The Wardrobe Project
for Their Royal Majesties

Team Norse

With special thanks to Mistress Álfrún ketta for her indispensable feedback and THL Moniczka Poznanska and Lady Genevieve O'Connor for weaving trim.

The Royal Wardrobe: Team Norse

The Norse outfits of Their Royal Majesties came together around one garment, a *klappenrock* for His Majesty. Starting with the coat we then searched for other extant finds of a similar time frame and culture to assemble a wardrobe. The different aspects of the wardrobe were divided up between 10 people, with each participant working on a part of their choosing. The color choice for the Royal Wardrobe is a mix between Their Majesty's heraldic colors of black & red and the Kingdom heraldry of red & white. Where appropriate, the garments are embellished with silk trim, silk cord or silk tablet woven trim. Part of the fabric came from personal supply; part was bought especially for this project.

The base outfits of Their Majesties are based on extant garment pieces found in 10th century Danish Haithabu and Swedish Birka. Both towns were important trading villages of the time, creating exposure to a more diverse culture. His Majesty's coat is based on garment pieces found in Haithabu that are interpreted as a wrap-around caftan, or *klappenrock*. His pants are based on earlier period Thorsberg Trousers (without the feet). Her Majesty's coat is based on a pattern commonly known as the Birka coat.

Her apron dress is based on fabric fragments finds from Haithabu with its top adorned with a tablet woven brocade inspired by Birka finds. The under and overtunics are extrapolated from fabric fragment finds from both towns. The hoods are based on the well-known 11th century Skjoldehamn find. Unlike the unadorned extant piece, we added 10th century Mammen style embroidery on silk trim to add a bit of Royal flair.

For the Royal accessories we based the Knight's white belt and belt pouch on Birka hardware finds. We choose a braided belt for Her Majesty in our Kingdom colors, as there is nearly no evidence for leather belts worn by Norse women. This belt is also based on the 11th century Skjoldehamn find and is thought to have belonged to a Norwegian woman. As Her Majesty would not have a belt pouch, a Haithabu style wood handled bag was made, boldly emblazoned with the Æthelmearc escarbuncle. The beads used in Her Majesty's brooch string and necklace are based on 8th century Ribe exemplars. Their Majesty's feet were covered with turnsole shoes based on 10th century shoes from Dorestadt, the Netherlands, another Viking trade center.

It was an amazing experience to see first how the wardrobe idea came together, then was taken apart and divvied up between the participants, to at the end come together again in its final assembly. While this type of collaboration is par for the course in medieval life, it is rare to encounter it in a SCAdian context. I feel privileged to have been part of this wonderful experience and hope the future will see more of this kind of multi-disciplinary, multi-artisan projects!

Yours in Service,
Elska & Team Norse.

Thorsberg Trousers

Ca. 3st or 4nd century, Schleswig-Holstein, Germany.

M i s t r e s s A l i c i a L a n g l a n d

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The pair of pants commonly known as the Thorsberg Trousers were found in a peat bog, the Thorsberg Mose, during a 1860-61 excavation led by Danish archaeologist Conrad Engelhardt in (what is now) the Schleswig-Holstein area, near Süderbarup, in northernmost Germany. The garment probably dates from 3st or 4nd century CE, the Roman period/Roman Iron Age. But sources differ on this; one source claims that the date 1000 AD is "commonly accepted."

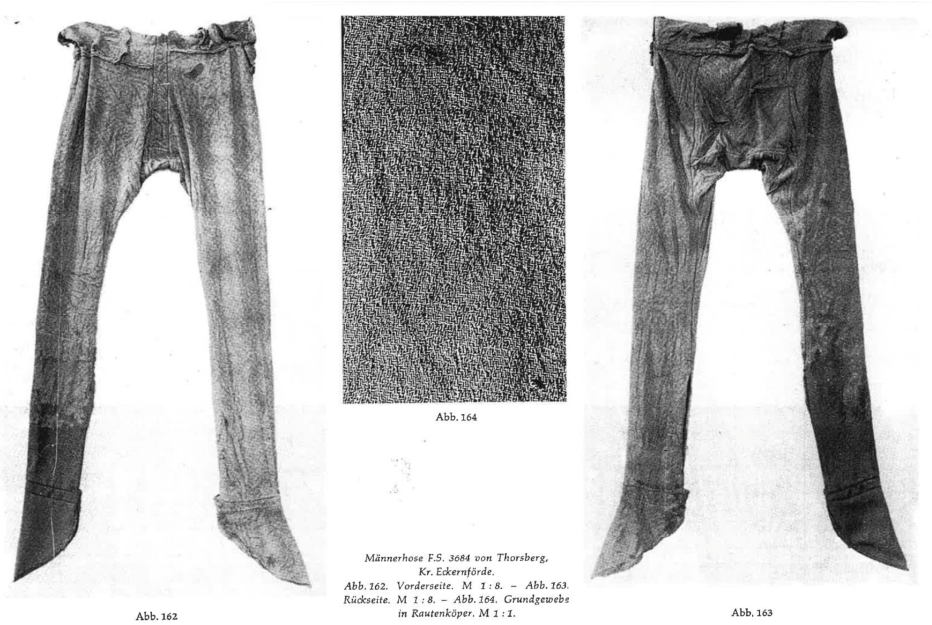


Fig. Front, back and fabric close-up of extant piece.[1]

The extant piece

The garment was made of wool woven in a broken lozenge twill. Möller-Wiering describes the wool as "fine, unpigmented, and well prepared."[2] Hald feels that the "exceptionally well woven" fabric indicates "that the wearer was not in humble circumstances."[3] The fabric is cut on the straight grain, with the warp running straight downward. It consists of several pieces, all of the same fabric: ankle-length leg pieces are joined by trapezoidal rear and crotch pieces that give shape to the pants, with "feet" attached at the ankles by narrow bands. (Note: In the extant garment,

[1] Schlabow 1976, Abb. 162-163
[2] Möller-Wiering 2011, 49
[3] Hald 1980, 329

the lower half of one of the legs is torn off.) A gore, starting at the middle of the arch, is inserted in the bottom of each foot; this gives the foot a rounded shape and creates room for the heel.

The total length of the original garment is close to 1 meter (39 inches); the waist measures about 1 meter as well. The legs measure about 30 cm (close to 12 inches) at the calf. Engelhardt, as quoted in Möller-Wiering, feels the size "points to a heavily-built owner of more than medium height."[4] According to Möller-Wiering, the garment measures 125 cm (about 49 inches) from top to toe and about 46 cm (18 inches) wide at the front.[5] The garment was worn with a belt. Six belt loops are stitched to the waistband, which is inside-out, suggesting the waistband might have been folded over to hide the belt. While seemingly unusual, other examples of folded-over waist bands exist. An example of a folded-over waistband appears on the Column of Marcus Aurelius (Fig. left), constructed in Rome between 180-193 CE; the figure appears in a scene showing the execution of barbarians. The image on the right is part of a relief from the Ludovisi Battle Sarcophagus (250-260 CE) in Rome depicting a battle between Romans and Germanic warriors. Note the rolled-top waist. To avoid a bulky waistline, a narrow tablet-woven belt would be appropriate. A burial dated AD 345-535 found at Datgen, Germany, included a striped tablet-woven band that was probably used as a belt.[6]

Fig. left: Column of Marcus Aurelius.[7]

Fig. right: Ludovisi Battle Sarcophagus.[8]

[4] Möller-Wiering 2011, 48
[5] Möller-Wiering 2011, 49
[6] Gleba 2012, 161
[7] http://classconnection.s3.amazonaws.com/425/flashcards/2184425/jpg/picture35-142E0CBAB8E73ED247B.jpg (Retrieved 2/12/2018)
[8] https://en.wikipedia.org/wiki/Imperial_Roman_army#mediaviewer/File:Grande_Ludovisi_Altemps_Inv8574.jpg (Retrieved 2/12/2018)

Lise Bender Jørgensen suggests the trousers might have belonged to a Germanic officer serving as a mercenary in the Roman army.[9] Möller-Wiering finds it reasonable that the trousers belonged to an officer.[10] While the construction of the garment seems elaborate, it does not seem to be an isolated find. Another pair of pants found at Thorsberg (3685) seems to be constructed in a similar way, with feet and geometric pieces at the rear and crotch. And a third pair of pants, found in Damendorf, Germany, dating from roughly the same time frame as the Thorsberg trousers, also has a rectangular piece for the rear; unfortunately, the legs are torn off at the bottom, so there's no way to tell if they once had feet. In addition, a 4th century Roman tomb painting from Silistra in Bulgaria (Fig left),[11] shows a slave carrying tight-fitting, footed trousers over his arm; a narrow belt runs through the loops.

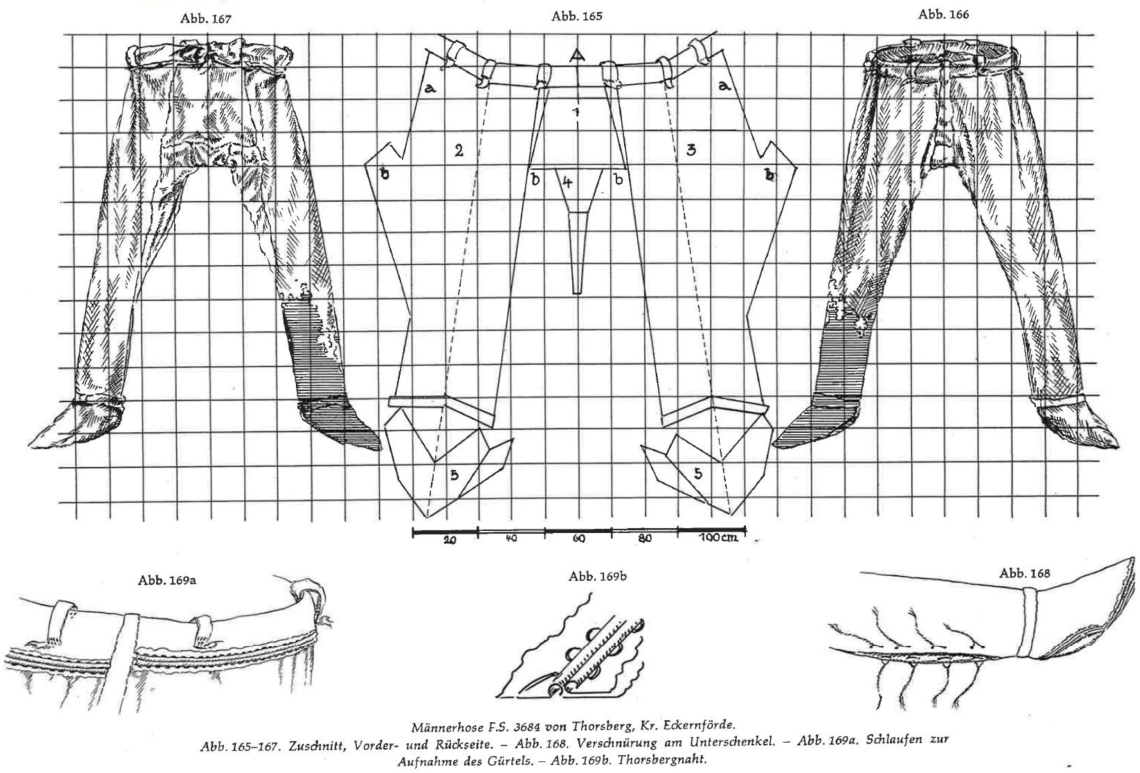
The reconstructed trousers (F. S. 3684) are currently housed in the *Archäologisches Landesmuseum, Schloss Gottorf* in Schleswig.

Is the pattern historically correct?

This is uncertain. It's based on a drawing in Tarrant's book, which seems to be based on a drawing in Conrad Engelhardt's work, *Thorsberg Mosefund*, published in 1863. The drawing in Tarrant's book, unfortunately, doesn't include a scale. Fortunately, Hald includes a better diagram, which has not only a scale - in centimeters - but also symbols that indicate points of attachment for the various pieces. Then there's Karl Schlabow's version, with its angles and lines, which barely looks like any of the others.[12] Möller-Wiering reports that Hald's diagram is "closer to reality than Schlabow's."[13] However, Hald omitted a small piece in the crotch.[14] No matter which diagram we use, we have to depend on the artists to show every seam and every piece in their exact dimensions…

For early period garments, we're used to seeing geometric patterns that don't involve a lot of curves. While it is true this pattern is rather wonky, and would seem like it wastes a lot of fabric, one reason the Thorsberg trousers work so well is the extra pieces added to the rear and crotch. Even more important is the fact that the leg "notch" shaping the crotch area uses the fabric's bias to allow the fabric to move with the wearer. Pieces under stress due to movement will stretch rather than tear. As a result, this might serve to conserve fabric in the long run.

[9] Jørgensen 1992, 135-136
[10] For an excellent summary of the trousers' fabric and construction in context, see Möller-Wiering, pp. 113-117.
[11] http://heriquest.com/?p=43&c=2&id=468&l=2 (Retrieved 2/12/2018)
[12] Schlabow 1976, Abb. 169b; reprinted in the Thorsberg Trousers class handout.
[13] Möller-Wiering 2011, 49
[14] Hald 1980, 79: note 10



Männerhose F.S. 3684 von Thorsberg, Kr. Eckernförde.
Abb. 165–167. Zuschnitt, Vorder- und Rückseite. – Abb. 168. Verschnürung am Unterschenkel. – Abb. 169a. Schlaufen zur Aufnahme des Gürtels. – Abb. 169b. Thorsbergnaht.

