

Introduction to German World War 2 Patterns

By Michael Farnworth

The German armed forces (Wehrmacht) were the first military to issue camouflage widely. Starting from 1932, all units received some camouflaged items. Between 1931 and 1945, the Germans created at least 14 different patterns and produced many of them in two or more colour variants. To complicate matters further, each pattern has many different names.

There are several books on the subject but few introductory articles. This article attempts to give an overview of the patterns and identify which pattern was used for which garments. Several examples are shown. Most of these are digital paintings made from reproduction garments. Some are based on actual garments in militaria sales.

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German Army and Airforce Patterns

The German Army was not the first to issue camouflage to soldiers but they were the first to issue it to every soldier. Army patterns follow a relatively simple development path with each pattern having a clear link to the predecessor. Most were issued in one colour scheme. Army smocks and parkas often reverse to white.

<u>Pattern</u>	<u>From</u>	<u>To</u>
Splittermuster 31 "Splinter Pattern"	1932	1945
Luftwaffe Splittermuster 41 "Airforce Splinter Pattern"	1941	1945
Army Sumpfmuster 43 "Swamp pattern" (Tan and Water)	1943	1945
Army Sumpfmuster 44 (Tan and Water)	1944	1945

Camouflage shelter quarters (Zeltbahn) were issued from 1932 to all units of the army (Heer). These can be worn as a cape or used to construct various hides and tents.



Splittermuster 31



Also Known as	Splinter Pattern, Heeressplittermuster, Splinter A, Buntfarbenaufdruck 1931
First Issue	1932
Used until	1945
Known items	Zeltbahn, Helmet Cover, Smock, Reversible winter Parka, Overtrousers, plus several informal items made using zeltbahn fabric.
Used By	Army (Heer), Airforce (Luftwaffe), Paratroopers (Fallschirmjager)

This was the main army pattern from 1932 to 1942. The pattern dates from First World War paint schemes used on ships and land installations. It was issued to all units except Waffen SS. Uniform items for Luftwaffe were updated in 1941 and army uniforms were updated to new patterns from 1943, but zeltbahns continued in this pattern up to 1945.

It consists of green and brown geometric shapes printed onto a grey or beige ground. An additional rain pattern of fine green lines is printed on top of the pattern. There are two colour variants but they are very similar. Zeltbahns usually had the light colour version on one side and the darker one on the other side. The pattern was printed using rollers and repeats every 44cm.

A rare variation in brown and beige shades with no green is also known but was possibly only experimental. In 1945, a variation was made with a black infra red reflective overprint but it does not appear to have been used in combat.

Splittermuster 41



Also Known as	Splinter B, Luftwaffesplittermuster
First Issue	1941
Used until	1943
Known items	Helmet Cover, Paratroopers smock, grenade bag and bandoleers, Field jacket
Used By	Airforce (Luftwaffe), Paratroopers (Fallschirmjager)

This is a development of Splittermuster 31 for use on Luftwaffe smocks. The geometric shapes are smaller and more numerous. It was first used for the Invasion of Crete in 1941.

A rare diffused version similar in colours to Sumpfmuster 43 is probably a transitional item as production changed over to Sumpfmuster.

Sumpfmuster 43



Also Known as
First Issue
Used until
Known items

Swamp camouflage, Tan and Water 43
1943

Used By

1945
Helmet Cover, Reversible winter Parka, Overtrousers, Paratroopers smock and bandoleers, Field jacket, Apron, Chemical warfare suit.
Army (Heer), Airforce (Luftwaffe), Paratroopers (Fallschirmjager)

This was a very widely used pattern. It is a development of Splittermuster 31. The pattern is enlarged and open. The base colour is dark beige or even tan with maroon and dark green overprints. The edges of the geometric shapes are slightly diffused. The pattern is often referred to as tan and water 43.



