

**CAMOUFLAGED UNIFORMS
OF THE WAFFEN S.S.**

Part two.

J. Borsarello

D. Lassus



ISO-GALAGO PUBLICATIONS



CAMOUFLAGED UNIFORMS OF THE WAFFEN S.S. Part two.

In this highly specialised series on camouflaged uniforms by world expert Dr Borsarello of Paris, France, there are approximately ten publications. Waffen SS Part One launched the series. The second part of the Waffen SS is number two and the Wehrmacht study is number three. Further studies on the Nato camouflaged uniforms and the Warsaw Pact camouflaged uniforms will be published shortly.

Every effort has been made to keep the final colour prints as close to the original colours as possible. Dr Borsarello has over 200 camouflaged suits in his collection and is always interested in new developments and other research in this subject in order to ensure that these studies are as accurate in detail and information as research and correspondence can reveal.

Further studies in this Borsarello Collection series will include the other camouflaged suits of WW2 and Asian Wars from 1956 to 1989. In addition ISO Publications has produced a re-designed copy of the WW2 investigation of German camouflage suits by the US Army known as the Richardson Report.

ACKNOWLEDGEMENTS

The publishers acknowledges with appreciation the help given by the following during the preparation of this study:

ECPA PARIS, MUNIN VERLAGE BOOKS, John C. Havers, C. R. Thompson.

Cover Photo: Two piece suit 1944 pattern non-reversible.

Rear Cover Photo: PALM TREES AND CLUMPS PATTERN

Good general view showing the famous leaves of this design.
Helmet Cover is Oak Leaf pattern.

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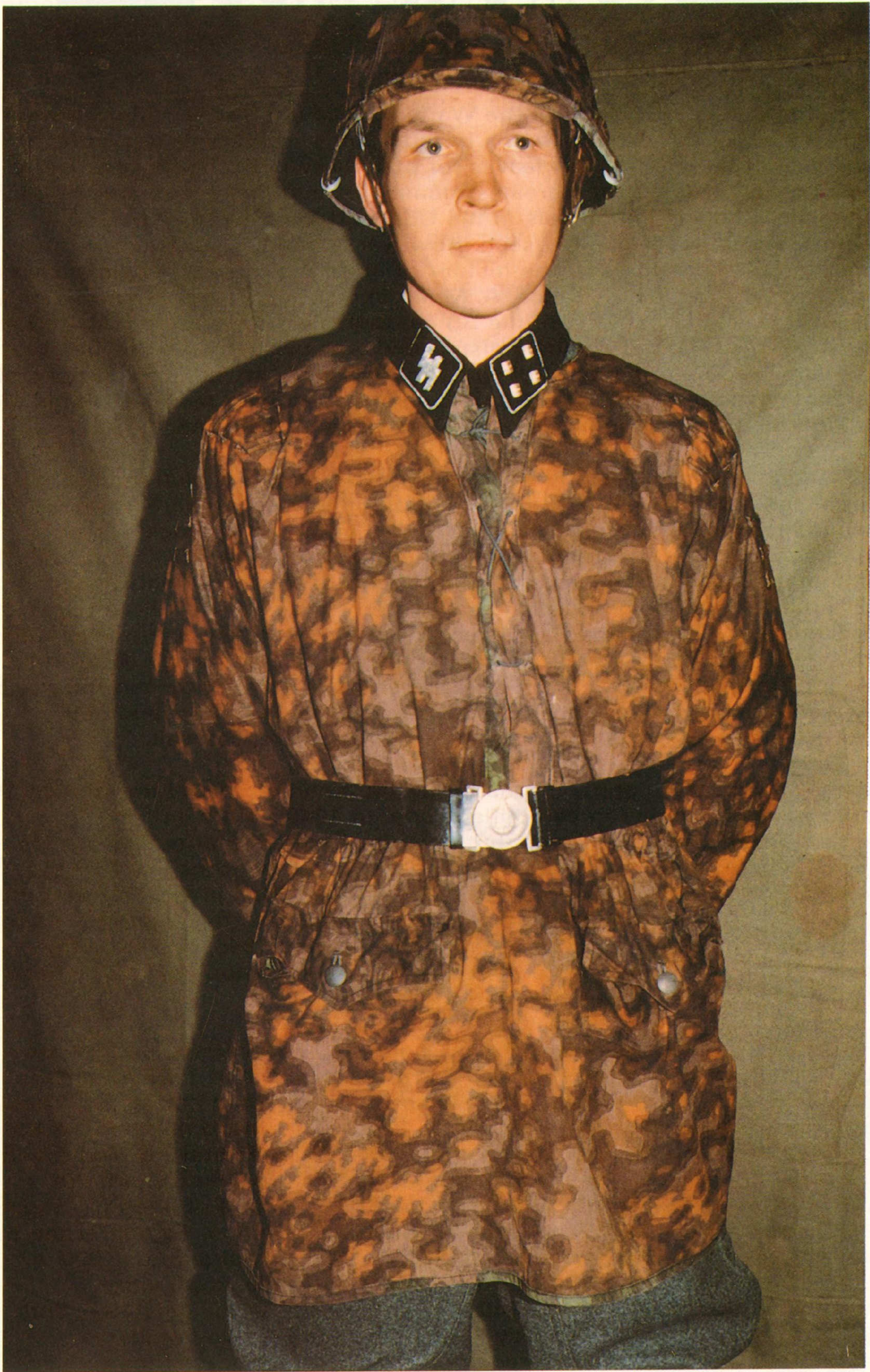
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BURRED EDGE PATTERN

СМЯТОК ГЕОМЕТРИЧЕСКИЙ



BURRED EDGE. Autumn side. WSS officer equivalent to Major.

CAMOUFLAGED UNIFORMS OF THE WAFFEN S.S.

In the first part of our study of the Waffen SS camouflaged uniforms we showed the use of design patterns based upon observations in nature, principally of bunches of oak leaves, or plane tree bark. These suits were produced and issued in the greatest quantities, and nowadays predominate amongst the collectors markets in the USA and Europe. They are the cheapest and most frequently seen. However, when we study the serious reports and observations of the history of uniformology by people such as E. Lefevre and D. Lassus in France, A. Mollo in UK, and Petersen in USA, one realises that all the patterns of the SS camouflage suits were distributed at the same time. The most widely distributed was undoubtedly the Oak Leaf and Plane Tree patterns, but in Poland in 1939 one can see photographs of all the other patterns, including those we are describing in this second study, although they were seen in very small numbers at that time.

This second part of our study will explain the different evolution of this camouflage. Between 1939 and 1942 cotton linen was regularly used for SS camouflage clothing, field blouses, particularly, but also forage caps, quartershelters, and helmet covers. In the period between 1943 and 1945 the clothing changes and becomes quite different. Each soldier will wear only one pattern – the green and pink peas pattern. A two piece suit for Spring and Summer, and a padded two piece suit with hood and gloves for Autumn and Winter. Obviously many of the old types remained, forage caps and helmet covers and field blouses were observed in Normandy and Russia, but they were destined to disappear. Also many SS units in Italy adopted uniforms made up by Italian machinists – a sort of replica suit.

Eventually, it became apparent that both the Wehrmacht and the Waffen SS should have one common camouflage suit. In 1945 such a suit the "Leibermeister" was introduced, but few were ever distributed before the war came to an end in 1945. Of the six camouflage patterns used by the Waffen SS in World War Two, only two were described in the first part of our study. In this second part we shall look at the final four patterns – two of which were not produced in quantity until 1944 and 1945, revealing the determination of the German authorities to pursue camouflage study despite serious defeats both in the East and the West.

Two patterns, the burred edge and the palm tree and clumps pattern are quite old, in fact they were studied by Prof Otto Schick in 1937 and made by many factories – Warei Patentxelte, Walter Forster, Anton Joring etc. These two patterns were tried out in Poland in 1939 and forward units of the SSVT and Panzer Division Kampf used them. In 1942 55 Gr Fuhrer Pol was given responsibility for provisions of this type of material for the SS (4th 9th bureau Kaiser Allee in Berlin). At this time 42,300 metres of linen per month were produced for making field blouses or 6,000 ponchos. To appreciate the value of this camouflage material; it is worth noting that some 92,000 soldiers of the Waffen SS (apart from LSSAH and Totenkopf) wore camouflaged uniforms in May 1940, more than 200,000 by July 1941 and 300,000 by August 1942. It is easy to see that the Germany military authorities were anxious to protect their troops to the best of their ability. It had been estimated that good camouflage could reduce casualties by 15%.

BURRED EDGE PATTERN

This pattern was used to make quartershelter ponchos, helmet covers, field blouses and forage caps. These were reversible – green for Spring and Summer, brown for Autumn and Winter.

They were also used to camouflage heavy padded winter parkas and trousers which had a white reversible side. This white side was achieved by covering the heavy padded material with a light linen printing.

When this pattern was first seen, observers thought it was an error, a bad batch of dyeing etc due to the jagged and chamfered edge. However, as more and more of this camouflage was observed with forward units as the war progressed, it soon became clear that this was no production error.

Three varieties of design pattern existed, even three types of bath dyeing, and some designs were dense black, while others were a woody brown. This design was much more efficient than preceding patterns and seems to have been created for foggy seasons, perhaps the haze and mist of areas such as Russia and Poland.

It is important to remember that all types of camouflage patterns were on test between 1937 and 1944. This was proven when in 1944 two completely new patterns were introduced and the older patterns were abandoned in favour of these new designs – the 44 Peas pattern, and later the famous LEIBERMEISTER in 1945, of course.

It was a difficult time for the German Army, and only a few units in Russia and Normandy were ever issued with the 44 Peas pattern. For the rest, the older types would be worn until the end of the war. If the war had continued, however, all troops would have been issued with the 44 Peas pattern.

BURRED EDGE: Left Field Blouse. Right: Winter Padded Parka.



BURRED EDGE: Hitler Youth in Normandy. Munin Verlag





BURRED EDGE Summer side.
Officer's blouse in twill.



BURRED EDGE: Winter
reversible white padded parka,
Autumn - rare.



BURRED EDGE: Close-up view of the Autumn side of this blouse.



BURRED EDGE: Padded Parka Autumn side with hood. Rare.



BURRED EDGE: These reconstruction photos show different pieces of equipment in the burred edge pattern.