Fig. detailing the extant waist band, seams and ankle ties.[15]

What colors would be appropriate?

The original color of the extant garment is unknown. The garment now looks tea-dyed, a result of being preserved in a bog for a millennia and a half.

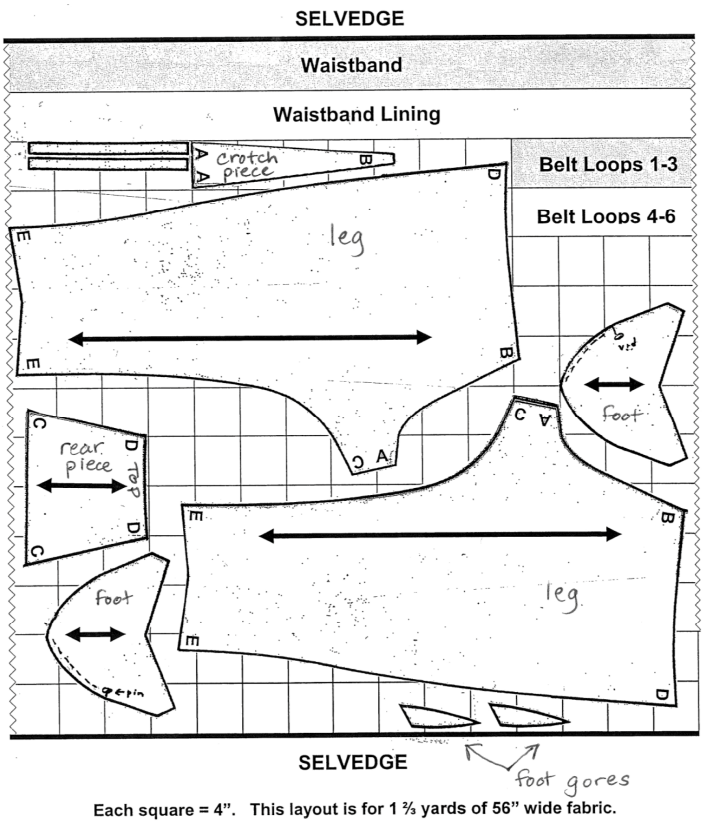
Lise Bender Jørgensen[16] states that

- Blue: woad (plant) was used in Scandinavia as early as the 1st century. The use of woad in Europe can be dated to the Middle Bronze Age, 1600-1200 BC.[17]
- Orange-red: madder (plant) was used from the middle of the Roman period.
- Crimson-red: Polish cochenille (insect) was used from the middle of the Roman period.
- Purple and red: Lichen purple (plant) was used from the middle of the Roman period.[18]

[15] Schlabow 1976, Abb. 165, 166, 167
[16] Jørgensen 1992, 138
[17] Gleba 2012, 19
[18] For a sample of what this looks like, see http://www.jennydean.co.uk/index.php/anglo-saxon-dyes-lichen-purple/

His Majesty's pants

A pair of chino pants was sacrificed to make the pattern. While it is possible to create a pattern without cutting up a pair of pants using key measurements (explained in detail in the class handout *Thorsberg Trousers: Pants That Last!*)[19] as His Majesty would not physically be around for measuring, we opted to base the pattern on a pair of pants known to fit comfortably. The cut pattern pieces were transferred to waste fabric and the crotch and rear pieces were added. His Majesty opted for open pants, and thus the foot pieces could be omitted from the pattern. The pattern pieces were then handed over to seamstress Elska who successfully assembled the trousers using the step-by-step guide in the class handout. Royal feedback was "an excellent fit."



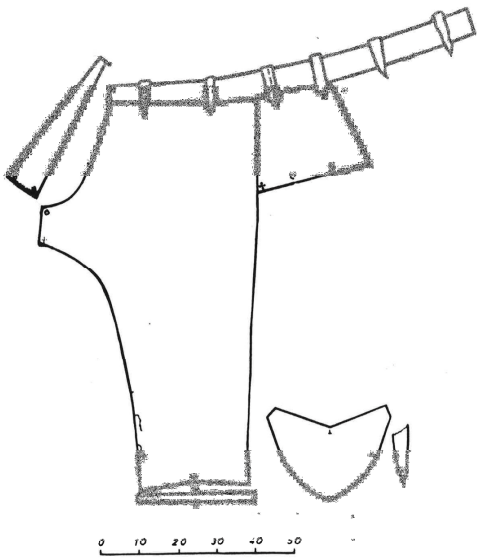


Fig. 392. Diagram for the Thorsbjerg trousers.

Fig. left: laying out of patterns on fabric.[20] *Fig. right: Assembly of pattern pieces.*[21]

[19] Hutchinson 2014: *Thorsberg Trousers: Pants That Last!* Class handout by Mistress Alicia Langland.
[20] Hutchinson 2014, 6
[21] Hald 1980, Fig. 392

Viking Brooch String and Laurel Wreath Necklace

Based on beads found in 8th-century Ribe, Denmark.

Master Artemius Andreas Magnus

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Construction of the laurel wreath

Normally the medallion would have been produced by using the lost-wax method of casting. This method involves taking a chunk of wax and carving into shape. Another piece of wax is added called a sprue.[22] The next step is to encase the wax model and sprue-clay leaving the end of the sprue exposed. The clay is then put into a kiln and heated until the wax melts away and the clay is baked. Hence the name "lost wax". In modern casting, a plaster called *investment* is used. Once poured, the investment is left to dry then placed in a kiln to burn out the wax. The result is a hollow that is formed inside the clay in the shape of the object you wish to cast. The last step is to heat the metal and pour it into the opening created by the sprue. Let the metal cool then crack open the clay and if everything went according to plan, a metal version of the wax model has been formed. This process is described in great detail in Theophilus's *Diverse Arts* (c. 1122) and other documents.

Unfortunately I did not have the equipment to make the wreath this way. So I took another path. I combined two other techniques involving acid etching and sand casting.

[22] *Sprue*: a channel through which metal or plastic is poured into a mold.

Fig. left & right: The finished laurel wreath necklace and brooch string.

To create the three-dimensional model, I took a drawing of the laurel wreath and transferred it to a thick piece of brass. I used an acid to etch a relief of the wreath into the metal. This gave me my basic model for casting.

The next step is to use sand to cast the basic model in silver. In short, I filled one half of a casting flask with sand, pressed the model halfway into the sand, then filled the rest of the flask with sand covering the model. I split the flask apart and carefully removed my model, leaving an impression in the sand. I created a sprue for the silver to flow into the model then recombined the two halves of the casting flask. I melted my silver and poured it into the sprue. Once cooled, and cleaned, I cut away the parts I did not want. The texture of the sand created a nice texture on the silver. Next I added a bale[23] to the medallion. I did a rough polish on the wreath then added green cold enameling to the medallion and then a final polish.

Bead construction

Most of the beads made for the necklace and brooch beads were modeled after beads recovered in the Ribe Excavation. Some of the samples came from figures 7, 9, 12, and 15.

The way the beads are formed did not differ much from the original methods. The only difference is the technology used. I used an oxy/propane torch instead of a clay wood-fire kiln. My mandrel[24] was steel instead of iron. The bead release was clay and the glass was a modern *murano*.[25] The techniques used to wind, shape, and color the beads are the same techniques that were used in period.

Stringing the beads

I referred to several techniques based on photographs from *Die Graber Von Haithabu, Band 2 Katalog, Listen, Taflen, Beilagen* to determine how to string the beads for both the necklace and the tortoise-shell brooches. As the text was not in English, I could only draw conclusions from the excavation drawings.

[23] *Bail* (also spelled "bale"): a component of certain types of jewelry, mostly necklaces, that is used to attach a pendant or stone. https://en.wikipedia.org/wiki/Bail_(jewelry)
[24] *Mandrel*: a cylindrical rod around which metal or other material is forged or shaped.
[25] https://en.wikipedia.org/wiki/Murano_glass

Hoods inspired by the Skjoldehamn find, styled to suit our Royalty

with decoration based on the Mammen Embroidery.

M i s t r e s s C h r e s t i e n n e d e W a t e r d e n e

Assisted by Baroness Sybilla, Countess Kallista, Baroness Cerridwen, and Lady Dominique.

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Assembling a Team

In August, I was invited to participate in a team effort to construct a set of clothing for Their Royal Majesties of Æthelmearc, to be delivered at the end of September. Knowing that my own time and travel would be very limited in those months, I proposed hoods based on the extant garment known as the Skjoldehamn hood. I had already been interested in exploring this item further, and knew that sound archaeological reports and information would be available online for our group to access. By working with my apprentices, I was already familiar with their skill levels and expertise in different areas, although we had never all worked on the same project. I spoke with all of them about the plans to assemble materials and patterns, expected time to delivery, and the time commitment they were being asked to make.

Planning/Timeline

Marking the date and the week ahead of it on the calendar, I worked backward and established dates and calendared "milestones" that would help keep the work progressing and let us know we were on track. I built in a little time for delays that could be caused by assorted problems, fatigue, and travel/delivery.

Preparing and Patterning

I made a mockup of the original hood in muslin, basted together with the intent of studying the fit and drape. Hoods very easily can become oversized, draping past the shoulder point and then looking more like a working-class garment as opposed to that of a well-off person. By making the mockup, and adjusting the pattern from there, I was able to see that one of the keys to keeping this style of hood draping above the shoulder was to maintain the size and proportion of the squared gore that is part of the familiar "look" of hood. The original hood had rows of stitching in the top to tighten the fit, as well as cords sewn to the sides that could have been used to tie in the front or in the back. By trying on the mockup, it was easy to see that every effort was made to allow adjustment for the hood to be worn more closely to the wearer's head, so I was careful to maintain a closer fit and keep the embroidered area laying across the shoulder. I chose not to include various details of the extant garment. These would be an interpretation inspired by the extant piece, and not an attempt at reproduction.

Once the pattern was sized for the recipients, I cut and assembled the hoods. The original hood is made of wool and not lined, but to accommodate wearing in warmer weather, indoor events, etc., we decided to make them in two

shades of linen, red and black. Looking at the plans for the rest of the outfits, I chose to use the bright red shade as the fashion fabric, and the black as the lining. After assembling the lined hoods, I measured the area that was to be decorated and made a mockup of the bands of silk embroidery. After much agonizing over selecting an extant piece of embroidery for inspiration, because of time and materials availability, I chose a style that could be done as an outline, and in split stitch. After making several mockups of a small one-inch section of embroidery, I was able to estimate how much time and materials it would take to complete the overall design. I decided that it was also prudent to select split stitch, since I knew it was within my team members' skill sets.

Fig. left: Testing the materials and time to complete.

Breaking Down the Work to be Parceled Out

First cutting bands of ground silk based on the size need, I then used a light box to transfer the enlarged embroidery pattern onto the ground. Cut and prepared were four bands (and one extra for "safety"). At one point, someone mentioned that TRMs might like to have escarbuncles worked into the design. The period embroidery pattern fit perfectly on the hood edges. But there, in the deep corner of the point, I found a space for the escarbuncle.

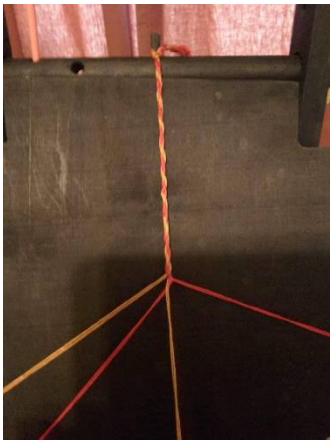
I made up embroidery kits with thread and silk with the design transfer for each of my team to complete. I had anticipated 8-10 hours of embroidery, but found that I had underestimated the time involved. I was able to immediately share with my team that 14 hours was a more realistic time allotment for the bands. The escarbuncles each probably took an additional 8 hours or longer with embroidery, beading, and couched metal thread.

One of the team often worked in small glass beads, so I decided that the escarbuncle would become a lovely textural design in white glass beads, mimicking the small seed-pearl designs in the coronation clothing of Roger II of Sicily that were from about the same time period, if not the same place. We needed one for each hood.

Fig. left: Inspiration for the pearl-seed escarbuncle.[26]

Fig. right: beading with couched metal thread added to hood in progress.

The team met at Coronation, and took advantage of a room that was set aside for us to use to sit and work together on the bands, helping each other and ensuring that we all used the same style and techniques to complete our embroidery. We hoped that the stitching would not be noticeably different when we assembled the work.



Braiding cords with fabric-covered ends, after the extant example. The cords were stitched in place and can be tied in the back or under the chin. *(Photos left, center by Dorrane Bernard.)*

I had assigned myself the task of assembling all the parts into the final hoods, and had set aside a full weekend for this. Embroidered pieces were coming back to be added; not all were complete. That's when the team pulled together: packages were overnighted with the embroidery, beading, and the braided cords to add as finishing touches. One of team arrived in the morning on Saturday, walked through the door and immediately began working.

We worked until 3 a.m., got up the next day and worked until 4 p.m. The silk edges had frayed easily, so I decided to serge those and turn them under (where they would be completely invisible). We were surprised to see

[26] http://medieval.webcon.net.au/extant_insignia_holy_roman.html

that when pressed under a lightly damp towel, the serged edge left visible marks through the fabric! We removed the serge, and then steamed to eliminate the remarks. From then on, a steamer was used to touch up the hoods while they were on a form. Without the extra help, I would not have had time to re-stitch the bands, or to take out stitches and redo them when the slippery silk shifted while hand-hemming it in place. Thankfully, there was exactly enough time to complete and prepare the hoods for delivery.

