerdivision, Russia, summer 1944

The Hummel (Bumble-Bee) was an interim solution with a 15cm s.FH gun mounted on a Pz.Kpfw. III/IV chassis. 100 vehicles were built in time to rush to the Eastern Front for the "Zitadelle" offensive. This vehicle carries a three-digit tactical number painted in black with a white outline, and the tactical sign with division emblem painted on a black shield. The camouflage was composed of olive green and red brown applied over the dark yellow background.



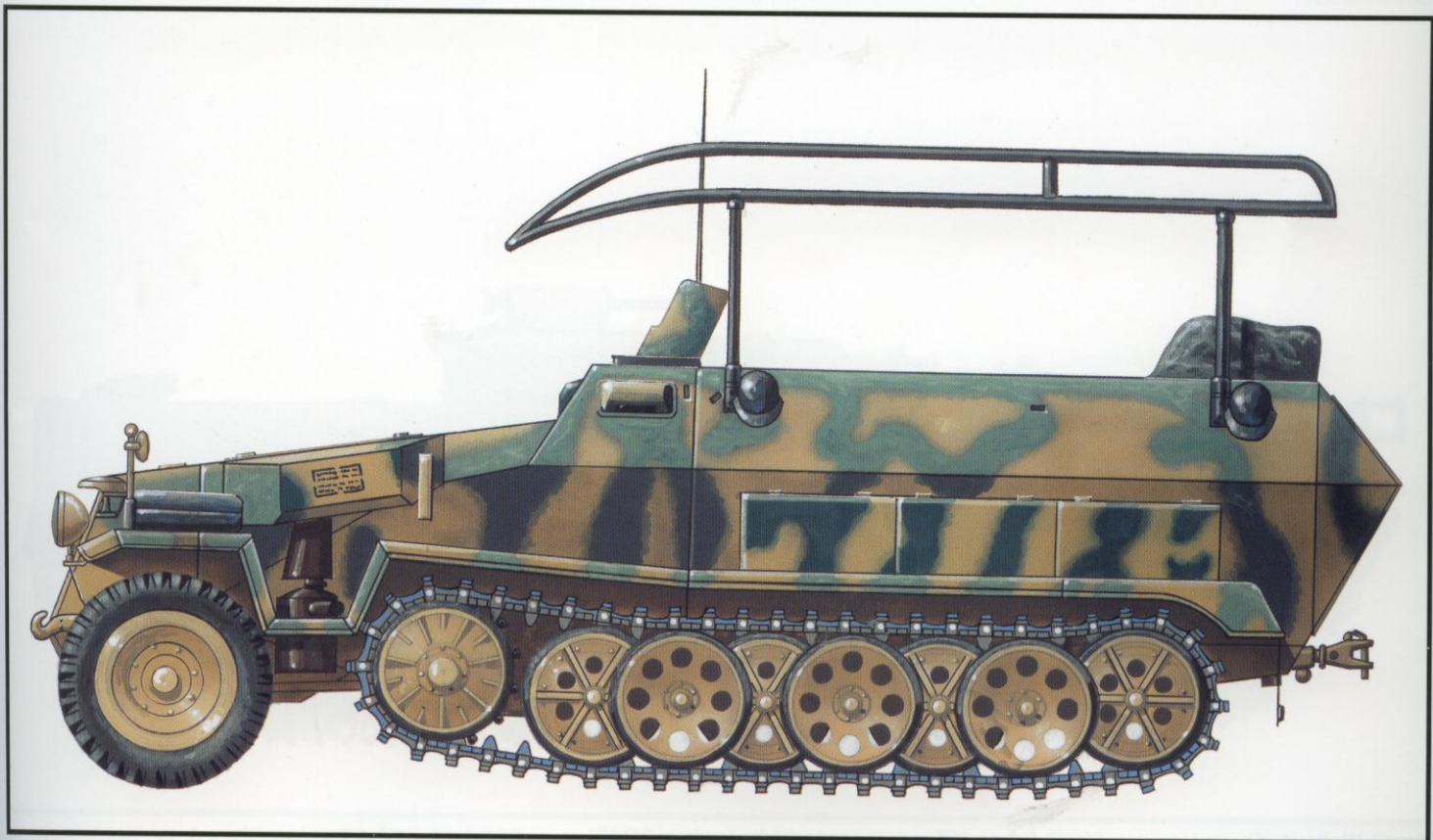
Panzerjäger 38(t) Marder III Ausf. M, Pz.Jäg.Abteilung.561, Russia, summer 1944

Designated Sd.Kfz.138, this Panzerjäger carries irregular summer camouflage composed of olive green and red brown over the dark yellow background. The three-digit tactical marking indicates this vehicle being the first vehicle of the headquarters section of 3rd company of Pz.Jäg.Abteilung.561. The meaning of the colorful "1A" sign is not known. The Marder III Ausf. M was armed with a 7.5cm PAK 40 gun.



Pz.Kpfw. VI Ausf. B Tiger II, s.Pz.Abt.505, Kurland, autumn 1944

The 2nd tank of the 3rd platoon of 1st company, this Tiger II carries an untypical marking system, with the tactical number painted on the gun barrel. The unit emblem, the "charging knight", was stenciled on the turret side in the place where *Zimmerit* was eliminated. The red brown camouflage pattern was sprayed over the dark yellow base for the autumn season.



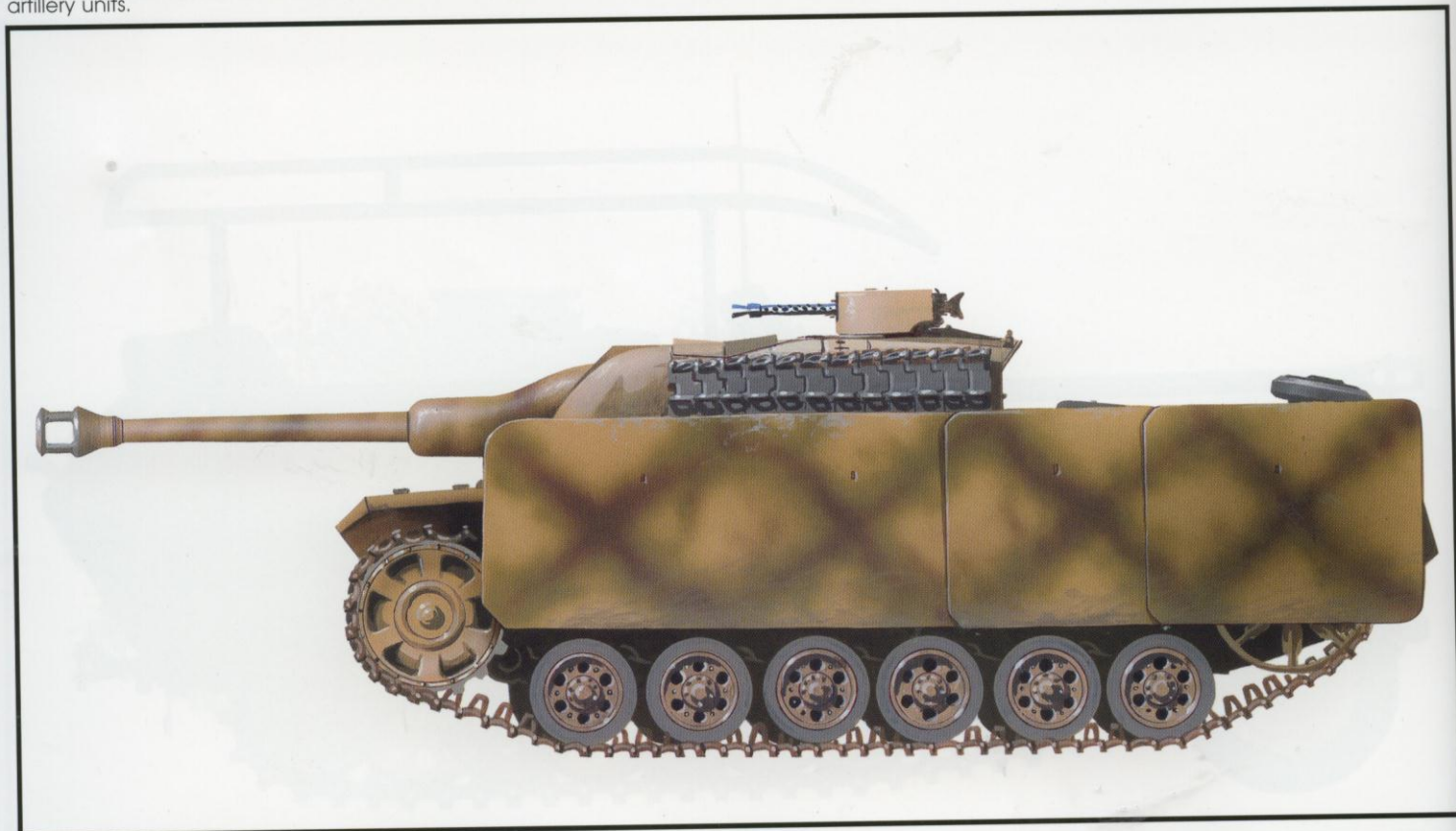
Sd.Kfz. 251/6 Ausf. C, 4.Panzerdivision, Latvia, late 1944

The Sd.Kfz. 251/6 *mittlere* (medium) *Kommandopanzerwagen* was a fully-equipped command post vehicle fitted with the frame antenna that was issued to high commanders. Production of the Ausf. C was discontinued in 1943, but this vehicle continued in service into late 1944. The green camouflage pattern over a dark yellow base color was quite rare in this period.



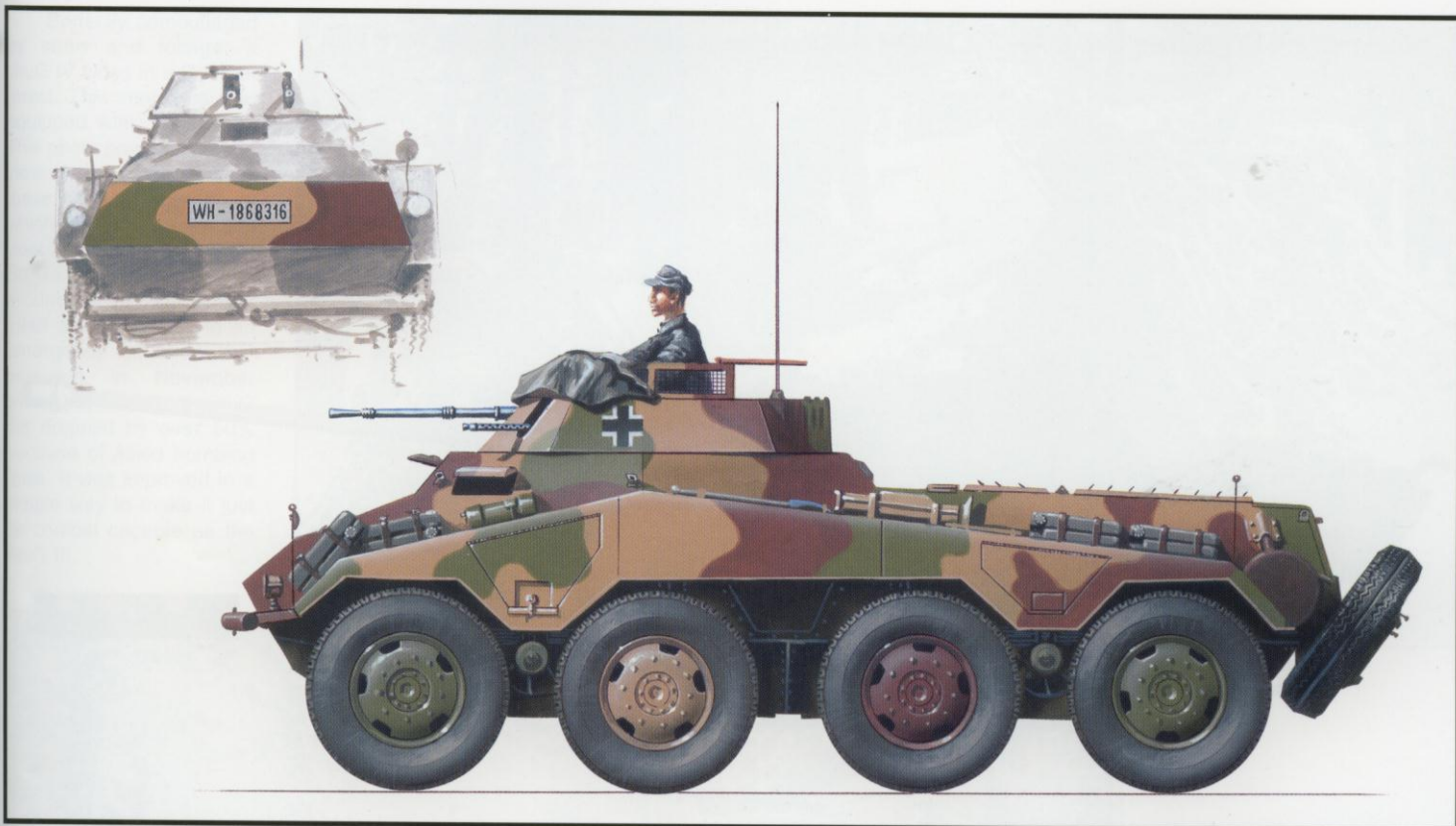
Sd.Kfz. 4/1 Opel Maultier 15cm Panzerwerfer 42, Independent Artillery Unit, southern sector, Eastern Front, winter 1944/45

The ten-barreled 15cm Nebelwerfer 42 was designed to use on the armored Maultier. Wearing a typical camouflage scheme for the Sd.Kfz. 4/1, this vehicle has a dark yellow background oversprayed with a red brown pattern for the autumn season. The vehicle carries a non-standard cross in which the center black strokes were the same width as the white borders, and a black "C" as vehicle identification letter in independent artillery units.



