

The Klappenrock

A Viking warrior's Coat
from 10th century Haithabu.



Part of helmet; thin, pressed bronze sheets. Found in Vendel. (Sörling)

By Elska á Fjárfelli

∴ For entry in the 2017 A&S competition ∴
At the Festival of the Passing of the Ice Dragon
Barony of Rhydderich Hael, A.S. 51.

Comparison with Extant Fragments.

What has been found?

The klappenrock can have side slits. A piece of a gusset has been found. Anglo-Saxon caftans do not always have a side slit.

The klappenrock is lined, and the lining is often re-used clothing. Mostly wool has been found, though linen would have rotten away, and left no trace.

The klappenrock fabric is dyed, and the edges are trimmed.

The klappenrock can have (fake) fur trim.

The klappenrock front overlaps, and could be held together with a decorated leather belt.

The klappenrock can be pinned or clasped together.

Fabrics found:
2/2 twill, cross twill, diamond twill, herringbone twill

Stitches, Seams & Hems found:
Running stitch and whipstitch.
Type 2 hem (single fold).
Type 19 seam (single fold flat seam)

What did I do?

My klappenrock has a gusset.

My klappenrock is lined with linen.

My klappenrock is made of dyed fabric, and the edges are trimmed with a woven band.

My klappenrock has a piece of real fur trim, as woven fake fur is a lot harder to come by.

My klappenrock fronts overlap, and is held together with a leather belt.

My klappenrock will be pinned together.

Fabrics used:
herringbone twill & linen.

Stitches, Seams & Hems used:
Running stitch and whipstitch.
Type 2 & 3 hem (single & double fold)
Type 11 seam (single fold flat seam)
Type 19 seam (double fold standing seam)
I used a (bartered for) hand processed handspun woolen thread to sew the woolen outer shell and hem the inner linen lining.

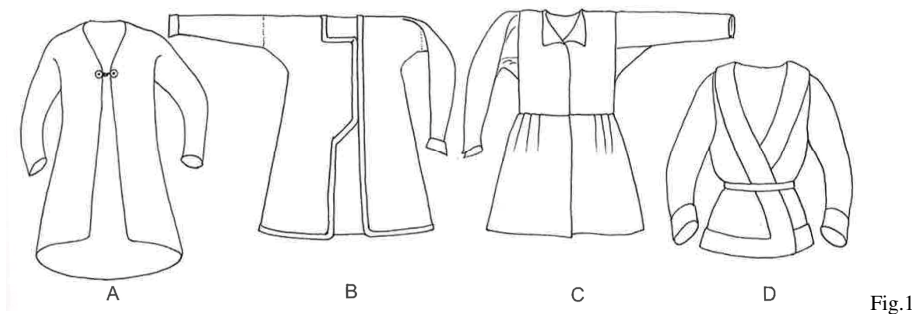
Introduction

Presented before you is a man's coat based on textile fragments found in Viking age Haithabu. Haithabu, in Schleswig-Holstein Germany in our modern times, was one of the major ports of trading of this area. The textiles that were found here were from the 10th century, the golden age of Haithabu. The Haithabu garment finds are especially interesting because they show evidence of advanced tailoring techniques, where instead of just combining geometric shapes several of the pieces found have been cut into shapes that closely follow the body. (Hägg 1984, 171)

What is also interesting is that most of the textile finds at Haithabu come from the harbor where scrap clothing was cut to pieces, soaked in tar and used as caulking in ships. Several ships were found submerged in the harbor in modern times, and due to the tar protection and low oxygen environment (below water) the textile fragments were remarkably well preserved. In addition to the harbor finds, textile remains from the settlement and graveyard of Haithabu were also analyzed, which proved additional information on what the Viking inhabitants of the town were wearing. (Hägg 1984)

What is a klappenrock?

Because of its depiction on the Sutton Hoo helmet, the wrap-over jacket fastened by a belt was quickly dubbed the warrior coat. As it derived from the horse-riding peoples of Asia, it could also be called a riding coat, and it probably reached the west via Iran. Adopted by the Medes and Parthians of the Iranian Plateau, it appears in different styles on metal art and sculptures of the Sasanian (Persian) Empire of the 3rd to 7th century. However, due to the existence of four different male Sasanian garments (see fig. 1) there is some confusion as to style in the archaeological literature. (Rogers, 213-214)



To explain: garment A is a simple coat, garment B a Persian riding coat, garment C the caftan, with reverse collars, and garment D is the wrap-over jacket or klappenrock. Garments B & C were both adopted at the Byzantine court and have been found in Caucasus burials from the 7th century onwards. (see fig 2) They also appear in slight variations in Viking age trading town of Birka, which is located at the western end of the trade route through Russia to Byzantium. Therefore garments B & C became to represent the 7th century warrior jacket, the idea being that it was brought back by Germanic officers returning home, even though there is little similarity in

their constructions. How garment D, the klappenrock, arrived in northwest Europe in the 7th century is unclear, although the same theory that it was brought back by Germanic officers after service in the Imperial Guard may still be correct. Most of the pictorial representations of the klappenrock are from the 7th century, and all depict a warp-over garment with wide borders at front, hem and sometimes cuff, very similar to the Sasanian garment D, except that the hem lowered to the knees, just as the Germanic tunic did after interaction with the Roman world. (Rogers, 214)

The klappenrock does not seem to occur in Viking-time imagery and it is duly lacking on the Bayeux tapestry. The Haithabu fragments are the first identifiable remnants of a garment which in pre-Viking times was frequently illustrated. Because of the gap in pictorial evidence within Viking times, and the difference in styles of the caftan in cultural and geographical context, it is not straightforward to extrapolate what style of klappenrock the Haithabu fragments would have made. Inga Hägg interprets several pieces to be the angled front piece, and postulates the front would have been diagonally closed (Hägg 1984), similar to Sasanian garment D and the longer Anglo-Saxon variant.

The klappenrock fragments from Haithabu indicate a better garment which not everyone would have. Caftans in illustrations clearly indicate outstanding persons of society, which are regarded as warlords and chiefs in the archaeological literature. The figures represent warriors on foot and on horseback, which seem to have worn the klappenrock alternatively with chainmail. Several caftans with the reversed collar design (see fig. 1 & 2) have been found in Birka, in three of the richest men's tombs. Some gold treads were still bent at the same angle as they originally had been sewn on to the reverse collar of the caftan coat.



Fig.2

Two of these tombs also contained rider's equipment and the third had weapons and other reigning symbols, indicating a connection between the caftan/klappenrock and status. There seems to be a fundamental connection between archaeological and iconographic findings, in which the richly equipped caftan jacket consistently characterized men of high rank with their symbols of authority, weapons, animal masks, and horses. Most likely the klappenrock, the former caftan jacket, underwent the usual transformation from pompous garment of the Merovingian ruling class to a middle class garment; now no longer a symbol of an exclusive upper class, it is no longer an object in visual art. (Hägg 1984)

What does a Viking Klappenrock look like?

The assembled klappenrock fragments found at Haithabu show the image of a jacket-like garment, which had an opening of two partially overlapping side pieces. Some of the edges were covered with a border of brushed fabric with a fur-like surface. It could be worn with a belt and can therefore be counted as an outer garment. Among the fragments of this group, the best-preserved piece (Fragment 11) is said to come from a thickly lined jacket with an opening at the front, of which the straight opening front pieces partially overlapped crosswise over the chest. Wide trim was likely sewn on at the edge. Another fabric piece (fragment 19), probably also from jacket, may represent a piece of an edge- with edged trim which consisted of roughened twill with particularly long fur-like fibers. Traces of a belt with bronze buckles and / or bronze belt fittings were found. The majority of the fragments are dyed, indicating the klappenrock was probably a more sophisticated outfit. The outer coat and lining fragments are made out of very different fabric types, with among them the fragments of plain weave, twill 2/2, cross-twill, diamond and herringbone twill, the most common being twill 2/2, cross twill is used only one time. While for linings old garments were used and therefore show the most diverse types of weaving patterns, as a rule, the outer parts of the klappenrock are made with 2/2 twill (with or without roughening). (Hägg, 1984)