Painting Tip > Paint the garment in coffee, and then use dilute flesh ink and PVA wash to create shadows. Add green stripes and maroon blobs. If you are careful, you will get angular shapes with sharp edges. If not, paint over the edges of the green and maroon sections with coffee to make the angles sharper. On small scale figures ignore the rain overprint.

Sumpfmuster 44



Also Known as
First Issue
Used until
Known items

Tan and Water 44
1944

Used By

1945
Helmet Cover, Reversible winter Parka, Overtrousers, Paratroopers smock and bandoleers, Reversible smock with hood, Apron, Chemical warfare suit, M1944 uniform.
Army (Heer), Airforce (Luftwaffe), Paratroopers (Fallschirmjager)

This was a very widely used pattern. It is a further development of Sumpfmuster 43. The colours are similar but the pattern is more diffused. The base colour is tan and the overprints are maroon and dark green. Colours are almost identical to late war tank camouflage. The edges of the

geometric shapes are blurred. The pattern is often referred to as tan and water 44. Parkas and overtrousers are often reversible with white as the other side.



Painting Tip > Paint the garment in tan, and then use dilute flesh ink and PVA wash to create shadows. Add green stripes and maroon blobs. On small scale figures ignore the rain overprint.

Waffen SS Patterns

There are seven distinct sets of Waffen SS patterns and many of them were made in a variety of colour schemes. To complicate matters further, they each have many different names. There are many books on this subject so a short article can only offer an introduction.

Smocks, helmet covers and zeltbahns were issued to Waffen SS soldiers from about 1937. The early patterns were issued as reversible garments with a predominantly green “spring” colour scheme on one side and a predominantly brown “autumn” colour on the other side.

The Waffen SS patterns were developed along different lines to the army patterns. They are organic shapes based on sunlight patterns in woodland. They were developed by a team lead by Professor Otto Schick.

<u>Pattern</u>	<u>From</u>	<u>To</u>
Platanenmuster “Plane Tree Pattern”	1937	1943
Rauchtarnmuster “Smoke Camouflage Pattern“	1939	1944
Palmenmuster “Palm Pattern”	1940	1943
Eichenlaubmuster “Oak Leaf Pattern”	1941	1945
Telo Mimetico 1929 (captured from Italians)	1943	1945
Erbsenmuster “Pea Pattern”	1944	1945
Leibermuster “Body Pattern”	1945	1945

Plane Tree pattern (Platanenmuster) was the first to be used. There were several colour schemes and three pairs of pattern variations. The first patterns 1 and 2 were hand printed on huge zeltbahn sized screens with no pattern repeat. Later versions have a repeating pattern with 5 and 6 being very similar to Oak Tree designs.

Plane Tree was updated with a diffused black overprint in 1939, the new version being called smoky camouflage (Rauchtarnmuster). This was commonly used for smocks.

The 1940 issued Palm Pattern (Palmenmuster) has leaf shapes in the overprints. This was only used for smocks and is very rare.

In 1941, a completely new Oak Leaf pattern (Eichenlaubmuster) was issued. Oak Leaf was used for several items including smocks, parkas, helmet covers and uniforms. It was widely used until the end of the war.

In 1944, Pea Pattern (Erbsenmuster) was introduced. This was an all season camouflage and only appeared in one colour scheme. Two piece uniforms consisting of trousers and smocks were issued.

In 1945, a new pattern called Body Pattern (Leibermuster) was the first to incorporate infra red reflective inks. It was intended to become the standard pattern for all uniforms and was prototyped in several different garments. However, the war ended as the issues were starting so very few German soldiers actually received the pattern.

The last two patterns, Erbsenmuster and Leibermuster, have had a strong influence on modern NATO camouflage.

Late war Waffen SS soldiers often wore a mixture of patterns. Soldiers in a unit often also had a mixture of patterns. In France in summer 1944, soldiers wore Oak Leaf, Smoky pattern and Italian camouflage. By winter 1944, Pea pattern uniforms with Oak Leaf pattern zeltbahn and helmet cover were common. Winter parkas in Oak Leaf and Pea pattern were used and both reversed to white.