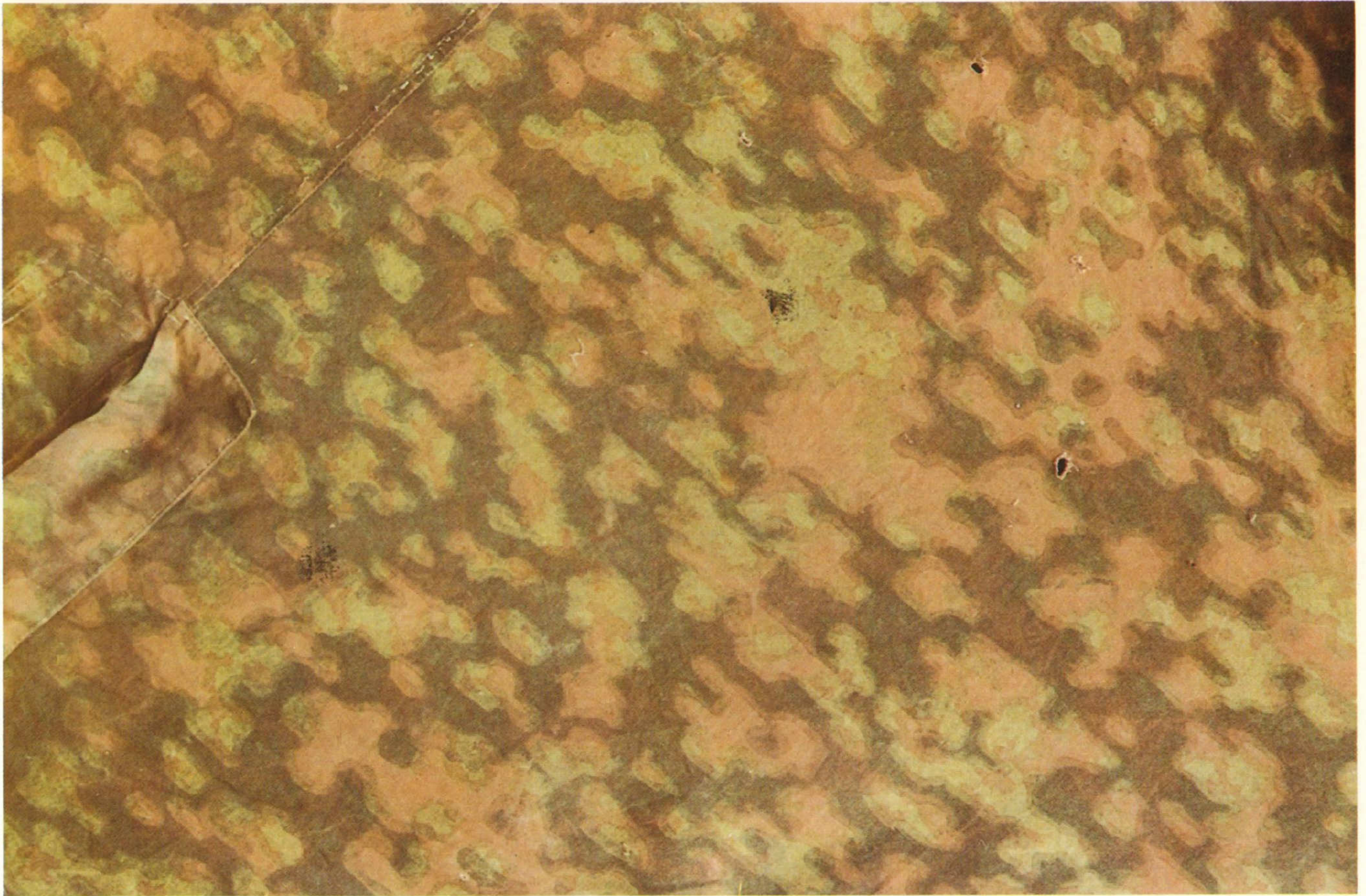
BURRED EDGE: 1/2 Combat Group in Normandy looking for help from the Luftwaffe.



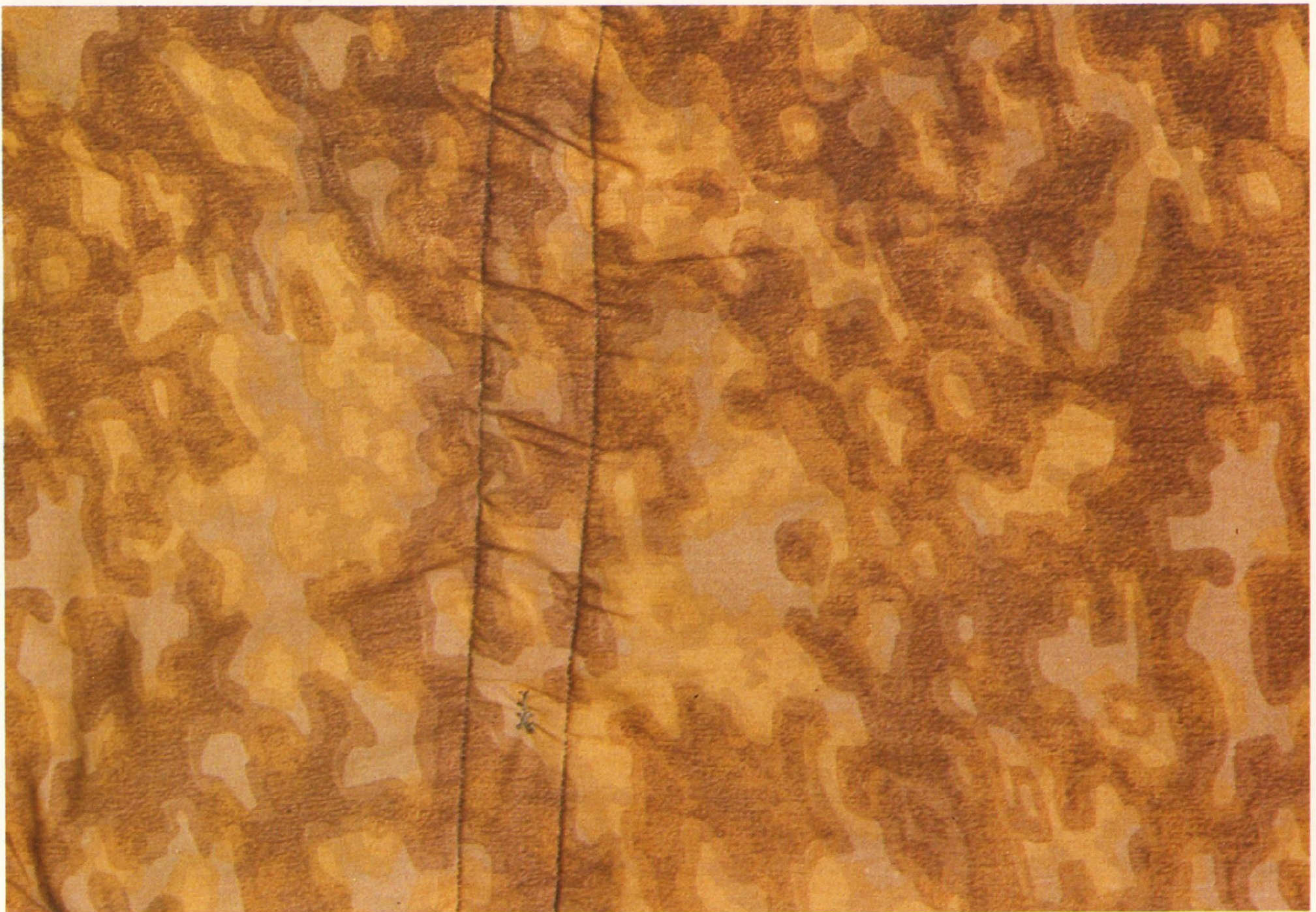
BURRED EDGE. Field Blouse. Combat Group in Russia.



BURRED EDGE: Young fighter wearing the burred edge pattern field blouse with 44 pattern trousers. The Helmet Cover is made of Oak Leaf pattern. This was often seen in Normandy in the summer of 1944.



BURRED EDGES: Summer Green Side.



BURRED EDGE: Autumn Brown side.

PALM TREES AND CLUMPS PATTERN

This type of pattern is quite precise because the design is repeated every 50 cm across the material. It was only used to make Field Blouses. No helmet covers, quartershelters or forage caps were ever made out of this pattern.

It is the only figured pattern, with bunches, flowers, strokes, long leaves. . . etc and it is not exactly clear why it was designed.

When the first Field Blouses appeared early in 1939 many people suggested a tropical uniform, perhaps for the later Afrika Korps, but the Afrika Korps only used a sand pattern, khaki, without any patterned camouflage.

The efficiency of this pattern was never demonstrated, and it seems as if the design was quickly dropped.

It remains a pattern which is rarely seen today by collectors, although there were very many pieces in circulation between 1938 and 1946. Apart from examples in France, England and Belgium as well as the USA in museums, perhaps only one or two at the most, we know of only 10 collectors having one, that is just how few that have survived.

The palm trees and bunches pattern contain three types of drawing and remember all these patterns are reversible, green side for Summer/Spring, brown side for Autumn/Winter.

1. Long leaves generally pointed, placed on the arms.
2. Strokes and flowers generally in bunches on the base.
3. Dental saw type all over front and back of the blouse.

The pattern being repeated every 50 cm, it can be seen to have two bunches, and often two types of leaves.

N.B. This pattern was not used for padded winter parka nor trousers.



PALM TREE AND CLUMPS.
Field Blouse.
Photo Munin Verlag



PALM CLUMPS PATTERN: PAK anti tank gun crew in Russia.



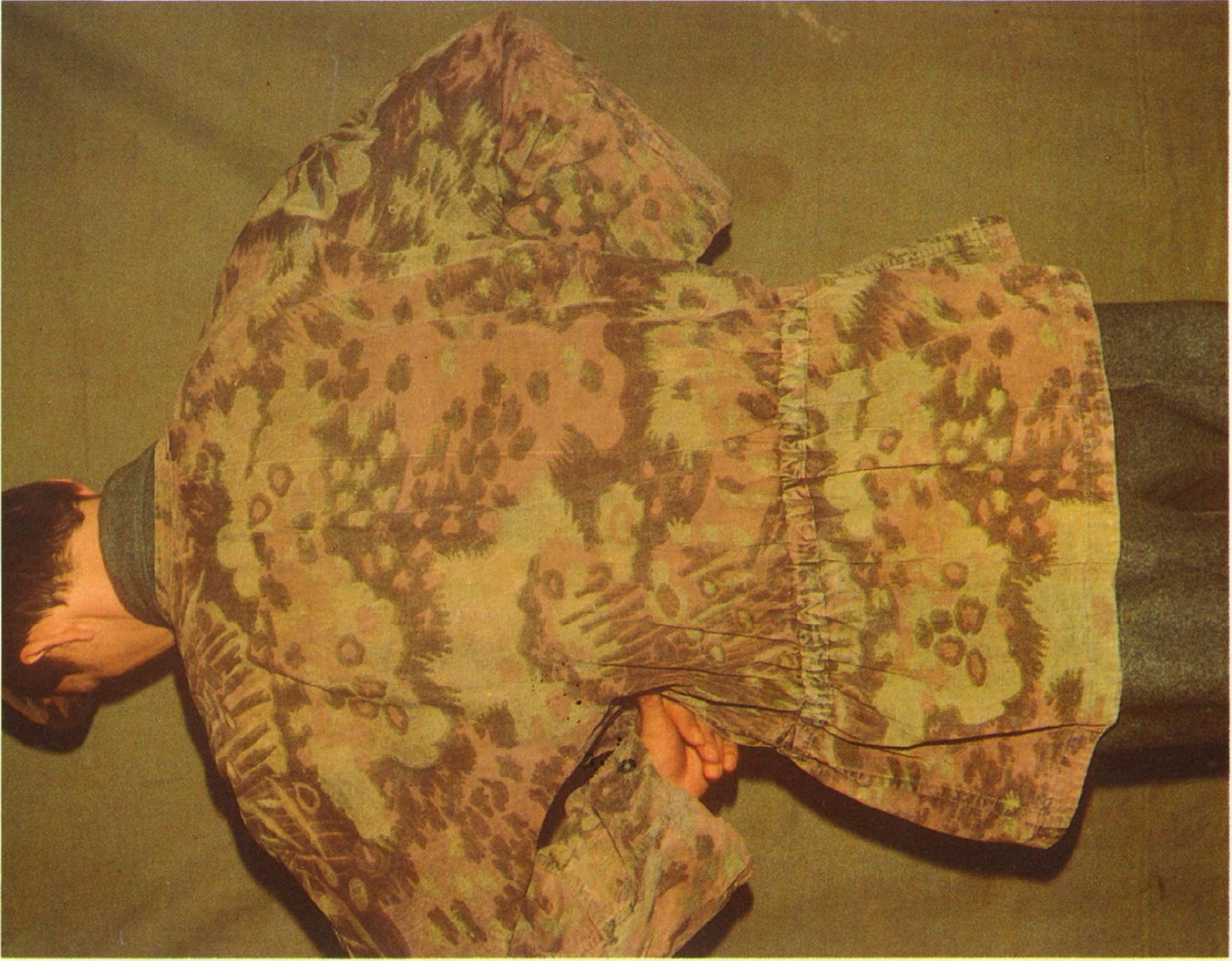
PALM CLUMPS PATTERN: Waffen SS helping load bombs on a Luftwaffe aircraft.
Photo: ECPA, Paris