A true collaboration

The team effort was a wonderful experience. Each person was able to fill in the gaps for the others (with regard to skills and/or time) when the need arose, and it seemed each person had a "hero" moment when their contribution provided exactly what was needed to push the project forward. Each person also had to be able to let the team know when they would not be able to push and get some of the tasks done, and do so in time to allow someone else to step forward and take up the task. Fortunately, this group did that very well.

Fig. left column: Front, detail, and back of finished hood. Fig. top: Their Royal Majesties Gareth and Juliana wearing most of their Norse ensemble.

Group Sewing Project Checklist

- Determine what the project will be, and write it down. Lay out all details including who provides materials, whether the pattern will need to be made, what determines when the project is completed. Share this with your team.
- Create a timeline for the project, working back from the delivery date and marking off holidays etc. to be realistic about how much time can be committed to the project. Add more time than you think you might need to account for delays.
- Identify team members based on what is needed, including skill levels and work capacity. (Team members will have various skill levels and expertise. That's actually good. The goal is also to teach each other as you go.)
- Try to get together to go over timeline, marking any commitments/constraints and milestones. Encourage team members to try to be realistic about the number of hours available/needed to complete.
- Have a plan when things aren't going forward quickly. Work on another part of the project, call in reinforcements, have a plan B.
- Encourage camaraderie and commitment, as well as an environment where people feel comfortable coming forward quickly when they are behind or experiencing difficulty.
- Keep communication flowing, so that no one is behind, overwhelmed, out of materials, or having difficulty with the project tasks.
- Debrief and determine how to improve next time.
- Celebrate the finish together.

This project could not have been completed without the deepest dedication and sewing skill of Baroness Sybilla Daetwyller; the embroidery and beading skills of Countess Kallista Morganova; the breadth of knowledge and Norse culture craft expertise of Baroness Cerridwen de Skene; and the clarity and assistance of Lady Dominique. I am constantly inspired and challenged by their growing skills, wit and wisdom, and the joy and detail they bring to their arts and to the SCA.

Thank you for allowing us to participate with "Team Norse!" It has been a tremendous pleasure to work alongside new and old friends, and see the final completed project come together – Mistress Chrestienne de Waterdene, OL

Resources

Historical Needlework Resources (includes images of Roger II of Sicily's coronation mantle and tunic). http://medieval.webcon.net.au/extant_insignia_holy_roman.html (Retrieved 1/25/2018)

Historical Needlework Resources (includes images of embroidery from the Mammen grave). http://medieval.webcon.net.au/extant_mammen.html (Retrieved 1/25/2018)

Nationalmuseet. Prehistoric period (until 1050 AD) / The Viking Age / The grave from Mammen / The costume. http://en.natmus.dk/historical-knowledge/denmark/prehistoric-period-until-1050-ad/the-viking-age/the-grave-from-mammen/the-costume/ (Retrieved 1/25/2018)

A Viking Warrior's Coat: the Klappenrock

10th-century Haithabu

T H L E l s k a á F j á r f e l l i

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The history

Haithabu, in Schleswig-Holstein Germany in our modern times, was one of the major trading ports of this area. The textiles found here came from the 10th-century, during the golden age of Haithabu. The Haithabu garment finds are especially interesting because they show evidence of advanced tailoring techniques. Instead of just combining geometric shapes several of the pieces, the tailors cut and joined into shapes that closely follow the body.[27]

Further, most of the textile finds at Haithabu come from the harbor where people cut scrap clothing to pieces, soaked in tar, and then used as caulking in ships. Modern researchers found several ships submerged in the harbor, 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 wore.[28]


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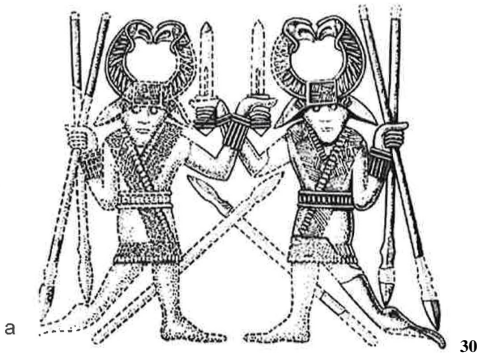
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Left: Pressed bronze plate from the Vendel period. Right: *Spear Dancers, plate from the 6th C Sutton Hoo helmet.*

The klappenrock

Several of the fragments once made up a *klappenrock*-type garment. Because of its depiction on the Sutton Hoo helmet, the wrap-over jacket (literal translation of *klappenrock*) fastened by a belt was quickly dubbed the warrior

[27] Hägg 1984, 171
[28] Ibid.
[29] Sörling & Montelius 1905, s.98
https://commons.wikimedia.org/wiki/File:Del_av_hj%C3%A4lm_vendel_vendeltid_pressad_bronspl%C3%A5t.jpg
[30] Sörling & Montelius 1905, s.98

coat.[31] 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 figure below) there is some confusion as to style in the archaeological literature.[32]

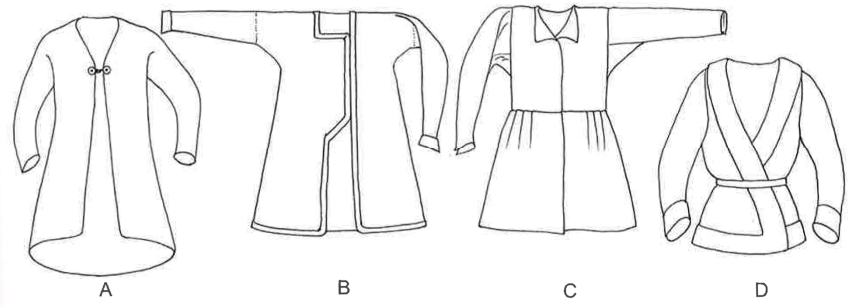


Fig. top: Garment A is a simple coat, garment B a Persian riding coat, garment C the caftan, with reverse collars, and garment D is the wrap-over jacket or klappenrock. Garments B & C were both adopted at the Byzantine court and have been found in Caucasus burials from the 7th century onwards. (see figure at left) 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. [33]

The *klappenrock* does not seem to occur in Viking-time imagery and it is 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,[34] similar to Sasanian garment D and the longer Anglo-Saxon variant.

Fig. left: Another coat variant, with lapels. Textile fragments identified as lapels were discovered in Haithabu as well. [35]

[31] Rogers 2007, 213-214
[32] Ibid.
[33] Rogers 2007, 213
[34] Hägg 1984
[35] Knauer 2001, 126

The klappenrock of Haithabu

The construction and choice of textiles of 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 have been found in Birka, in three of the richest men's tombs. Some gold threads were still bent at the same angle as they originally had been sewn on to the reverse collar of the caftan coat.

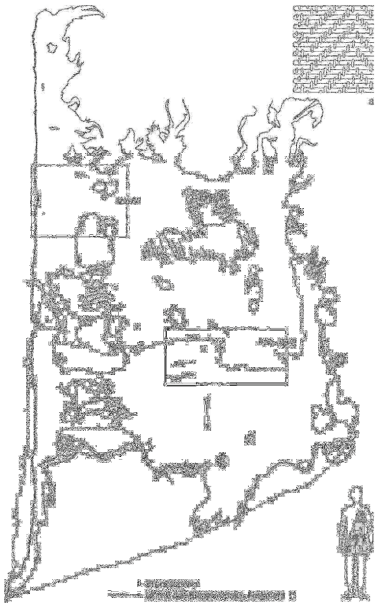
Two of Birka tombs also contained rider's equipment and the third had weapons and other reigning symbols, indicating a connection between the caftan/*klappenrock* and status. There seems to be a fundamental connection between archaeological and iconographic findings, in which the richly equipped caftan 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; no longer a symbol of an exclusive upper class in the viking era, it is no longer an object in visual art.[36]

Fig. bottom: [37]

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. 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 consisting 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. Old garments were used for lining and show the most diverse types of weaving patterns, but, as a rule, the outer parts of the *klappenrock* were made with 2/2 twill (with or without roughening).[38]

[36] Hägg 1984
[37] Rogers 2007, 206
[38] Hägg 1984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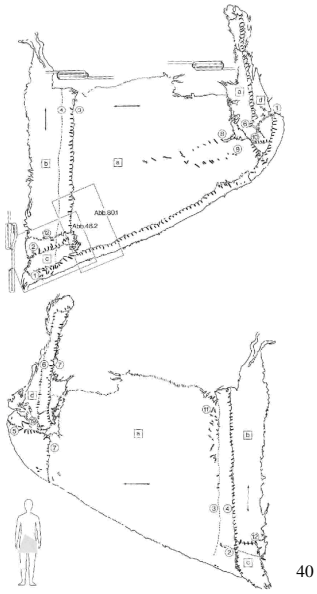
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Fig. left: Fragment 56 A (fig. 57); Fig. right: Fragment 11 (fig. 50 & 51)

Different styles of the klappenrock coat

The bits and pieces found of the *klappenrock* at Haithabu seem to indicate different styles. Below is an overview of the different elements.

Fabrics found:

2/2 twill,[41] cross twill,[42] diamond twill,[43] herringbone twill;[44] some with pile to create fake fur texture (like wearing shag carpet).

The *klappenrock* can have side slits.

One of the found *klappenrock* fragments has a rounded corner at the side opening of a slit.[45] The pointy corner as well as the rounded part belongs to the original cut pattern.[46] Fragment S28 of the Settlement finds also has a side slit.

[39] Hägg 1984, p. 84
[40] Ibid., p. 77 & 78
[41] Verberg, 2017: Appendix Fig. 48-52, 14
[42] Ibid.
[43] Ibid.: Appendix Fig. 55-56, 18
[44] Ibid.: Appendix Fig. 59-60, 23
[45] Ibid.: Appendix; text Fig. 56, 18
[46] Ibid.: Appendix; text Fig. 48-52

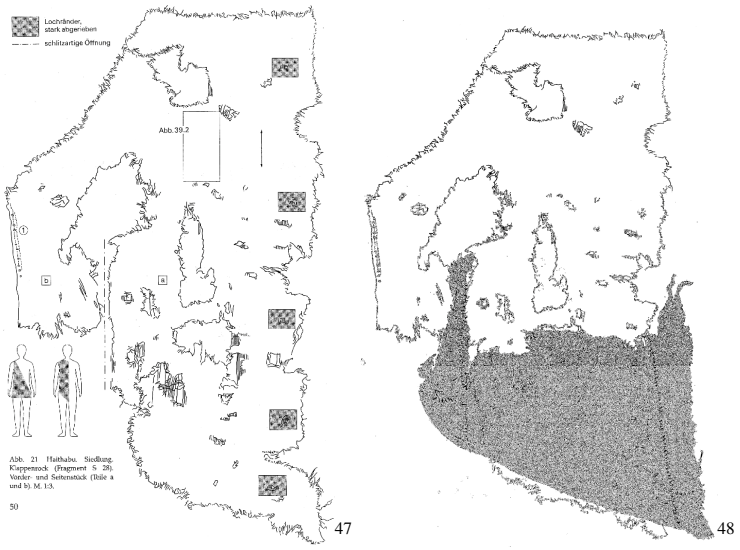

Fig. top: Haithabu. Settlement. Klappenrock (fragment S 28). Front and side piece. With an overlay of a comparative piece from the harbor finds (fragment H 11, and fig. 48).[49]

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.[50] Probably this piece is not the actual garment, but the lining of a *klappenrock*, for which a piece of old garment was used.[51] The fabric shows strong traces of use, which are mainly due to secondary [re-] use.[52]

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.[53] 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.[54]

[47] Hägg 1984, p. 50
[48] Ibid., p. 53
[49] Hägg 1991
[50] Ibid.; text Fig. 48-52
[51] Ibid.: Appendix; text Fig. 55-56
[52] Ibid.: Appendix; text Fig. 59-60
[53] Ibid.: Appendix; text Fig. 48-52
[54] 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[55]

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

The 45 cm lower edge is considerably larger than the normal length of a cut pattern that 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.[56] The straight edge that ends at an acute angle, probably had been at the front opening of the garment.[57] During micro analysis a small number of small particles of bronze and bronze corrosion were found in the middle of the fragment. 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.[58]

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, 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, have only been used as a cloak clasp.

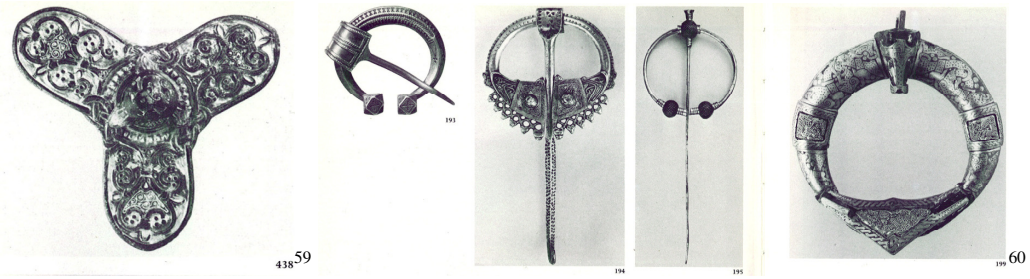

Fig: Different Viking-era brooches; one trefoil brooch and four penannular brooches.