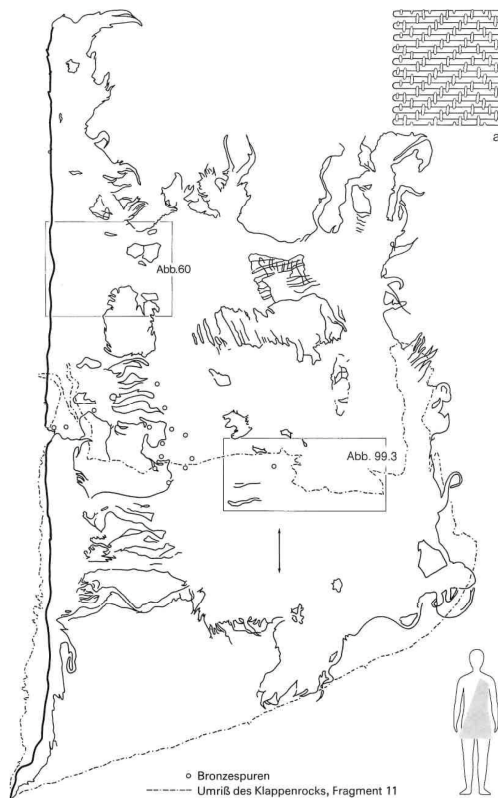


Fig.4

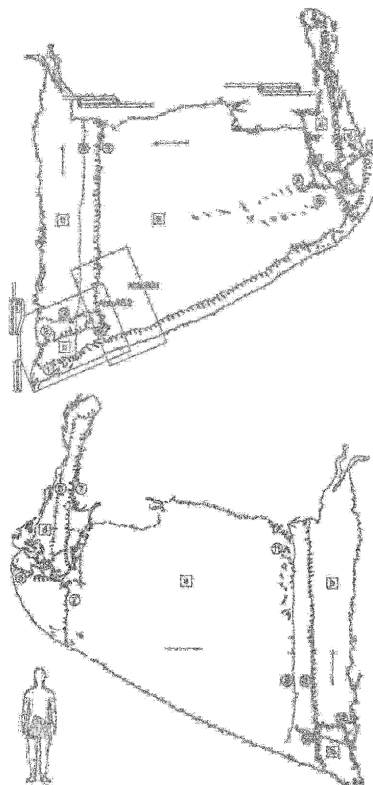


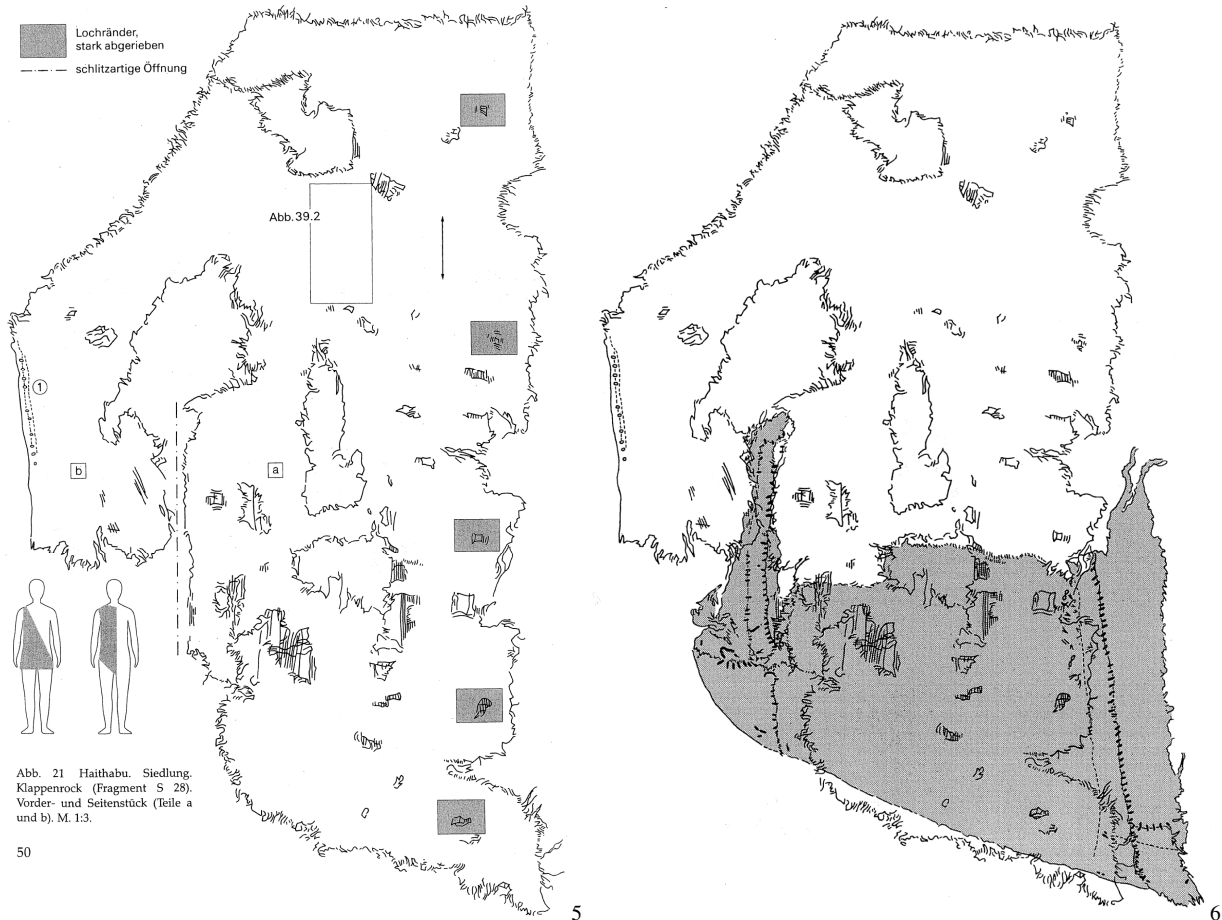
Fig.5

Fig. 57 of Fragment 56 A; Fig. 50 & 51 of Fragment 11 (Hägg, 1984)

Some interesting details on the found fragments

The klappenrock can have side slits.

- One of the found klappenrock fragments has a rounded corner at the side opening of a slit.
- [Appendix; text Fig. 56] The pointy corner as well as the rounded part belongs to the original cut pattern. [Appendix; text Fig. 48-52] Fragment S28 of the Settlement finds also has a slide slit.



Haithabu. Settlement. Klappenrock (Fragment S 28). Front and side piece.

With an overlay of a comparative piece from the harbor finds (Fragment H 11, and Fig. 48). (Hägg, 1991)

The klappenrock is lined, and the lining is often re-used garb.

- On one side of the fabric considerable remains of the sewn-in lining are preserved, [Appendix; text Fig. 48-52] Probably this piece is not the actual garment, but the lining of a klappenrock, for which a piece of old garment was used [Appendix; text Fig. 55-56] The fabric shows strong traces of use, which are mainly due to secondary [re-] use. [Appendix; text Fig. 59-60]

The klappenrock fabric is dyed, and the edges are trimmed.

- The pieces are artificially dyed. The parts are sloppily sewn together; the stitches with yarns in different shades of colors are clunky and distinctly irregular. These features, the visible stitches on the outside, which are clunky and irregular, and the turning towards the outside of the lower edge of the hem towards the outside, are most easily explained by the fact that they have originally been covered by an trim of at least 10 cm wide. [Appendix; text Fig. 48-52] Rogers postulates that the Anglo-Saxon version of the wrap-over jacket or klappenrock would be ornamented with a tablet-woven band stitched to the hem and sometimes cuffs. (Rogers, 214)

The klappenrock can have (fake) fur trim.

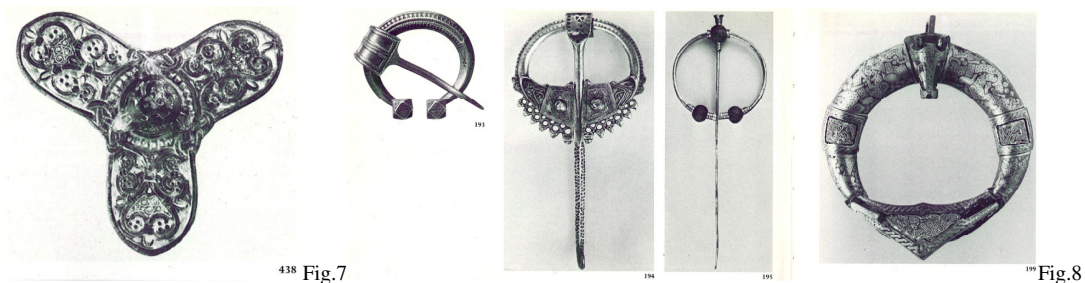
- While the fibers of the twill piece have a normal length for roughened fabrics, the fibers of the second fabric, roughly 2-3 cm long, seem like fluffy hairs in a fake fur trim [App.; Fig. 53-54]

The klappenrock front overlaps, and could be held together with a decorated leather belt.

- Since the 45 cm measuring lower edge is considerably larger than the normal length of a cut pattern which should only cover one half of the front, it can be assumed that the two fabric parts of the front side were overlapped at the closing of the garment and held together with a belt or clasp. [Appendix; text Fig. 48-52] The straight edge (part b), that ends at an acute angle, probably had been at the front opening of the garment. [Appendix; text Fig. 48-52] in the middle of the fragment are found during micro analysis a small number of small particles of bronze and bronze corrosion. Since particularly strong signs of wear and tear are likely to show at the area of a belt, which is just above this point, the bronze traces are probably from a belt buckle or belt fittings. [Appendix; text Fig. 59-60]

The klappenrock can be pinned or clasped together.

To close the opening edges, presumably a penannular brooch or a ring shaped fibula [?] was used. These statements are based on two observations: some of the relevant fibulas still have textile remnants of a which can be interpreted as a part of a caftan, and in a number of these graves, the fibulas were often located in position on the hip of the dead, where they may have attached the lower edge of the hem to the overlapping front part of the caftan jacket. Since textile remnants on fibulas which were near the armpit of the dead, also occasionally come from a caftan, the clasps could have fulfilled a similar function, and not, as in the traditional interpretation, only be used as a cloak clasp.



Different Viking-era brooches; one trefoil brooch and four penannular brooches.

Fabrics found:

2/2 twill [Fig. 48-52], cross twill [Fig. 48-52], diamond twill [Fig. 55-56], herringbone twill [Fig. 59-60]; some with pile to create fake fur texture (like wearing shag carpet).

What did I emulate?

The klappenrock can have side slits.

I choose to not to have side slits, and used side gores, as that is what I had seen on the Anglo-Saxon pictorial evidence and is what I see most often emulated within re-enacting context. It was not until I finished translating Hägg's text that I realized the Viking age Haithabu klappenrocks often (maybe always) come with side slits, which may be to facilitate horseback riding. Same with the length, the Vendel bronze sheet illustration indicates knee length, while the Haithabu finds indicate hip length. This difference could also be due to regional preferences.



Fig.9

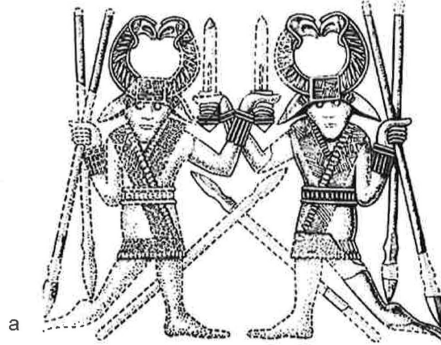


Fig.10

Fig. 9: Tyr and Fenrir: Part of a helmet; thin, pressed bronze sheets. Found in 7th C Vendel.

Fig. 10: Spear Dancers, plate from the 6th C Sutton Hoo helmet.

The klappenrock is lined, and the lining is often re-used clothing.

For my klappenrock I chose coarse, heavy outer wool, with a linen lining. I do not anticipate needing multiple layers of wool, and the linen will help protect my skin from the scratchy wool. I did not quite understand the text until after detailed translation, and had missed the fact that the lining is made of mismatched re-used fabrics (not the outer grab), something I would like to emulate at a later time.

The klappenrock fabric is dyed, and the edges are trimmed.

The inspiration for this project was the find in a second hand store of 2 yards of green herringbone twill woolen fabric. In the same store I had previously hoarded six spools of silk yarn in yellow and green tints. As the caftan garment from Birkais adorned with silk trim (which appears to correspond to the literary figures in which a *kåpa* are said to be covered with silk) I chose to combine the two and make a silk trim to edge with the green wool klappenrock.

The klappenrock front overlaps, and could be held together with a leather belt.

As the klappenrock seems to be a man's garment, a leather belt, with bronze ornamentation, is appropriate. I used my leather belt with bronze buckle and endpiece (Raymond's Quiet Press).

The klappenrock can have (fake) fur trim.

Ironically, as I did have a piece of real bear fur trim (left over from my Birka coat where it did not work in combination with my brooches) but no access to woven fake fur, I chose real fur trim.

Fabrics found:

One of the pieces is made with herringbone twill. Because of a translation misunderstanding I did not realize under after assembly that it was a piece used as lining and that plain 2/2 twill is most often used for the outside of the garment. But, herringbone twill was available, and was used in garments, so my interpretation could be plausible (and looks oh, so pretty!).

Stitches & Hems Found:

Running Stitch & whipstitch are found, as evident on on Fragment 11, as seen in Fig. 50 & 51 (Hägg, 1984). I used hand cleaned, handspun wool thread to sew and hem, I used Gütenmann thread for the lining, as the wool thread is a little too coarse. I traded for the woolen thread.

Whip-Stitch

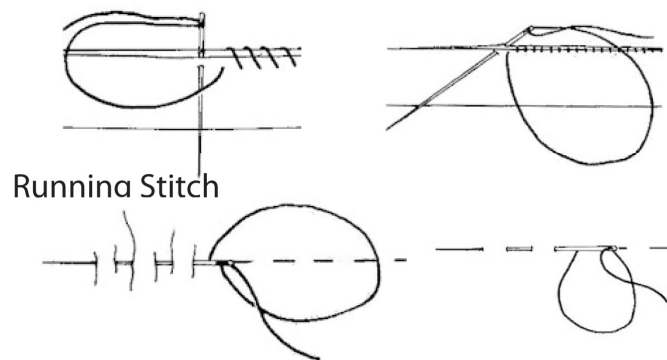


Fig.11

Hems: I used type 2 for wool, and type 3 for linen hems. Type 2 is found on Fragment 11, as seen in Fig. 50 & 51 (Hägg, 1984)

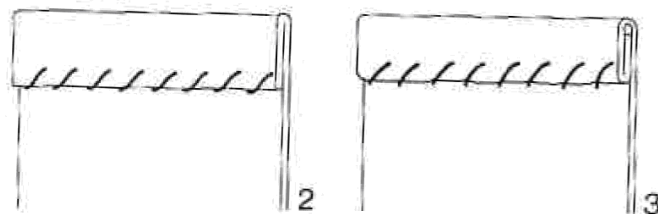


Fig.12

Seams: I used type 11 for the linen seams, and type 19 for the wool seams. Type 19 is found on Fragment 11, as seen in Fig. 50 & 51 (Hägg, 1984). The whipstitch overlay on the running stitch seam is not visible on Fragment 11, and I am not sure why this exact seam was not included in Hägg's illustration on seams found on the textile remains from Haithabu.

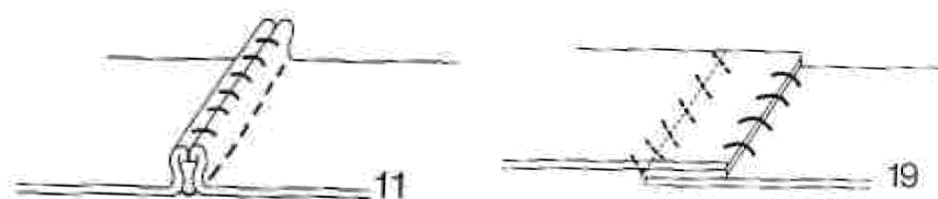


Fig.13

Photo Journal



I have made several klappenrocks in the past, and I used the paper pattern of one I fit well to make this new one. The original pattern was made by using the base of a straight tunic, and I measured out the angle of the front by extrapolating from an illustration in Nille Glaessel's book *Viking Clothing* (p. 99). She uses a modern tailored pattern I was not interested in, so instead I made a straight line pattern for my pattern pieces. It is not clear from the pieces found if it would have been a straight or a tailored pattern, though tailored pattern pieces (arm holes etc.) have been found in Viking Haithabu context.