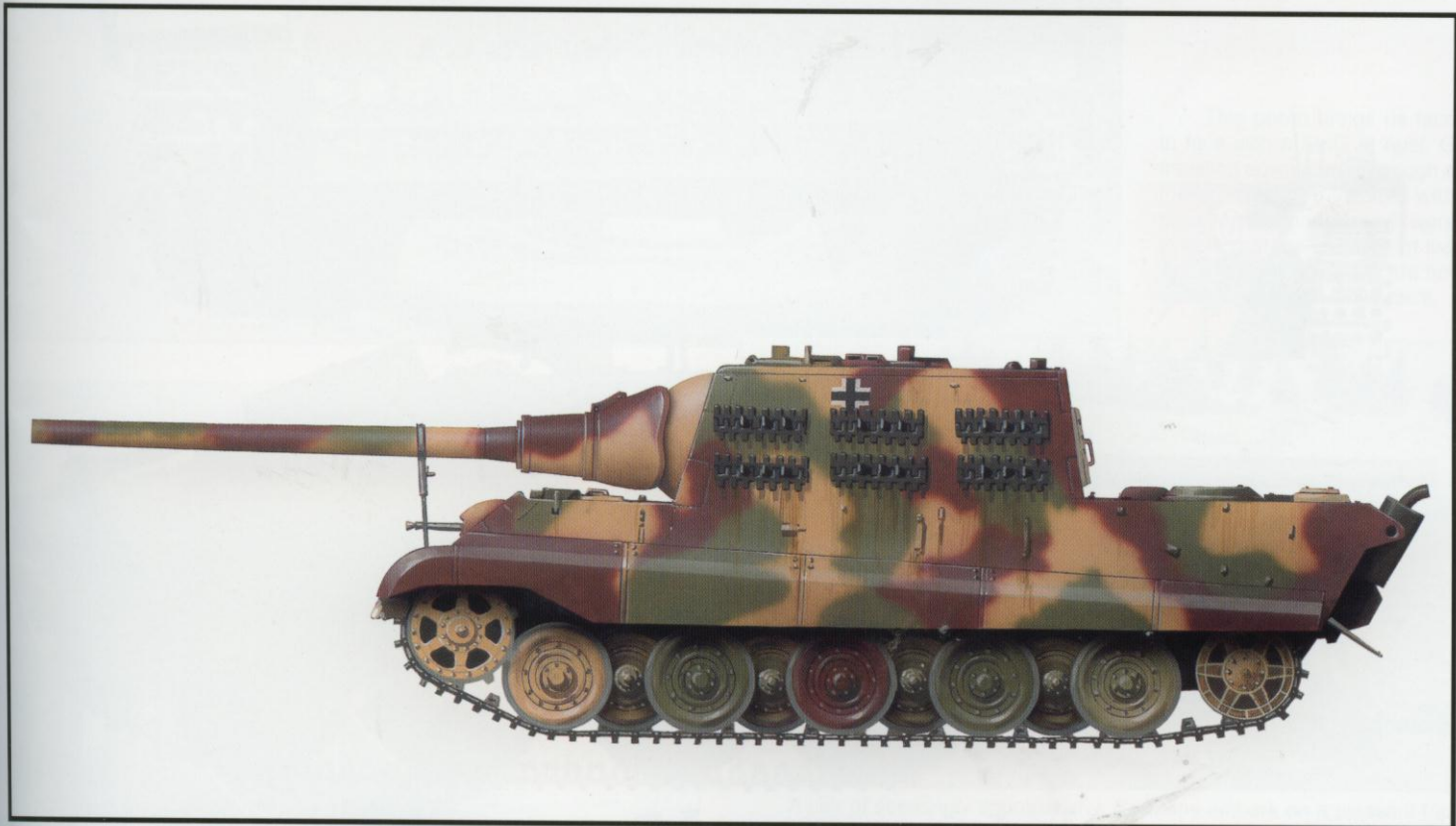
StuG III Ausf. G, unknown StuG.Brig., Königsberg, early spring 1945

This vehicle is, in fact, a very old model of StuG III re-built into a late Ausf. G in one of the workshops. It was equipped with the "Saukopf" gun mantlet, and fitted with untypical side-skirts and remote-controlled MG34. The concrete over the frontal part of the superstructure is evident. The camouflage pattern consisted of dark yellow base color oversprayed with olive green and red brown, noticeable on the side-skirts and superstructure front.



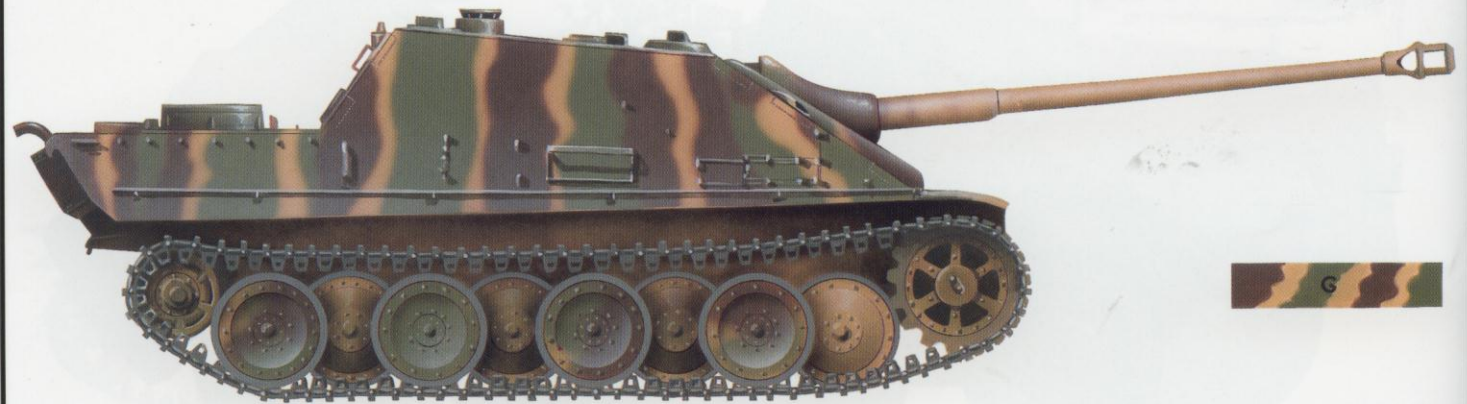
Sd.Kfz. 234/1 Heavy Armored Car, Pz.Aufkl.Abt.4, 4.Panzerdivision, Gdynia-Gdansk area, March 1945

Schwere Panzerspähwagen Sd.Kfz. 234/1 had the same hull as the Sd.Kfz. 234/2, but mounted with an open-topped turret fitted with a 2cm KwK38 gun. The Panzerspähwagen company of the Panzer Aufklärungs battalions each had nineteen Sd.Kfz.234/1s which saw service in both the Western and Eastern Fronts from July 1944 until the end of the war. This particular vehicle was involved in the fighting in the Gdynia-Gdansk area in the Eastern Pomeranian (then Gottenhaven-Danzig in West Prussia) region. The camouflage scheme consisted of olive green and red brown over the dark yellow background. The wheel hubs were also painted with one of the three colors mentioned.



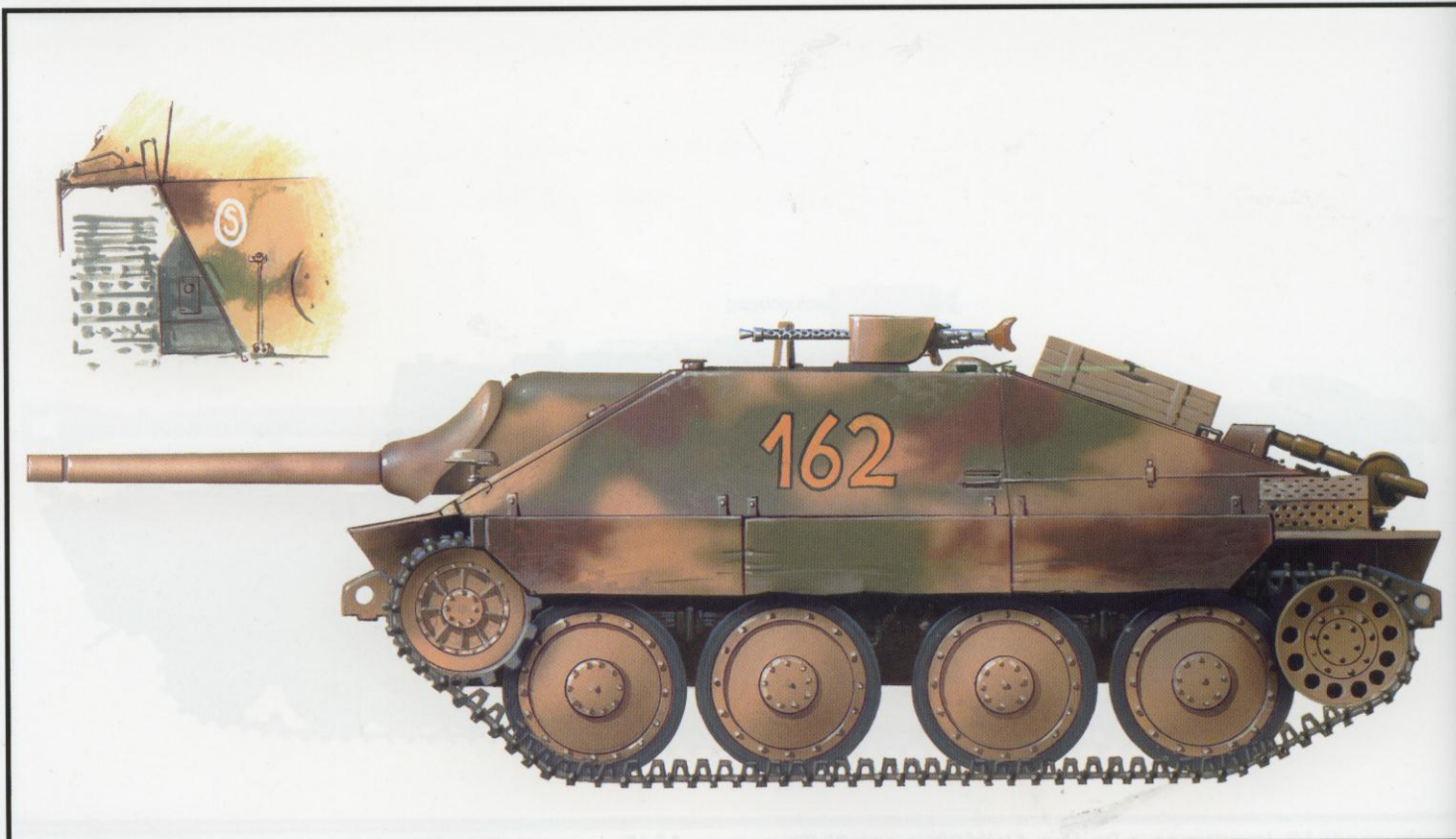
Jagdpanzer VI Jagdtiger, s.Pz.Jäg.Abt.653, central Germany, 1945

Assigned with the type number Sd.Kfz. 186, the Jagdtiger was basically a lengthened Tiger II hull fitted with a large box-shaped superstructure and mounted with a 12.8cm PAK 44 L/55 gun. This vehicle was abandoned in central Germany and took over by the Soviets who employed the vehicle for tests. The colors of the vehicle were the late war version of olive green and red brown over dark yellow background. The road-wheels were also painted with the three colors.