[55] Verberg 2017: Appendix; Fig. 53-54
[56] Ibid.: Appendix; text Fig. 48-52
[57] Ibid.
[58] Ibid.: Appendix; text Fig. 59-60
[59] Graham-Campbell 1980, 283
[60] Ibid., 232 & 233

The design elements included in His Majesty's Klappenrock

I chose to make the masculine *klappenrock* from Haithabu for His Majesty and the feminine Birka coat for Her Majesty. The design elements I chose to use for the *klappenrock* are as follows:

- I choose to omit 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 a re-enacting context. 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.
- For both coats I chose light-weight outer wool (Mood Fabric), with a linen lining (Fabric-Store). I do not anticipate Their Majesties needing multiple layers of wool, and the linen will help protect the seams and avoid skin contact with the wool.
- To stay within the heraldic colors of Their Majesties, the outside wool is heathered grey (appearing black) and the inside is Æthelmearc red. The caftan garment from Birka is is adorned with silk trim (which appears to correspond to the literary figures in which *kåpa* are said to be covered with silk) and I chose to add a dupioni silk[61] in light and dark gold trim to the edges of both coats.
- As the *klappenrock* seems to be a man's garment, a leather belt, with bronze ornamentation, is appropriate. Snorri skyti Bjarnarson made a Knight's white belt with bronze ornamentation:

Fig. left and right: Birka belt set. Sweden, 10th century. For 20 mm strap.[62]

- Plain 2/2 twill is most often used for the outside of the garment. Both coats are made from 2/2 twill wool.
- Running stitch & whipstitch are found, as evident on Fragment 11, and seen in fig. 50 & 51.[63] I used Gütenmann thread for the sewing. I machine-stitched all inside seams and hand sew all visible hems using

[61] https://en.wikipedia.org/wiki/Dupioni
[62] https://armourandcastings.com/product/belt-set-birka-4-sweden/
[63] Hägg 1984

whipstitch or running stitch, as needed. As I was able to fold over the trim on the outside wool shell, most outside hems are a folded seam. The edges of all silk trim are secured by hand stitching, where needed with silk thread pulled from the dupioni silk fabric (as that was a perfect match to the color of the fabric).

Construction

- I made a pattern by adding an inch on all sides to the pattern for His Majesty's tunic. 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, so instead I made a straight line pattern for my 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. The two shells were put inside out and machine-sewn together and then flipped right way out. The lower hem of the linen lining and the arm openings were hand sewn.
- For the trim, I cut strips of dupioni silk and machine-sewed them to the hems of both garments. It was assembled in such a way that by folding the trim back over the fabric, the hems would be hidden within the fold and could therefore be machine-sewed. All trim edges are hand stitched, and couched with a six-strand silk twisted cord.
- This coat took about 40 hours to construct.

A Birka Coat for Her Majesty

10th century Birka, Sweden

THL Elska á Fjárfelli

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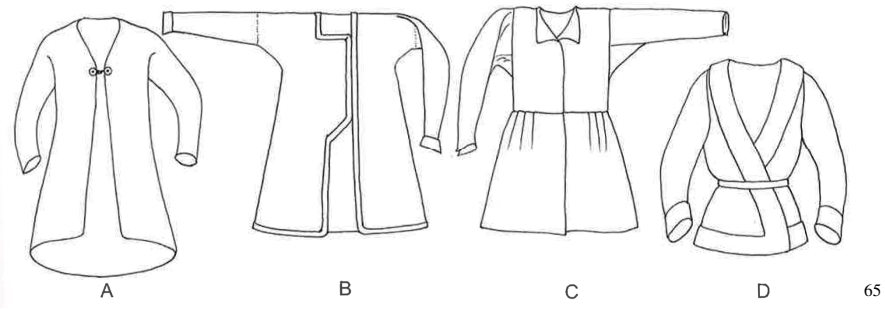
Birka was an active Viking trading town in nearby Sweden from around the same time as Haithabu (now known as Hedeby) in the Schleswig-Holstein province of modern Germany.

What the Archaeological Evidence shows:

The coat pattern found in Haithabu is the caftan like *klappenrock*, which folds around the body like a bathrobe and needs a belt to close. As the caftan 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 figure below) there is some confusion as to style in the archaeological literature.[64]



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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*. Garment A resembles the long coats found at Birka, and is the inspiration of Her Majesty's coat.

[64] Rogers 2007, 213-214
[65] Ibid., 213

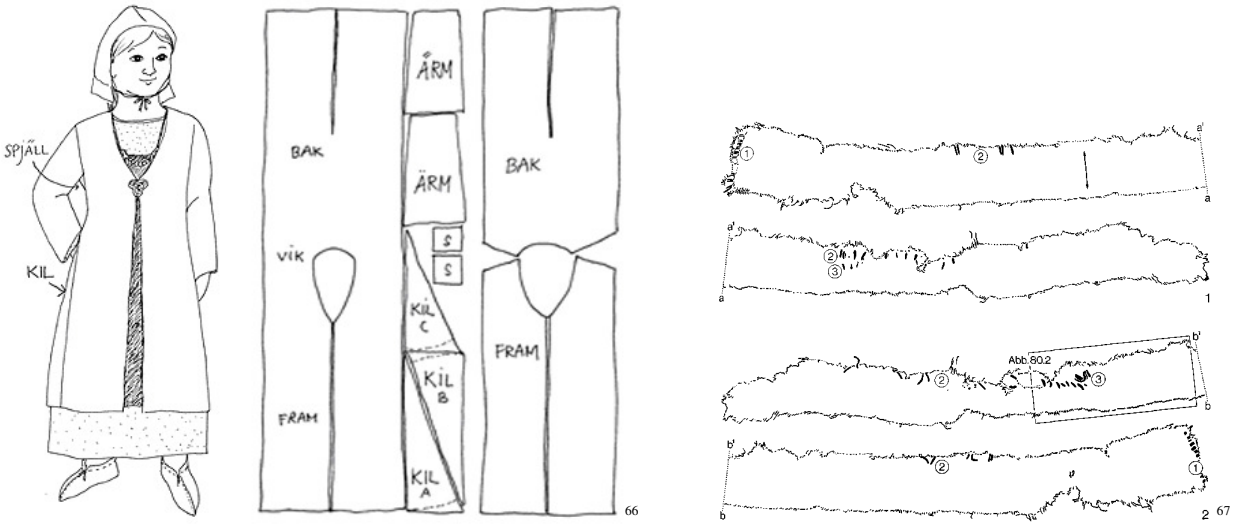


Fig. left: Possible pattern for the Birka coat. Fig. right: Fragments 6A & B, bottom edge of tunic.

In the Haithabu harbor two long strips of woolen twill were found (fragment 6A and 6B) that had been dyed and fulled. The longest of the strips had a slight curvature and had stitches used to fasten a lining.[68] Hägg interprets the strips as the bottom edge of a garment and believes that they come from a floor-length overtunic,[69] or a coat.

Female coats are fairly conjectural, and based largely on the evidence of broaches. Many Viking grave finds include a central trefoil, a circular broach, or a box-shaped broach. These may have held together coats, but they could also have been used to hold together a shawl.

Materials

I chose lightweight 2/2 twill wool (Mood Fabrics) for the outside of the coat with a lining of medium weight linen (Fabric-Store). As this is a winter reign I opted to line both coats for warmth. The lining protects and hides the seams, and the extra weight helps the coat drape well.

Construction

- I made a pattern by adding an inch on all sides to the pattern for Her Majesty's under tunic.
- I first assembled the lining, and then the outer shell of the coat. The two shells were put inside out and machine-sewn together and then flipped right way out. The lower hem of the linen lining and the arm openings were hand sewn.
- For the trim, I cut strips of dupioni silk and machine-sewed them to the hems of both garments. It was measured such that by folding the trim back over the fabric, the hems would be hidden within the fold and

[66] Viking Clothing Guides: Swedish Viking Clothing Guides
[67] Hägg 1984
[68] Ibid.
[69] Thunem 2014

could therefore be machine-sewed. All trim edges were hand stitched, and couched with a six strand silk twisted cord.

- Some of the fragments of *klappenrock* found in Haithabu showed traces of fake fur. While I did not have fake fur, as I was able to trade a nice piece of real fur at Pennsic Barter Town. Therefore I chose a real fur (coyote, fox or wolf) shoulder trim for her Majesty's coat. At the end the piece of shoulder fur was attached using whip stitch. To help it drape right (fur is hard to get right) I hung the coat on a dummy and sewed straight on the dummy. In order to facilitate removing the fur at a later time, I minimalized stitching through the silk, and did not fasten the bottom edge (this also helps with drape).
- This coat took about 40 hours to construct.

Fig. left: His Majesty's klappenrock. Fig. right: Her Majesty's Birka coat.

Norse Tunic and Apron Dress

10th century Haithabu

THL Elska á Fjárfelli

Contact: susanverberg@gmail.com

Background

Haithabu in Denmark, or Hedeby in modern Schleswig-Holstein Germany, was one of the major trading ports of this area. The textiles found here came from the 10th century, during the golden age of Haithabu. Most of the textile finds at Haithabu come from the harbor where people cut scrap clothing to pieces, soaked in tar, and used them as caulking in ships. Modern researchers found several ships submerged in the harbor, 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 wore.[70]

The textile remains of the settlement and harbor are very similar, with the same garment types and the proportion of weaves found roughly the same. The grave finds, on the other hand, differ from this by generally having textiles of higher quality. These differences could indicate that the content of the graves reflects beliefs and social standing, while the textiles from the settlement and harbor may give a truer picture of what people were wearing every day.[71]

The undertunic, or serkr

The undertunic is a floor length long sleeved gown with gores, made of linen or wool, and worn next to or near the skin. The Haithabu graveyard undertunics were made of a very fine tabby woven cloth and usually plain and undyed, probably because without modern processing it is difficult to dye linen with natural plant dyes.[72] A few exceptions are fragments of pleated linen of exceptionally high quality and fragments of linen cloth that had been woven in a plaid pattern with small blue squares surrounded by a white border. The material found in Birka is from the 9th and 10th century and comes from 52 female graves with fragments that probably belonged to a linen *serkr*. Unfortunately the fragments are small thus give little information about how the garments were cut.[73]

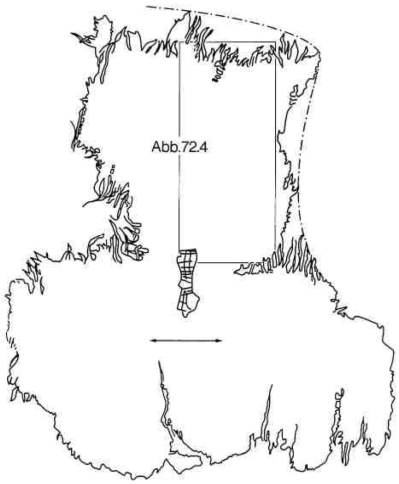
Because of the tar and underwater protection, the textile fragments from the harbor of Haithabu are generally better preserved and larger than fragments found in the ground. But because they were found without context it is harder to interpret which type of garment each fragment belongs to. Also, linen fabric does not seem to be used as caulking, or

[70] Hägg 1984
[71] Ibid.
[72] Saxena 2015, 59
[73] http://urd.priv.no/viking/serk.html

it has not survived the harbor. Several woolen undertunic fragments were found in the harbor. Most are relatively coarse tabby fabrics, with two finely woven fragments. Two samples showed traces of dye extracted from walnut shells, and Hägg believes that all the undertunic fragments were dyed. Along with the aesthetics, the walnut dye is also antibacterial; a clear benefit for garments worn close to the body. The undertunics appear to have been pieced together from several pieces cut to fit the body, with the addition of gores to achieve extra width. Inga Hägg mentions that the undertunic design is similar to the overtunic, except these were usually made from twill instead of tabby.[74]

From the fragments found in the harbor there are two pieces of the shoulder area that might belong to the front and back of the same tunic. Both fragment 72.3 and 72.4[75] are made of coarse tabby weave; one measures 28 cm by 29 cm and the other 28 cm by 24 cm. The original edges remain in some places but are much worn. Traces of a seam remain at the upper edge, where one would have been stitched together to the other fragment.

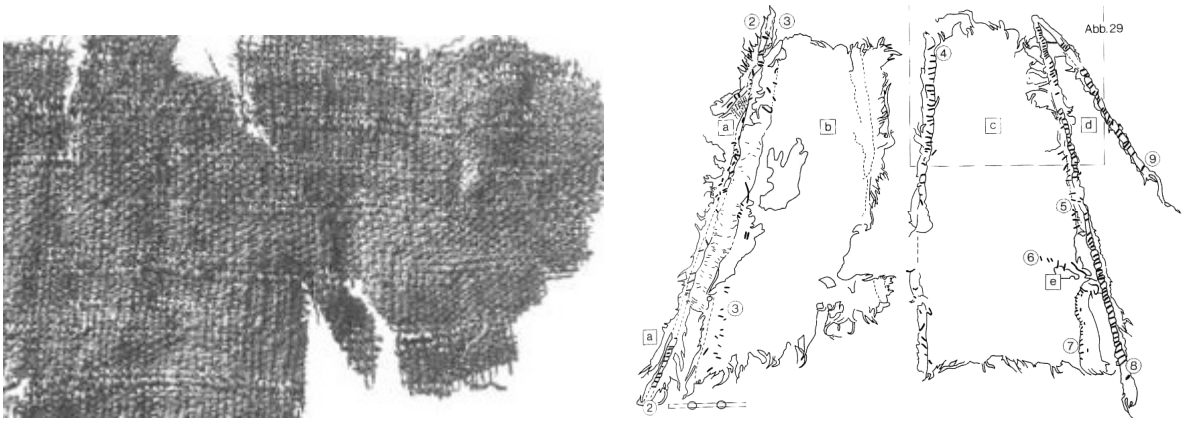
Fragment 72.3



Fragment 72.4

Taking into consideration that the edge had frayed later, the neckline appears to have been wide and deep.[76] The wide neckline would explain why, unlike Birka, very few keyhole brooches were found in the graveyard.[77] The armholes, on the other hand, seem to have tightly enclosed the upper arm and shoulder – they are fitted.[78] The bottom and center edge might have been a seam, or the garment could have been torn into pieces along the grain of the fabric for caulking. Two fragments, fragment 55A and fragment S29 [79] indicate the use of gores to widen garments.