I first assembled the lining, and then the outer shell of the coat. All seams are stitched by hand, all seams in wool are stitched with (bartered for) handspun woolen thread. Initial assembly took about 6 hours each of the inner and outer shell, with another 3-4 hours to attach and hem.



For the trim, I warped up 107 individual threads for a plain weave ladder pattern. The Anglo-Saxon imagery made me think of a woven band with a geometric pattern to use as edge trim. The band is about 8 cm wide, any wider and I would have needed an even larger loom! I wove almost 18 feet which took 3 hours to warp and about 12-14 hours to weave. It took another 2-3 hours to sew the trim on.



The lining was attached to the outer shell. Then I found during translation I had used a less appropriate seam for the woolen outer shell, so I took out the old seam, and put in the correct folded over seam (which looked much better when finished). The silk trim is attached, outside edge with matching silk yarn, the inner edge with disappearing woolen thread. Then the bear fur collar is attached using sturdy modern cotton yarn. I find that using a dummy is the best technique to sew on a fur collar, as otherwise it is easy to have tension (wrinkles) in the fabric from it not lying perfectly flat.

Wax my Thread.

Since I was using homespun woolen thread, I thought I was in need of wax to wax my thread to make it easier to go through the fabric without fraying. So I got my stash of comb beeswax out of the cupboard (saved from a backyard experiment in topbar hive keeping) and purified some beeswax. When all was said and done, and I started sewing, I found the woolen thread was made from home cleaned fleece instead of commercial roving and included more than enough natural lanolin to work just fine. Another Lesson Learned!

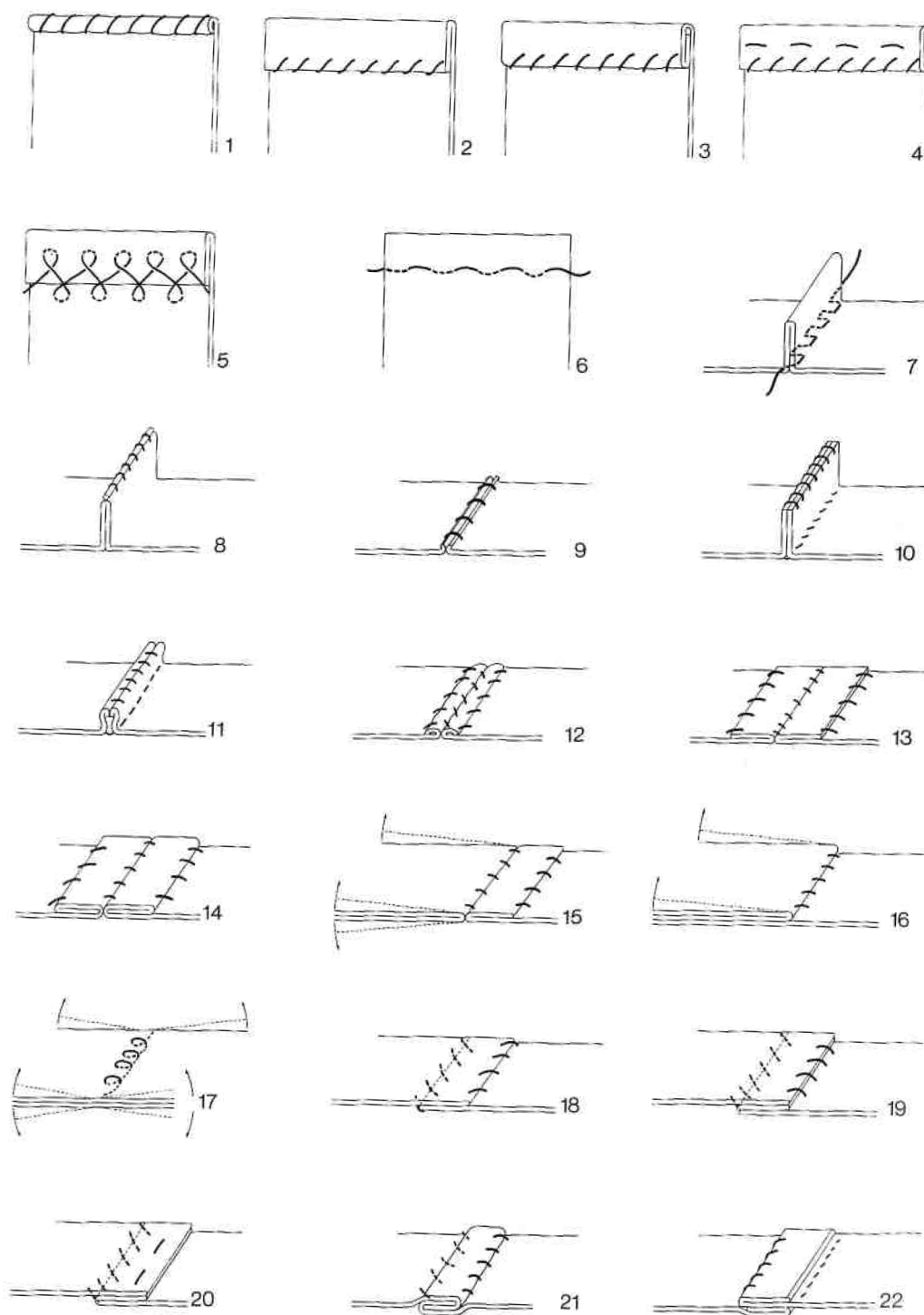


Wax comb is broken up and crushed into a small glass jar. The jar is heated au-bain-marie to melt the wax (without overheating it).



The melted wax is filtered through a paper filter into another glass jar. The clean jar is reheated to have everything nice and melted, and the wax is poured into the molds and bone tube. The black stuff filtered out is bee poop & remains (called slumgum), and makes great firestarters!

Appendix 1



From Hägg, Inga (1984) *Die Textilfunde aus dem Hafen von Haithabu*, Wachholtz Verlag, p 151
 Shown are all the different types of stitches and hems used in garments found at Haithabu.

Appendix II

Bericht 20 Die Textilfunde aus dem Hafen von Haithabu

Von Inga Hägg, mit Beiträgen von Gertrud Grenander Nyberg und Helmut Schweppe

NEUMÜNSTER: KARL WACHHOLTZ VERLAG, 1984

Translation by Author of this paper & Angelika St. Laurent.

4. 4. 5 Klappenrock (Fragments 11, 19, 45 A-B, 54 A, 59, 76, 77)

Fig. 48-52; 64. 3; 80.1 Tab. 8 Fragment 11. Large, roughly triangular piece from the front of a garment made of fine, natural brown 2/2 twill (p. 116). Height 35 cm, width 37 cm, thickness 0,2 cm. The piece has at the bottom a cut edge (seam 1, fig. 102. 2), which is about 45 cm long, folded and trimmed, which ends in a rounded corner. In the opposite direction, a straight cut edge encounters at an acute angle at the hem. The resulting pointy corner as well as the rounded part belong to the original cut pattern. The remaining parts are torn off or heavily fragmented. The preserved pattern piece consists of four different pieces (parts a-d). A large center piece (part a) is inserted between two side strips (parts b and d) and fixed with two wide seams (seams 3-4 and 6-7, fig. 102.19-20). At these seams the edges of the center piece are cut straight and follow the direction of the weft threads. Both side strips, however, are cut in a line with the warp threads. The best-preserved part (part b) of these cloth strips is about 6 cm wide and is extended by a small four-sided addition (part c) at the seams 2 and 12, which reaches as far as the lower hemline. It is noticeable that this hem runs almost diagonally across the fabric surface, thus biased through the warp and weft threads. The rounding of the other corner (part d) was achieved by cutting and secured with several secure rows of stitches (seams 1, 5-7, 10). This corner was probably the edge of a side slit. On one side of the garment fabric considerable remains of the sewn-in lining (parts e-g, see p. 89) are preserved, which are sewn together from three parts in different types of weaving patterns, and now has an irregular shape. Obviously, these are re-used remains of old garments, one of the same type of 2/2 twill (part e), the other of repp like fabric (part f), and the third of plain fabric weave (part g). All three pieces are artificially dyed (see page 289). The parts are sloppily sewn together; the stitches with yarns in different shades of colors are clunky and distinctly irregular. The combined lining leftovers form by now a rather fragmented sample piece, which runs at the bottom about 2 cm parallel within the angular hem of the outside garment fabric. The lower edge of the lining is folded and hemmed. The lining was also hemmed at the side with an overall straight seam (seam 11, fig. 102. 18-19). It was additionally fastened to the main garment fabric by two rows of irregularly spaced stitches (seams 8-9, Fig. 102.17) and a few stitches at the seamed side edges (seam 18). The seams are clearly visible from both sides of the fabric, whereby a few stitches (seam 8) lie up to 10 cm within the hemmed edges.

Remarkably, the edge of the hem is folded over outwards towards the unlined side. Both features, the visible stitches on the outside of the garment, which are also clunky and irregular, and the turning towards the outside of the lower edge of the hem towards the outside, are most easily explained by the fact that they have originally been covered by a trim of at least 10 cm wide.

Clearly recognizable, the fragment described here comes from one of the two similar parts of the front of an open jacket. The hemmed edge most likely pointed downwards, and the rounded corner probably was the edge of one of the side slits, and likely pointed towards one side of the body. The straight edge (part b), that ends at an acute angle, probably had been at the front opening of the garment. Since the 45 cm measuring lower edge is considerably larger than the normal length of a cut pattern which should only cover one half of the front, it can be assumed that the two fabric parts of the front side were overlapped at the closing of the garment and held together with a belt or clasp.

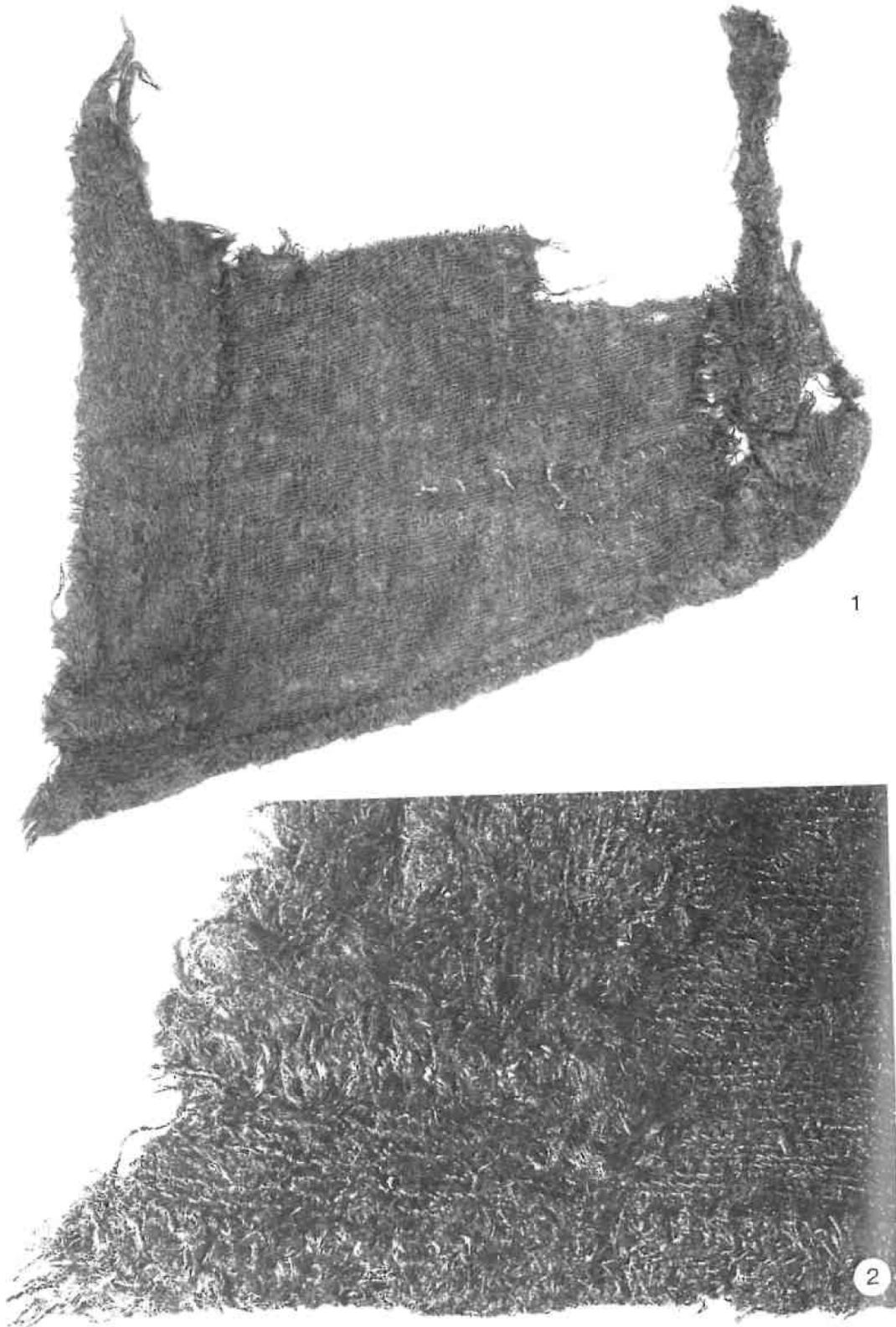


Fig. 48 Haithabu. Part of the front of a flap (fragment 11). Right side. 1 Overall view (see Fig. 50). 2 cuff piece (part c) with surrounding seams. Lower edge folded forward and trimmed. Neckline. - Scale 1: 3 (1), 1: 1 (2).