Sd.Kfz. 173 Jagdpanther, unknown Pz.Jäg.Abt., central Germany, 1945

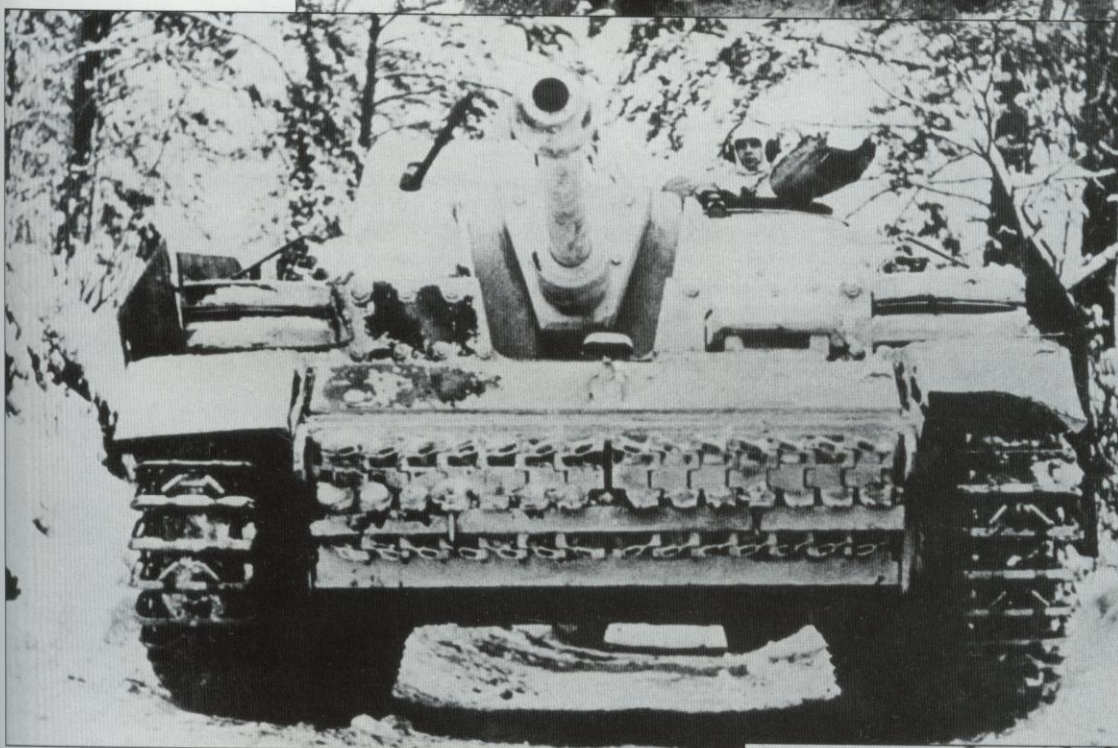
One of the Jagdpanzer V Jagdpanthers abandoned by the Germans somewhere in central Germany, captured by the Soviets, and later tested in the Soviet Union until the middle of 1946. The vehicle had no markings except for a letter "G" on the glacis under the gun mantlet. The camouflage scheme was typical for the Jagdpanthers, also for some Panthers produced after the winter of 1944. It was composed of vertically stripes of olive green and red brown over the dark yellow background. The top areas of the vehicle were also camouflaged, including the engine deck.



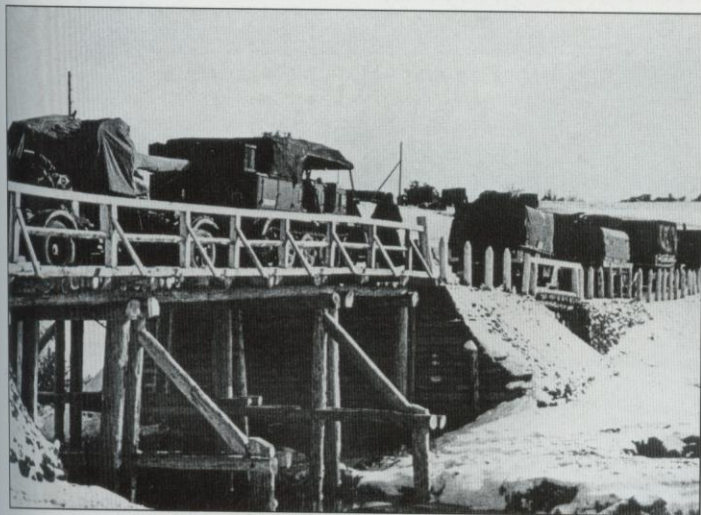
Jagdpanzer 38(t) Hetzer, unknown SS sub-unit, Prague, May 1945

This vehicle carried a three-colored camouflage pattern typical for the armored fighting vehicles of the Panzerwaffe, but untypical for this kind of self-propelled gun. The tactical number "162" was yellow with very thin black outline. The white "S" in a white circle at the rear could be the initial of a name. This vehicle was involved in the battle for Prague in May 1945.

Perfectly camouflaged by snow and foliage, a StuG IV hides in a Russian forest. This vehicle is also equipped with "Ostketten". This photo provides a good view of the construction of these tracks, a section of which is installed on the front plate of the hull. StuGs IVs were first produced in December 1943 as the answer to an emergency situation that occurred in November when production of StuG IIIs dropped by over 50% because of Allied bombing raids. It was improved in a simple way to make it just as combat capable as the StuG III.



This photo brings us face to face with a StuG III Ausf. G traveling down a road through a forest rendered white with snow. Armor modelers will want to note that the surfaces of the side skirts facing inward are not camouflaged with white paint.



Vehicles of 7.Panzerdivision retreat over a wooden bridge in early 1944. On the bridge may be seen a Sd.Kfz. 7 towing an 8.8cm Flak 18 gun. The vehicle is marked on the right rear with the emblem of the division.



A pair of seemingly apprehensive Germans embark on a pleasant trip in a comfortable vehicle across a very cold river somewhere in central Russia in early 1944. The winter of 1943/44 saw heavy fighting in the Ukraine. The battle of the Korsun pocket and the encirclement around Kamenets Podolsky in early 1944 cost the Germans many fine soldiers and, finally, von Manstein's command. Army Group South was renamed Army Group North Ukraine and was given to Field Marshal Model.

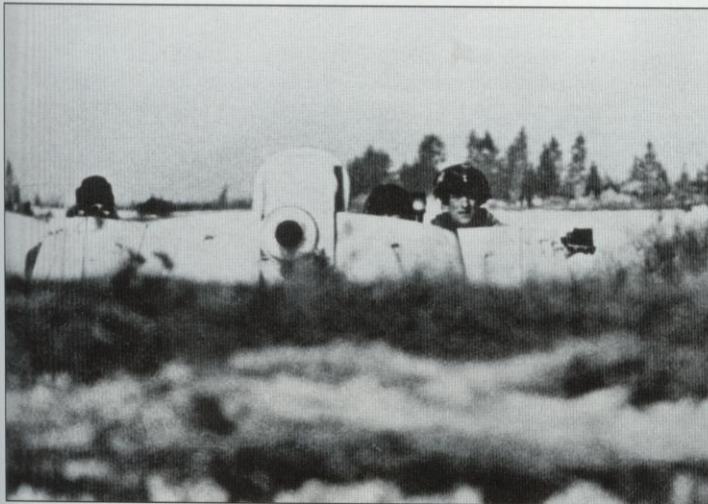


This series of three photos provides a view of a maneuvering battery of Hummel 15cm self-propelled howitzers belonging to an independent battalion of heavy artillery. All three vehicles (marked with the letters "A", "G", and "O") are equipped with wide "Ostketten" and are partly or completely camouflaged with white paint and snow.

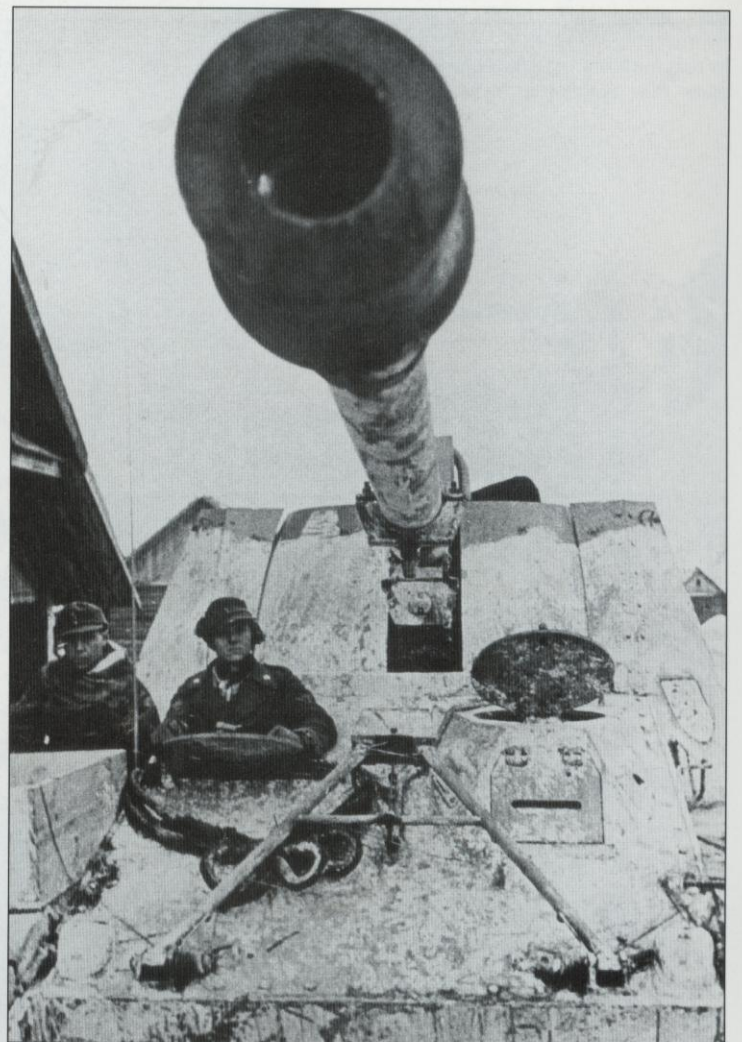




The "brother" of the Hummel was the Nashorn tank destroyer. This SPG, which was armed with an 8.8cm Pak 43/1 (L/71) gun, was the best destroyer of armored targets on the Eastern Front in the second half of the war. It was light, mobile and very powerful. The AT shell fired from this gun could destroy any tank used by the Red Army — including the heavy IS-2 — at a range of 2,000 meters (2,186 yards).



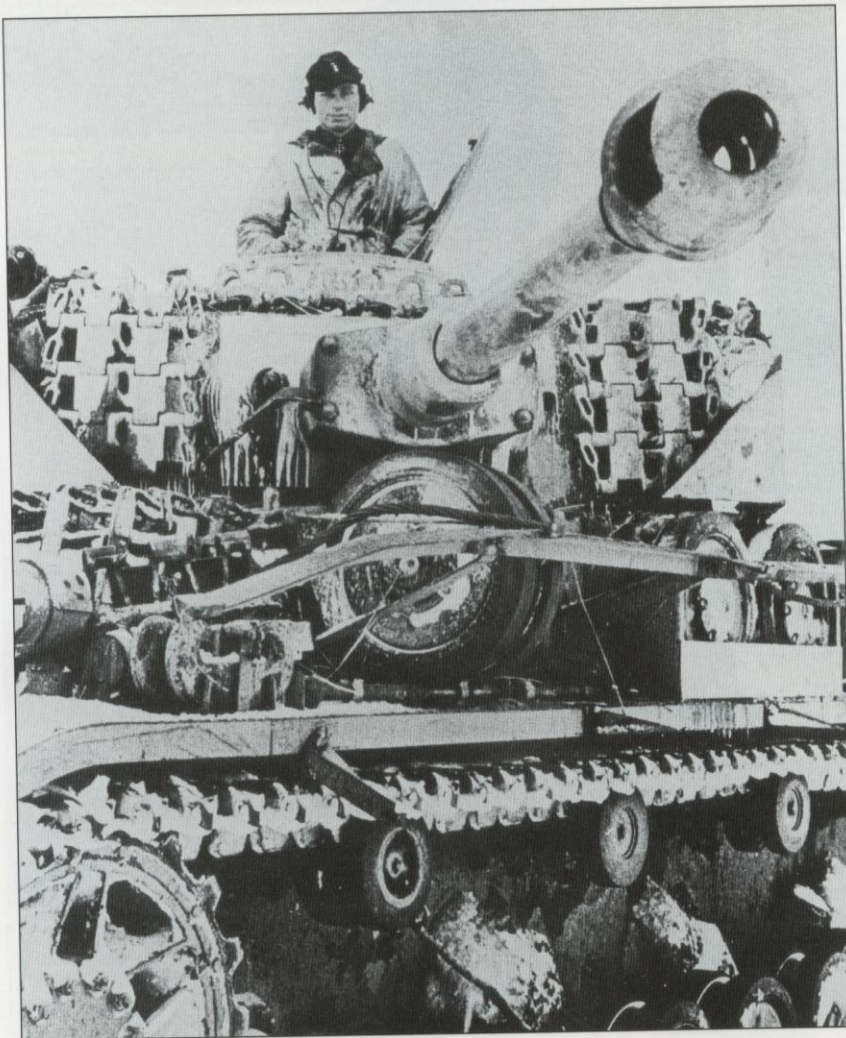
With its gun barrel just slightly higher than the surface of the ground, this Nashorn has been placed in a perfect battle position. Such a protected tank destroyer was virtually indestructible and a very difficult obstacle for Soviet armor to overcome.



This photo offers a close-up view of the "horn" of the Nashorn (rhinoceros in English) — the PAK 43 gun with a long barrel of almost 5 meters (5.5 yards), which fired anti-tank shells at a muzzle velocity of 1,130 m/s (3,708 ft/sec). The vehicle is camouflaged with whitewash, but the top part of the superstructure is in the basic dark yellow color; no doubt the protective tarpaulin was not removed before the tank was painted. Note the unit insignia painted on the superstructure.



A hidden Nashorn waits for a victim. The length of its gun is well illustrated in this photo. First produced in February 1943, Nashorns were turned out in large numbers at first, but this situation later changed. During March and April the war industry provided the Panzerwaffe with 30-40 Nashorns and the same number of light tank destroyers. But in the subsequent months the number of Nashorns manufactured was two to five times smaller than other tank destroyers.



Wearing the look of smug confidence of a capable combat veteran (and a conspicuous Knight's Cross around his neck), this unidentified commander stands in the cupola of a Pz.Kpfw. IV that has no doubt witnessed a string of successes during winter combat. This photo shows how haphazard the painting of winter camouflage could be.

This photo provides a good profile view of a Sd.Kfz. 251/1 Ausf. D. Although in 1944 German industry produced twice as many of these vehicles than in the previous four years together, there was always too small a number of them in the armored divisions. As a result, during military operations the available ones were often used to carry 20-25 troops instead of the usual ten.