[74] http://urd.priv.no/viking/serk.html
[75] Hägg 1984, 48
[76] Ibid., 50
[77] http://urd.priv.no/viking/serk.html
[78] Hägg 1984, 50
[79] Ibid., 46



Left: fragments of a fine tabby structured linen weave similar to the linen in the Viborg shirt.[80]
Right: Fragment 55A.[81]

Grave 60 A and grave 762 contain small round brooches with fragments from the slit of a keyhole opening. Graves 554 and 644 contain similar evidence for a keyhole opening. In all of the pieces the folded edge of the slit seems to be narrow, about 3/16th of an inch. While almost all *serkr* fragments are linen (or hemp, they are hard to tell apart), 644 contains the fragment of a keyhole slit that seems to have had its edge bound by a very fine linen weave, or possibly silk.

Materials

For the undertunic, or *serkr*, a medium-weight linen was sourced. For His Majesty, both a natural linen undertunic and a split black overtunic were made. For Her Majesty a black linen undertunic was made.

Both His and Her Majesty's tunic armholes were embellished with some small-diameter silk card woven trim in Æthelmearc colors, inspired by Birka-type woven trim. The silk yarn used was red, white, and gold 20/2 from Webs. The trim was woven by THL Moniczka Poznanska.

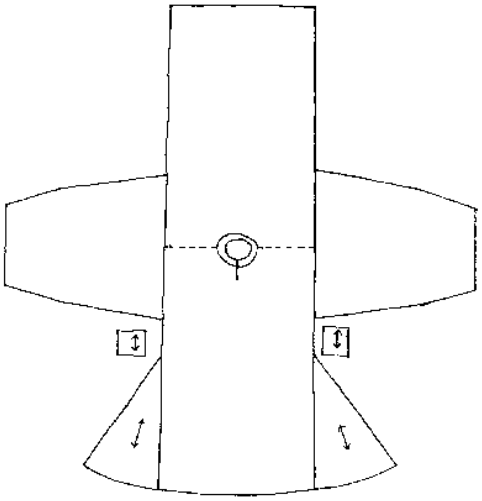
Adapted Birka Twining Motif

Date: motifs 10th century AD, technique fourth century AD
This is based on one of many silver-brocaded bands from Birka in Sweden, dating to the Viking Age. This version features the same motif but has been adapted to be woven as a warp-twined pattern with four threads in each pattern tablet, using a threading scheme known from late Coptic tablet-weaving. (Shelaghlewins)

[80] Hägg 1984, 275, fig p. 67
[81] Ibid., 46

Construction

Both tunics were cut on the rectangular pattern associated with Norse clothing (see figure, suggested for a Birka-style tunic).



[82]

Both of the undertunics were planned as one-piece front and back with side gores, and a keyhole neck opening. The overtunic of His Majesty was split down the front, with side gores. The neckline of the black undertunic of Her Majsesty was rolled outwards, secured with whipstitch, and embellished with couched silk cordage (2 each of green/yellow/orange to simulate a gold/copper tone). The neckline of the red overtunic of His Majesty was rolled outwards and secured with a whipstitch. Both the neckline and the bottom hem and split were embellished with couched silk cordage (corded by hand using both a spinning wheel and a drop spindle). The silk cordage was inspired by Birka grave 644 and other contemporary finds of wear- and hem cords.

Fig. left: The undertunic and overtunic of His Majesty.

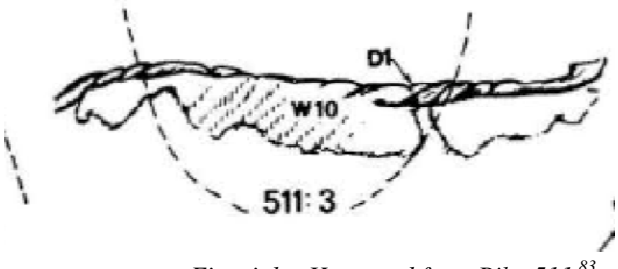


Fig. right: Hem cord from Bika 511.[83]

[82] https://www.cs.vassar.edu/~capriest/viktunic.html
[83] http://awanderingelf.weebly.com/blog-my-journey/viking-clothing-a-deeper-look-at-edges (Retrieved 2/18/2018)

The Apron Dress, or Smokkr

The apron dress is a tube-like garment worn by Viking women together with the characteristic oval brooches. The term *smokkr*, which is used in the Viking poem *Rígsþula*, may be its contemporary name. The word *smokkr* is related to the verb s*mjuga* (to creep through) and seems to reference the way the garment is put on, and indicates the apron dress is a closed tube.[84] The majority of the apron dress fragments are remnants of small fabric loops that were used to fasten the apron dress to the brooches and attached to a few of these loops are fragments of the body of the dress itself.[85]

The loops are made by folding a strip of cloth and stitching over the edges. Unfortunately, most of the loops tend to be torn at the edge of the brooch or the top of the loop so there is no archaeological material on how long they were nor is any detail given on their width. Looking at grave finds from Birka, it is apparent that the stitching could run along the side or down the middle of the loops.

The introduction of loops was most likely a way to avoid piercing expensive cloth, which would also explain why the majority of apron dress loops seem to have been made of the tougher and cheaper linen cloth. According to Hägg's interpretation of the Birka material, the front loop of the apron dress would have been short enough to be completely covered by the brooch along with half an inch or so of the top of the dress.[86] The back of the shoulder loop could have been attached in the middle of the back like the modern dungaree[87] but I have not found any evidence to back this up.

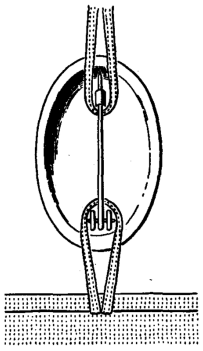


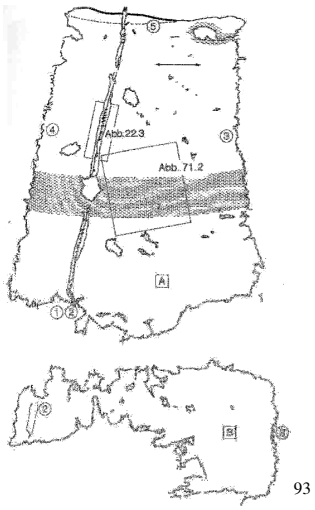
Fig. Brooch loops.[88]

Haithabu finds

As with the undertunic most of the textile finds in Haithabu are of the harbor and are pieces of used clothing coated with tar and used as ship's caulking. The harbor yielded two large apron dress fragments of fine repped[89] wool dyed brown. The pieces appear to have been tailored to fit the body and indicate a closed garment. Fragment 14A is 30 cm high and 16 to 23 cm wide.[90] It is roughly wedge shaped with one straight side and one slightly curved; both with stitch holes where the fragment was once attached to other pieces of the dress. The upper edge is created by turning over 1 cm of selvedge towards the inside and stitching it in place with a herringbone stitch.[91]

[84] Ewing 2006, 37
[85] http://urd.priv.no/viking/serk.html
[86] http://urd.priv.no/viking/smokkr.html
[87] Lewins 2003
[88] Geijer 1938, 155
[89] *Repped*: cloth woven in fine cords or ribs across the width of a piece, usually made of silk, wool, or cotton.
[90] Hägg 1984, 38
[91] http://urd.priv.no/viking/smokkr.html

Fragment 14B is 12 cm by 25 cm, has stitch holes down one side (1) and traces of the dart (2) which is wider than fragment A, leading Hägg to postulate that it would have been positioned a bit lower on the body than fragment A.[92] It would also indicate that placed together there is an obvious flaring out over the hips, indicating a tailored design.



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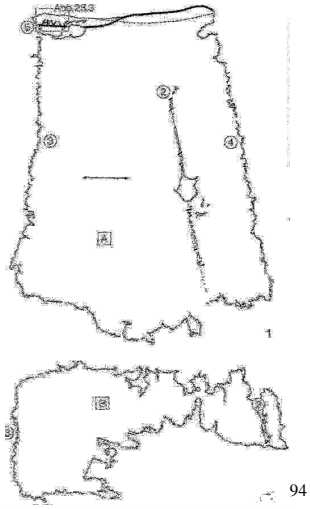


94

Fragment 14 (outside)

Fragment 14 (inside)

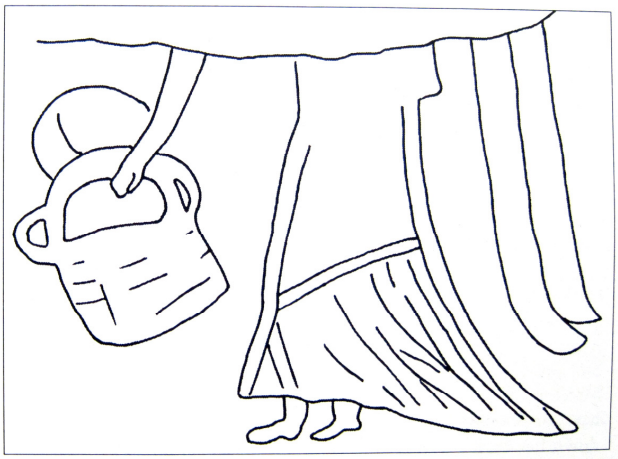
The felted area along the middle of Fragment 14A is interpreted to mean a belt was worn with the apron dress,[95] even though it is placed a mere 15 cm from the top. According to Thunem, this is the only evidence that Viking women may have worn belts together with the apron dress. Ewing thinks this is a girdle; according to him there is no evidence that the apron dress was ever worn with a belt in Viking Scandinavia.[96] Since belt straps of metal are extremely rare to find in connection with female Viking grave finds, it is likely that if a belt was worn it was made of textile, either braided or woven.[97]

The larger pieces found at Birka, and the two pieces found at Haithabu, indicate that the apron dress reached at least to the hip. Pictoral information places the bottom edge at probably below the knees but above the ankles (for instance the Lärbro picture stone).[98]

Fig.right: Lärbro Picture stone discovered at Stora Hammars, Lärbro, Gotland, Sweden.

[92] Hägg 1984, 39
[93] Ibid.
[94] Ibid., 40
[95] Ibid.
[96] Ewing 2006, 43
[97] http://urd.priv.no/viking/smokkr.html
[98] Ibid.

15 Fragmentary figure of a woman on a picture stone from Lärbro Stora Hammars, Gotland. She appears to be wearing a short overdress and a possible pleated underdress. Her underdress resembles garments identified as 'backcloths' on figures from Alskog (30), Grödinge (28) and Tuna (31), raising the possibility that these also represent pleated underdresses



[99]

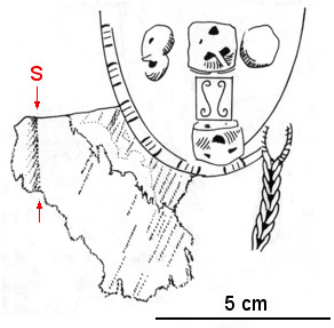
Only a small number of graves at Haithabu contained oval brooches, which could indicate that even though the apron dress was still worn it was not the only type of garment in use.

Reconstruction of the pattern

Since only one piece of the Haithabu apron dress is found there are several possible ways to interpret the while, among them Hägg's speculation that it might have been made from four pieces. Thunem reasons that that would have made a very slim apron dress with a circumference of only 64 cm. She decided to keep the wedge-shaped pieces but to increase the dimensions to have two such pieces in the back and one in the front (also seen in patterns used by Viking costumer Nille Glaessel, for instance page 188), making for a three-piece pattern.

Consideration of evidence from other finds at Birka makes another case for using the three-piece pattern. In grave 597 a large part of the front of an apron dress was preserved by contact with copper alloy jewelry. From the pieces it can be determined that the front loops were set ca. 8 inches and that the fabric extended at least another 1.5-2 inches to the sides. At grave 464 the side seam is preserved that same distance. An overall width of about 12 inches for the front panel could be determined[100] which would be about the width of a front panel for average women in a three-piece pattern.

[99] Ewing 2006, 37
[100] Beatson 2008



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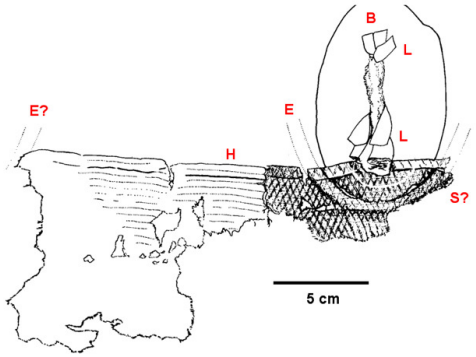

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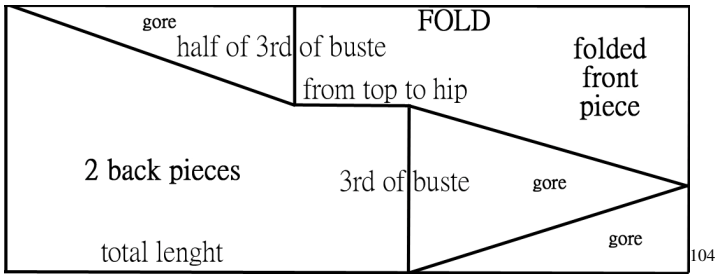
Fragments from grave 597 at Birka B= outline of right brooch; E= matching marks from brooch in the fabric; H= hemmed upper margin of fabric; L= loops around brooch pin, threads adhere to the lower set; S?= possible position of a side seam; S= Side seam.[101]

I started with the three-piece pattern as suggested by *Different Styles 10th Century Smokkers or Hangerocs*[102] of which the cut and patterning is similar to what Monica Cellio and Vigdis Vestfirzka (SCA) proposed.[103]



104

This pattern uses a folded piece of fabric and has no leftovers, which I like. There are three measurements needed to make your own: the buste (divided by three), the body (from top to tip of gore) and the total length. Due to measurement issues I ended up using a simplified version of this pattern with three large rectangular pieces and three (seamless) gores. While simpler, due to lay out of the pattern on the fabric it generates s small amount of waste fabric, as opposed to the waste-less pattern shown above.