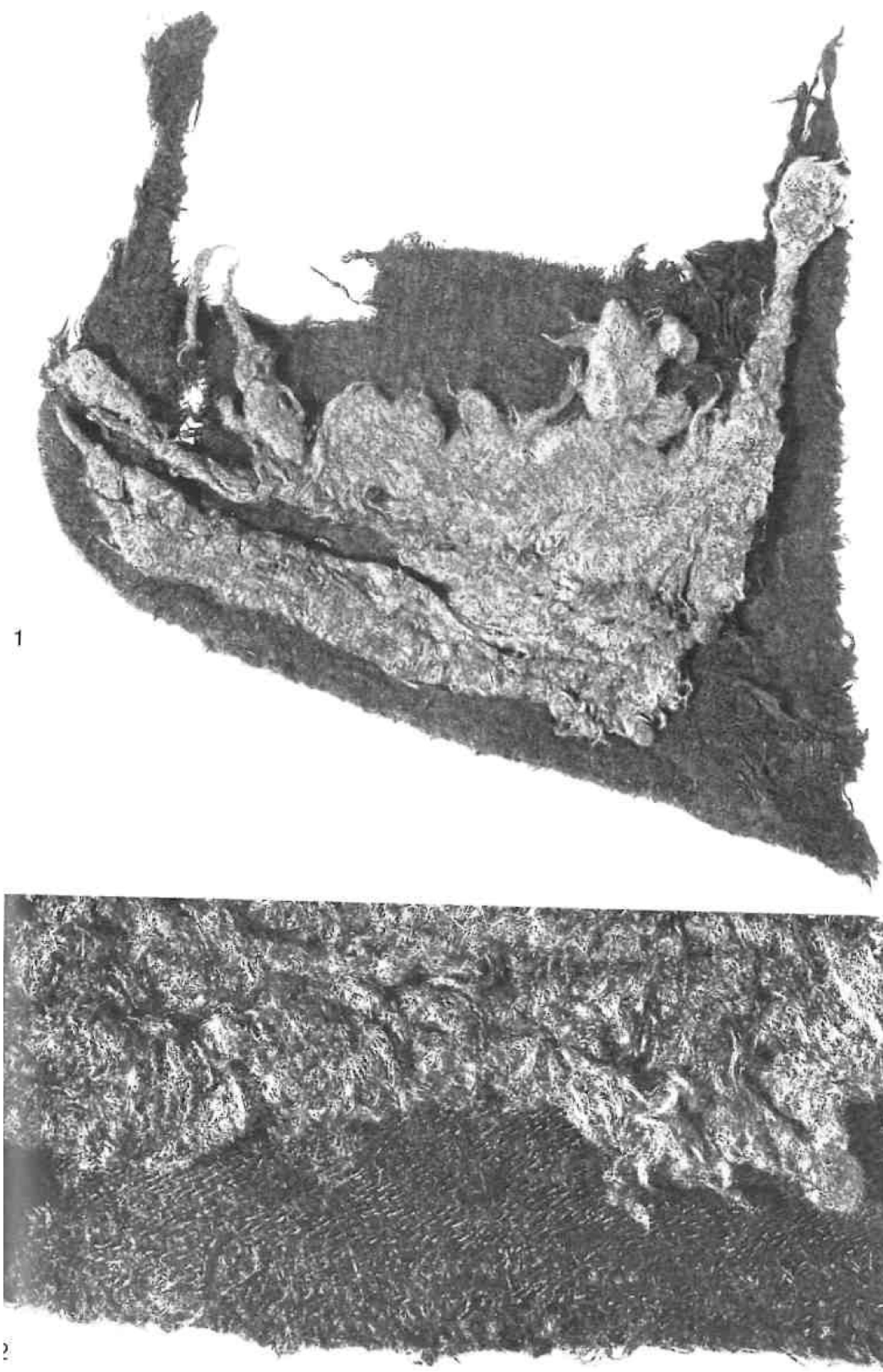


Fig. 49 Haithabu. Part from the front of a flap (fragment 11). Left side (cf. Fig. 52). 1 Overall view. 2 Lower edge of the upper and the lining. Neckline. – Scale 1: 3 (1), 1: 1 (2).

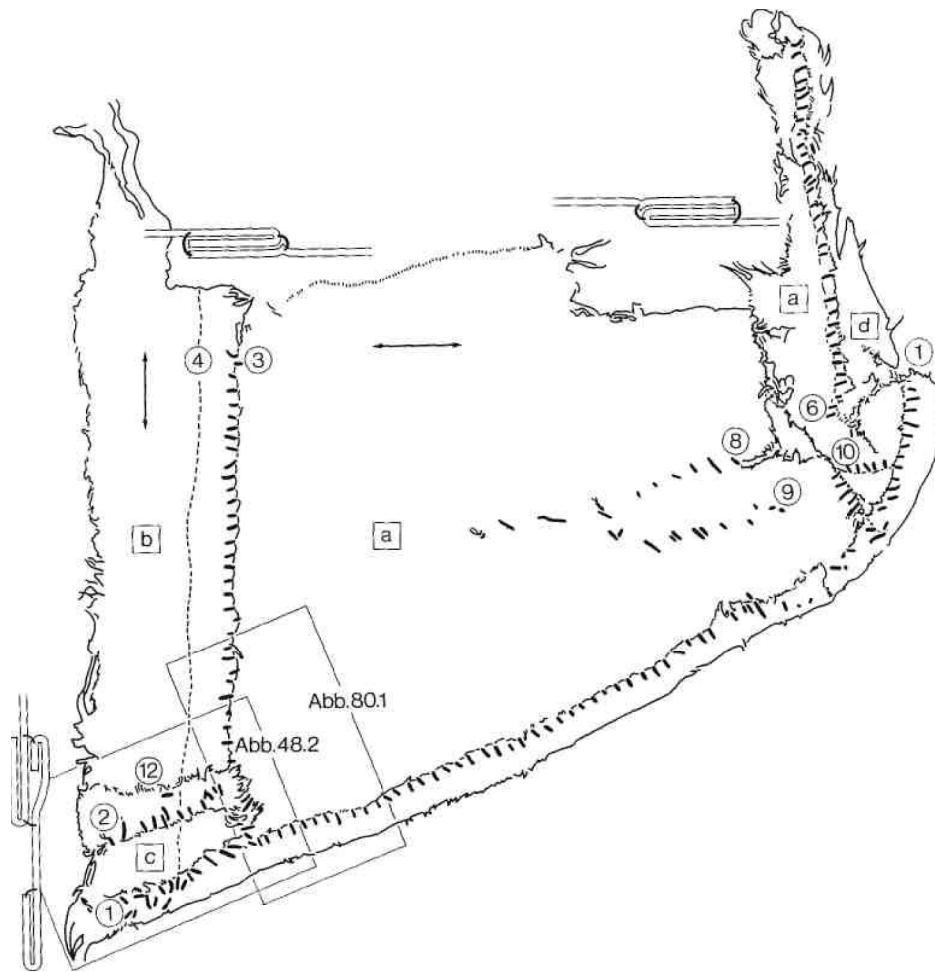


Fig. 50 Haithabu. Part of the front of a flap (fragment 11). Right side (see Fig. 48.1). - Scale 1: 3.

Fig. 53-54; 94.4 Table 12; 18 Fragment 19. Approximately quadrangular piece out of two parts in different types of weaving patterns: Part a out of crude [weaving pattern], part b of similar coarse 2/2 twill (p. 137 f.). Total length 16 cm, width 13 cm, fabric thickness 0.35 cm. Artificially dyed (see page 289). Both parts have one-sided fake fur. At the connecting seam (seam 1, fig. 102.9), the cut edges are laid together and sewn together with dense stitches that is reminiscent with connecting seams on fur robes. Both pieces of fabric are cut to size and are lengthwise slightly curved. There are a few more stitches (seam 2) on one edge of the twill (part a). This piece of fabric gets wider, while the other (part b) remains the same width at both ends. The direction of the warp is different in both pieces. Probably these did not quite perform comparable functions, as is the case, for example, in length of fabric lying side by side with the lower part of a shirt or a tunic (for instance, B fig 28.1), interestingly, the two fabric parts also differ in the length of the fake fur. While the fibers of the twill piece (part a) have a normal length for roughened fabrics, the fibers of the second fabric (part b), roughly 2-3 cm long, seem like fluffy hairs in a fake fur trim (see also the "fur" seam 1), it is probable that part b is a component which could be compared to the edged strip (part b) of the previously described fabric garment fragment 11. The fur-like long pile [shag] gives a strong impression of an edge piece [at bottom] or even a trim [near bottom]. The fragment likely came from a garment that was put together of different cut up pattern pieces, and also possessed a fur-like edge trim of strongly roughed cross twill. The fabric is loose and flexible and does not show any signs of waulking [type of fulling; unwashed new fabric, not washed and set], as shown by the roughened fabrics of the Loden jerkins (see p. 67) that had been waulked.

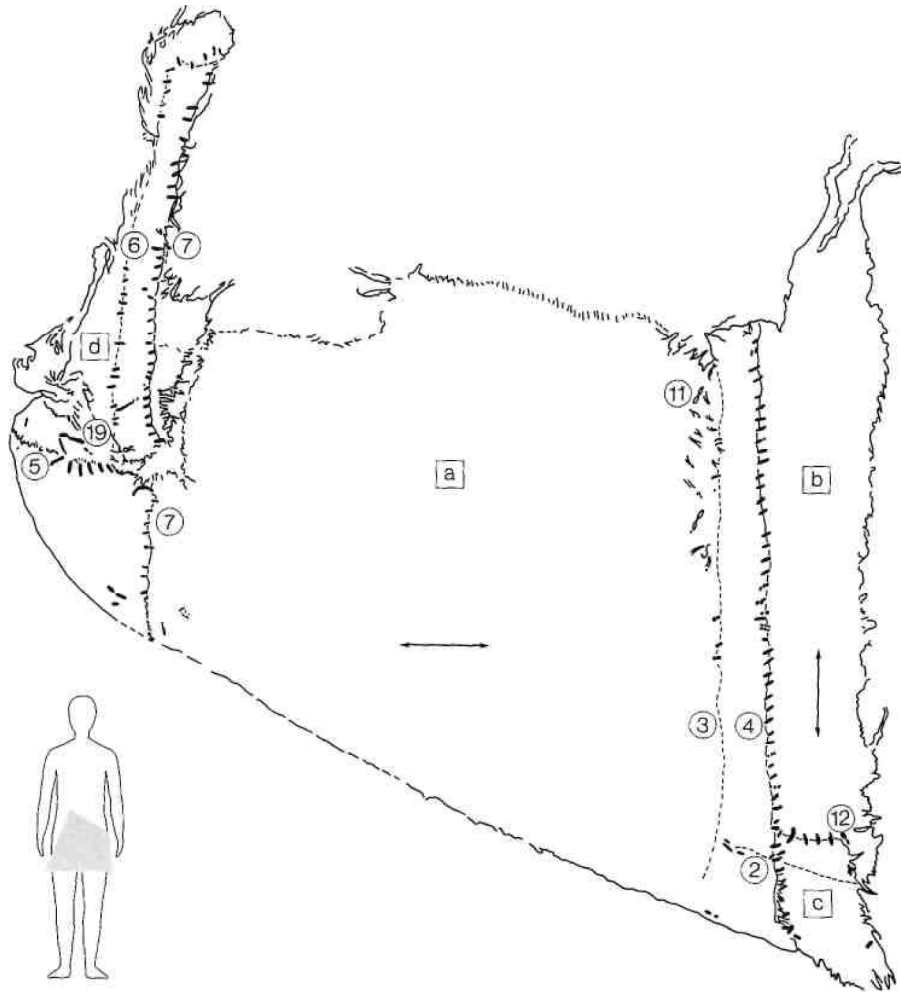


Fig. 51 Haithabu. Part from the front of a flap (fragment 11). Left side, without lining (see fig. 52). - Scale 1: 3.