PALM CLUMPS PATTERN: Sleeve showing pointed leaf and saw edges.



PALM CLUMPS PATTERN: Generally the clumps were on the back shoulder.



PALM AND CLUMPS PATTERN: Summer side of the PTC Field Blouse.



PALM TREES AND CLUMPS PATTERN. Further view of this pattern on the back of the Field Blouse.



PALM AND CLUMPS PATTERN. In Russia fighting against Russian tanks.
Below: WSS observer with PTC pattern.



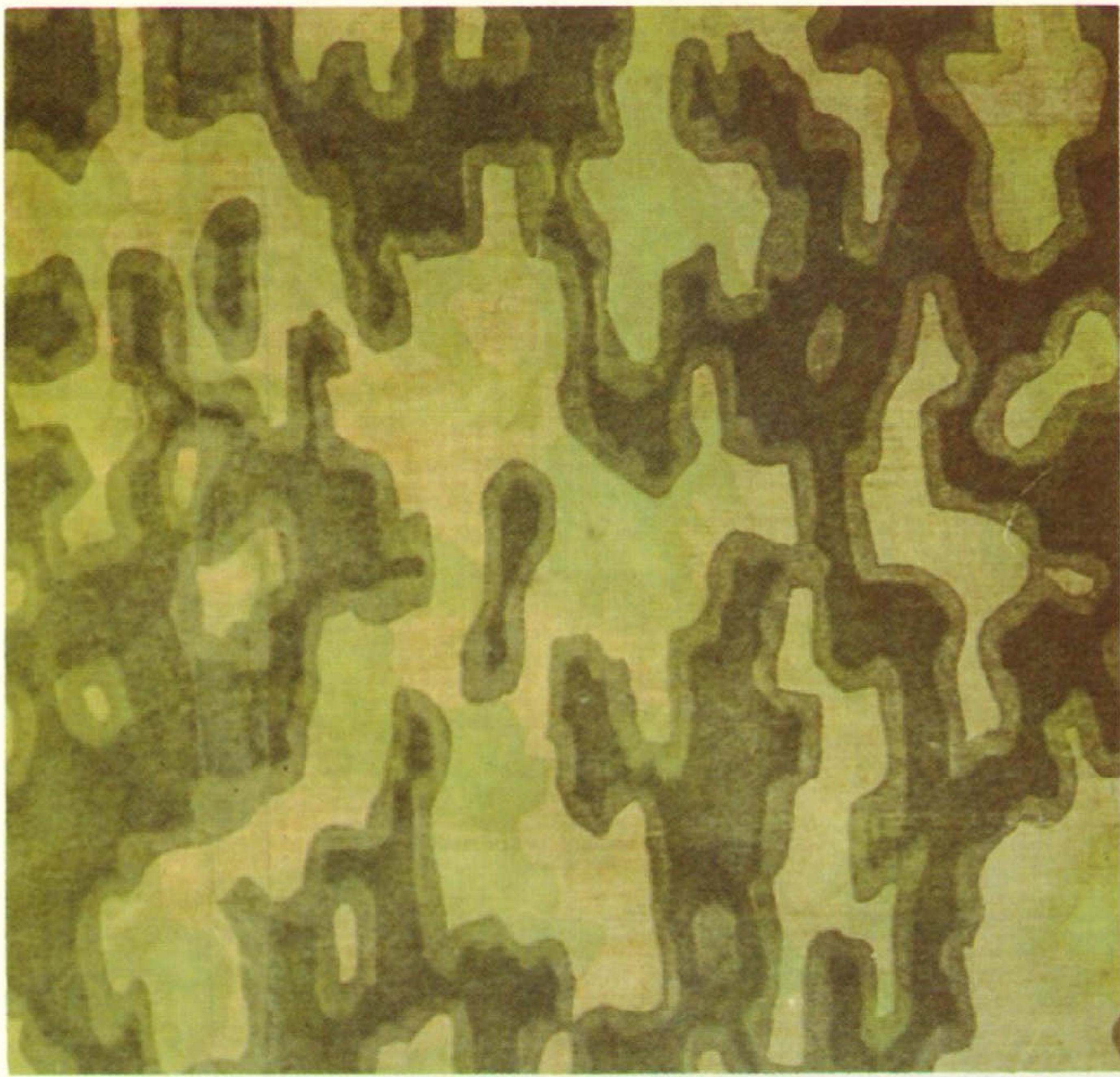


PALM CLUMP PATTERN
Photos of combat groups wearing this pattern (at the left).