The commander of a Hummel battery prepares to give the order to commence firing. This profile view shows the howitzer's impressive design. Note that only the front part of the gun barrel is painted with white camouflage.

In early 1944 a commander gives orders from his command Hanomag to officers in a communication version of the same type of vehicle. Note the difference in the camouflage schemes of these Sd.Kfz. 251s. The communication version (Sd.Kfz. 251/6) still wears the two-tone summer (dark yellow and green) or autumn (dark yellow and brown) camouflage pattern (even the helmets are painted with the same colors), but the command Hanomag is covered with the appropriate white camouflage for the winter season.





Three different vehicles belonging to a staff unit from a tank battalion roll across the frozen winter landscape. At right is the Pz.Bef.Wg. III Ausf. K, in the middle is a command model of the Sd.Kfz. 250, and in the background is a Pz.Kpfw. IV. All the vehicles are painted in winter camouflage (the bull's winter coloring is natural).



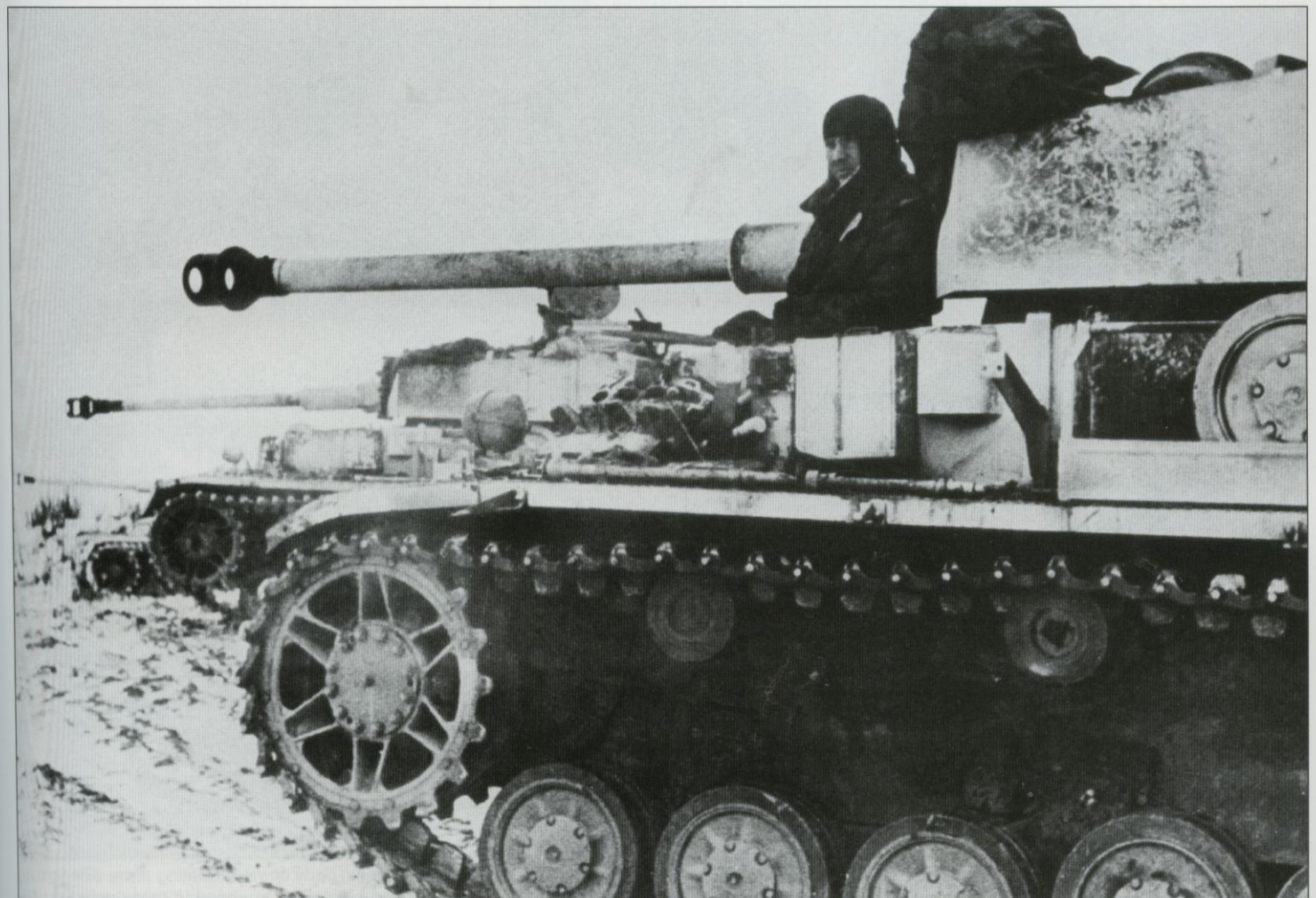
A Hummel has taken up a position in some trees and is ready to go into action. The armament of this self-propelled howitzer was the s.FH 18/1 L/30, which could fire shells at a range of over 10 km (6.2 miles). The main problem with the Hummel was the small capacity of the combat compartment, which could carry only 18 howitzer shells. It was for this reason that the Germans produced many ammunition carriers (*Munitions Fahrzeuge*) based on the same chassis. From the beginning of the Hummel production up to 12th May 1943, 100 self-propelled howitzers and 157 ammunition carriers were produced.



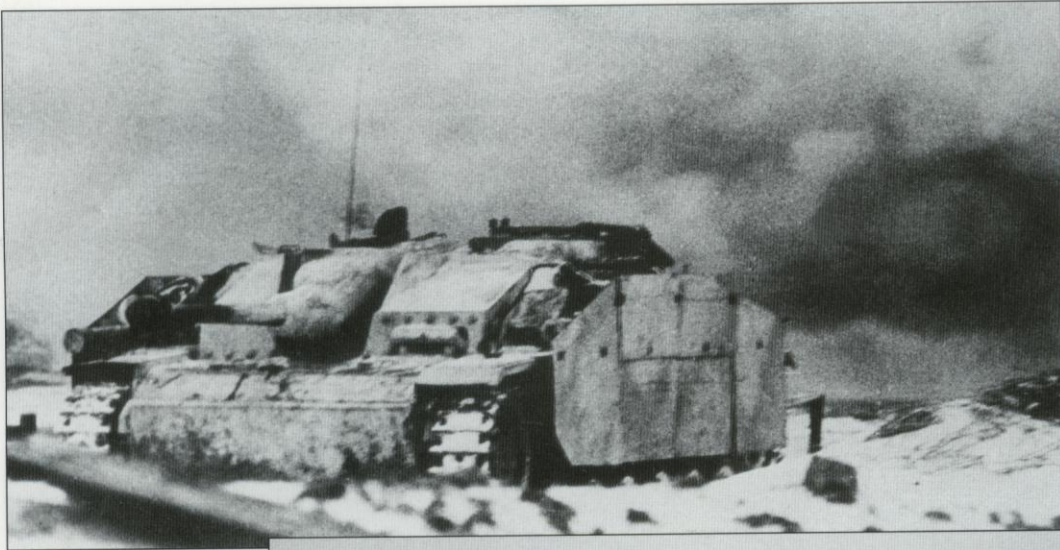
A battery equipped with Wespe (wasp) 10.5cm light self-propelled field howitzers stands ready to open fire. The problem of small combat compartment was even greater with the Wespe than with the Hummel. As we can see in this photo, three out of five crew members must perform their duty outside the vehicle. However, the Wespe could carry twice as many shells as the Hummel.



Pz.Kpfw. IV Ausf. Hs carry troops of 1.Panzerarmee away from the Kamenets-Podolsky pocket in March 1944. The skillful maneuvering employed by the Germans during this operation confused the Soviets, but both sides suffered heavy casualties for the successes won during this tank battle.



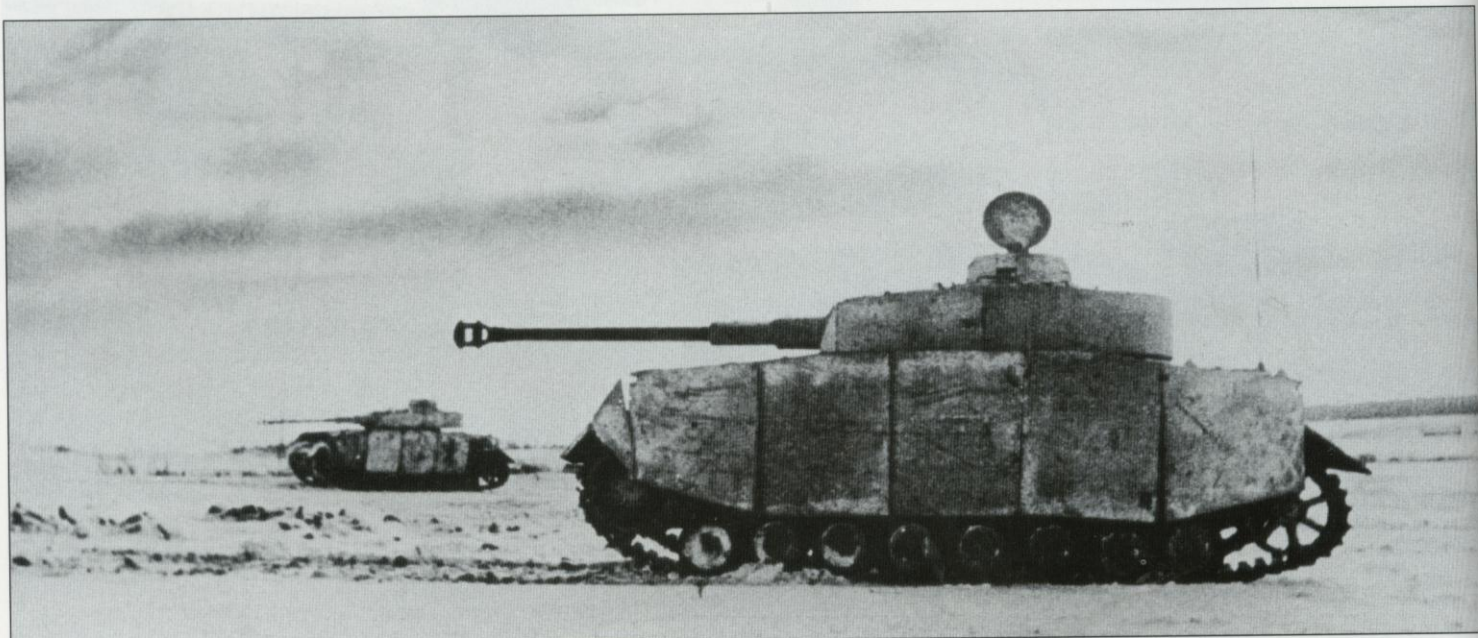
Three Pz.Kpfw. IV Ausf. Hs advance in formation as a spearhead unit. The first tank carries a faintly visible tactical number and the second one has "221" stenciled on the turret. During the fighting in March 1944, the Panzerwaffe lost only 120 Pz.Kpfw. IVs, 19 Pz.Kpfw. Vs and 28 Pz.Kpfw. VIs. The highest losses were among the StuG battalions — they lost 258 assault guns.



This dramatic photograph shows a StuG III Ausf. G with a "Sankopf" mantlet in the midst of action. It is worth noticing that half of the barrel is painted with dark paint. The fighting in western Ukraine during the period of December 1943 - April 1944 was probably the most interesting from the point of view of tank warfare. Apart from the struggle for Kharkov in February - March 1943, there had been no other such battle in which the participants were almost limited to armored and motorized units involved in a struggle to outmaneuver the enemy.



A Pz.Kpfw. IV and a supporting squad of soldiers move forward along a road. Note that only the single side skirt on the Pz.Kpfw. IV is painted with white camouflage. The tank is dark, even though it may have been covered with white camouflage only a few months earlier.



A pair of Pz.Kpfw. IVs takes up a position on the open steppes of western Ukraine to clear the way for the main body of the retreating army. The fighting in western Ukraine was some of the hardest and most costly for the armored troops. Risky operations caused both sides to abandon many vehicles after they bogged down in deep mud or ran out of fuel. However, the greatest number of vehicles was lost during duels between tanks and self-propelled guns. Because the fighting usually took place without a static front line and often far away from support units, anti-tank units had a lot of problems with their vehicles. Often bad weather precluded aviation support over the battlefields.



This photo shows a typical situation during the retreat action of the early 1944 period, like the Kamenets-Podolsky operation, for example — wide open terrain with dots of soldiers supported with lone tanks or SPGs. During the entire campaign for western Ukraine (mid-December 1943 to mid-April 1944), the Panzerwaffe lost over 2,500 tanks, StuGs and assorted SPGs from among a total of about 3,300 such vehicles lost in this period. The Soviets lost about 7,500 tanks and SPGs in this campaign, so the loss rate was 3:1 in favor of the Germans.



Three StuG IIIs with about 60 soldiers "on board" travel down a road in an unknown Russian village. This transportation service was a recurring practice for the German armored forces every time the weather made the terrain too difficult for wheeled vehicles to travel on.



A StuG III Ausf. G viewed from another such vehicle during winter operations in the early 1944 period. This sort of assault gun was the main combat vehicle of the Panzerwaffe in many battles at that time. For example, during the fight for Kirovograd in January 1944, there were 109 StuGs and 56 tanks in three armored divisions and one motorized division. Note the many details of the StuG's upper surfaces.



Probably the greatest hero of the Panzerwaffe during the winter combat in 1943/1944 was Oberst (Colonel) Schulz, who won his fame as a member of Pz.Rgt.25, 7.Panzerdivision from November 1939 to January 1944. Here we see him at the right of the photo in the cupola of a Pz.Kpfw. III.