Platanenmuster



Also Known as
First Issue
Used until
Known items
Used By

Plane Tree Pattern
1937
1943
Zeltbahn, Helmet Cover, Smock M38, M40, M42, Cap M43.
Waffen SS

There are six numbered variations of this pattern. The numbers are distinctive and are printed within the pattern. On reversible garments and zeltbahns, they usually come in pairs 1 with 2, 3 with 4 and 5 with 6. The numbers refer to the printing screens which appear to be common for each pair of patterns.

The earlier 1 and 2 patterns were printed manually on screens big enough to print zeltbahns. The pattern does not repeat across the whole 2 metre width of the screen. Smocks frequently have obvious pattern breaks at the elbow seam. 3 and 4 appear to be an update with a repeating pattern for machine printing.

Later plane tree patterns 5 and 6 have a 45cm repeat as they were roller printed, and, from a distance, they resemble oak leaf patterns. Daniel Peterson describes this pattern as Eich-Platanenmuster

Garments and caps are nearly always reversible with a spring colour scheme on one side and autumn colour scheme on the other side. On reversible smocks, the collar and waist hem often show the spring pattern on the autumn side of the garment.

Rauchtarnmuster



Also Known as
First Issue
Used until
Known items
Used By

Blurred Edge Pattern
1939
1944
Helmet Cover, Smock M40, M42, Cap M43.
Waffen SS

This appears to be a development of the later plane tree 5 and 6 patterns with the edges of the pattern diffused. This pattern was widely used for smocks. On reversible smocks, the collar and waist hem often show the spring pattern on the autumn side of the garment.

Palmenmuster



Also Known as
First Issue
Used until
Known items
Used By

Palm Tree Pattern, Forrest Pattern
1940
1943
Smock M38, M40.
Waffen SS

This one of the rarest patterns and is only known to have been used on early designs of smocks. The colours are very similar to plane tree pattern but the design has distinctive leaf and flower shapes in the overprint.

Eichenlaubmuster



Also Known as
First Issue
Used until
Known items

Oak Leaf Pattern, Dapple camouflage
1941
1945

Zeltbahn, Helmet Cover, Smock M40, M42, Cap M43, reversible parka and overtrousers. Also used for camouflage uniforms, probably both M43 and M44, tank wrap jacket and tank crew overalls.

Used By

Waffen SS

Oak Leaf is one of the most popular late war patterns and one that appears in the widest variety of garments. There were two variations, Oak A which started in 1941 and Oak B which started in 1943. Both were used up until 1945. The patterns are very similar from a distance but if you look closely, the highlight spots in Oak B have a thin dark border. Daniel Peterson describes Oak B as Beringt-Eichenlaubmuster (ringed oak leaf pattern). Both patterns were printed with rollers and repeat every 44 cm.

Garments and caps are nearly always reversible with a spring colour scheme on one side and autumn colour scheme on the other side. On reversible smocks, the collar and waist hem often show the spring pattern on the autumn side of the garment.

There are several variations of colour scheme including some with a mushroom grey colour which often appears lilac in photographs. Spring colour schemes usually have beige coloured ground with black and bright green overprints. Autumn colour schemes have coffee or mushroom coloured ground with black and orange overprints.



Painting Tip > Paint the garment in coffee, and then use dilute flesh ink and PVA wash to create shadows. Paint overlapping dark brown dots. Finally, add small orange dots for an autumn colour scheme or lime green dots for a spring colour scheme. For ringed oak leaf pattern, paint small circles and figure eights with the dark brown colour.