Fig. 55-56; 95.1 Table 20 Fragment 45 A-B. Two very worn pieces of fine, roughened diamond twill (p. 139 ff.). Part A: 26 x 17 cm, part B: 21 x 17 cm (frayed sections not included), fabric thickness 0,2 cm, artificially dyed something reddish. A closer analysis of the fabric is not possible because of its very poor conservation and a very hard roughing, which has particularly affected the warp threads. There are indications that this roughening did not belong to the original after-treatment of the fabric (see page 139 ff.). Part A has a folded edge that was probably sewn shut. At part B there is a rounded corner. The cutting edge is here folded over to a length of approximately 13 cm, one to two times, and hemmed. The warp threads run mostly parallel (part A), sometimes biased to the edge of the fabric (part B). In the same way, the lower edge of the jacket (fragment 11), which also ended in a rounded corner, run biased to the direction of the warp threads. Probably, the fragments 45A-B are leftovers of a similarly shaped jacket although the pieces do not match in all details. Thus there is only one layer of material, and the construction of the corners is not identical here either. Probably this piece is not the actual garment, but the lining of a klappenrock, for which a piece of old garment was used; presumably, the fabric had been secondarily roughed up for its new purpose as a as a warming lining.



Fig. 52 Haithabu. Part from the front of a flap (fragment 11). Left side, with lining (see Fig. 49.1). - Scale 1: 3.

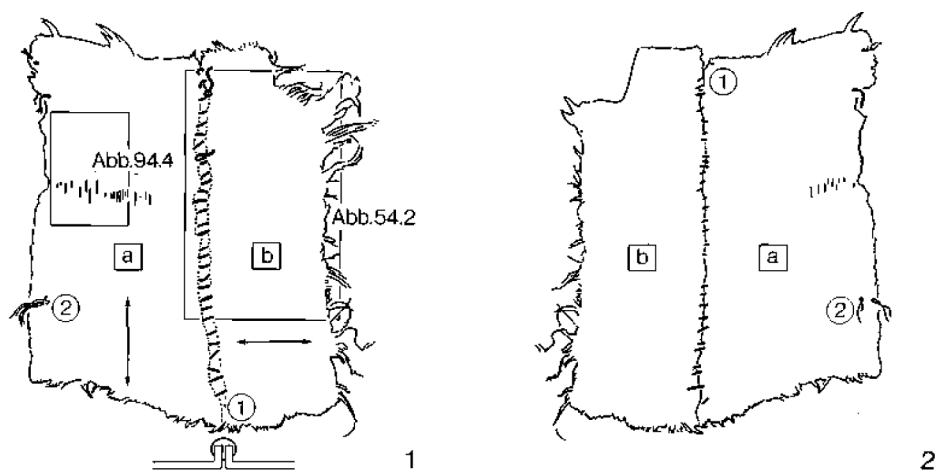


Fig. 53 Haithabu. Endpiece of a jerkin (caftan? fragment 19). 1 Right side with edge border (part b) similar to fur trim. 2 Left side. - Scale 1: 3.

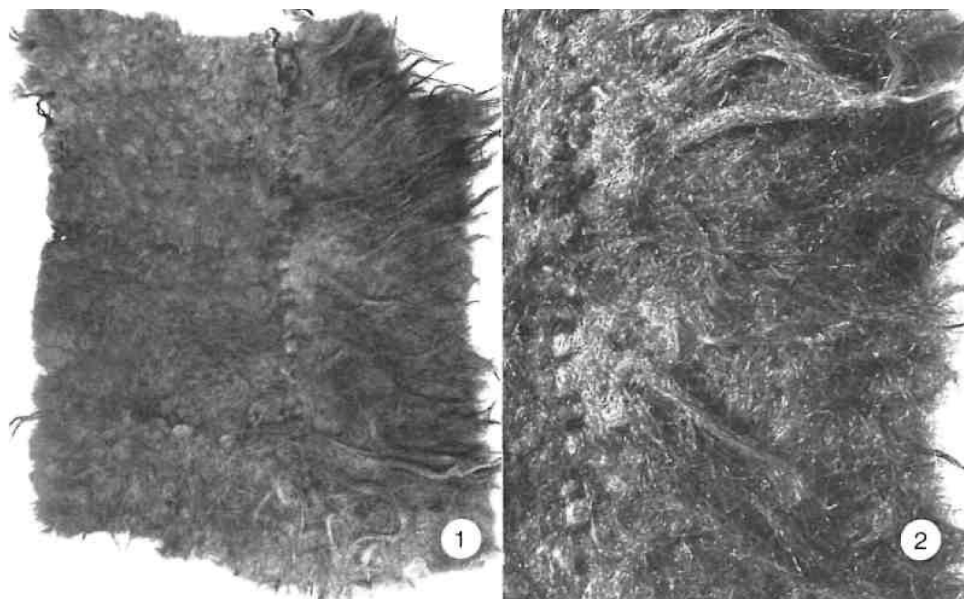


Fig. 54 Haithabu. End piece of a jerkin (caftan? fragment 19). Right side. 1 Overall view. 2 edge (part b). Neckline.
- Scale 1: 3 (1), 1: 1 (2).

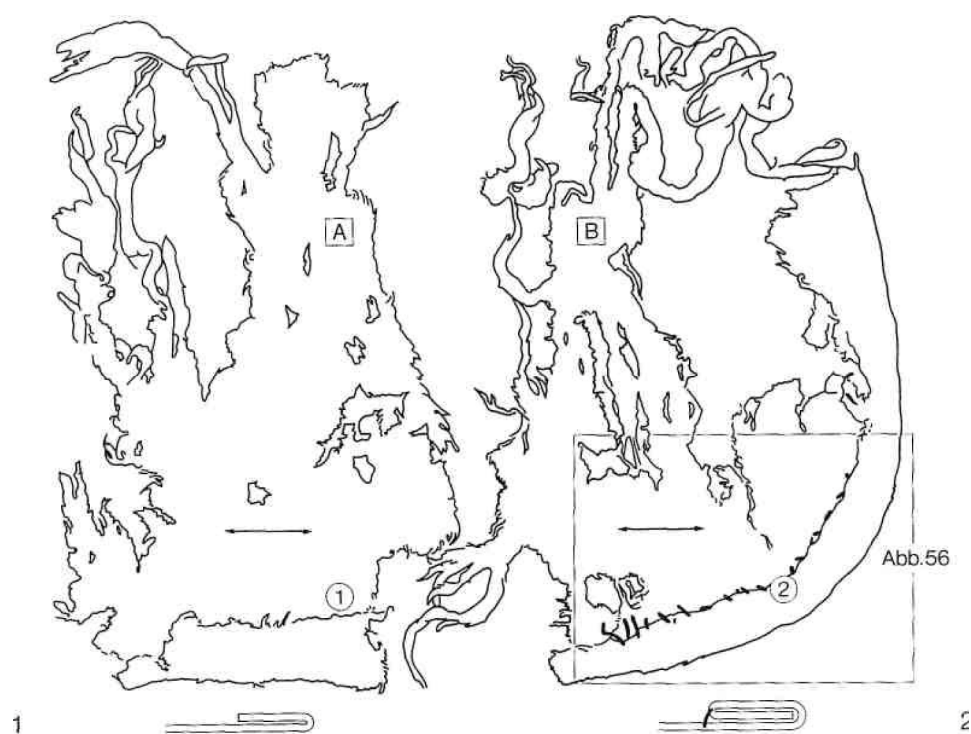


Fig. 55 Haithabu. Remnants of a slit garment - a klappenrock? - probably the lining (fragment 45A-B). Left side. -
Scale 1: 3.

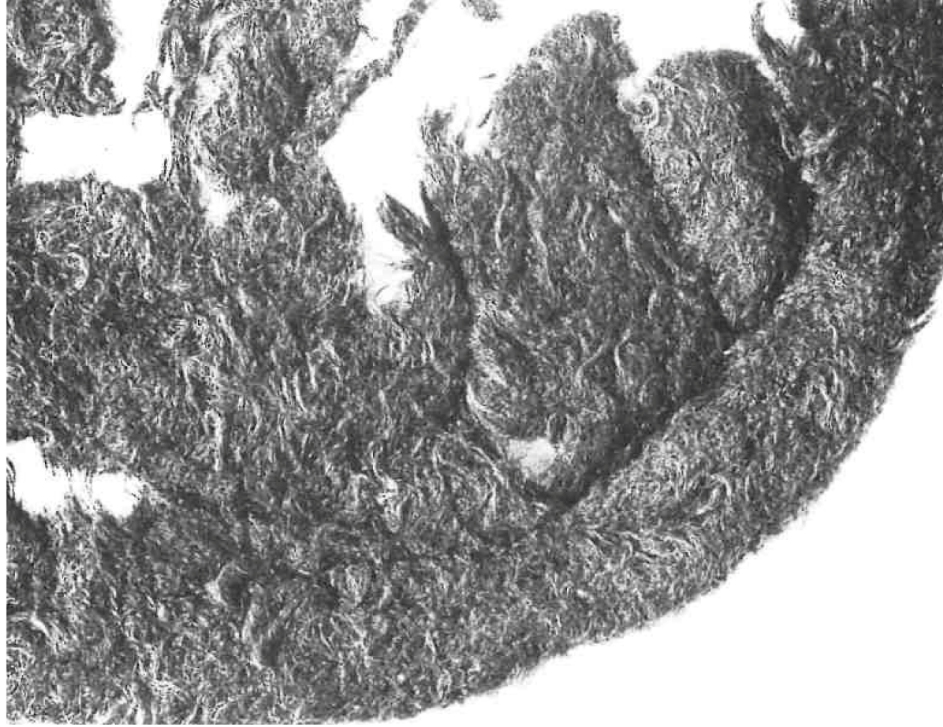


Fig. 56 Haithabu. Rounded corner at the side opening of a slit garment (Fragment 45B). Neckline. - Scale 1: 1.

Fig. 85. 2 Tab. 12 Fragment 54 A*. Long-stretched piece out of fine, roughed 2/2 twill (p. 121 ff.) With a roll seam in the direction of the warp (see fig. 102. 3). Length about 35 cm, width 7 cm, fabric thickness 0,15 cm. The fragment is now slightly bent, probably due to stretching of the fabric, since the warp threads are arched. This stretching probably happened during the wearing of the garment. The edge of the rolling seam has been folded over twice, and was originally probably sewn shut. The stitches, however, are not preserved. The width of the hem edge decreases from 1.1 cm to 0.7 cm. Since the piece must come out of the area of a garment opening, it has probably originally situated at either the neck or the sleeve opening. Whether on a jacket, a jerkin or a tunic-like garment, can not be decided.