For his display of exceptional leadership, Oberst Schulz was promoted and given the command of 7.Panzerdivision on 26th January 1944. Here Generalmajor Schulz is standing in the middle of the group, third from the right. To the left of him is General von Manteuffel, and to his right is Oberst von Steinkeller. The tank seen at the right is the command version of the Pz.Kpfw. III with tactical markings typical for the staff of a Panzer regiment.



The funeral procession of Generalmajor Adalbert Schulz, who was killed in action at Schepetovka on 28th January 1944, shortly after his promotion. The flag-draped casket containing the body of the General is being carried on the engine deck of a Panzerbefehlswagen III. The tankers serving as the escort are wearing the special black Panzer uniform.



Another photo of the funeral procession honoring Generalmajor Schulz. As in the above photo, the tactical number of the tank has been censored. However, part of it is still visible, and it appears that the number might be "1132".



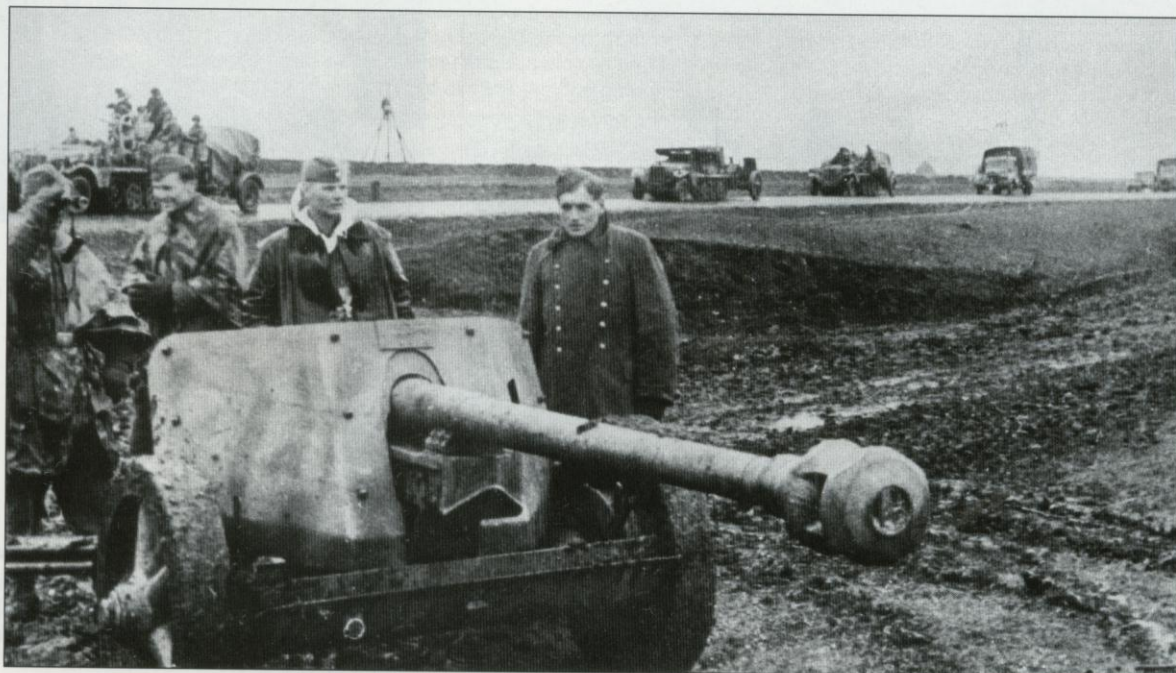
Apparently freshly decorated with the *Ritterkreuz*, or Knight's Cross, crew members of this Tiger tank pose for a photograph. *Zimmerit* is clearly visible on the tank's hull, though the dent caused by a small caliber gun has chipped off some of the coating. The officer is Major Willi Jähde of s.Pz.Abt.502 who destroyed 24 T-34s with his eight Tigers in just a few minutes.



While waiting to receive orders, a weary soldier takes a rest under cover of a Pz.Kpfw. IV as the war rages in the distance. Note that the tank has no tactical markings and is not painted in any camouflage pattern.



From the way that every part of this 8.8cm Flak gun has been very carefully camouflaged, we can conclude that the crew of this gun had a lot of free time on its hands. Even the trailer is covered with the same sporadic swirl pattern.

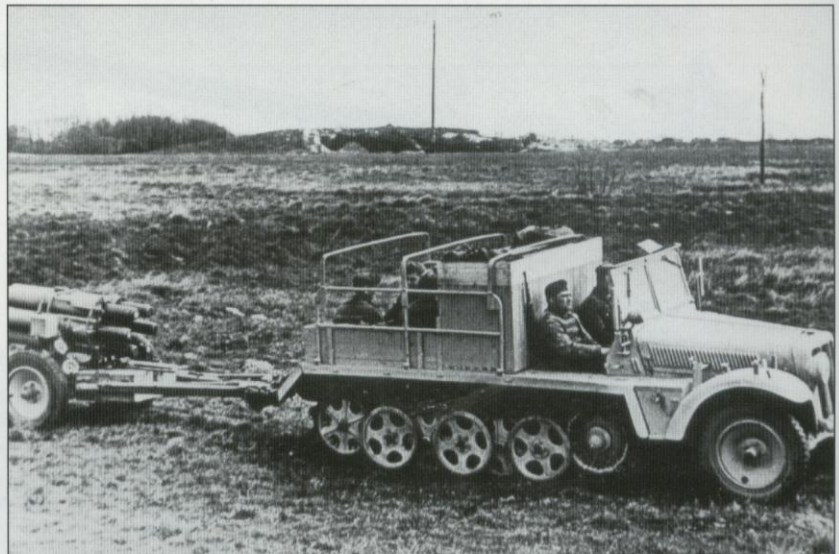


This 7.5cm PAK 40 anti-tank gun was positioned in a battle position to cover a road. Moving along the road in the background are Sd.Kfz. 10 light tractors. The first of them is armed with the 2cm Flak 38 gun, and the next two are towing 15cm sIG 33 guns.

A battery of StuG IIIs travels down a road towards the Polish-Soviet border region. The nearest StuG has the white tactical number "127" and a large national cross painted both on the side of the superstructure and the side skirts. The vehicles are heavily mottled with brown camouflage. Note the Zimmerit coating.



The arrival of a messenger with orders for two StuG III Ausf. Gs that are blocking a road. Due to the small number of Panzerjägers, StuGs were often used as tank destroyers in the Panzerjäger-Abteilungen (tank hunter battalions) of quick assault and infantry divisions. This situation changed in 1944 when the Germans started producing Jagdpanzers. However, it wasn't until the end of 1944 that the production level of Jagdpanzers was increased to match that of the StuG.



1t half-track with a Nebelwerfer on tow. The Demag D7 prime mover was used in a variety of roles, the most common being a self-propelled mounting for the Flak units of both the Luftwaffe and Wehrmacht. 3.7cm and 5cm PAK also utilized the 1t as their self-propelled carriage.



StuG III heavily laden with troops, serving as a battle taxi. At this stage of the war, with armored personnel carriers in short supply, troop movement was often on board tanks and assault guns.



Tigers in retreat. With its powerful 8.8cm KwK L/56 gun and excellent sights, the Tiger was a formidable tank both in the offensive and defensive roles. Tigers seldom operated alone, mutual support was the standard practice. Note the absence of the exhaust cooling shrouds at the rear.



A lone Panther in the open Russian field. This is an Ausf. A with a non-standard camouflage scheme hastily applied. This photo well illustrates the long overhang of the 7.5cm KwK42 L/70 gun.



A machine gun squad heads off to work. Note the emblem of the StuG.Brig. on the front plate of the hull and the strange objects visible below the commander's cupola. They could be attachment points for tractors or lugs for repair equipment.



A StuG III equipped with the "Saukopf" mantlet rumbles past the skeletal remains of a farmhouse somewhere in rural Russia. The animal carcass lying in the yard reminds us of the many innocent victims of the violent armored warfare on the Eastern Front.



General von Manteuffel, the commander of the "Großdeutschland" Division, is seen in the foreground of this photograph. Behind him is a Pz.Bef.Wg. III Ausf. K. Note the infantry backpacks — extremely rare pieces of equipment for tank crews — hanging on the cable attached to the smoke candle dischargers. This photograph was taken in Sereth in Romania in the spring of 1944.



These two soldiers of the "Großdeutschland" Division appear ready for action. Armed with hand grenades, *Panzerfaust* anti-tank grenade launchers and determination, they were still very tough opponents for the Soviets armored units in 1944.



Here we see radio operators at work in the combat compartment of the Sd.Kfz. 250 Neu half-track. Many of these vehicles carried the famous "Enigma" radio sets that assisted the higher level German staffs to control the operation of the war. Note that this ground-to-air communications vehicle has a very cramped interior. The Sd.Kfz. 250/3 Neu carried a rod-and-star aerial instead of the frame aerial.



A group of soldiers awaits orders next to a Sd.Kfz. 250/3 *leicht* (light) *Funkpanzerwagen* ground-to-air communications post, which is equipped with a frame antenna for the FuG8. The armored shield for a machine gun installed in the rear position is quite an unusual modernization.



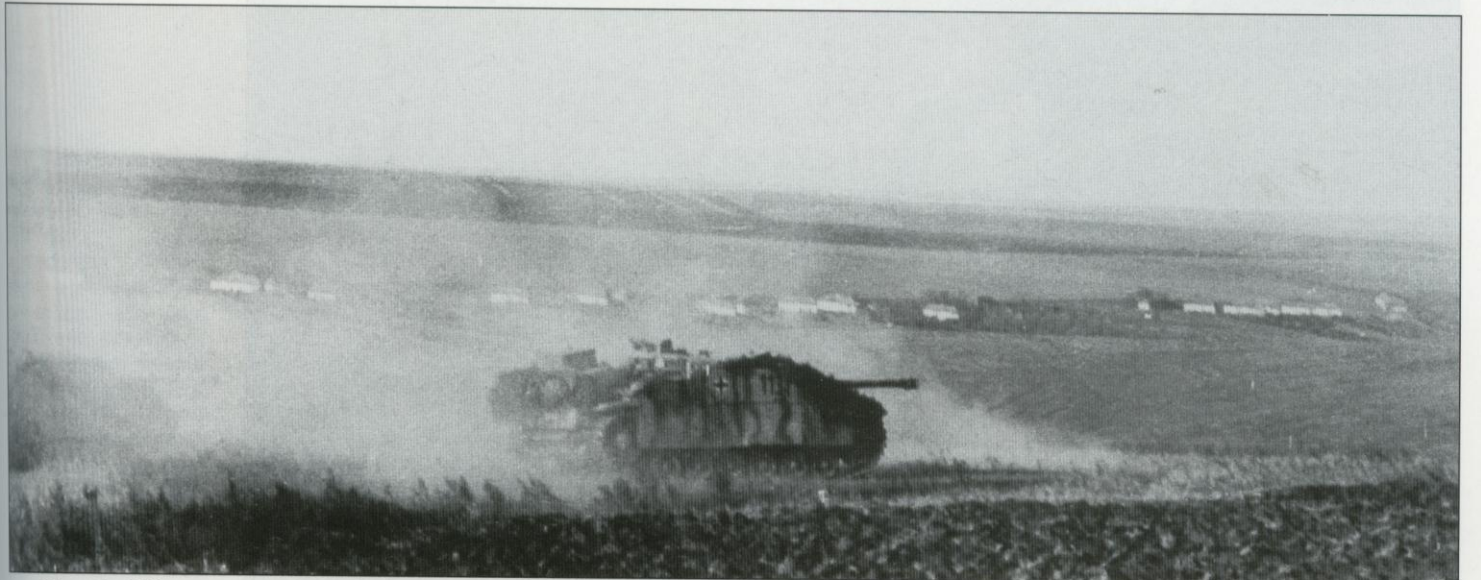
StuG IIIs serving as lorries (trucks) advance toward a combat area. The nearest of them is the command version. Like both of the others, it is equipped with "Ostketten". Though winter is long gone, the "Ostketten" have not been replaced, probably due to the lack of supply of regular tracks. Note the very dark color of the gun barrel on the second StuG.



Another pair of StuG IIIs, with their gun barrels at different elevations, travel up the road in an abandoned village. The interesting pattern of camouflage on the side skirts attached to the lead vehicle is noteworthy. When equipped with side skirts, the StuG has almost a beetle-like appearance.



A StuG III in action in some hilly terrain. Despite the poor quality of this photo, it is clearly visible that this vehicle has two separate sets of additional armor plates: one of them bolted to the superstructure and the other attached to the mudguards. This sort of skirting was used in 1944 in a few units in place of the standard large side skirts. It was composed of four short pieces for covering the hull and another two pieces for the side of the combat compartment.



Other StuG IIIs are engaged in action in wide-open terrain. The StuG III visible in the middle of the photo is equipped with six-part side skirts on which are painted the tactical number "1131", the national cross outlined in white and an interesting pattern of camouflage.



A Nashorn self-propelled gun adds its firepower to a street fight in an unknown town. In 1944 the production of this weapon was very limited, in fact for three months there was no production at all. Therefore, during the whole of 1944 the Germans produced only 133 Nashorns, about one-third of the total 1943 production. This type of tank destroyer was the best anti-tank weapon in the Panzerwaffe's arsenal. Though it was quite heavy it had great power, which gave it supremacy over any other enemy vehicle. There were no less than six battalions armed with Nashorns.