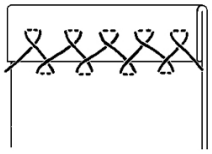
Construction

As not everyone is in favor of wool clothes, I decided to construct the apron dress for Her Majesty from red medium-weight linen (Fabric-Store). Extrapolating her measurements from the tunic pattern provided, and some double checking through the Facebook Wardrobe Project group, I used the three panel pattern to cut the dress. The

[101] Beatson 2008
[102] Helleloid 2015
[103] http://urd.priv.no/viking/smokkr.html
[104] Verberg 2016, 11

inner seams of the dress were sewn by machine, the bottom and top were hemmed by hand. The bottom hem of the apron dress and the undertunic neckline was embellished with silk cordage (right), to match His Majesty's red overtunic (left).

Herringbone stitch



In accordance with Fragment 14A, I folded over the edge of the top of the apron dress and used the herringbone stitch (figure below), on the inside, to secure the hem – this shows on the outside identical to the stitches shown in the illustration, as one row of running stitch. This stitch has built-in stretch and works very well on the top of apron dresses which are put on by wiggling through. (fig. [105])

The herringbone stitch used to hem the top of the apron dress, viewed from the inside. From the outside only one row of running stitch-like loops is visible.

Shoulder loops

The shoulder loops are constructed by folding the strap in four and whip stitching at the fold (figure on right), creating a nearly invisible seam. From the garment remnants found, it looks like the loops are not necessarily made from the same fabric as the apron dress. Many woolen apron dresses had linen loops, probably because linen wears better around the metal clasps. Attachment of fabric loop to the fabric top of the apron dress: the loop is folded under the hem of the top of the dress and stitched down (figure on left), which makes for a secure connection.

Fig. Strap seam.[106]

The two Haithabu finds did not have woven trim, but as seen from the find in Birka grave 1090 - which has possible remains of a tablet-woven woolen band - it is plausible, so a short piece of card-woven silk brocade, designed and woven by THL Hrólfr á Fjárfelli (see the chapter *Apron dress trim inspired by the Birka bands*), was added between the two brooches.

[105] Beatson 2008
[106] http://urd.priv.no/viking/smokkr.html

Laurel Wreath Appliqué

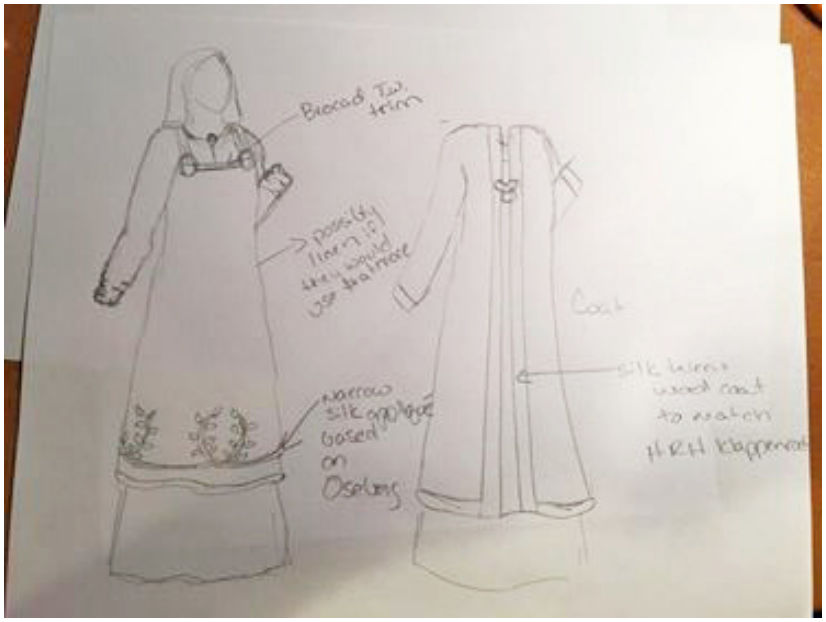


Fig. Sketch by Álfrún ketta for a laurel wreath application based on an Oseberg find.

Fig. The Oseberg silk applique inspiration.[107]

[107] Christensen & Nockert 2006, 278; http://www.unimus.no/foto/imageviewer.html#/?id=1738109&type=jpeg

The Laurel Wreath trim as appliquéd by THL Moniczka Poznanska. Due to time restraints we chose to do one wreath appliqué on the front panel. The silk wreath stem is not cut into shape but is a simple straight piece, which is then bent into shape and whipstitched down. This greatly reduces cutting waste and while it add some bending creases into the fabric, this also adds a visual authenticity which is pleasing.

Resources

http://www.shelaghlewins.com/tablet_weaving/patterns_past.php (Retrieved 1/25/2018)

http://www.shelaghlewins.com/reenactment/hedeby_apron/hedeby_apron.htm (Retrieved 1/25/2018)

https://www.cs.vassar.edu/~capriest/viktunic.html (Retrieved 1/25/18)

http://urd.priv.no/viking/serk.html (Retrieved 1/25/2018)

http://urd.priv.no/viking/smokkr.html (Retrieved 1/25/2018)

https://sites.google.com/site/archoevidence/home/viking-clothing-guides (Retrieved 1/25/2018)

The Skjoldehamn Belt

11th century Skjoldehamn, Norway

THL Elska á Fjárfelli

Contact: susanverberg@gmail.com

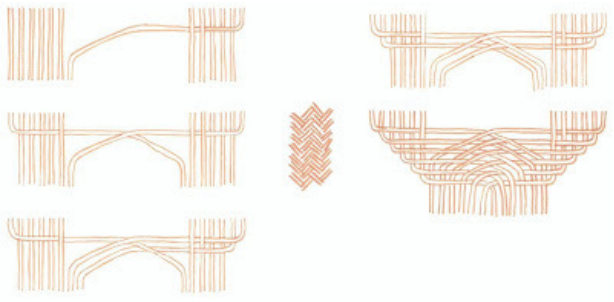
History

This belt is a 24-yarn, 12-strand braid, and is based on a belt found with a peat bog body, likely female, from Skjoldehamn in Northern Norway. The ends of the belt were decorated with tasseled wrapped cords, in the style of modern Scandinavian Sami people. The body was found wearing a nearly complete outfit, including this belt. Initially, the find was assumed to date to the 15th to early 16th century based on the style of clothing, but new analysis of the find using carbon dating in 2009 found a date of 1075 ± 20 years instead. Chromosome research indicates the body to be a female.[108]

The person found was about 40-50 years old. Even though most of the large bones, including the skull, disintegrated during the excavation in 1936 the remaining bones show no signs of wear and tear and no strong muscle attachments. Together with a slim build and a small stature of five feet, the general archaeological consensus is that the remains are too short and slender for a typical Norwegian male, and could very well be female (or possibly Sámi male or female). Thus this could be one of only a few finds of a female of the (late) Viking Age wearing a belt.[109]

The reconstruction

I measured 12 pairs of yarn, at least twice the length of the intended finished product. I then wound the pairs on a bobbin; a kumihimo bobbin (large size) is preferable, but if not available, a piece of cardboard works as well (but does get easily tangled). It is important to keep the L and R sides separated, for instance with a chip clip.



Schematics of the braid from Dan Halvard Løvlid dissertation.[110]

[108] Løvlid 2010
[109] Ibid.
[110] Ibid.

I use an inkle loom as a holder. I place it on its rear and use the first / top bar or peg to give me a working height to do a nicely tensioned braid. When I have braided enough length to be too long and low for comfort, I use the other pegs to loop back and forth in between to keep the braid shed at a comfortable working height.

To start, I measured out about two feet from the end (as I intended to use the braid yarn to make the tassels) and put in a knot. I put in some random other knots in the tail for later use in securing it to the loom pegs in just the right spot.

I use a chip clip to flatten the yarns into two sheds of 12 strands, 6 strands on each side. Using the schematics of the Dissertation[111] I decoded the braiding steps: Pick up the outermost Right (white) strand, go OVER three, and then UNDER the last two OF ITS OWN SIDE. Then pick up the outermost Right (red) strand, go OVER three, and then UNDER the last two, which is now one red and one white. Repeating this movement, I took the outermost, and went under the last two of THE SAME SIDE. After six passes on both sides, the red and white have reversed sides.

[111] Løvlid 2010

It is important when tightening NOT to overtighten the braid. Gently pull together; pull taught, but do not really pull tight. If the weave is overtightend then the edges will get compacted and not work well. With my fingers, I kept the strands of the braid flat and in order while braiding so I can easily see where I am going, and which strand is the actual last one. My biggest problem with this project are the bobbins - my frugal cardboard pieces *love* to wrap themselves around their neighbors and get stuck. When I then shift attention to untangling I sometimes let go of strand(s) and lose track of which went where...

With this design, the actual braided part is the herringbone pattern in the middle - the edges are the strands looping over from side to side (follow one of the colored bands and you see the zigzag pattern the strands make throughout the braid). When it was time for a break, I used my trusty chip clip to clamp one of the sides. It is better to clamp one side than to clamp both on one clip: it is absolutely necessary to keep both sides separate to resume, but not really important if the strands themselves stay in order. When loosing track of which strand to use next and have no idea how to proceed, slowly back up and unbraid until you have all red, and all white, on separate sides again. Then look for the side with the two-over, and start again.

Finishing the ends of the braid into period-plausible tasseled cords

When the braid is at length, both ends are split into three units of four strands, each of which are separately wrapped to create the tassels. I start with the middle cord, and tie up the two outer cords, to keep them out of the way

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From the images provided in the thesis[113] (see above) it looks like the wrapping yarn used is thinner than the yarn used for the belt and the tassel necks. Keep in mind the pattern of the wrappings; every tassel cord has a center band and the center tassels are red fields with green/gold/green bands and the outside tassels are green fields with gold/red/gold bands. The cords look symmetrical without being completely identical, which is surprisingly hard to emulate.

I tightly tied my yarn around the strands at the beginning and manually wrapped the cone of yarn around and around (and hiding the tail end of the knot underneath the wrappings). At a new field or band I did not tie off the previous color but wrapped it in with the tassel cords with the new color, until I needed it again.

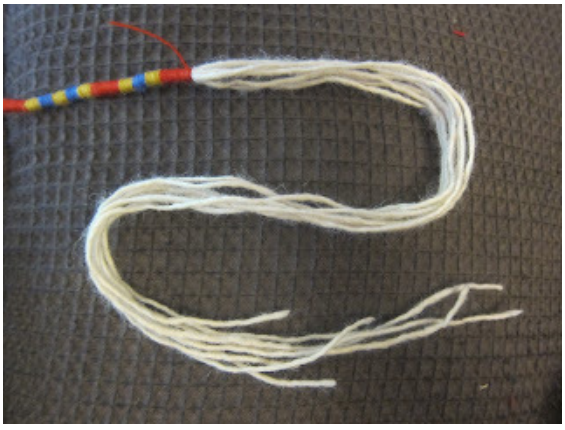
Adding a third color; from now on the colored yarn can be "picked up" from the yarn making up the cord's core.

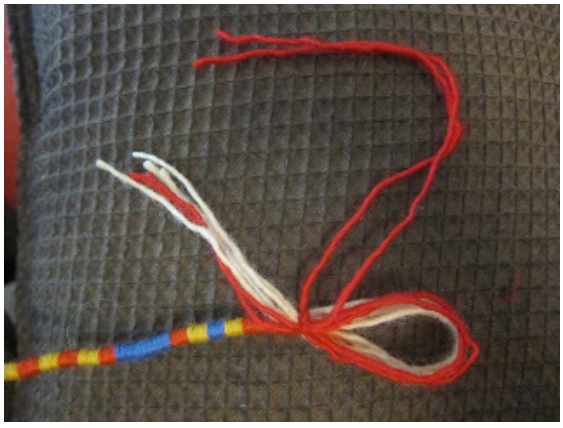
[112] Løvlid 2010
[113] Ibid.

When done wrapping the cords, notice how the center cord of each bundle is in opposite colors as the outside cords - as on the extant piece.

It is not clear from the original find whether the tassel head is made from separate yarn, or by looping back and doubling up on the core yarn, as demonstrated below. In my first version I tied four single-ply yarns to the end of the tassel core to make the tassel head, and used yarn from the tassel core to secure the base. Then this single-ply wool went bonkers from generic humidity and fluffed up quite considerably, making me look for a different technique.

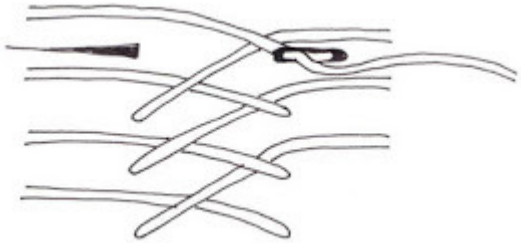
Then the tail end of the yarn is looped back and secured with a knot to make the tassel head.