Fig. 57-58. 1-2 Tab. 12 Fragment 56 A. Small four-sided piece of medium-fine 2/2 twill with dense, two-sided pile [shag] (pp. 121 ff.). Size (without fraying) 11 x 11 cm, fabric thickness 0,25 cm. An edge is folded – doubled? – and then sewn shut (seam 7). Immediately at the fold of the fabric run the stitches of a second seam (seam 1), presumably a connecting seam, run up to half the length of the hem. At the end there is a row of simple running stitches, which run across the fabric (seam 6, see fig. 102, 6). At two additional seams, which follow the edges (seams 3 and 4), hang sewn-on textile remains (parts b-c) adhere, whose color in both cases deviates from the main fabric. One of the corners ends in a tassel of frayed yarns, sewing threads and fabric leftovers in lighter and darker shades.

The exact place of this piece in the garment is difficult to identify. Probably it is a gusset or elongated corner (flap?), which most likely would have been part of a jacket. In the found material, there is a further similarly shaped tip part, namely at the acute-angled corner of fragment 11 (part c). It is possible that fragment 56 A represents a similar corner or the fur-like edge portion of this part (see also fragment 19 b).



Fig. 57 Haithabu. Corner and frayed fabric parts of a piece garment of roughened twill, presumably a klappenrock (fragment 56A). Overall view. - Scale 1: 1.

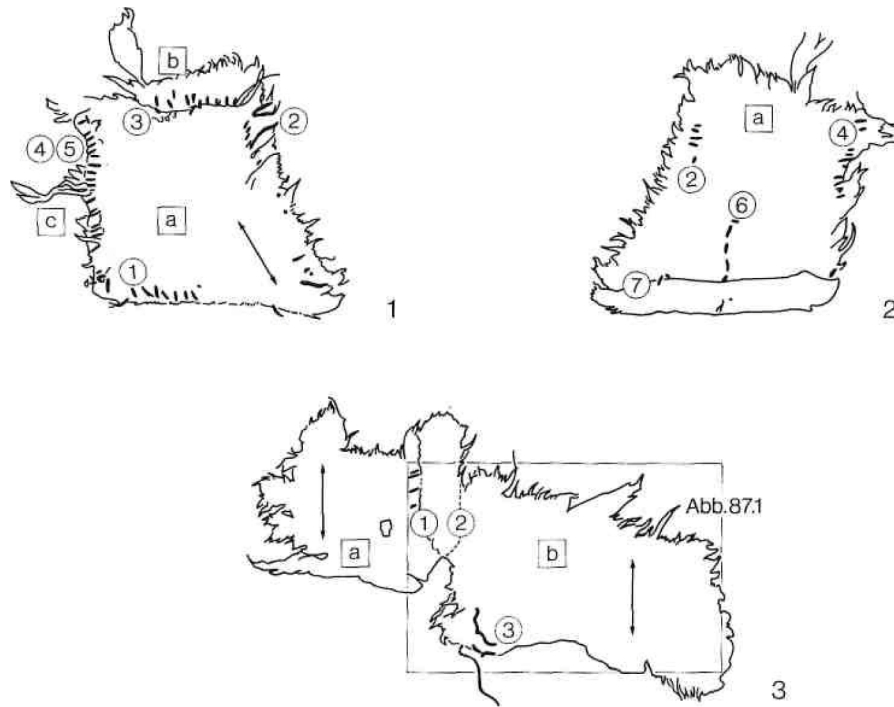
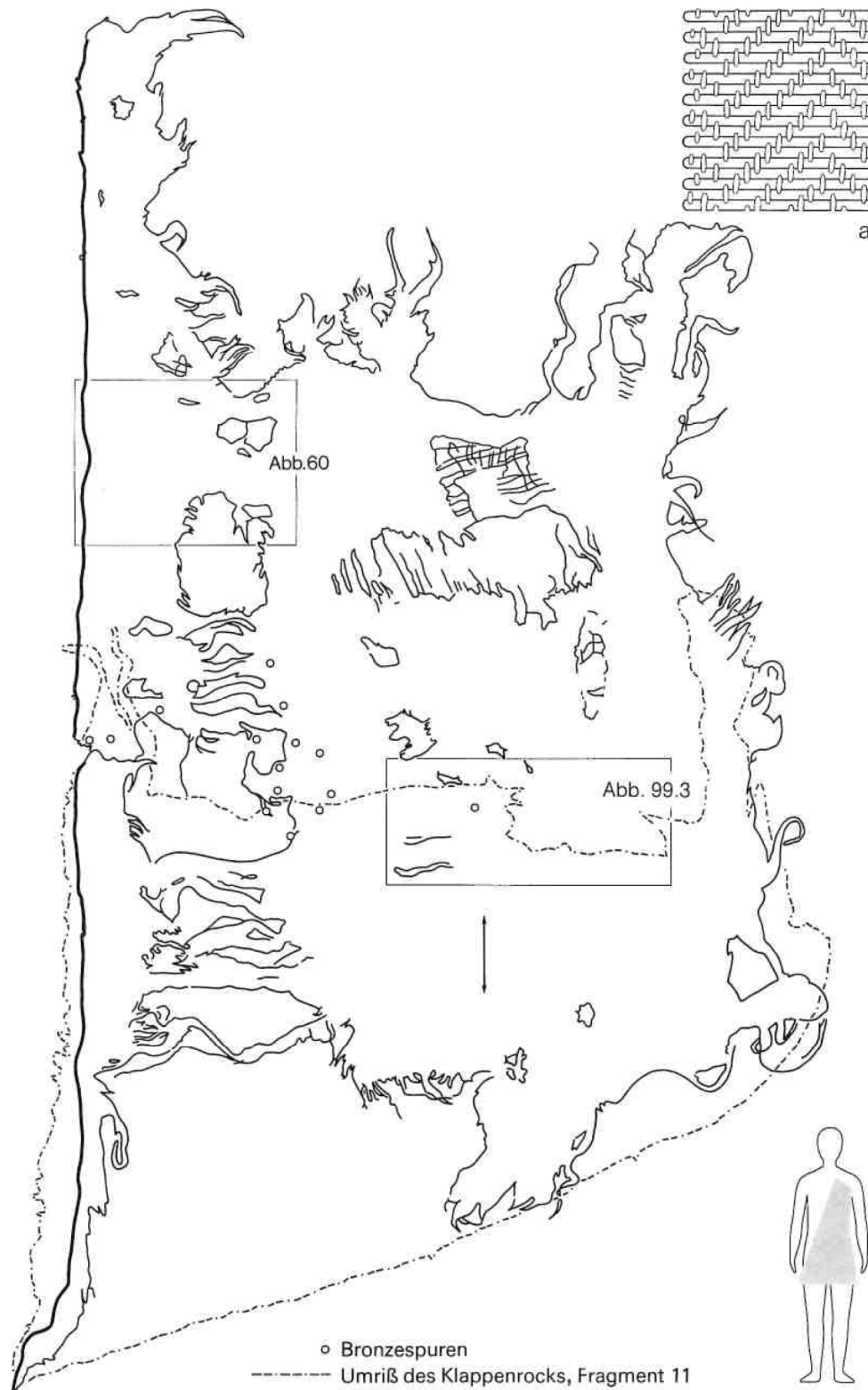


Fig. 58 Haithabu. Different pieces of cloth, probably a flap. 1 corner with seams at four edges (fragment 56A). One fabric side. Detail. 2 corner with seams (fragment 56A). Other fabric side. Detail. 3 Fragment 59. Full view. - Scale 1: 3.

Fig. 58. 3; Fig. 87.1 Table 13 Fragment 59 *. Small piece of fine 2/2 twill with double-sided fiber pile (see p.126 ff.). Size 21 x 7 cm, fabric thickness 0,2 cm. All edges torn off. One of which still shows a few loosened stitches (seam 3). The piece consists of two parts (parts a-b), which are connected by a seam (seams 1-2, fig. 102, 18). Probably part of a klappenrock or a jerkin.

Fig. 59-60; 99. 3 Tab. 24 Fragment 76. Large fragment from the front of an open jacket of medium fine herringbone twill (p. 145 ff.). Height 70 cm, width 33 cm, fabric thickness 0,1 cm. The fabric shows strong traces of use, which are mainly due to secondary [re-] use. No stitches preserved. The piece ends in the direction with the side edge of the weave, which apparently originally was folded and sewn shut. The opposite edge shows light shaping which could have been the result of secondary use. The fragment is torn at the top and the bottom. At the selvage end and in the middle of the fragment are found during micro analysis a small number of small particles of bronze and bronze corrosion. Since particularly strong signs of wear and tear are likely to show at the area of a belt, which is just above this point, the bronze traces are probably from a belt buckle or belt fittings [fell down]. In this case, the selvage would have been at one side at the front opening of a jacket. With an preserved total length of about 70 cm, the distance from the "waist" downwards is about 40 cm, and towards the neck opening it is 30 cm, but the piece can not have been significantly higher. The by now very strongly fragment form of the lower edge may suggest a straight-cut line that joins the selvage at an odd angle. This is reminiscent of the cut pattern of Fragment 11 but does not have the sold construction that characterizes the piece. Potentially this is the inner fabric layer [lining] of a klappenrock (see Fragment 45).



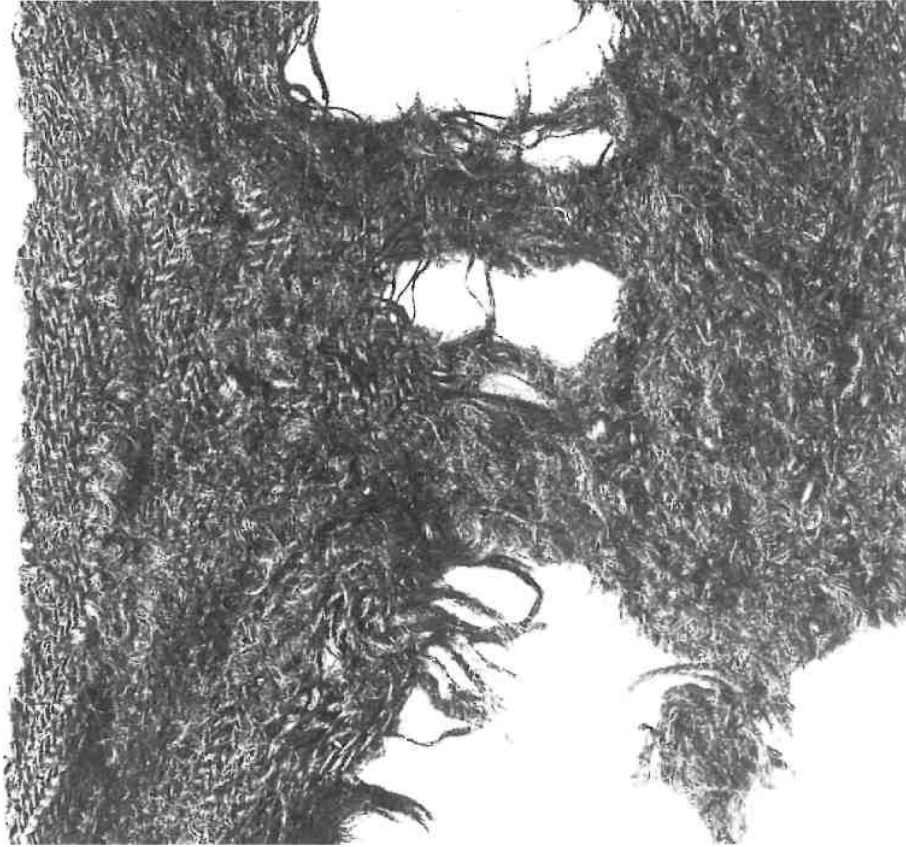


Fig. 60 Haithabu. Klappenrock, lining? (Fragment 76). Fabric with side edge. Close-up. Scale 1: 1.