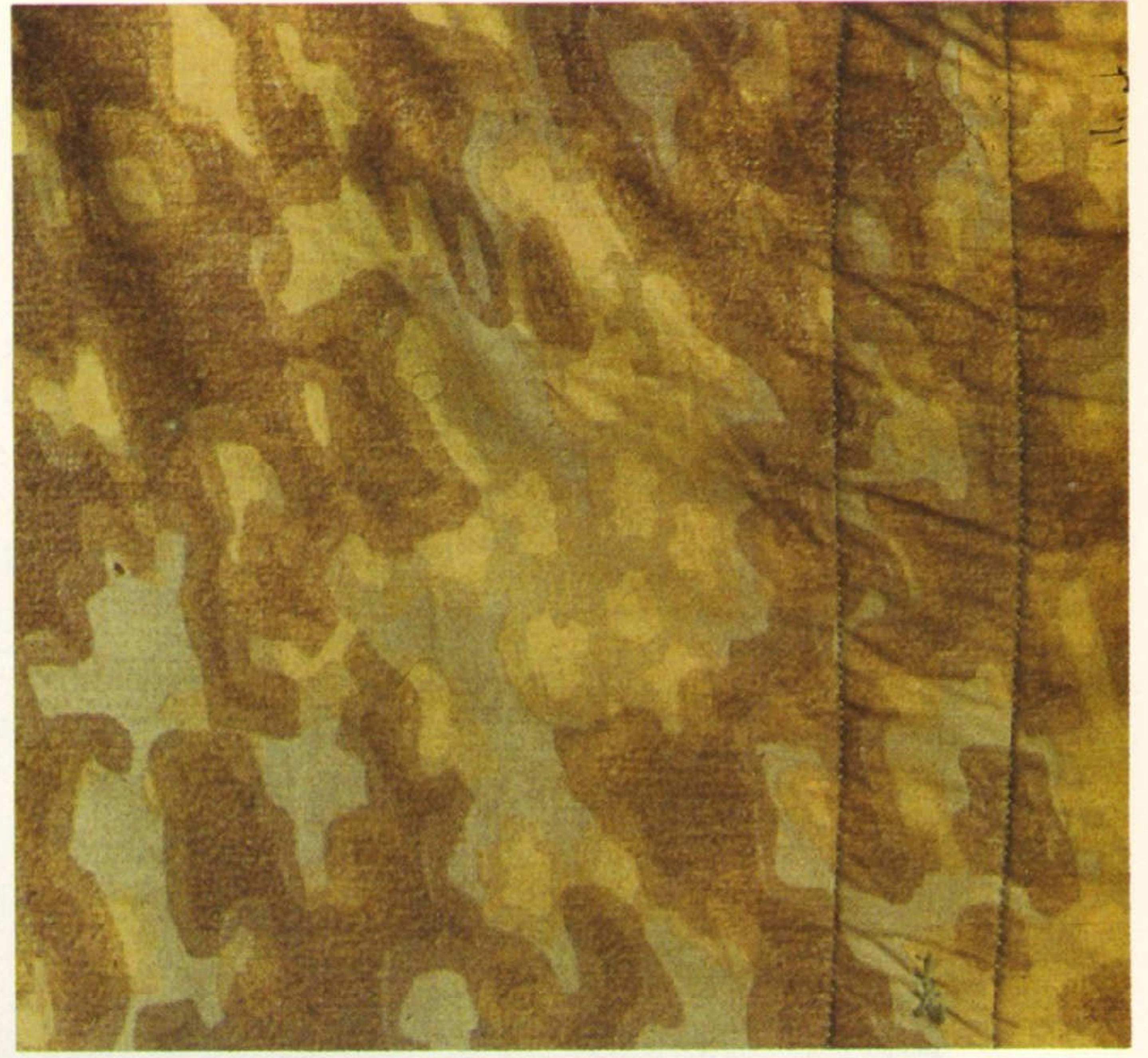
Photo: Girsonne, Paris



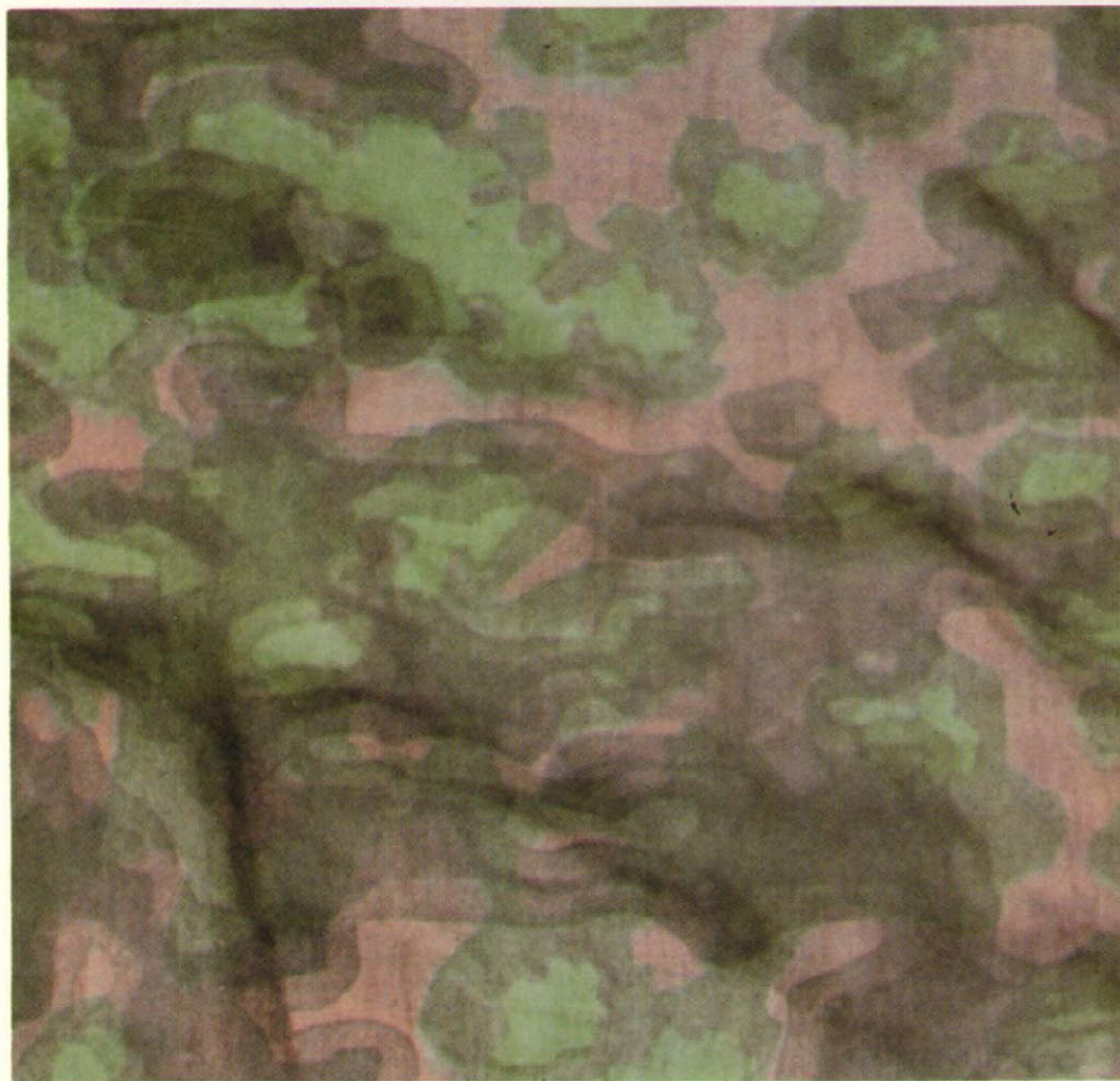
PALM CLUMP PATTERN
Two close-up views of the PTC Field Blouse are seen in this photo of mail distributing.