A pair of Panthers on the prowl. The Panther was very successfully designed, and is considered the best medium tank in WWII. Production continued into 1945 and more than 4,800 vehicles were built.



Brand new StuG IIIs on railway flatbed being rushed to the front. These late production vehicles featured the all-metal return rollers. The vehicles are without side-skirts which would be fitted at the workshops upon arrival.

Visible here are the two principal (and cheapest) anti-tank weapons of the Third Reich in the last years of its existence: the StuG III assault gun and the Volksturm (national militia member) armed with a Panzerfaust.



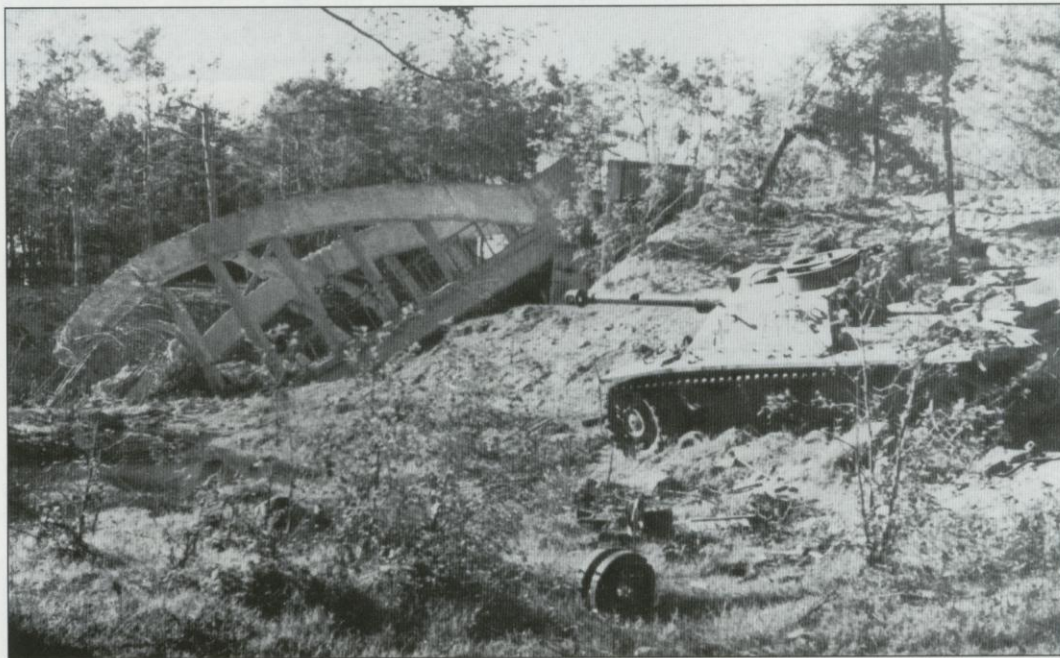
During the last months of the war, towed anti-tank guns were more rarely found in assault divisions than self-propelled guns. Here several crew members operate a well-concealed PAK 40 gun that guards the main street of a town.

This Pz.Kpfw. IV Ausf. J, which is marked with the stenciled tactical number "521", is fitted with non-standard protection for the crew's belongings attached to mudguard. Oddly enough, it looks like the back portion of a park bench. The tank features standard camouflage pattern, which is clearly visible near the tactical number, but it is also heavily covered with mud.





The battleground of an armored conflict somewhere in Poland. The main attack into Poland started in July 1944 when Marshal Rokossovsky's 1st Belorussian Front encircled Brest-Litovsk on 18th July and reached the Vistula River a week later. In the foreground is a Pz.Kpfw. IV Ausf. J, while visible in the background is a T-34/76 (at the left) and (probably) an IS-2. The fourth tank at the far left of the photo is unknown.

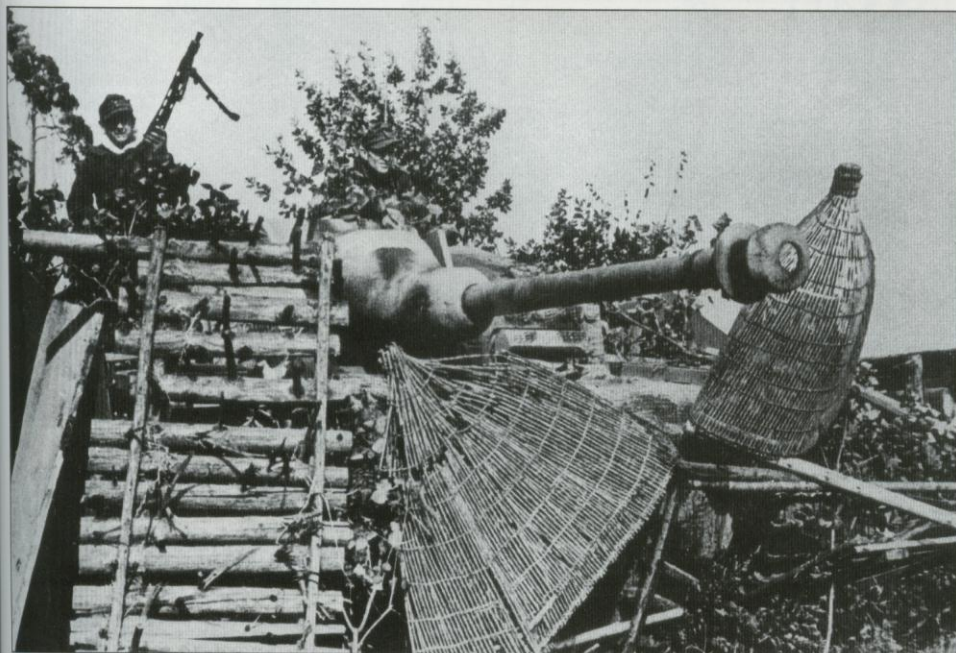


A close-up view of another battlefield, this time somewhere near Warsaw on the eastern bank of the Vistula River during the summer fighting of 1944. The StuG III Ausf. G seen in this photo belonged to 19.Panzerdivision and is marked with the tactical number "211".

Another StuG III from the same unit destroyed in the same area during the final Soviet assault on the eastern part of Warsaw in September 1944. Its tactical markings are illegible. The StuG III was severely damaged and gutted by fire. One of the crew members who did not survive was buried near his vehicle in a single-man grave marked with a cross and decorated with flowers — a very unusual sight in territory captured by Polish/Soviet troops.



This is an early series Pz.Kpfw. V Ausf. G Panther tank knocked out by Soviet or Polish troops during the battle for the Soviet bridgehead in the Warka area south of Warsaw. Troops from the Fallschirm-Panzerdivision "Hermann Göring" and 19.Panzerdivision were involved in this combat. This Panther belonged to Fallschirm-Panzerregiment "Hermann Göring", which received some of the tanks just before the battle when the division was re-equipped west of Warsaw after arriving from Italy. The tank in the photo is brand-new and wears no camouflage or even a tactical number. Apparently there was no time to apply them. However, the chassis number "120721" is painted in black paint on the glacis.



A cleverly camouflaged StuG III Ausf. G in a village somewhere in a German position in the Duena River area near Riga in September 1944. It is equipped with the "Saukopf" gun mantlet, but features only a hand-held infantry MG42 for defense in place of the remote control machine-gun mount fitted to an armored shield.

Hit and destroyed! In the background of this photo a Soviet tank explodes in flames on an unknown city street while the crew of a Marder II fires another shot at a second target. The Marder II was one of the two most popular tank destroyers built by the Germans; 651 of them were produced.





A Hummel on the march. Note how the camouflage of this self-propelled howitzer was painted on the top portions of the superstructure. As usual there is a strip of the base color paint in the area where the tarpaulin was attached on top of the vehicle.



A Sd.Kfz. 251 Ausf. D is just visible in the background as it passes by the remains of a T-34, which illustrate very well the typically poor quality of Soviet production. Note that on the Hanomag the mount for the rear MG42 is used as a hanger for . . . a bucket. The German vehicle is marked with the tactical number "211" (partly covered by helmets) and is camouflaged with straw.



A StuG IV kicks up a cloud of dust as it advances down a forest road. Note the interesting camouflage pattern (most probably green) and the special wider tracks. These tracks were developed in 1944 based on the experience acquired through the use of "Ostketten" in the two previous winters. It is possible that their use was widespread in divisions fighting on the Eastern Front, even though they appear in only a few photos.

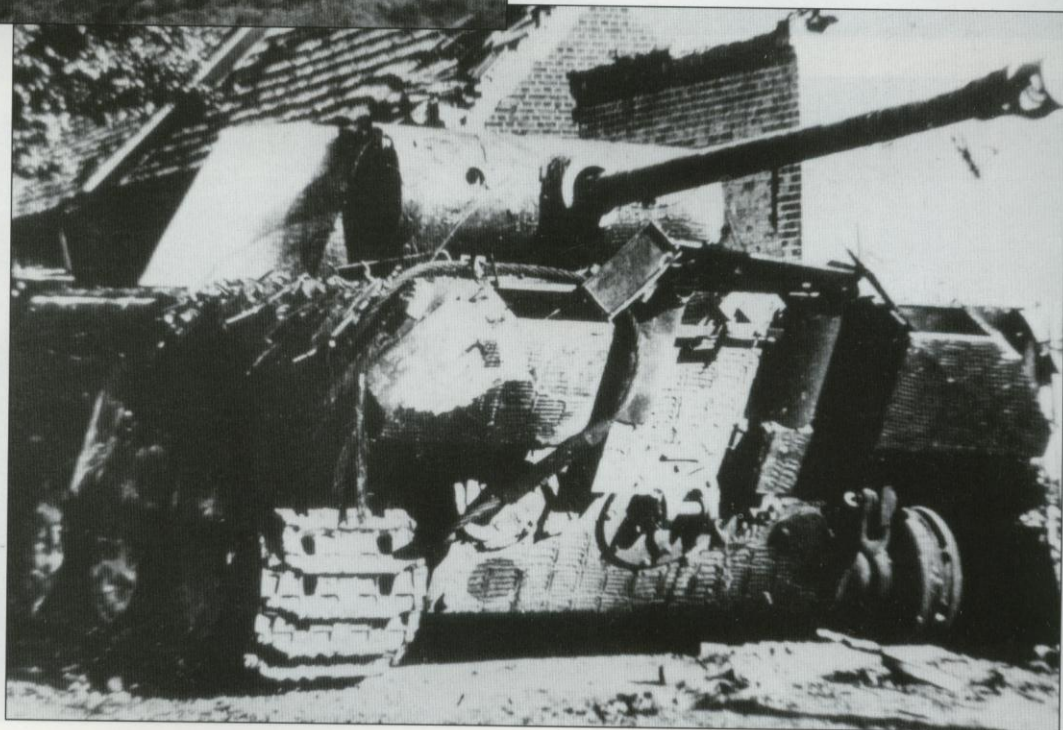
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After the collapse of *Heeresgruppe Nord*, the Soviets collected tons of combat equipment from all around the northern areas of Russia, including these StuG III Ausf. F/8s and Ausf. Gs, which originated from the same unit. Almost all of the StuGs seen in this photo are painted in similar camouflage composed of a green and brown pattern over a dark yellow background, which is most clearly seen on the first vehicle of each row.



Two Soviet soldiers posing in front of a disabled Panther. Operation "Bagration" ran out of steam in August 1944 and both the Germans and the Soviets had taken the opportunity to regroup. The central sector of the Eastern Front had been relatively quiet for five months, with the Soviets mounting a new stage of offensive in January 1945.

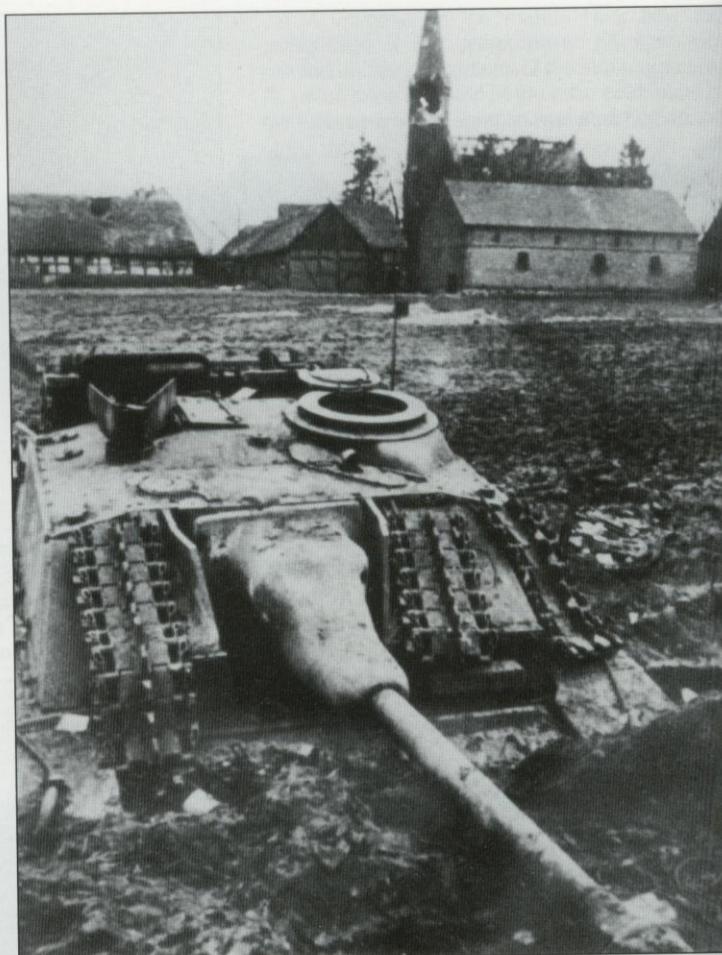


Another disabled Panther. Note the *Zimmerit* coating on the rear. By early January 1945 more than 2.5 million Soviet troops, backed by armor and artillery, were ready to attack. The stage was set for the Vistula-Oder campaign and the ultimate drive to Berlin.