I used a secure flat knot to tie the yarn right at the base of the cords. Then I combed the tassels down, keeping one long yarn separate to use to wrap and secure the base of the tassels. One of the long ends was used to wrap and stitch the base of the tassel (this is a different tassel, the above only has two red ones to stitch with but because that was not very visible I used one in white to show the stitch).

The yarn can also be wrapped around the base a few times to secure and then start stitching, or it can be wrapped and stitch from the get-go. The extant piece is stitched from the base up (see illustration below).



[114]

The stitch feels kind of backwards. I work from Left to Right, therefore I wrap the yarn around the back and come up on top, then I stitch under the base of the beginning of the yarn loop, to come back out over the previous yarn loop (but under the new one) and then the yarn gets pulled tight. Repeat until the base is well defined and securely stitched in. In the extant piece, the base stitching was done in three bands of two colors.

Finally, the tassels are cut to length and nicely ruffled up. It is not clear from the extant piece whether the tassel fibers are only from the core, added separately, or both. It is the same for the cord wrapping. From looking closely at the pictures it seems as if different diameter fibers are used, making a case that both existing thicker cord yarn, and added thinner wrapping yarn, was used to wrap the cords. The extant tassels are felted, but again, it is not clear whether the felting happened deliberately at construction, during wear, or during burial.

[114] Løvlid 2010

The Finished Belt.

Resources

For more information on this project please check my paper at:

https://www.academia.edu/27845585/A_Viking_Belt_based_on_the_Skjoldehamn_Find

https://www.academia.edu/34799542/Practical_Instructions_to_make_a_Viking_Belt_based_on_the_Skjoldehamn_Find

For detailed instructions on how to make the belt:

https://bookeofsecretes.blogspot.com/2017/10/how-to-make-12-strand-skjoldehamn-belt.html (1/25/2018)

https://bookeofsecretes.blogspot.com/2017/10/to-make-tassels-for-skjoldehamn-belt.html (1/25/2018)

All photographs in this chapter are by Susan Verberg, all illustrations are from the Dan Halvard Løvlid dissertation.

Apron Dress Trim inspired by the Birka Bands

800-975 CE Sweden

THL Hrólfr á Fjárfelli

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Motivation

I really enjoy tablet weaving and after completing my apprentice green-belt I was looking for another project to practice and grow my tablet weaving skill. The Æthelmearc Wardrobe Project was the perfect excuse. I loved the idea of working together with a group of people to make a complete outfit, so I volunteered to weave trim for the top of the apron dress for Her Majesty, Queen Juliana Delamere.

Historical background

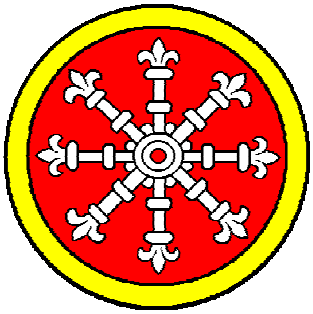
Archeological research conducted by Hjalmar Stolpe in the years 1871 to 1881 showed with certainty that the Viking settlement Birka, on the island of Björkö in the Lake of Mälar in present-day Sweden, was the commercial center of Sweden during the Viking Age. For almost two centuries, from about 800 to 975 CE, Birka served as an important trading center between Viking Age Scandinavia and Western Europe and with the Orient through the trade routes in Russia. Die Kungl. Vitterhets Historie och Antikvitets Akademien commissioned Holger Arbman in 1931 to catalogue the enormous wealth of artifacts found in the Birka archeological sites. Agnes Geijer republished

an extensive survey of the textile fragments from the Birka graves[115]. This publication contains a chapter on the Birka bands (see Figure 1 for examples of some of these bands).

Technique, material and design

Virtually all the Birka bands are woven on tablets with four holes. A large variation of designs can be created by using differently colored threads in the four holes and turning the cards in a specific order, backward or forward, as individual cards or in groups. An alternative, and for me a more attractive, way of creating a pattern is by brocading with a contrasting color or with gold or silver thread. The bands that inspired this project are of the latter type. They consist of: (a) the basic ground weft that binds the warp threads together, hidden by them in the usual way, and (b) a second, brocading weft of double drawn silver wire, creating the actual pattern or design. The brocading weft consists of a pattern of floats and hidden sections by passing the weft underneath one or more warp threads of one or more cards.

Most of the Birka bands show a mix of repeating patterns, like diamonds, stars, or geometric patterns of diagonals lines (Figure 2). Given the nature of the project I wanted to combine a typical Birka pattern with the Æthelmearc escarbuncle. I began by creating a pattern for the escarbuncle. The number of tablets determines the resolution of the pattern and to capture the details of the escarbuncle I decided that 75 cards were needed. I then searched for patterns that would make a pleasing match with the escarbuncle and that could be modified to fit on 75 cards. I initially gravitated towards a combination of diagonal lines and crosses as seen on several Birka bands and an intricate pattern found on the B22 band (Figure 3, top). The downside of this combination was that it would result in only three escarbuncles over a length of 17 in, two of them likely partially covered by the shoulder band broaches. I therefore decided to skip the B22 band pattern in favor of a combination of only the diagonal lines with crosses and the escarbuncle (Figure 3, bottom).



The Æthelmearc escarbuncle.

Using 75 cards for the band is about three times more than used for typical Birka bands, so I used a finer silk thread to partially compensate for the number of cards and to keep the final width of the band somewhat closer to the extant pieces. Both the warp and the structural and brocading weft are store-bought 60/2 silk, which resulted in a width of about 30 mm and a warp count of 100/cm. The warp tension of approximately 10g/thread resulted in a weft count of 32/cm. The final woven length of band was 17 inches.

[115] Geijer 1938

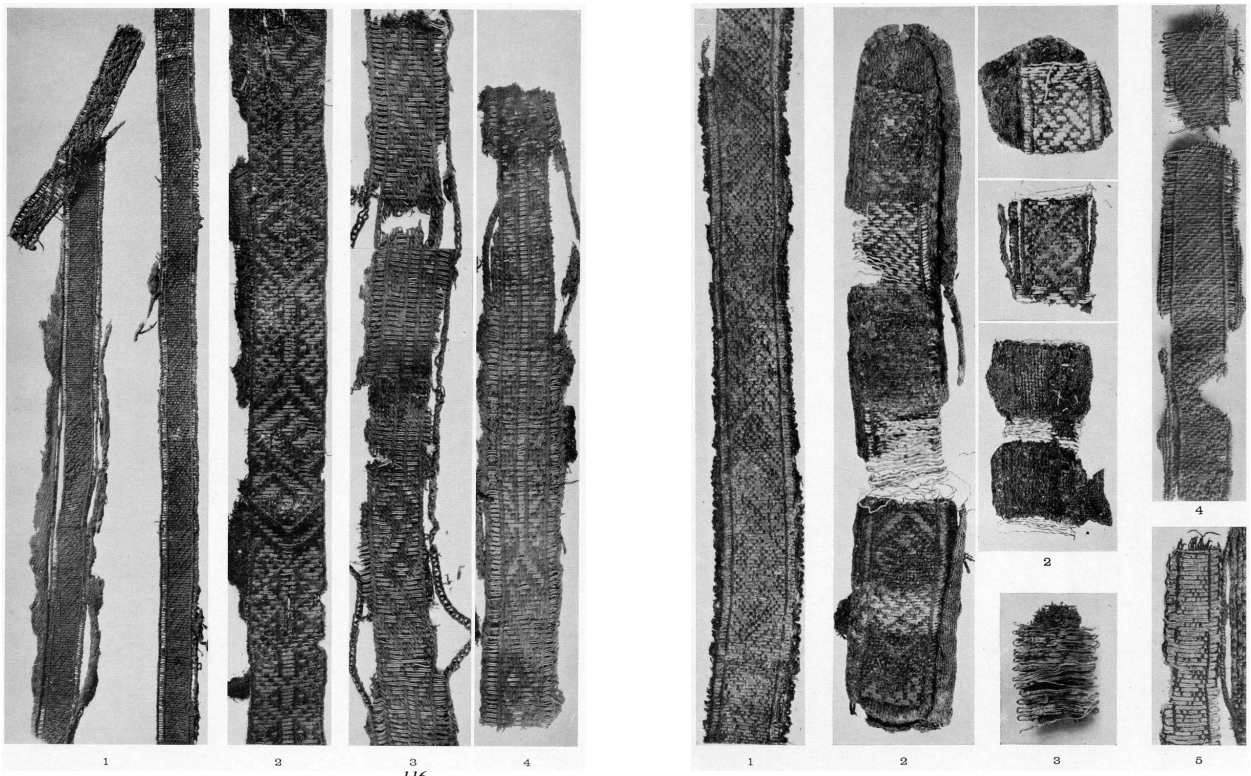


Fig. 1: Examples from several bands[116]: Left: (1) B6-7, grave 965, (2) B21, grave 943, and (3)-(4) B19, grave 965; Right: (1) B17, grave 735, (2) B22, grave 824, (3) B11, grave 943, (4) B14, grave 845, and (5) B10, grave 1076.

Fig. 2: Examples of several patterns[117]: Left: (1) B5, (b) B9, (c) B14, (d) B16, (e) B17, (f) B2, (g) B7, (h) B13, and (i) B12; Right: (a) B6, (b) B22, (c) B20, (d) B19, and (e) B21.

[116] Geijer 1938, Plates 22 and 23.

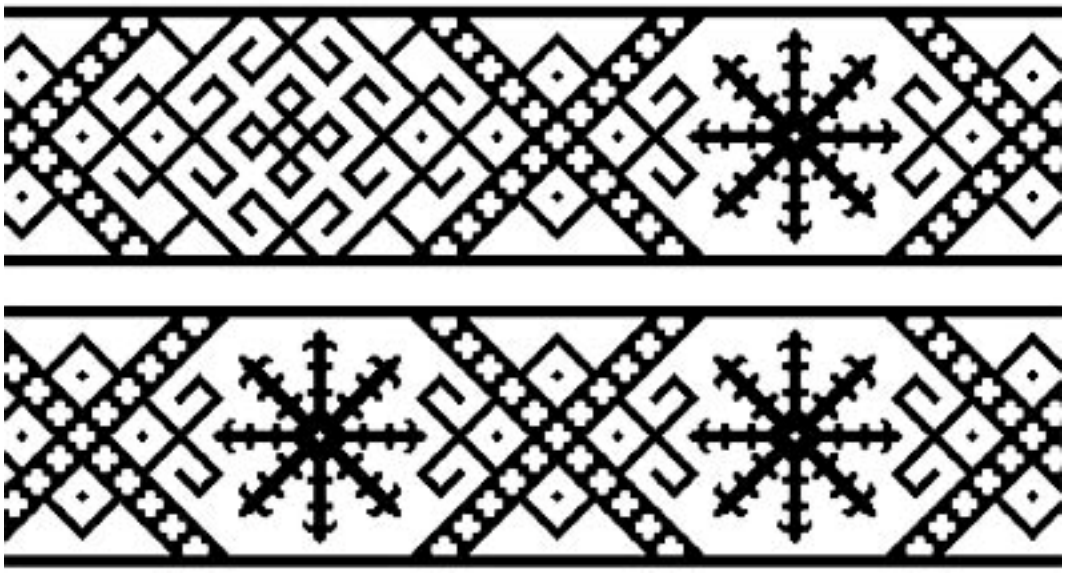


Fig. 3: The initial design (top) and the actually used pattern (bottom).

Weaving the belt

I wove band on a warp-weighted tablet-weaving loom that I designed and built for an earlier project. The loom is designed to use on the top of a table, with the warp ends weighted down and dropping freely over the fixed rod at the end of the loom (Figure 4, left). The other end of the warp is attached to a ratcheted rod, which stores the finished band. The initial warp length was about 80 inches, enough to create the required length of band for the current project as well as an additional piece that I want to weave based on the first design. Any surplus length of warp has to be braided or looped to keep the warp ends suspended freely above the ground. With the initial warp length I could avoid this by using the loom in the long direction of our kitchen table as shown on the right in Figure 4. Hence, I started weaving in this fashion and switched to the usual setup on the left in Figure 4 after the unwoven part of the warp was short enough to hang freely.

[117] Geijer 1938, 82-83

Figure 4: Loom setup used as intended (left) and as initially used for this project to accommodate a longer warp (right).

The warp was created one card at the time, threading back and forth twice per card. The cards were warped alternating S and Z (to eliminate fouling of the warp threads during turns). The brocading weft passed under two of the four threads of the cord creating a smooth and uniform underside. As in the original bands, all cards are collectively rotated forward one quarter turn for each successive passage of the ground and brocading weft. The unfinished warp ends were periodically untwisted to eliminate the build-up twist.

Fig. 5 left and right: A test weave to check the pattern dimensions and the tension in the warp.

Fig. 6: The finished trim, the test strip, and the loom setup for the second band.

Learning points

The correct tension in the warp is crucial for the final weft count and the "look" of the brocaded pattern. The initial setup and tension created a pattern that was slightly elongated in the warp direction. A thinner structural warp thread would likely have reduced this elongation, but since that was not available to me and the distortion was modest, I decided to move on with the current setup. After completing about 13 inches of finished band, I changed the weaving setup from the initial setup (Figure 4, right) to the one for which the loom was designed (Figure 4, left). To my surprise, this increased the tension sufficiently to narrow the band from about 30 mm to about 26 mm. This was clearly not intended and serves as a good lesson to stick with a setup for the duration of a project or to carefully monitor the tension and width and adjust the weights if needed.