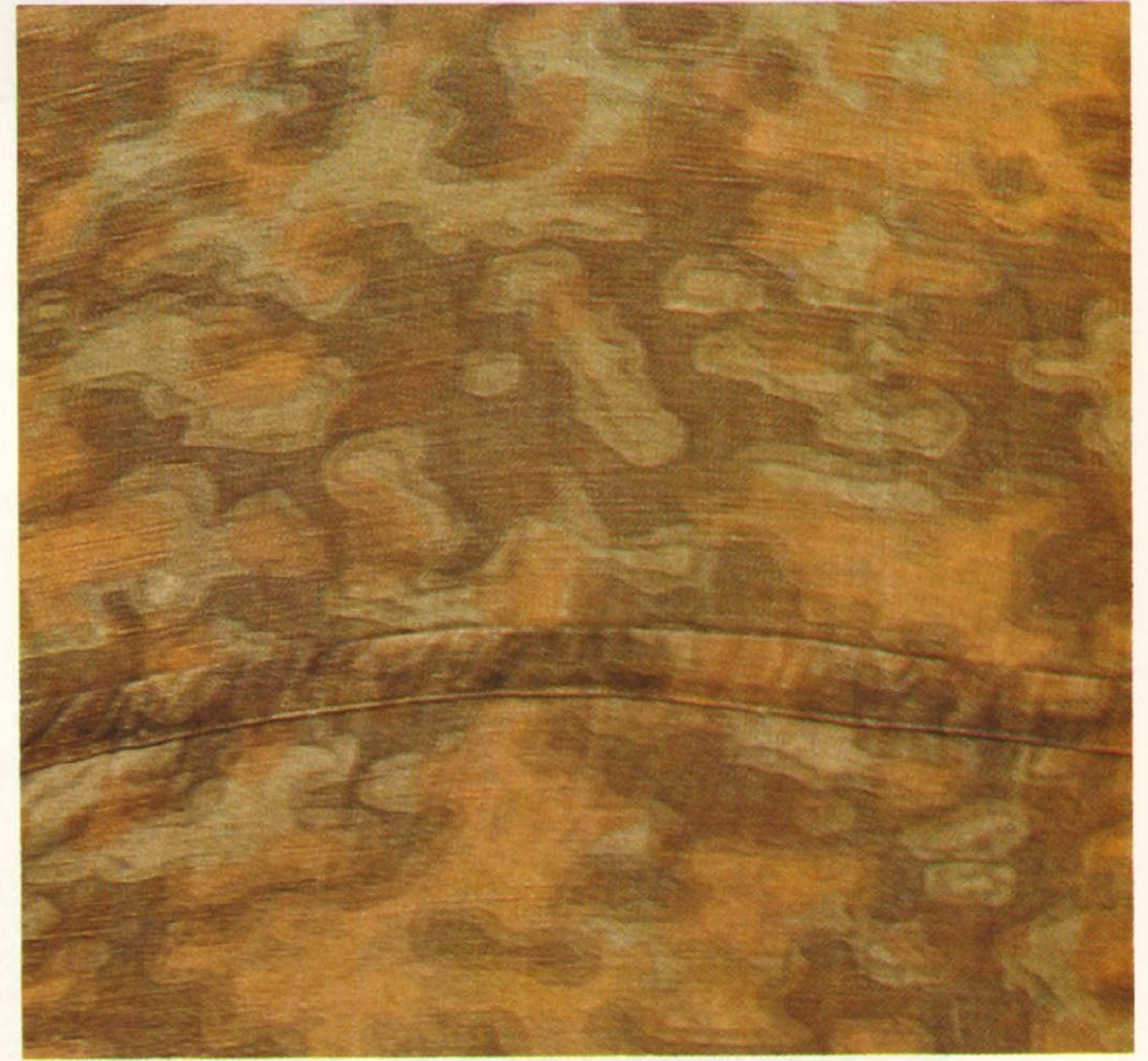
BURRED EDGE PATTERN
TYPE 1 SUMMER



BURRED EDGE PATTERN
TYPE 1 AUTUMN



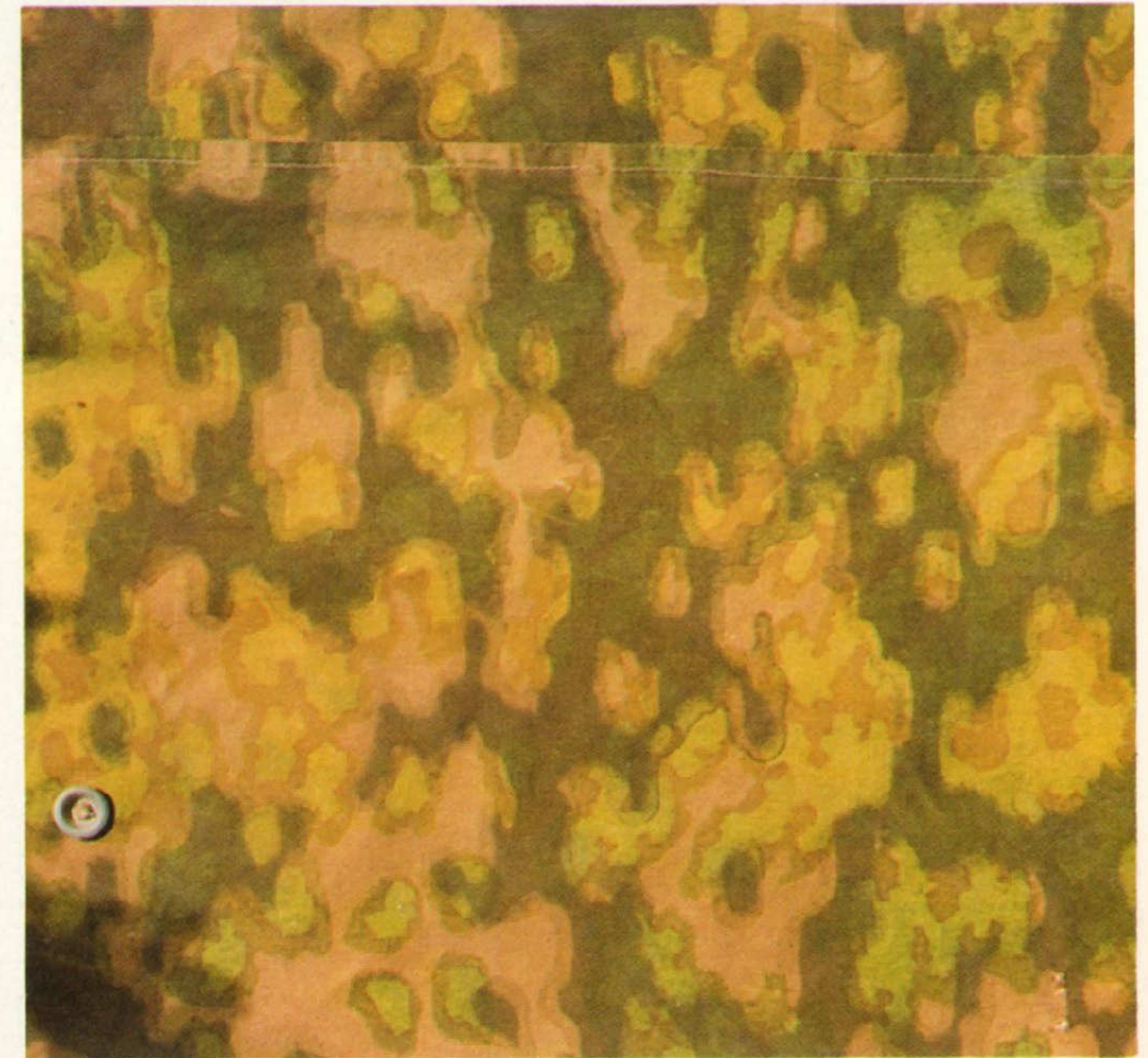
BURRED EDGE PATTERN
TYPE 2 SUMMER



BURRED EDGE PATTERN
Chevron Herringbone Twill Autumn



BURRED EDGE PATTERN
Chevron Herringbone Twill Summer



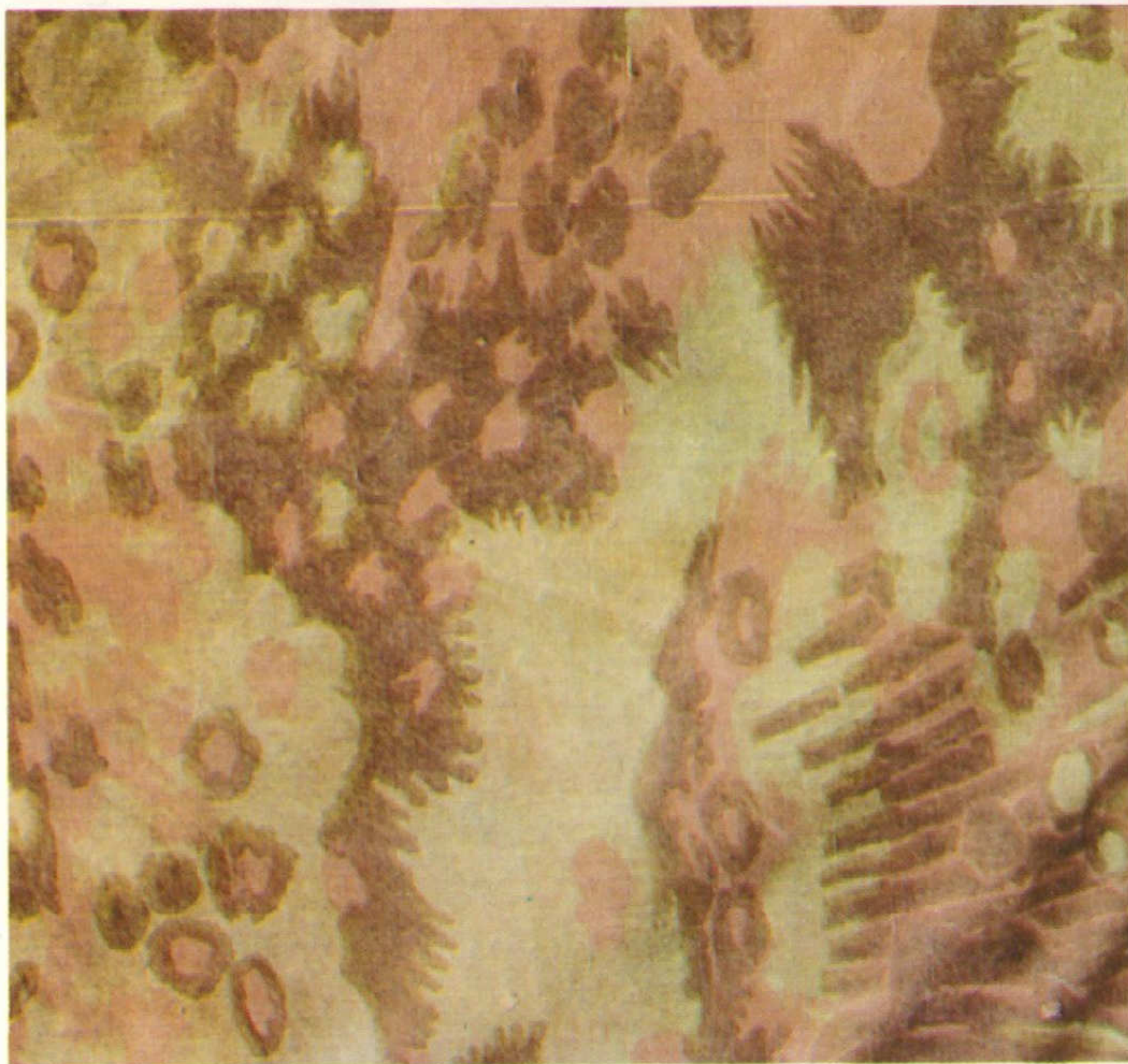
BURRED EDGE PATTERN
TYPE 3 SUMMER



PALM TREES AND CLUMP (PTC) PATTERN
Pattern on back shoulder. Summer.



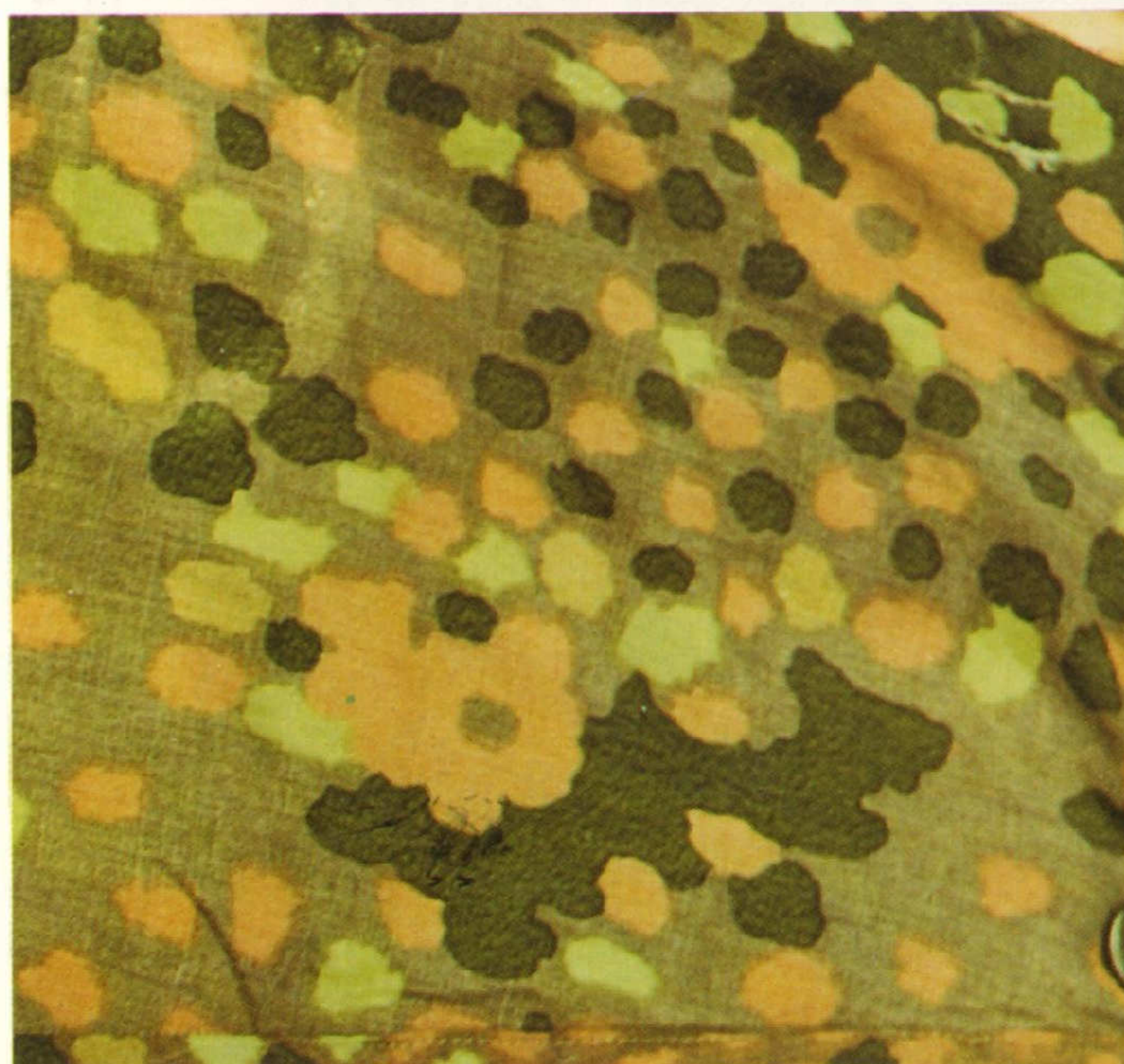
PALM TREES AND CLUMP (PTC) PATTERN
Pattern on back shoulder. Autumn.



PALM TREES AND CLUMP (PTC) PATTERN
General view of this design



PEAS 44 PATTERN TYPE A
Very pink background



PEAS 44 PATTERN TYPE B
Brown autumn background.



PEAS 44 PATTERN
General view.



The SS Officer in the centre of this photograph, taken in Rome, Italy, in 1944 is wearing an Italian made parka material.



PALM CLUMP PATTERN
Photos of combat
groups wearing this
pattern.
Photos: Munin Verlag





PALM CLUMP PATTERNS: Two close-up views of the PTC Field Blouse seen here on its summer side.



In 1943 after the Italian defeat and the change of the Government, the German Army recovered many Italian materials and made Field Combat jackets with it as well as forage caps and trousers, etc.

Left: Field Jacket. Below: Close-up view of this Italian material.





An officer of the WSS wearing an example of the Italian material used to make SS clothing.



In Normandy in 1944 a two piece suit in peas-like material.

Photo: ECPA, Paris

PEAS 44 PATTERN

Entitled "Drillich nock 42", this 1944 camouflage pattern was violently different from any previous design. It was prepared in 1943, but not issued until March 1944. (SS Verordnungsblatt No 5 act 99) and named Getarnte Drillichanging (jacket B/40/trousers B171).

This type of material was used only for two types of clothing:

1. Two piece suit – four pocket jacket and trousers with a light sandy brown liner inside.
2. Two piece tankers suit. Short blouse down to belt level and trousers with flapped pockets.

In some photos one may see what appears to be an overall, but it is probably a suit made in the front line by tailors who have sewn trousers to a jacket cut off at the belt.

Three materials were used as follows:

1. Drill chevrons material. The most common.
2. Cotton night wear without chevrons.
3. Very light material recovering heavy padded material for winter such as parka, trousers, gloves or hood.

Never used for helmet covers (unless non-regulation made in front line) forage caps or quartershelter ponchos, only for two piece suits.

By the BV1d WSS No 4 of Feb 44 (Article 63) it is authorised to wear this type of material, the SS Eagle on the left arm, and the special badge of rank in green on the right arm. 1 to 5 bars for NCOs. 2 Oak leaves and 1–3 bars for C.O's. 4 Oak leaves and 1–4 bars with two oak leaves for Generals with white stars.





PEAS 44 PATTERN. Heavy padded reversible white suit, jacket and trousers, gloves and hood. This suit was issued to troops near the end of the war.



PEAS 44 PATTERN: Left: In the Ardennes, during the Von Runstedt offensive 1944/5. Right: Hitler Youth in Normandy in the summer of 1944.
Reconstruction Militaria Magazine, Paris. Photo: Deschot



PEAS 44 PATTERN. Hitler Youth troops in Normandy.

Photo: ECPA, Paris



This Field Blouse with black peas is NOT a 44 pattern but in fact a PLANE TREE pattern!



These three reconstruction photos are based on the PEA 44 PATTERN and show scenes typical of Normandy in 1944.