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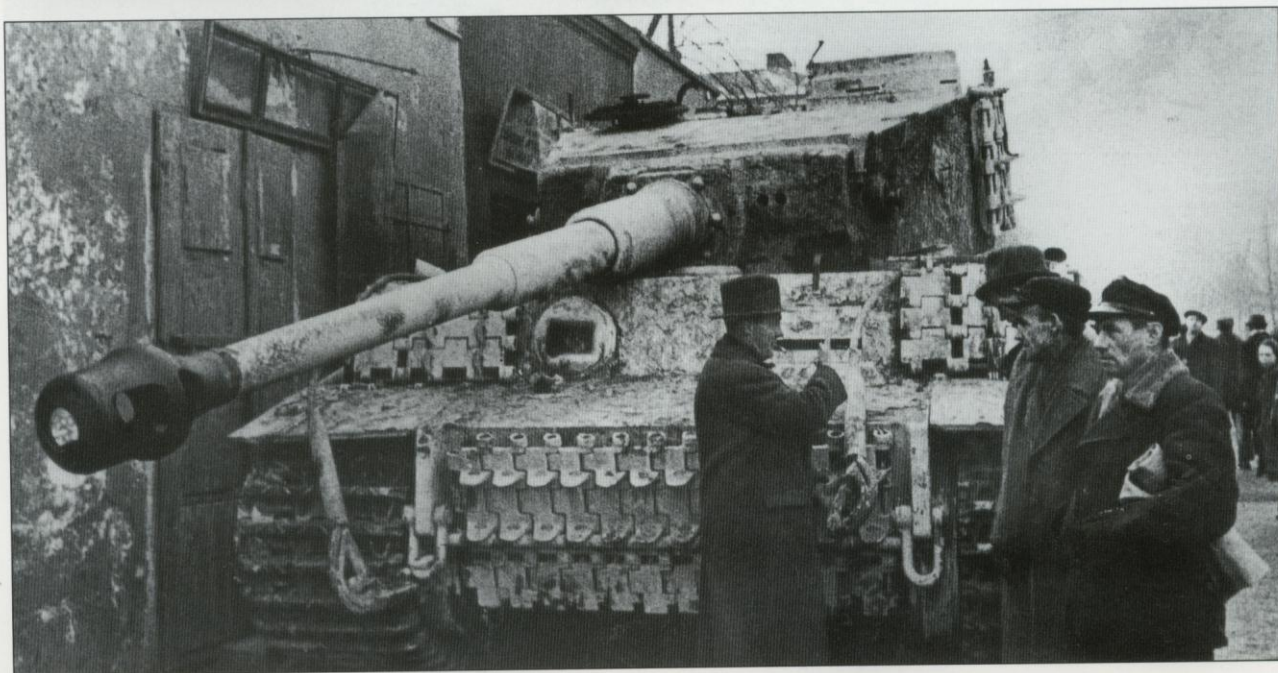
A surprising vehicle belonging to the Panzerwaffe: the old version of the Stug III. After it was renovated and re-armed with a StuK 40 long-barreled gun, it was put into service. During the overhaul the Stug was completely repainted with RAL 7028 dark yellow-colored paint, which is shown to advantage in this photo. At the same time the pre-Ausf. F Stugs were equipped with many interior mechanisms of the Ausf. G. They were often fitted with additional armor, too, including side skirts. Despite a number of major differences from the original Ausf. G, these hybrid models were also called the Ausf. G. Note the load label painted on the side of the combat compartment.



This Stug III Ausf. G is abandoned in East Prussia. This late production type featured the "Saukopf" mantlet, coaxial machine gun, and the roof mounted remote-control machine gun. The track links were for added protection.

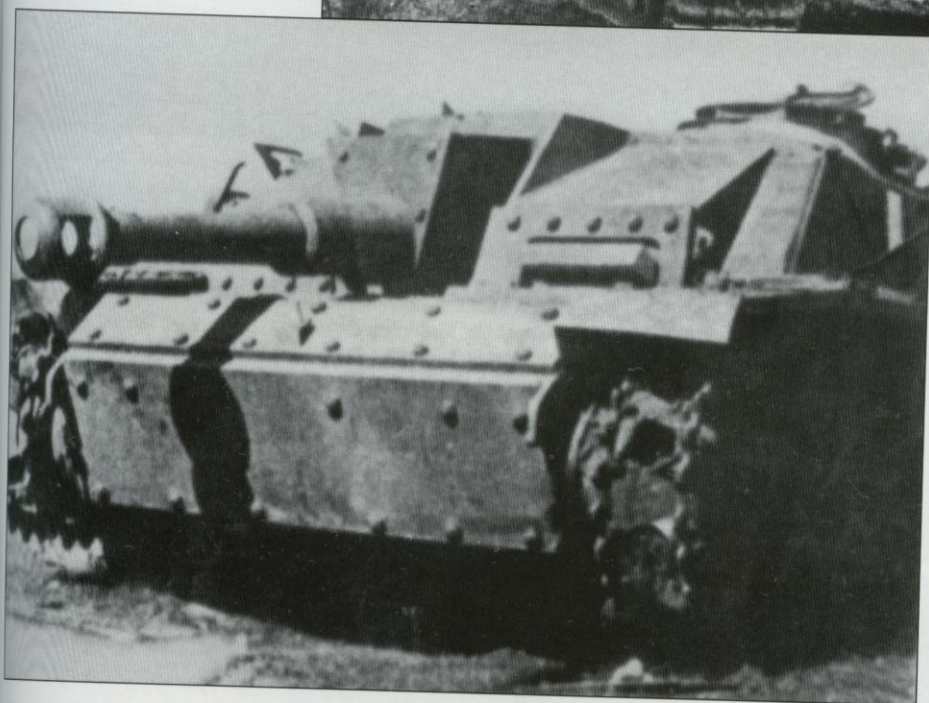
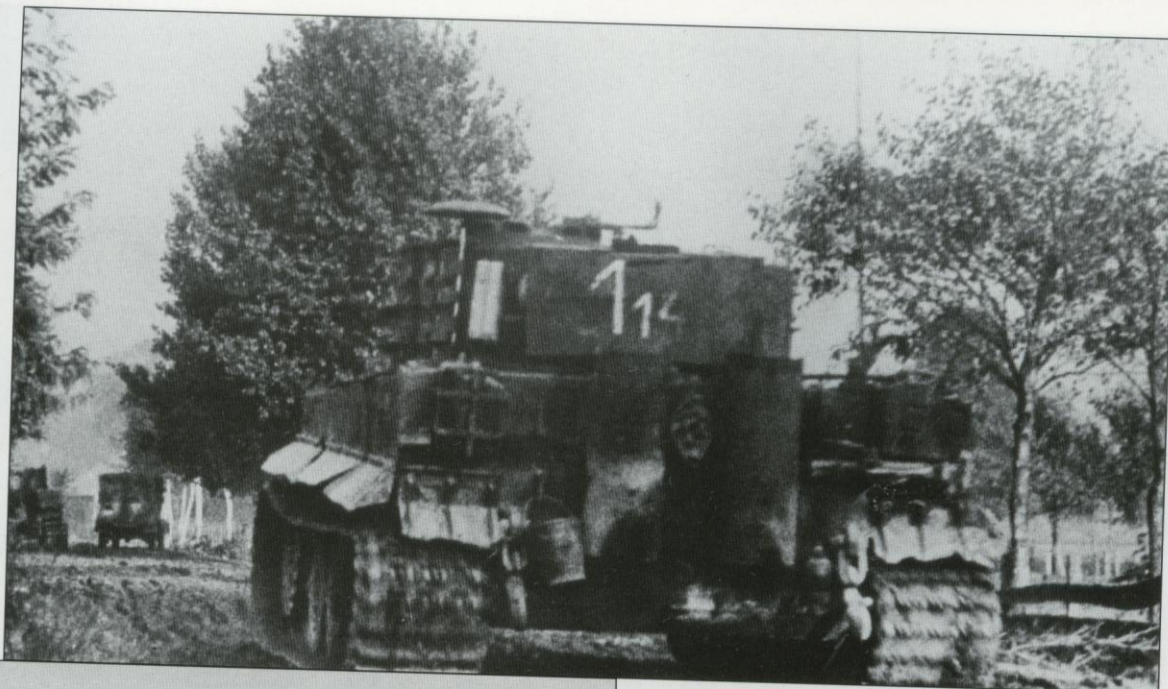


A column of German armor traverses snowy terrain east of Breslau in early 1945. It is probably the leading element of a Pz.Aufkl.Abt. equipped with Sd.Kfz. 251s and Sd.Kfz. 234/1 reconnaissance vehicles, one of the rarest vehicles used by the Panzerwaffe in the last year of the war. Breslau was encircled and by-passed by the 1st Ukrainian Front, which overran Lower and Upper Silesia and joined in the battle for Berlin. Breslau surrendered on 6th May 1945.



Sitting abandoned with a blown-up turret on a street in Czesochowa in the middle of January 1945 is a Pz.Kpfw. VI Ausf. E Tiger tank that once belonged to s.Pz.Abt. 424. This unit suffered huge losses among its tanks during the retreat from the Sandomierz bridgehead. Many were destroyed by their own crews due to a lack of fuel or a breakdown.

A pair of Tigers from s.Pz.Abt.507 in the Zichenau region in January 1945. Typical for this Abteilung was the style of painting the white turret numbers such as those seen on Tiger number "114". The first digit was almost the height of the turret and the two smaller digits were about half that size. The battalion lost most of its tanks during the retreat to the Vistula in January 1945. It surrendered to the Russians in Czechoslovakia on 12th May 1945.



A knocked out StuH 42 Ausf. G. Mounting a 10.5cm StuH 42 L/28 gun, StuHs were issued to the Sturmgeschütz brigades as heavy fire support vehicles. They had the same hull and superstructure as the StuG III Ausf. G, but with a different gun mount and internal layout for the larger 10.5cm rounds.

A Panzer IV/70 (V) is disabled on the roadside, still smoking from a hit. The long 7.5cm PAK 42 L/70 gun is evident in this photo. The travel lock on the superstructure front was to hold the gun in place when moving in non-combat areas. The vehicle had Zimmerit coating but with the side skirts missing.





Two views of a Hummel from an SS unit shot to pieces by tankers of the Polish 1st Tank Brigade during battles in the Mirostaniec area in February 1945. It is an early series vehicle with *Zimmerit* applied all over the superstructure surfaces. Most of the German units created in this period had received supply of armor in a short period, so the young crews had little time for training and applying markings.



In early March 1945 heavy fighting took place in the city of Gubin, but 35.SS-Pz.Gren.Div. was able to recapture the city from the Soviets. This photo shows a street in Gubin a few days after the liberation. Some Panzerjäger 38(t) Hetzer tank destroyers of an unspecified Pz.Jäg.Abt. travel through the city on their way to the battlefield on the River Oder. Built on the chassis of the Panzer 38(t), the Hetzer was the final answer to the needs of anti-tank crews who from the beginning of the war had to use improvised, second-class vehicles when the need existed for a simple, small vehicle that could be employed in all the anti-tank sub-units of the various divisions. The Hetzer filled this gap. But just as in countless similar situations experienced by the Panzerwaffe, it came too late. Many of these vehicles were lost without achieving any success.

A reconnaissance force equipped with Schwimmwagen amphibious vehicles goes to work. Even when the war seemed likely to end soon, large numbers of German troops still fought very hard. Using their last cans of fuel in their last serviceable vehicles and their last boxes of ammunition, they fought determinedly, creating some real problems for the Soviet forces.





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This StuG IV was knocked out during the fight for Pomerania in the spring of 1945. Note that a camouflage pattern was applied to the assault gun's superstructure while the hull was not camouflaged at all. This vehicle has a single armor plate bolted to the side of the superstructure for additional protection.



A recovery tank, known as the Bergepanzer III, burns in a German village somewhere in Pomerania in March 1945. This vehicle was converted from a Pz.Kpfw. III that was returned for overhaul in 1944. They were issued to the workshop companies of Panzer units equipped with StuG III's and IV's. The tank has additional front armor on the superstructure but is lacking a machine gun.



This Sd.Kfz. 7/2, which is fitted with an armored cab and a 3.7cm Flak 36 anti-aircraft gun, was destroyed on a street in Kolberg in Pomerania during heavy fighting in March 1945. The vehicle is camouflaged with tiny spots of brown and green and carries two Wehrmacht license plates on the front mudguard.



Looking just as decrepit as the buildings and landscape that surround it, a Pz.Kpfw. IV sits abandoned in Pomerania after being destroyed during the fighting there in the spring of 1945. Note the conspicuous absence of the bow MG34 in the ball mount.



This profile view of the remains of a destroyed Pz.Kpfw. IV photographed in Pomerania in the spring of 1945 shows the resulting fire damage on the exterior of the tank. Note the pattern in which the *Zimmerit* anti-mine paste was applied to the turret skirting.