Shoes from the Viking Age

Based on 10th-century Dorestadt

Lord Robert of Ferness

Contact: kps1@cornell.edu

Creating shoes for Their Majesties Gareth and Juliana

Shortly before Pennsic XLVI, Lady Elska á Fjárfelli invited me to participate with a group of others in developing a set of garb for Their Highnesses Gareth Kincaid and Juliana Delamere of Æthelmearc, specifically in crafting shoes for them appropriate to Viking Age personae. This was a bit intimidating given that I had made only four pairs of shoes at that point, and all of them in the same style, which was not Viking Age. But... challenge accepted!

Pattern development

Because developing a pattern requires a foot to tape up, rather than just various possible simple measurements (until I learn how to make proper lasts), I was given access to the royal feet for about 20 minutes in a tent on the edge of the battlefield. I drew sole plans and duct-taped one of his sock-clad feet and one of hers, sketched some lines on the tape for the opening and side seam, cut away the socks, and was away without further ado.

Fig. 1: A socked foot taped and the resulting 3D form to be used for a pattern (this is not the one used for this project).

However, it was some weeks later before I could turn my attention to making these royal shoes, due to evil omens in the sky when the moon disappeared entirely, and was therefore pressed for time to research something appropriate, convert the taped socks to a pattern, and then build the shoes - all without being able to access the original feet again for try-ons during the crafting.

The Pattern

Having found a suitable model in Volken (see Fig. 2)[118] for the time period and my skill level, I quickly made one of hers and one of his (just uppers and soles, no topbands or fastenings), with the idea of mailing them for a trial fitting and comments, hopefully with enough time to incorporate those into any new shoes that might have to be made. During that turn-around time, I planned to make the mates to each of the two sent. But, due to me not paying enough attention, the weekend they were to be mailed and sent back turned out to be Their Highness' coronation... not the best timing.

Fig. 2: Describing the 10th-century Dorestadt style illustrated above, "Overlap and rolled button fastening. ***Style characterized by one to two integral overlapping flaps*** *from medial side fastened with rolled buttons (bifurcated strap base) on lateral side. Flaps and opening have edge binding, squared top line. Closing seam (unique for Q pattern) is found on lateral side. Centre back usually has vent for pointed heel sole. May have pointed or rounded toe, decorative centre seam."*[119]

With THL Hrólfr á Fjárfelli graciously serving as courier to coronation and back, I learned that both pairs of shoes turned out too small. Lacking time to complete two entirely new pairs of shoes, I made a decision to add the planned topbands and fastenings to his pair and give them to her (the sizes seemed appropriate given the feedback) and then to make a new pair for him. To my relief, both pairs did fit their respective recipients, and they were worn for the first time during court at Harvest Raid XXIV.

Differences with 14th-century pattern

While making these shoes I learned that the sole/upper pattern for this design does not fit the same as the 14th-century pattern I've developed, probably because of the way the heel rises into the upper. Further, attaching topbands with tight saddle stitches takes about the same amount of time as side-stitching the uppers and attaching them to the soles, i.e., it doubles the amount of time needed to produce a pair of shoes. The time can be reduced with wider stitches, and much more so, I later learned, with a binding stitch over the topband rather than the saddle stitch.

[118] Volken 2014, p. 373
[119] Ibid.; emphasis added

Shoemakers from this time period produced turnshoes: they stitched uppers and soles to each other inside out, then turned them rightside out. Soaking them in water for about ten minutes makes the sole leather much easier to turn. They also used lasts to make shoes, but making those is an art unto itself and at least at some times and places last-making was a separate occupation. One does not need lasts to make shoes, but they probably result in a better fit and may mean less work or time in constructing the shoe. I intend to devote time to making and using lasts, then compare results, as soon as feasible.

Fig. 3: Uppers and soles ready to assemble with their cardstock patterns and a prototype upper made of canvas; uppers with topbands.

Fastening

This pair of shoes also relies on a different fastening system to keep them tight on the foot. Instead of the simple front lace of my earlier 14th-century design, these incorporate a single large flap and leather toggle with bifurcated anchor in the lateral side of the shoe. I didn't know how to make a toggle, but I found a video showing a way to cut and roll them. Interestingly, this particular design is the only historical one with the closing anchored on the outside of the foot.

Fig. 4: Topbands stitched in place and toggle fastenings added (the two straps tie inside the show and allow adjustment for proper fit).

Materials

In the making of these shoes, I used some black 5 oz. leather I had on hand for the uppers and 9-10 oz. vegetable-tanned shoulder leather for the soles (that's near the maximum of what can be turned and comfortable on most surfaces). The light-brown topband leather came from a gifted bag of scraps. I chose to use synthetic waxed thread for all stitches because repairing shoes isn't as much fun as making them, and real linen has failed on other shoes I've made after only a few wearings.


Fig. 5: The final his 'n' hers front and rear views.

Acknowledgements

Thanks to Elska á Fjárfelli for inviting me to participate on Team Norse. I would not have made these shoes otherwise.

Thanks to Their Majesties Gareth and Juliana for their time and feedback during measurements and trial fittings.

Resources

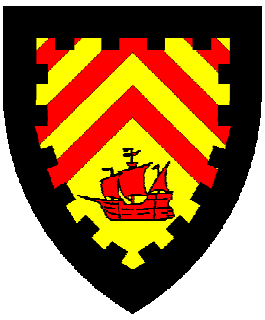
See my web site ShoesByRobert.com for more photos as well as resources, videos, and books about making medieval shoes.

How to make Viking toggles / buttons:

YouTube video at https://www.youtube.com/watch?v=PwjlZZYW_Oo

Tools and materials for shoe making:

http://shoesbyrobert.com/resources/tools-materials.php



The Tarsoly

The Magyar Pouch in Viking Graves

L o r d S n o r r i s k y t i B j a r n a r s o n

Contact: hivemind@mvgc.net

The tarsoly (pronounced tar-SHOY) is a pouch characteristic of the ancient Magyar peoples[120] of the Carpathian Basin of Eastern Europe,[121] a confederation of which became the Principality of Hungary in AD 895 or 896.

Fig. 1: The author's own tarsoly, brown and blue cowhide with gilded hardware.

[120] http://www.tarsolyosok.hu/eng/atarsoly.htm#fent (Retrieved 12/7/17)
[121] https://en.wikipedia.org/wiki/Principality_of_Hungary (Retrieved 12/7/17)

Historical evidence

We have evidence of substantial contact between the Magyar and Viking peoples, particularly between Swedish Rus Vikings. Archaeological grave finds in Birka, Sweden, have revealed typical Magyar accoutrements such as belt mounts and tips (many re-worked into pendants), Magyar-type quivers and archery thumb rings, and complete tarsolys.[122] There are obvious Magyar artifacts in burials Bj93, Bj904, and Bj154.[123]

Fig. 2: Belt and tarsoly found at Birka, from Swedish History Museum.[124]

Making the replica

[122] Bendeguz 2009
[123] Arbman 1940-1943; Hedenstierna-Jonson & Olausson 2006; http://mis.historiska.se/mis/sok/fid.asp?fid=415300 , http://mis.historiska.se/mis/sok/fid.asp?fid=464497 , http://mis.historiska.se/mis/sok/fid.asp?fid=582655 , (Retrieved 2/5/18)
[124] http://mis.historiska.se/mis/sok/bild.asp?uid=32492 (Retrieved 12/7/17) See also https://io.ua/13530063

I was asked to contribute to a kingdom-wide project called Team Norse, to create historically accurate Viking-Age clothing for King Gareth and Queen Juliana's reign in Æthelmearc, AS 52. The project needed a belt and pouch for King Gareth, and a bag for Queen Juliana. I chose to make a tarsoly pouch from Birka, as they are documentable to the period we were aiming for.

To make my replica, I first sourced hardware from a well-regarded vendor, Armour & Castings in the Ukraine. They produce replica hardware of this find already[125] and I have used their products in the past, so I know their quality. I also procured red and white commercially tanned and finished cowhide for the body of the pouch, ensuring the vibrant red and white needed to represent Æthelmearc, and also ensuring that no pigments would rub off onto garb.

Fig. 3: Hardware for this project, as received from vendor.

Construction of the tarsoly

Construction of a tarsoly is straightforward: one piece of leather forms the back of the pouch and the front flap, a second piece forms the front of the pocket, and a rectangular gusset is sewn in between. Finally straps for the belt loop and closure are added, and the metal hardware installed. To give the piece a more finished look, edging is sewn to all exposed edges.

I choose to make this pouch somewhat larger than extant pieces, to accommodate modern necessities such as a smartphone, keys, and wallet.

[125] https://armourandcastings.com/product/rt04-birka-tarsoly-set/ (Retrieved 12/7/17)

Fig. 4: Completed tarsoly for King Gareth of Æthelmearc

Fig. 5: Side view of completed tarsoly

Fig. 6: Interior shown with banana for scale.

Resources

http://www.diva-portal.org/smash/get/diva2:189759/FULLTEXT01.pdf (Retrieved 1/25/2018)

http://samla.raa.se/xmlui/bitstream/handle/raa/3138/2006_312.pdf (Retrieved 1/28/2018)

Hardware: https://armourandcastings.com/

Hardware: Raymond's Quiet Press: http://quietpress.com/

Leather & Tools: Springfield Leather: www.springfieldleather.com

The Haithabu Bag

The wood handled Viking shoulder bag

L o r d S n o r r i s k y t i B j a r n a r s o n

Documentation based on the class handout by Hrólfr and Elska á Fjárfelli.

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The extant pieces

The wood handled bag is called either the Haithabu (German) or Hedeby (English) bag, after the location of the archeological excavation in Germany. This excavation yielded a number of narrow carved wooden pieces, rounded, with holes on either end, and a set of narrow elongated slots along the straight length. The current interpretation is that they are bag handles after comparison with an earlier Sami find. The design is surprisingly simple and effective: the wooden handles hold and maintain the shape of the bag and a single shoulder strap through the holes allows it to be carried and keeps the bag closed at the same time

Fig. Photograph of the wooden bag handles on display in the Hedeby Museum.[126]

A total of fourteen pieces where found at the Haithabu excavation site. Five are made from ash; five others from maple and the remaining four are not specified. They have rounded ends with holes drilled through for the carrying cord. The bottom edges are mostly straight, the top edges are wavy or with notches. Elongated slots along the bottom serve to attach the bag. Dimensions vary from 181 to 496 mm in length, a thickness of 7 to 13 mm, and 29-52 mm wide in the center part. The semicircular ends have diameters ranging from 31 to 61 mm, and have a 7 to 10

[126] http://europa.org.au/index.php/articles/21-bags

mm diameter (drilled) hole in the center. Two of the pieces were identical, i.e. a pair, and it is therefore assumed that the others should all have been part of a pair.

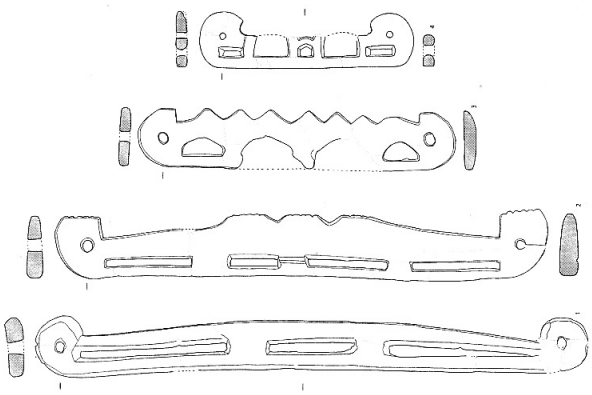

Fig. Drawings of four of the wooden pieces, ranging from a length of 181 to 496 mm.[127]

Assembly

The handles are ash, cut and milled locally in Rome NY. The white and red leathers are factory dyed and tanned upholstery leathers in 3mm thickness, while the white escarbuncle appliqué is 1mm white kidskin. The escarbuncles are cut by hand, using a vinyl decal applied to the flesh side of the leather and a small X-Acto knife. All the leather pieces are glued together using Barge cement, then the interior seams are sewed by machine using nylon thread, while the appliqués are hand-sewn using waxed linen thread and a two-needle saddle stitch. The bag is attached to the handles using the same waxed linen thread.

The shoulder strap is woven by Lady Genevieve O'Connor in Kingdom colors using an inkle loom. The ends are left with a long tail, which are then braided to fit through to slide within the hole of the handle, and are secured with a knot at the end. Both handles are strung on the one braid as this bag uses only a single shoulder strap.

[127] Westphal 2006, Plate 59

Blogs of individual Team Members:

Mistress Álfrún ketta

http://awanderingelf.weebly.com/

Master Artemius Andreas Magnus

http://www.ariesdesigns.net/

THL Elska á Fjárfelli

https://bookeofsecretes.blogspot.com/

https://independent.academia.edu/susanverberg

THL Hrólfr á Fjárfelli

http://hrolfr.blogspot.com/

https://lyondemere.academia.edu/RolfVerberg

Lord Robert of Ferness

http://shoesbyrobert.com/

Lord Snorri skyti Bjarnarson

https://snorri.blog/

Garment material

The wool and silk was sourced from Mood fabric at www.moodfabrics.com.

- Victorian Gold Silk Shantung / Dupioni FS36003-1434
- Dusted Olive Solid Shantung / Dupioni FS36003-1019
- Italian Heathered Dark Shadow Gray Speckled Wool T #310496

The red linen was sourced from Fabrics Store at https://fabrics-store.com/ (the black linen came from the stash).

SO IL019 100% Linen CRIMSON Softened

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