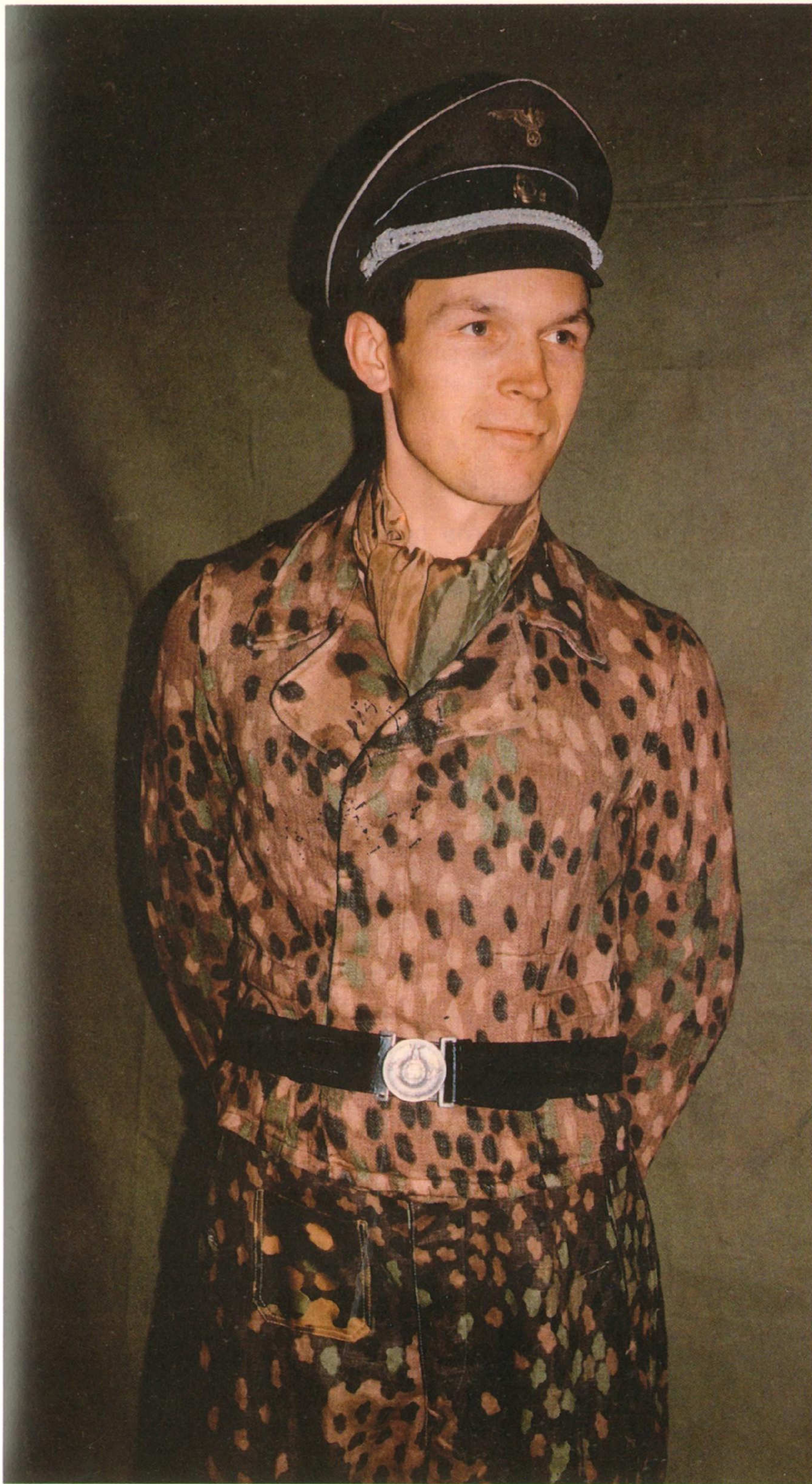


PEAS 44 PATTERN German paratrooper in this pattern depicted at the Bastogne Museum.

Photo: Courtois Bastogne, Belgium



PEAS 44 PATTERN. Two piece Waffen SS suit.
Photo: Beraud Collections, Poitiers, France



PEAS 44 PATTERN. The 1944 Peas pattern had been designed to replace all other designs, but the Wehrmacht had chosen the Leibermeister for general issue.

Above: Tankist light jacket in Peas 44 pattern.
Photo: Sanchez, Bayonne, France

Right: Waffen SS with Panzerfaust. The helmet cover illustrated never actually existed but the suit is genuine.



OTHER PATTERN
WAFFEN SS

OTHER PATTERNS USED BY THE WAFFEN SS at the end of the war

At the end of the war, the Waffen SS used many suits made of Italian reproduction material, as seen in many photos on the Normandy front. In such photos can be seen forage caps, overall suits, two piece for tank crews, coats with hoods and some rare field blouses and helmet covers. It is even possible to find some German ponchos (quartershelters) made of Italian material, but triangular and the same size and fabrication as the German zeltbahn.

As explained in the Richardson Report, the German Army created a new pattern, the "Leibermeister" which was quite unknown generally by the technical specialist of WW2. This pattern was ordered in 1944 and distributed in January 1945.

Mr Petersen, an American collector, sent us a copy of this famous report which has now been reproduced by ISO Publications, and this report reveals many tests on all camouflage projects and particularly deception of infra-red detection, even in 1944 at which time no camouflage suit in the world had been protected against such transmissions which the Germans had overcome by the introduction of black carbon into the carbon.

The German Army was alone in this development and prepared a special material with large patterns made of black carbon so that even when subjected to infra-red detection the camouflage was good.

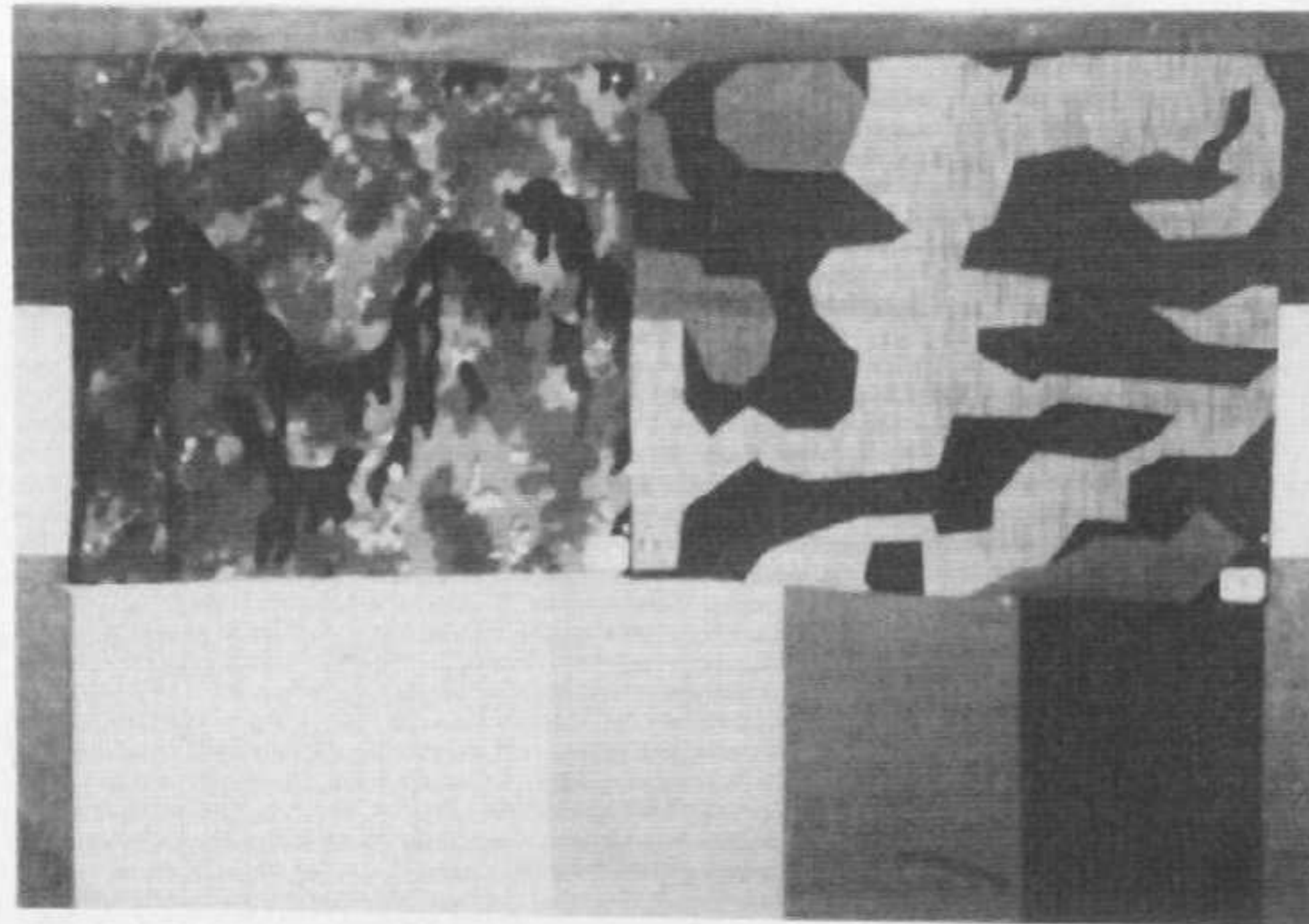
Between 1950 and 1953 Belgium tested this material, but abandoned it. Nobody knows why, but the Swiss Army adopted it in 1955, and kept it so that even today they wear the famous "Leibermeister".

A picture in the German book DIE BUNDESWEHR UND IHRE UNIFORMEN published by Jorg. Horman in 1987 shows, on page 32, that the LEIBERMEISTER was used by the Bundeswehr in 1956 but abandoned.