The end of a Tiger. This burned out Tiger II Ausf. B, with Henschel Production Turret, sits on a beach on the Frisches Haff in April 1945. The 8.8cm KwK 43 L/71 gun was probably the best tank weapon in WWII, being able to knock off its opponents with ease. However, the Tiger II entered service too late to change the outcome of the armored war.



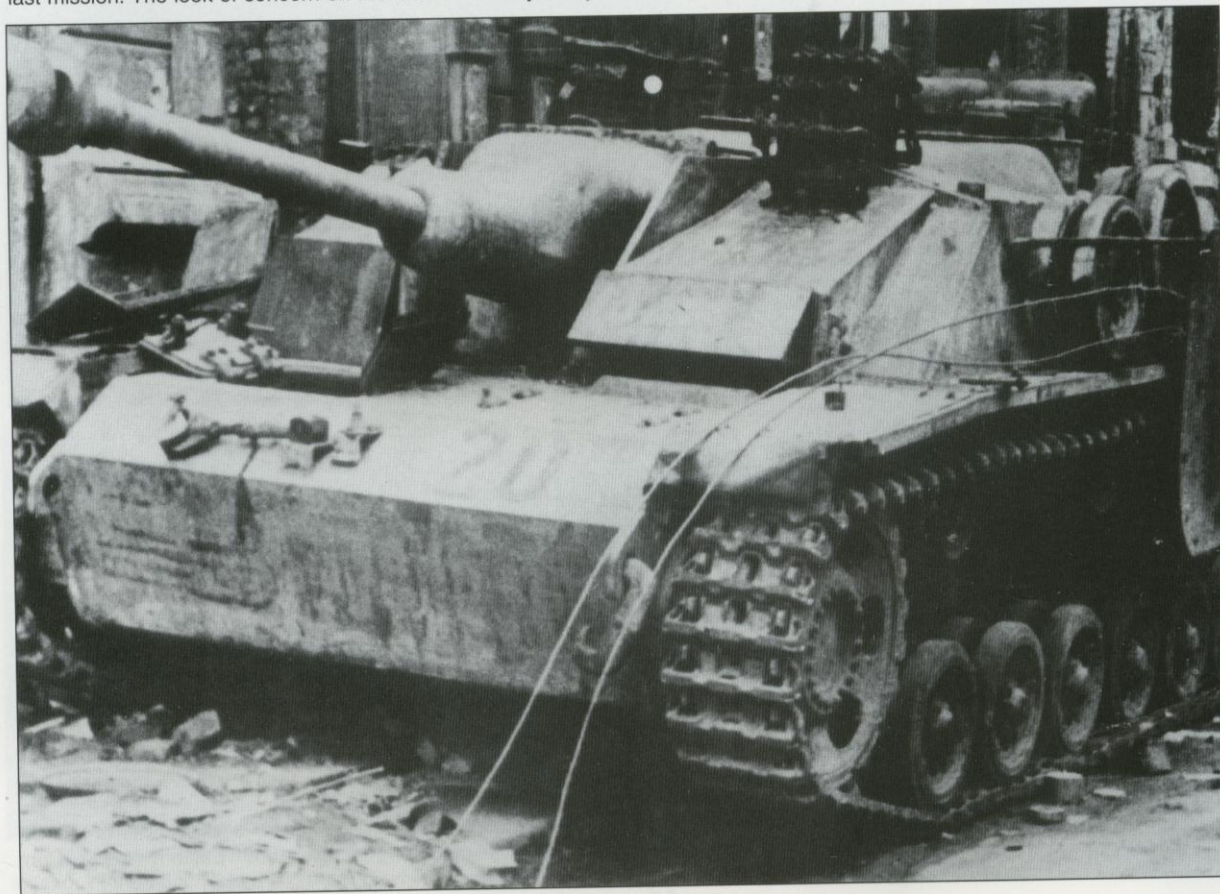
Yet another Pz.Kpfw. IV destroyed during the heavy fighting in spring 1945.



This Tiger II is captured and inspected by Soviet troops, apparently in good shape. It was tank "002" of s.Pz.Abt.501, captured by the Soviets in August 1944. It is likely that this vehicle was abandoned by its crew due to lack of fuel. This vehicle had the side skirts installed, but had the bow machine gun missing. All Tiger IIs were assigned to the independent heavy Panzer detachments of the SS and the Wehrmacht on both Eastern and Western fronts.

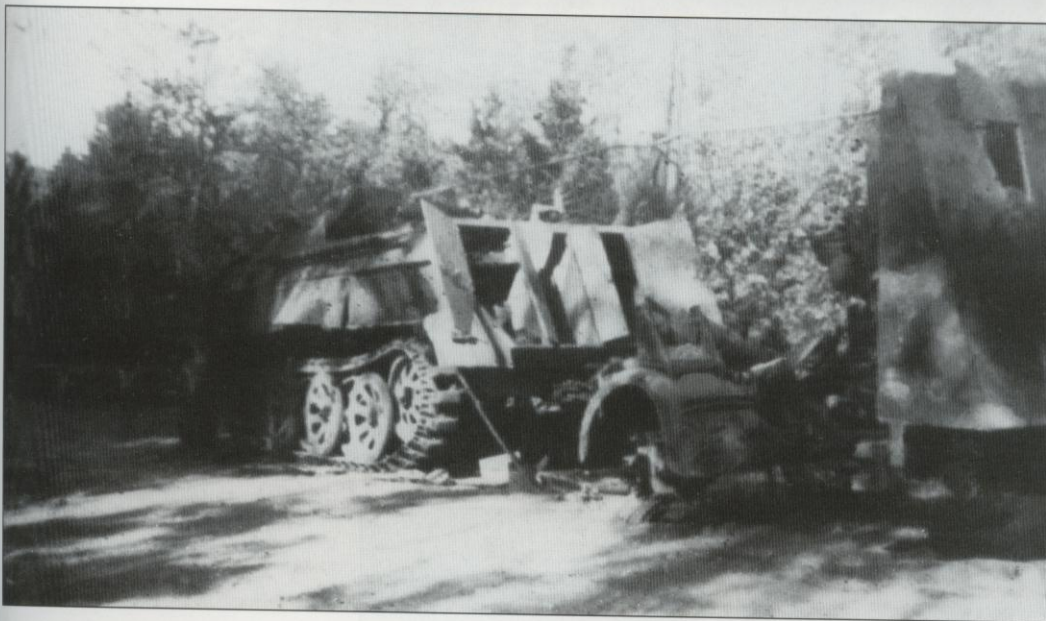


This Sd.Kfz. 250 Neu belonging to a reconnaissance unit was photographed somewhere in Germany in the spring of 1945 during preparations for its last mission. The look of concern on the face of virtually every soldier reflects the pressure that was being placed on the German Army at the time.

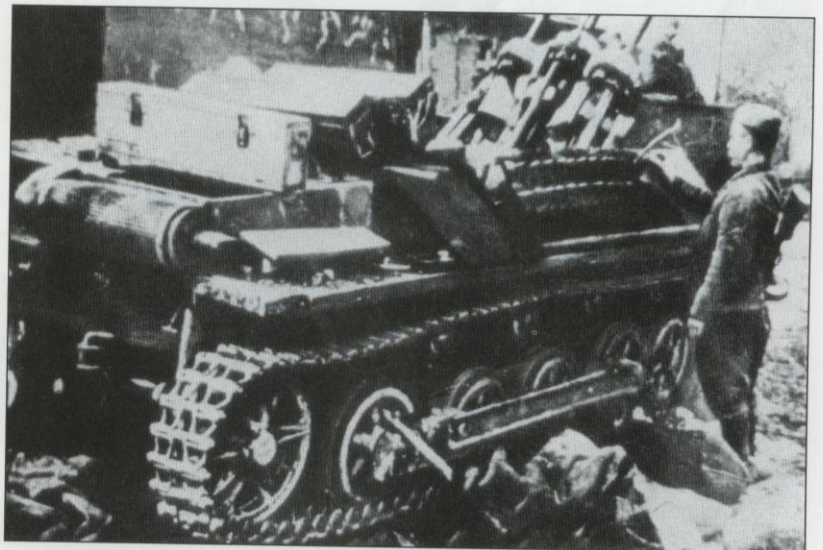


An abandoned StuG III Ausf. G with "Sankopf" mantlet in Königsberg. The vehicle had the all-metal return rollers. The number "20" on the superstructure front is non-standard marking.

A Pz.Kpfw. IV Ausf. H painted in a new type of camouflage composed of large splotches of the three colors commonly applied by the Germans. This tank was abandoned by the Germans near the village of Telschen in southeastern Germany during the dramatic struggle between 4.Pz.Ar. and (mainly) the 2nd Polish Army.



In the last weeks of the war, many German armored vehicles were abandoned when they ran out of fuel before reaching safety. Here is an example of such an unlucky vehicle, a very mysterious one that appears to be a Sd.Kfz. 7 half-track, but with a rear superstructure taken from a Sd.Kfz. 4 munitions vehicle.

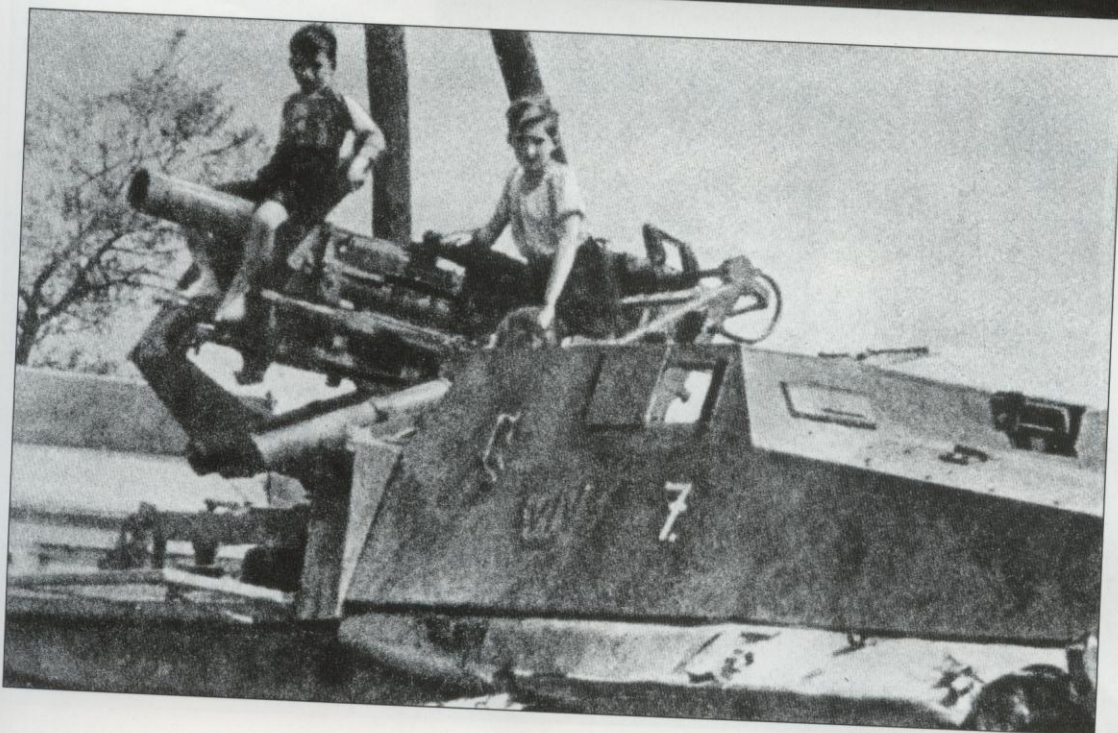


Another unusual vehicle employed by the Panzerwaffe: a Flakpanzer built on — of all things — the chassis of a Pz.Kpfw I Ausf. B (a tank that had not been produced since 1938 and had not been in service since the beginning of 1943!). This vehicle was captured by the Soviets on the street of a German town in the spring of 1945. The armament of the tank is composed of three Drilling 1.5cm MG151/15 heavy machine-cannon from a fighter aircraft. On the engine deck are three ammunition boxes — one for each gun. A few links of track serve as additional armor on the superstructure.



This StuG III Ausf. G was abandoned in the middle of a Berlin street in May 1945. The vehicle is equipped with the "Saukopf" mantlet and the "Saukopf" remote-control machine gun with the small armored shield. During the last two weeks of fighting in the Berlin area, the Germans lost about 850 tanks and self-propelled guns, many of them being abandoned due to breakdowns or lack of fuel. The Soviets claimed that they destroyed over 1,700 enemy tanks, however.

A front view of the same StuG III Ausf. G. This vehicle is in very good condition and is likely abandoned by its crew due to lack of fuel. The Battle of Berlin began on 16th April and by 2nd May, it was all over. General Karl Weidling, Commander of Berlin, offered unconditional surrender to the Soviets.



Deadly tools of destruction during the war, after the fighting ended the armored fighting vehicles of the Panzerwaffe became some of the favorite toys for children. Of course, these were replaced by smaller and safer plastic model kits in subsequent years. Here we see an example of such "toy" — a very rare vehicle, the 13.5-ton half-track *schwere Wehrmachtschlepper* (sWS) and the remains of a 3.7cm Flak 43 anti-aircraft gun. Note the markings on the armored cab — the stylized letter "L", the emblem of the Panzer-Lehr Division. Painted in white is the number "7" (it is possible that it is the company number), and the stencil of "VIV" appears in black between these two markings. A camouflage pattern is just barely discernible.