Fig. 59 Haithabu. Klappenrock. Lining? (Fragment 76). Across the middle traces of wear, probably of a belt. In the same area traces of bronze from a belt buckle or belt fittings (?). - In the lower half, the outline of fragment 11 is drawn in, including a binding pattern of the selvedge. - Scale 1: 3

Fig. 61-62 Tab. 12 Fragment 77. Three pieces (parts a-c) from the side slit of a garment of fine 2/2 twill (pp. 121 ff.), Roughened and probably waulked [fulled]. Part a: height about 18 cm, width 11 cm, fabric thickness 0,25 cm; Roughly wedge-shaped, torn off at the top, preserved for the most part the original form. This piece of fabric should have covered the slotted opening. One edge is cut straight and connected to a poorly preserved second fabric part (seam 3 and part c). This cutting edge bends downwards at a rounded corner and merges into a double-folded, wide edged hem (seam 2, fig. 102. 3), which forms an acute angle with a third edge. This edge is simply folded and fixed with tight stitches (seam 1, fig. 102.1). - Part b: height 25 cm, width approximately 7 cm. Since the cut edges are still quite straight and also show shaping which appears to fit with the other two fabric fragments, those edges probably are the original cut edges, especially from a pattern piece that was one side of the garment opening. The probably rear facing “flaps” of part a, suggests the backside of a garment. This piece of fabric is connected by recognizable sections of a seam (seam 5) with part c. Part c: Height about 16 cm, width 3.5 cm. One edge is folded and sewn (seam 4, fig. 102. 2). Parallel to this seam run the seams 3 and 5, which connects this piece with the two other parts of the slit. This fabric remains obviously comes from a pattern piece that represents the other side of the garment opening (front side?). The slit is located in the opening between the parts b and c, which may belong to the back and front, respectively, of a jacket.

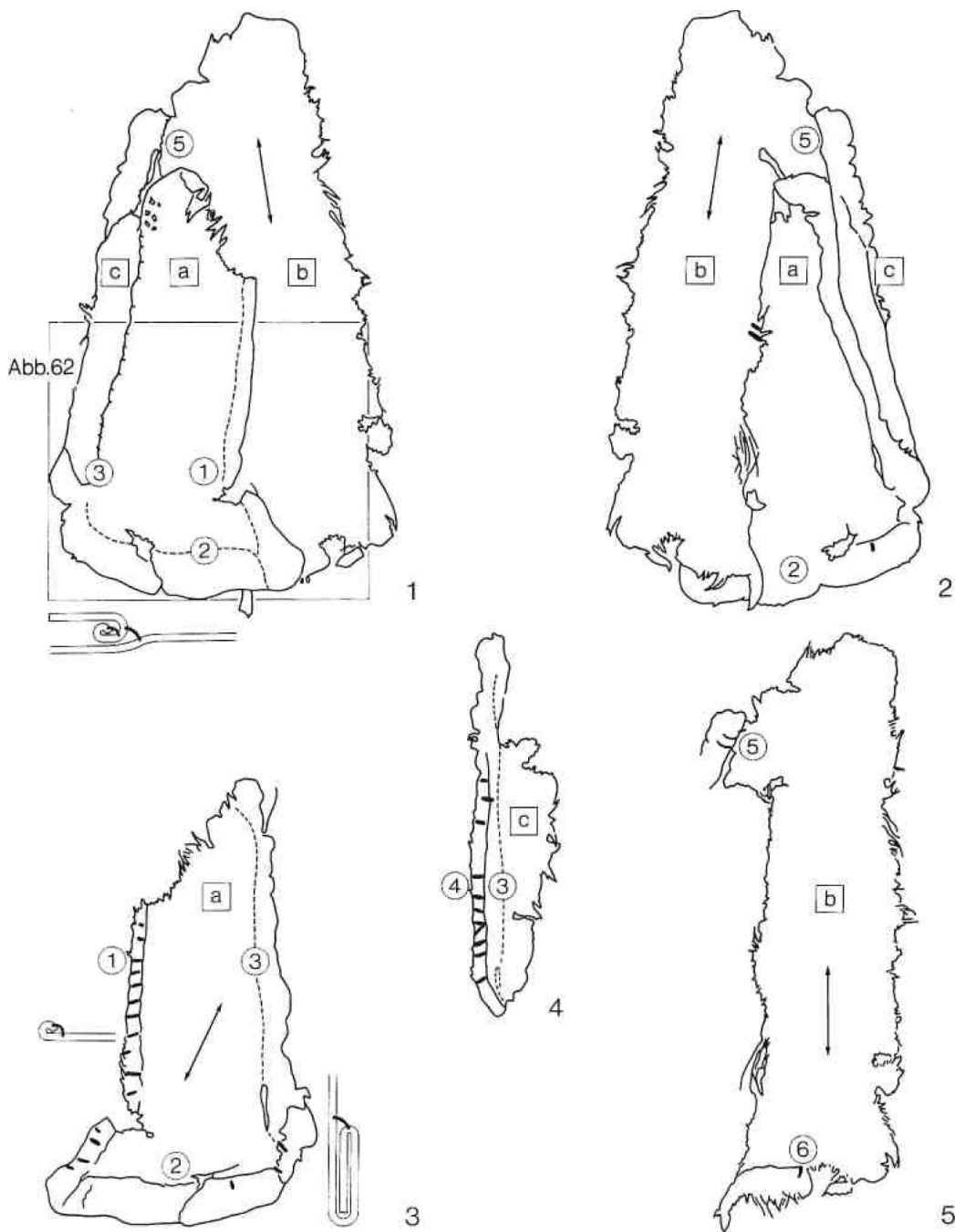


Fig. 61 Haithabu. Cloth remains from the lower part of a slit garment, probably a flap (fragment 77). 1 Overall view of sample pieces in the slotted opening of the garment, here as when worn by the sewn-on part (part a). Right side 2. Fabric residues at the side slot. Left side. 3 part a, which covered the garment opening. Detail 4. Remainder of an edge of the slotted opening (part c, front?). 5 Remainder of the other edge of the slotted opening (part b; back?). - Scale 1: 3.

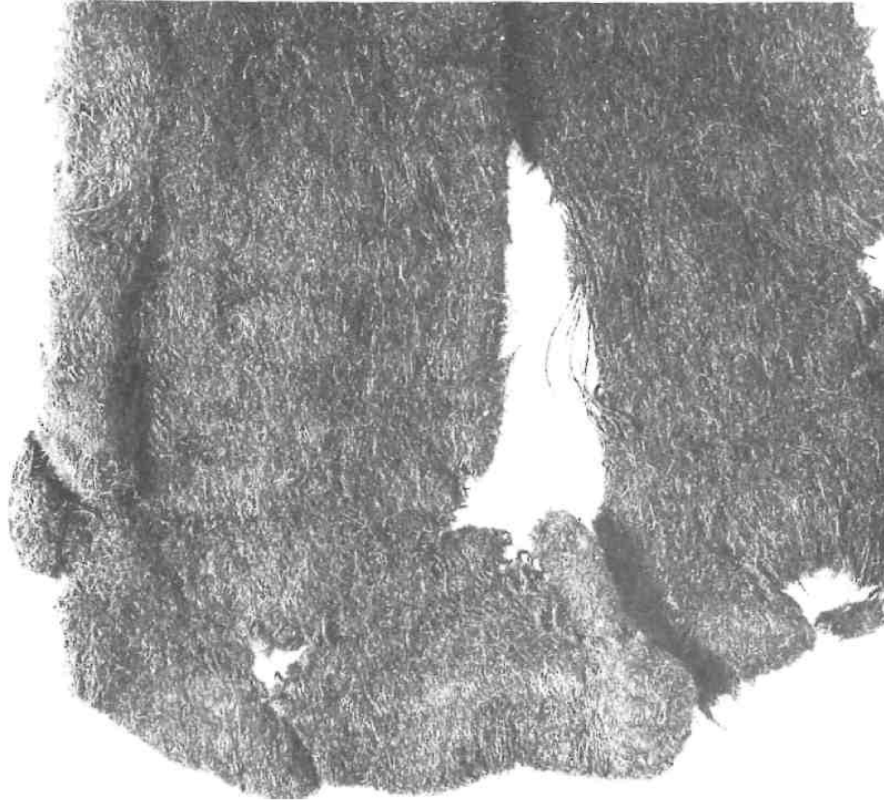


Fig. 62 Haithabu. Cloth remains from the side slit of a garment, probably a caftan (fragment 77). Neckline. - Scale 1: 1.

Among the fragments of this group, most of the pieces have characteristics that were quite missing in the earlier found material. The best-preserved piece (Fragment 11) is said to come from a thickly lined jacket with an opening at the front side, the straight opening edges of which partially overlapped crosswise over the chest so that the front pieces overlapped. The lower edge of the hem was cut diagonally and had a side slit with a rounded corner. Wide trim was likely sewn on at the edge. Another fabric piece (fragment 19), probably also from a jacket, may represent a piece of an edge with edged trim which consisted of roughened twill with particularly long fur-like fibers. Like Fragment 11, another fabric piece (Fragment 45 B) shows a rounded corner and also a diagonally cut hemmed edge. A small piece with fiber pile (fragment 56 A) is presumably the remains of a similarly designed jacket. A straight opening edge is also found on the largest fabric in this group (fragment 76), while the lower edge here, like with some of the other remains, probably had a diagonally cut. Clearly recognizable were the traces of a belt with bronze buckles and / or bronze belt fittings. The shape and size of this piece corresponds well with the better-preserved fragment 11. The garment, from which the slitted part (fragment 77) with tongue-shaped flaps originated, may have been similarly shaped above the opening.

On the basis of the existing fragments, the image of a jacket-like garment, which had an opening of two partially overlapping side pieces, can be assembled. The edges were covered with a border of brushed fabric with a fur-like surface. This "klappenrock" (see page 188 ff.) had been worn with a belt and can therefore be counted as an outer garment, and with this design of construction it can be assumed there were means of fasteners such as buttons or clasps.

The majority of the fragments are dyed: the "klappenrock" was therefore a part of the more sophisticated outfit. In contrast to previously looked at parts of the outfit, the fragments here are made out of very different fabric types, among the fragments of plain weave, 2/2 twill, cross-twill, diamond and herringbone twill, is the most common 2/2 twill, with cross twill used one time in (Fragment 19 a), in context in which it was clearly used as an alternative type of weave to the 2/2 twill (see pp. 200 ff.) The plain weave remains belong to the lining of fragment 11. The diamond twill (Fragment 45) is also likely to come from a lining or an inner fabric [filler], as well as the fabrics of thin,

heavily worn herringbone twill without seams (Fragment 76). Probably old garments have been reused for these fabrics. Therefore, while for linings old garments were used, the most diverse types of weaving patterns occur, as a rule, in the outer parts of the klappenrock and are made with 2/2 twill (with or without roughening).

[Partial] 4. 4. 6 Lining and liner filling [underlay] (Fragment 11 e-g, 15 A, 20, 23, 24 B-C, 41; possibly also fragment 45 A-B [vgl. S. 78 ff.], 51, 76 [vgl. S. 83 ff.]; also with the fragments 6 B, 64 AB, 68 b und 91 D, 90 B-C, 91 Cb)

Fig. 31.1-2; 80. 2 Fragment 6B (vgl. S. 51 ff.). On a piece of fabric on the lower hemline of a probably ankle long over tunic there are still small not near identifiable remains of a lining fabric preserved. The fragments which are held in place through a line of crude backstitch there are roughly in 2 cm hem upwards from the downwards pointing edge of the garment. The stitches are visible from both fabric sides and are furthermore similarly course stitched rows and in other places off the seam edge accompanied which can hardly interpreted differently than as fastening for a now disappeared trim.

Fig. 49.1-2; 52; 64. 3 Tab. 2; 10 Fragment 11 e-g (vgl. S. 73 ff.). On the left side of the underside of the klappenrock are lining fabric remains which are put together from one large piece from course 2/2 twill (fragment E) and 2 ribbon like remains in course plain weave (fragment F-G). The plain weave fragments elongate the piece of out 2/2 twill towards the lower edge of the fabric up to roughly 2cm above the lower garment hem to which the lining be only connected in a few places. The lining pieces are mostly with dark but once in a while also light brown course whipstitch some of the connecting seams between garment fabric and lining fabric are at the rounded corner that was likely part of a slide slit. Others are two irregular rows at around 10 cm upwards from the lower edge. One additional seam with irregular only very partially remaining whipstitches goes vertically along the remaining hem line of the lining fabric.