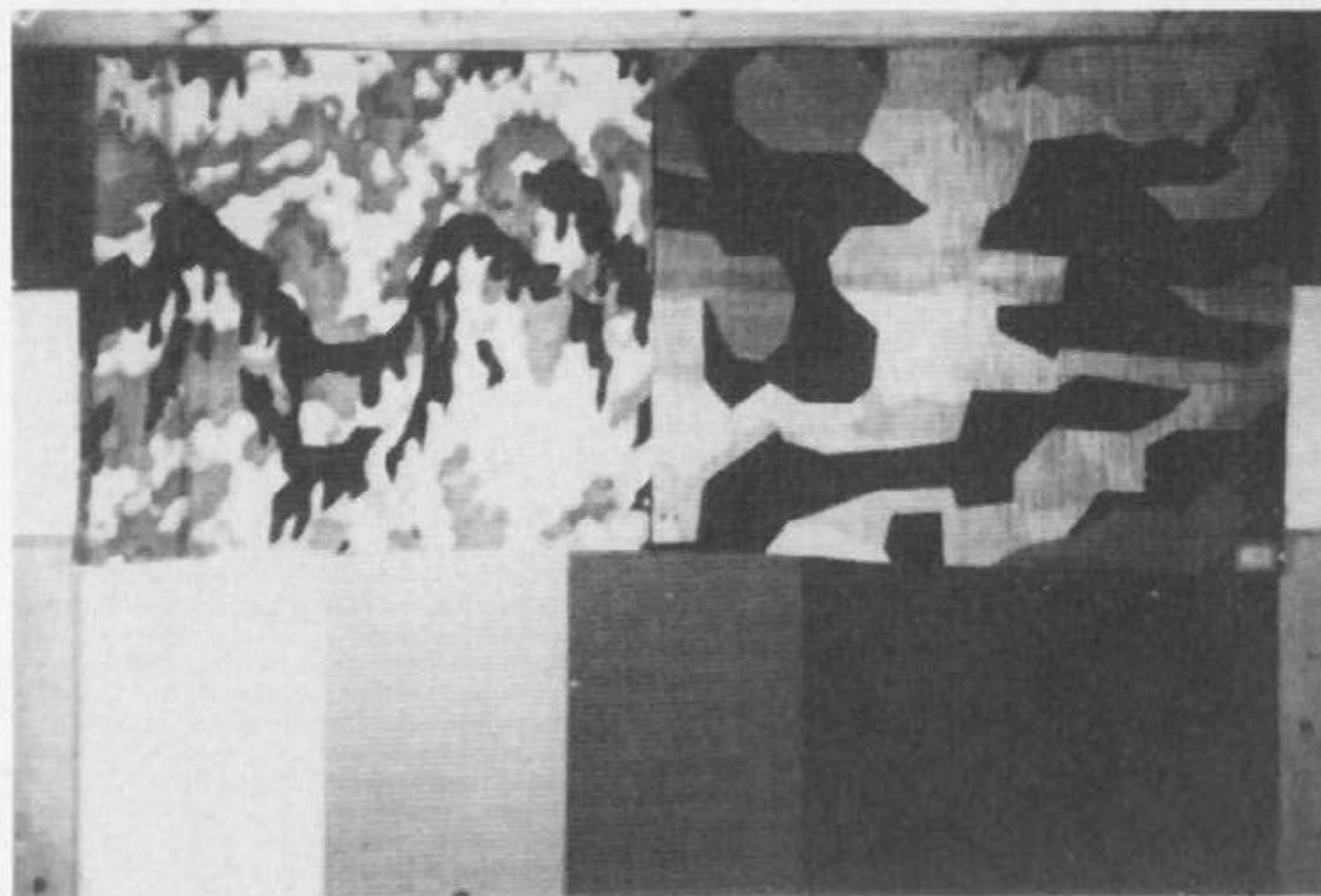


The famous LEIBERMEISTER of 1945.

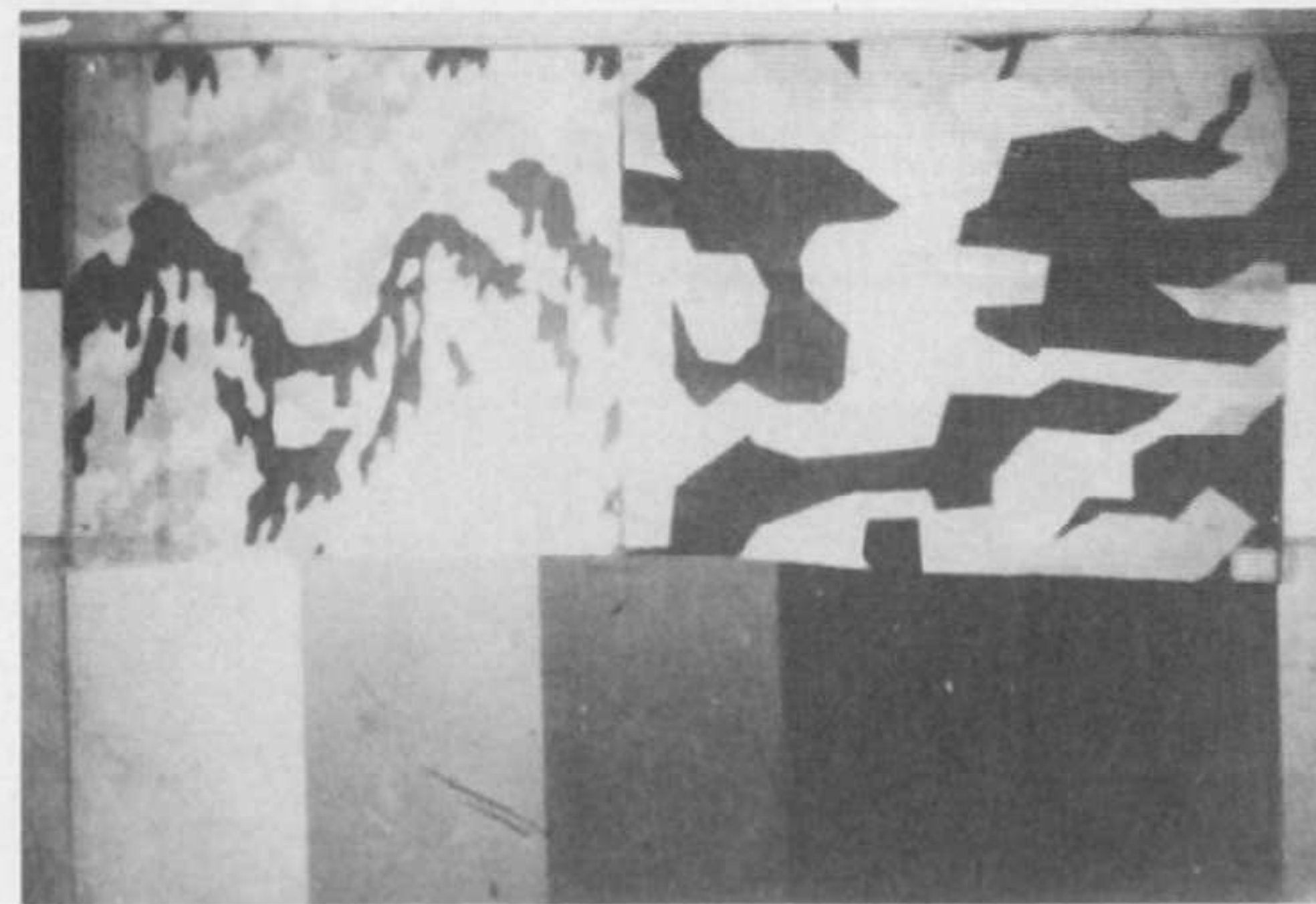
- (1) "Leiber" pattern
- (2) normal army shelter half