Telo Mimetico (Italian Camouflage)



Also Known as	Italian Camouflage, Mimetic Cloth
First Issue	1943
Used until	1945
Known items	Zeltbahn, Helmet Cover, Cap M43, reversible parka and overtrousers. Also used for camouflage uniforms, probably both M43 and M44, tank wrap jacket and tank crew overalls, Paratroopers smock.
Used By	Waffen SS and other units including Hitler Youth and Police

This pattern was created in 1929 and issued to Italian forces. It was the first pattern to be silk screened on fabrics. It is also the longest used pattern and was still in use by Italian forces up until about 1990.

When the Italians capitulated in 1943, the Germans took over large stocks of fabric. This was used by many units for zeltbahns and garments. Many unofficial garments were also made with this fabric. Reproduction garments often use a post war Italian colour scheme which has a turquoise green instead of olive.



Painting Tip > Paint the garment in olive green then add wavy stripes of chestnut brown. Finally paint beige lozenges.

Erbesenmuster



Also Known as
First Issue
Used until
Known items

Pea pattern, Dot 44, Trompfenmuster,
1944
1945

Used By

Reversible parka and overtrousers, Camouflage uniforms M43 and M44, tank wrap jacket and tank crew overalls, Waffen SS

This pattern was produced from mid 1943 and issued in 1944. It was used on several uniforms. The commonest colourway is olive green background with overprinted spots in bright green, beige and black. It was made in one colourway to suit both spring and autumn and the uniforms were not reversible. Winter parkas and overtrousers reversed to white. The pattern became famous during the Battle of the Bulge. This pattern was not used on official production of caps, helmet covers, zeltbahns or smocks. Helmet covers were occasionally made in the field. Paratroop smocks have also been found but these are not believed to have been used in combat.

This pattern is very similar to the modern German Flecktarn (spot camouflage).



Painting Tip > Paint the garment in olive green. Add small amoeba shaped blocks of beige and black, then add clusters of tiny dots using beige, black and bright green.

Liebermuster



Also Known as	Body pattern
First Issue	1945
Used until	1945
Known items	Camouflage uniform M44, possibly M43.
Used By	Waffen SS

This pattern was the first to incorporate infra red reflective inks. It was intended to become the standard pattern for all uniforms and was prototyped in several different garments. However, the war ended as the issues were starting so very few German soldiers actually received the pattern.

Surviving samples have faded to nearly white, so the exact colours are unclear. The pattern appears to consist of a pale green ground colour with diffused chestnut and olive green overprints. These are topped with a black disruptive print. Photographs appear to show M44 jackets with M43 trousers.

The pattern became very important after the war as the basis for Czechoslovakian Liebermuster, Swiss Liebermuster and American ERDL patterns. ERDL eventually developed into the US Woodland pattern.

Further Reading

Andrew Mollo: *The Armed Forces of World War 2* (Little, Brown and Company)

This book is a very useful overview of uniforms and insignia. There are 250 colour drawings and 100 photographs which cover every nation involved in WW2.

Andrew Steven & Peter Amodio; *Europa Militaria No6: Waffen SS Uniforms in Colour Photographs*. (The Crowood Press)

A very useful book with 150 colour photographs showing original uniforms and equipment.

Calvin Tan; *Osprey Modelling 23: Modelling Waffen SS Figures*. (Osprey Publishing)

This is a master class for detailing and painting 54mm scale figures.

Daniel Peterson; *Europa Militaria No 17: Wehrmacht Camouflage Uniforms and Post-War Derivatives* (The Crowood Press)

Daniel Peterson; *Europa Militaria No 18: Waffen SS Camouflage Uniforms and Post-War Derivatives* (The Crowood Press)

These books are aimed at military uniform collectors and contain details of real and fake garments.

Michael D. Beaver & JF Borsarello: *Camouflage Uniforms of the Waffen-SS: A Photographic Reference*. (Schiffer Publishing)

Werner Palinckx & JF Borsarello. *Camouflage Uniforms of the German Wehrmacht*. (Schiffer Publishing)

Osprey books are also very good but there are several which touch the subject, so it is difficult to recommend one item.