The lining fragments are notably soft and loose with a wooly surface which potentially could have been cause by an original roughing of the fabric but since they seem worn very strongly this could also be the result of intensive use. Nowadays they are 0.3cm thick. The material is very likely old worn garments. The dye analysis of in the present time are weakly reddish or yellowish brown fabric fragments had been analyzed for pigments and the pieces e & f had been dyed with walnut shells.

Fragment 45 A-B . Lining ? (Description vgl. S. 78ff).

7. 9 Klappenrock

The most striking textile fragments of this collection of finds are the not uncommon pieces, which come from a jacket-like garment. It can be interpreted rather without question in detail from the fragments obtained. In this case it is all the more important, since the existence of such a garment as this in the Viking Age was almost unknown. The Haithabu fragments, on the other hand, are the first identifiable remnants of a garment which in pre-viking times was frequently represented in a handful of illustrations. Fig. 106.10 (Warrior figure. Helmet from Vendel, Grave I). Close-fitting, waist-length, with two diagonally overlapping opening edges, the klappenrock forms the pompous garment of the warrior on many of the most famous Merovingian human figures, on which one would immediately recognize the belt and the wide edging or trim, which was also originally present on the Klappenrock of Haithabu garment.

H. Vierck (1978d, p. 263 ff., 1981, p. 125 ff.), who has repeatedly discussed the klappenrocks, also includes the garment of the wood figurine from the Thyrah Hill of the necropolis of Jelling. The lower part of the garment is slit, but the schematic representation does not give any other information about the cut or shaping of details. The klappenrock does not seem to occur in Viking-time pictorial representations; even on the carpet of Bayeux it is completely missing. It was not until much later, for example, in a portals sculpture on the church of Ørsted (depicted in Nørlund 1941) from the twelfth century that a similar garment can be recognized in the design of the front opening, the edge trims and an acute angle at the opening edge. Although the contours are not entirely clear, one gets the impression that the overlapping halves of the garment lie not diagonally above the breast, as in the case of the Merovingian figurative plates, but are almost vertical. If the Haithabu finds already have a variety of features, it could considerably facilitate identification of garment parts on iconographic illustrations, and substantially enrich the overall historic view of this garment.



Fig. 106 Illustrations of human figures in different costumes. 1-7 Oseberg Tapestry (after Hougen 1940, Fig. 7). 8 Harald, Brother-in-law to King Edward of England. Tapestry of Bayeux (after Stenton 1957, Table VI). 9 Man figures of the normandic Heerlager. Tapestry of Bayeux (after Stenton 1957, Fig. 48). 10 Warrior Figure. Helmet of Vendel, Grave I (after Stolpe and Arne 1912, Table V).

The klappenrock fragment from Haithabu points to a better – though not exclusive – garment which not everyone would have. The frequent dyes and the mostly fine fabrics would point to this. The split skirt part with rounded corners also supports this thesis, as fashionable elements, such as slots, were not for everyone, and innovations of this kind were usually first picked up by the upper classes of the population.

Klappenrocks on illustrations belong not to the well to do class, but very clearly to outstanding persons of society, which are regarded as "chiefs" or even as "small kings" in the archaeological literature. 71 The figures represent warriors on foot and on horseback, which seem to have worn the klappenrock alternatively with chainmail. In addition to the rank symbols of weapons and horses, the klappenrocks, as I have tried to show elsewhere, clearly should also be regarded as a badge of government in this context (Hägg 1982, 1984).

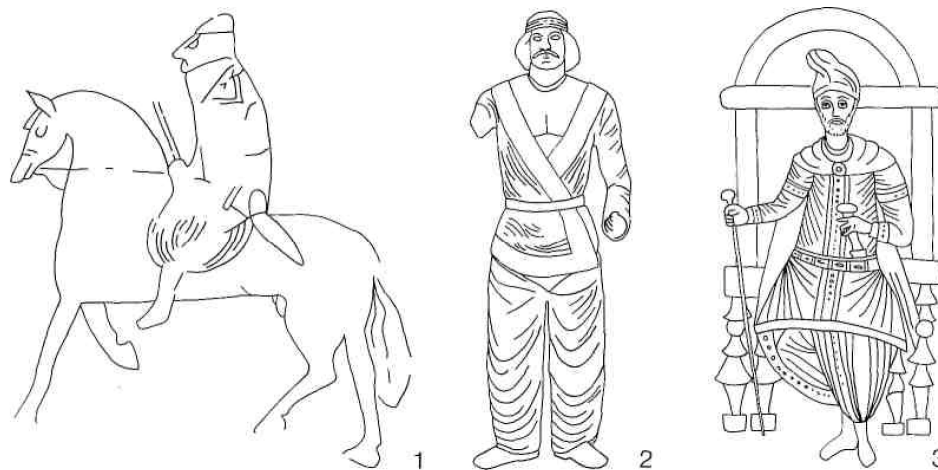


Fig. 104 Illustrations of male figures in different costumes. 1 Rider in pleated trousers and coat with reversed [folded over] collar (?) from figurestone Halla Broa IV, Gotland, Sweden (after Lindqvist 1942, Fig. 384). 2 Statuary of an Iranian King, 1. Mid 200 BC (after Kraus 1967, S. 392). 3 Male in pleated trousers and stockings on a mural painting in Dura Europos (after Bellinger u. a. 1956).

Fig. 104.1 Remarkably, Birka's Viking-era graves also contained remains of a caftan-like garment, with silk and ornaments in silver and gold. 72 In some cases an associated belt could be proven, occasionally also buttons in rows on the front of the chest. To close the opening edges, presumably a penannular brooch or a ring shaped fibula was used. These statements are mainly based on two observations: on the one hand, some of the relevant fibulas still have textile remnants of a which can be interpreted as a part of a caftan 73, on the other hand, in a number of these graves, the fibulas were often located in position on the hip of the dead, where they may have attached the lower edge of the hem to the overlapping front part of the caftan jacket. Since textile remnants on fibulas which were near the armpit of the dead, also occasionally come from a caftan, the clasps would have fulfilled a corresponding function, and not, as in the traditional interpretation, only be used as a cloak clasp. By the armpit the fibula obviously closed the lapel or the turned over collar in the same way as this has been suggested for materials out of graves on Gotland. 75 In fact, a reverse collar had been represented on one of the Gotland sculptures (Halla Broa IV, Lindqvist 1941). A collar at the neck of a rider in wide, pleated trousers, and a smock-like garment is likely to be interpreted as a reversed collar, and in three of the richest men's tombs of Birka some gold treads were still bent at the same angle like they originally had been sewn on to the reverse collar of the caftan coat. Two of these tombs also contained rider's equipment (grave 644, 750), the third of which had weapons and other reigning symbols (grave 524) 76. There is, after all, a fundamental correspondence between archaeological and iconographic findings, in which the richly equipped caftan jacket consistently characterized men of high rank with their symbols of authority, weapons, animal masks, and horses.

The reverse collar is from the Orient. Now, as is generally accepted, the origins of the Merovingian caftans are also to be found in the Orient, and reached the west with the gothic culture stream either with the Avars of through Byzantium. 77 In fact, an Eastern origin of this type of garment is very likely, no matter how it was introduced in Europe. Indeed a development of the caftan garment in the manner indicated here – and in which the reverse collar first appears in the Viking era – appears at first sight an anachronism. However, if the intensive south-east contacts, in particular the Birka Vikings, are taken into account, contacts which could have profoundly influenced clothing of the ruling elite, the now emerging oriental costume elements finds an easy explanation. This orientalization of the

outfit, according to the samples of the clothing of the Byzantine-Russian court and officials, who themselves were decisively influenced by the outfits of the Persian rulers, happened at first in the Viking times and are exclusive to the East Scandinavian area, whose center was in Birka.

Caftan jackets form a fixed part of the pictorial representations and even characterize frequently the main characters of a scene, whose iconography in other ways show a multitude of elements with symbolic value indicating status (see page 187). Our main interest is the motif connection of caftan jackets and helmet with crooked horns. In other Scandinavian regions the garments' historical development likely went in different ways.

Most likely the klappenrock, the former caftan coat, probably underwent the usual transformation from pompous garment of the Merovingian ruling class to a middle class garment; now no longer a symbol of an exclusive upper class, it is no longer an object in visual art. This interpretation of the Klappenrock's historical development solves the apparent contradiction between the lacking pictorial representation in Viking times of the in the Merovingian times frequently represented garment, and it's archaeologically now proven existence in the Viking era. The fact that the oriental caftan garment is a central element in the above mentioned Merovingian time pictorial art (cf. p. 188) points towards, as other attributes of the same set of motifs are similar, initial transition through provincial Roman legion camps. Since the Teutonic auxiliary forces were particularly frequent at the eastern and southeastern borders of the empire, such a transmission is very probable. In the same way, the borrowing of the narrow Parthian trousers and of the wide pleats or pumps trousers [rus trousers] could be made probable in the north (see pp. 166 ff.). Interestingly, in these southeastern parts of the [Roman] empire klappenrocks were also at home with wide trims without the reverse collar. Fig. 104.2-3 Very similar examples to the northern caftan garments can be found on the statue of an Iranian prince from the first half of the second century, as well as on wall paintings in the Parthian border and garrison town of Dura Europos. Together with the caftan, pleated trousers are worn here, which presumably have common roots with the Scythian and Celtic pleated trousers (see Wi-dengren 1956). It can therefore be stated that a caftan garment with the appearance and construction of the klappenrocks of the northern [foil] metal figurines were also to be found in the eastern parts of the Roman Empire. Because the "Roman" soldiers [hired mercenaries], for practical reasons, adopted the foreign garment with caftan and riding pants (Cumont, 1926), there is a high degree of probability for the transmission of these garments as proposed here. The Old Norse literature contains a large number of terms for outer dresses (see Falk 1919, pp. 161-192). Some, for example *stakkr* and *kufi*, refer to sling-clothes and are therefore not considered for the klappenrock. This also applies to the overcoats made exclusively from fur. Other terms seem to appear late in the High Middle Ages, although these still pose questions of a number of uncertainties. Among the remaining terms, which are not merely open, sleeveless coats, 80 the *treyja* and the *kåpa* are to be mentioned. The *treyja* seems to have been a weaponrock, but it also exists in a nonmilitary milieu. With sleeves or sleeveless, depending on whether it is above or below the chainmail, it is said to have replaced the armor in battle. If H. Falks (1919, p. 171 f.) assumption is true that the word itself only reached the north in the 12th century out of Germany, nothing would be said about its age or the time when the garment first spread to the north.

The *kåpa* has already been treated in conjunction with the *loðólpa*, since it could also occasionally be made of loden material (*lodkåpa*), as shown, the klappenrock fragments of Haithabu consist as well out of smooth as rough material, the rough being loden. According to Falk (1919, p. 187), they could very frequently consist of double layers of material (*tvíbyrð kåpa*) or be lined (*fóðruð*). Potentially one of the big textile pieces with lining fabric (fragment 11) from the found material from Haithabu, can be associated with findings from these written traditions [Falk]. The open *kåpa* is portrayed as a jacket, often with a hood, which usually had sleeves, was slit, or could be, and was closed by clasps, and could also be decorated with ribbons, apparently, even with silk.

These descriptions on the one hand, and the klappenrock on the other, as is now known by the archaeological finds and pictorial representations, show a number of interesting coincidences, for example the material which could also be loden material, and the frequent occurrence of lining. In Haithabu, in addition to lined pieces of fabric, there are finds (fragments 45A-B, 76) which are to be considered as the lining or possibly as the inner layer of two similar layers of a *tvíbyrð kåpa*. There is no trace of a hood or sleeve in Haithabu, but the slit skirt part is clearly present. Here the pictorial representations contribute to completing information, such as the sleeves and also the trims, which were also shown in Haithabu, while a hood is missing on the pictorial evidence. The caftan garment from Birka, adorned with silk trim, also appear to correspond to the literary figures in which a *kåpa* is said to be covered with silk (see note 72). Moreover, the written statement that the *kåpa* was closed with "clasps" (Falk, 1919, p. 180) is also confirmed by many Birka graves, in which clasps (Hägg 1974; 74), but also buttons (Geijer 1938) could be proven as closures at the caftan skirt.

According to H. Falk (1919, p. 186), the word *kåpa* appears in Denmark in the tenth century, while the garment in Norway was already "fashionable" at the end of the century. 82

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