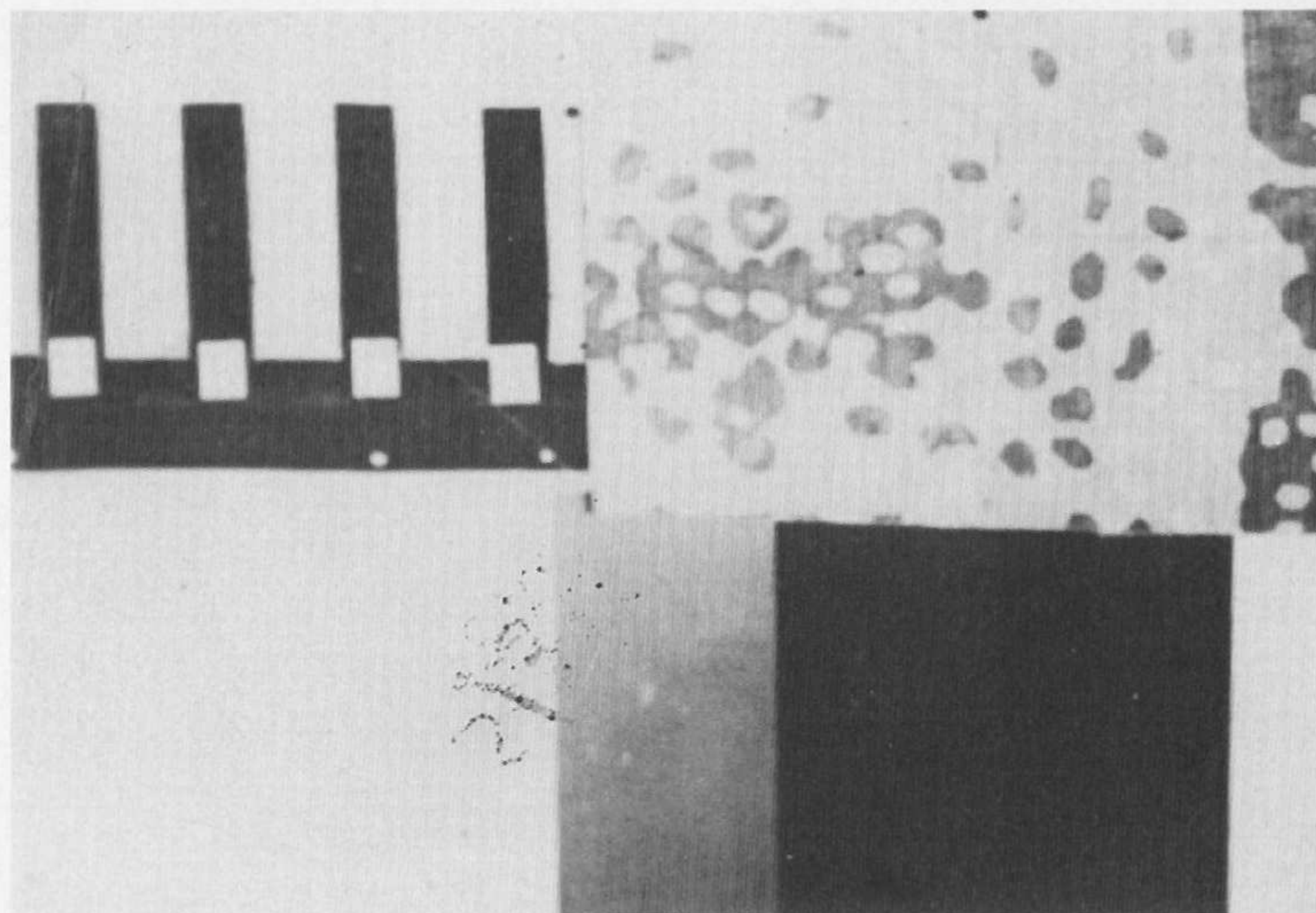
Isopan



Infrared 850 mv



Infrared 1050 mv

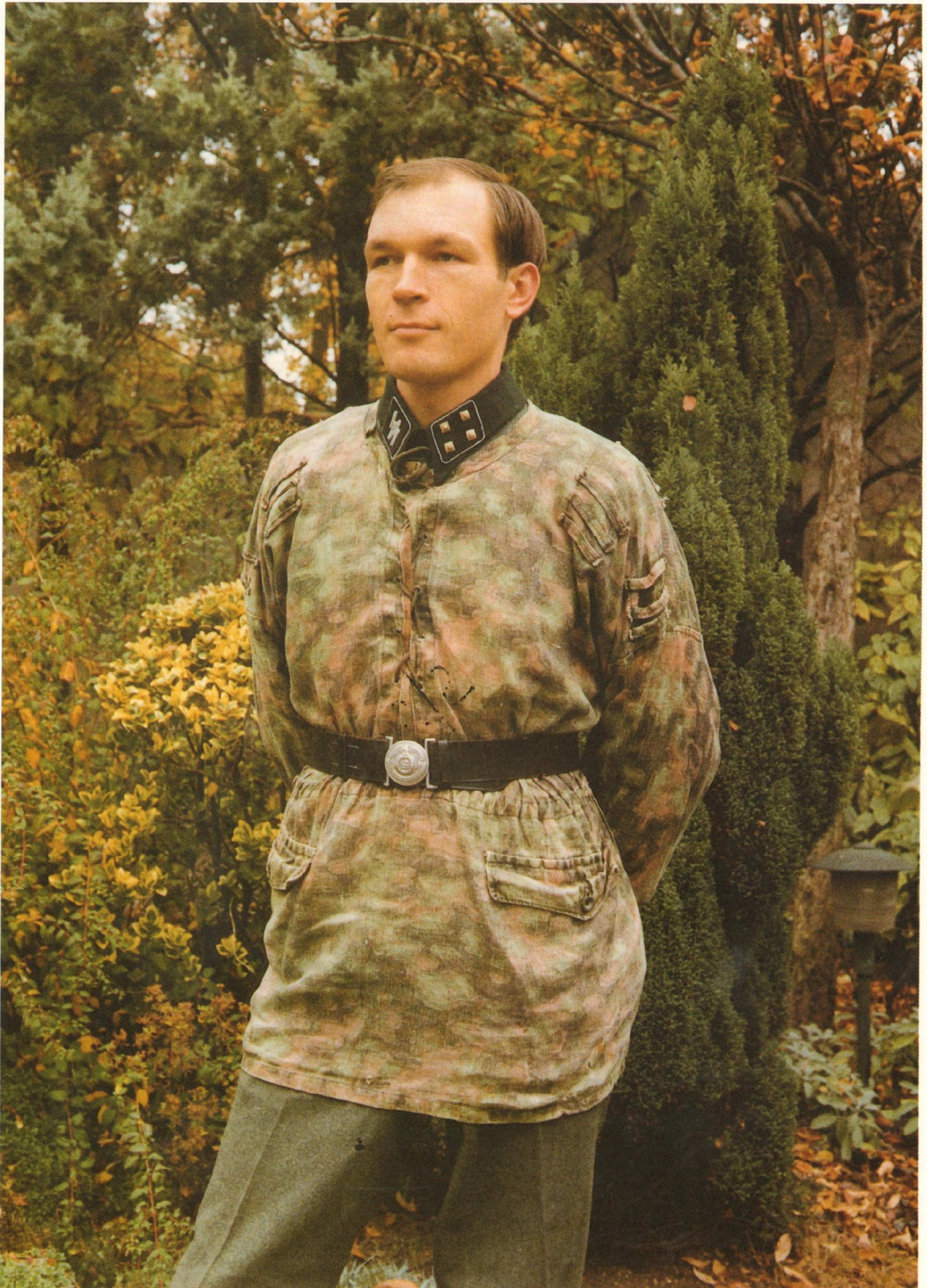


Infrared 850 mv

A single glance at these photos will show the difference between the plane tree pattern (lower) and the new 1945 Leiber pattern (three upper photos) left photo. In the three upper pictures it can be seen that the camouflage effect is normal to the human eye, and at two numbers 850 mv and 1050 mv is for infra-red detection. Even at 1050 mv the soldier is still camouflaged. At 850 mv the plane tree pattern is far less efficient.

At this time no army in the world (1944-5) had a camouflaged pattern using infra-red deception.

OTHER PATTERNS USED BY THE



BURRED EDGE Field Blouse. Rare view of this herringbone twill material. Summer side. Seen here on SS Sturmbannfuhrer.

COMING SHORTLY



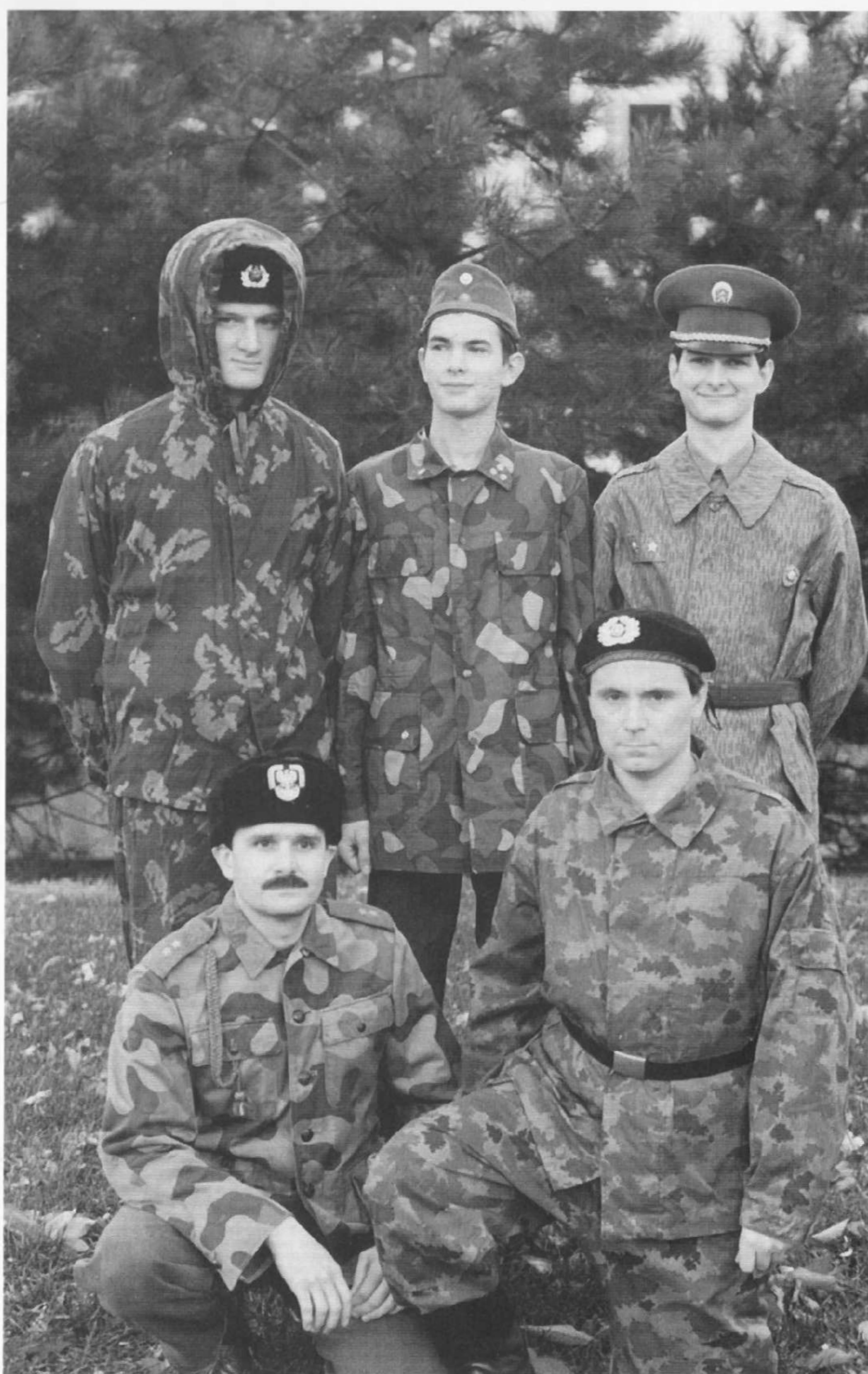
NATO

Camouflaged suits of the NATO forces

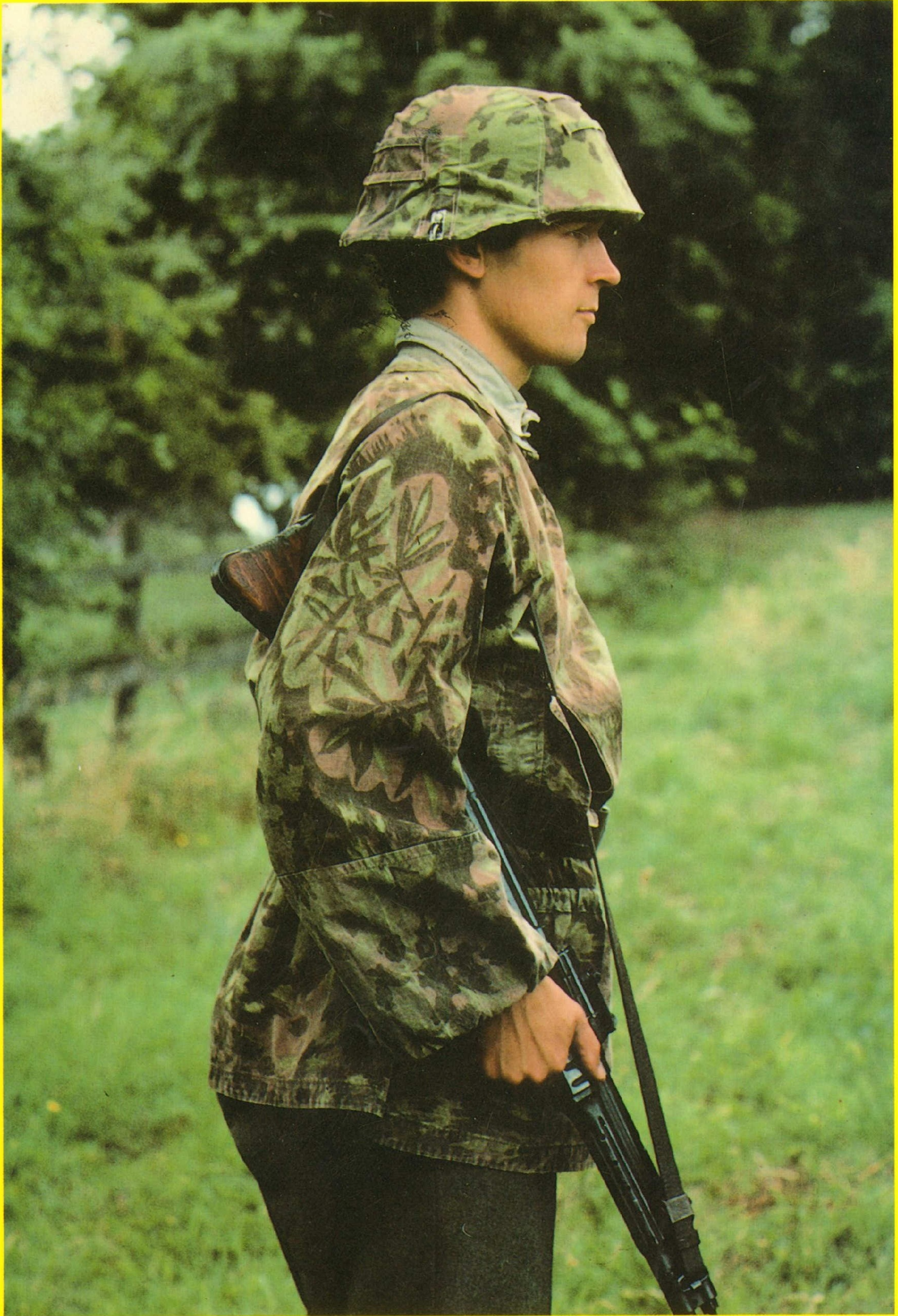
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