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ARCHAEOLOGICAL TEXTILES X

edited by

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Contents

Dedication	vii
The participants of NESAT X	viii
Editors' Preface	xi
List of contributors	xiii
Lise Bender Jørgensen	
A Brief History of the North European Symposium for Archaeological Textiles (NESAT)	xvii
1. Eva Andersson Strand	1
Experimental Textile Archaeology	
2. Eva I. Andersson	4
The Perfect Picture – A Comparison between Two Preserved Tunics and 13th-century Art	
3. Tereza Belanová Štolcová and Karina Grömer	9
Loom-Weights, Spindles and Textiles – Textile Production in Central Europe from the Bronze Age to the Iron Age	
4. Sophie Bergerbrant	21
Differences in the Elaboration of Dress in Northern Europe during the Middle Bronze Age	
5. Lena Bjerregaard, Ute Henniges and Antje Potthast	26
Avoiding Nasty Surprises: Decision-Making based on Analytical Data	
6. Milena Bravermanová	31
Archaeological Textiles from Prague Castle, Czech Republic	
7. Maria Cybulska, Tomasz Florczak and Jerzy Maik	36
Virtual Reconstruction of Archaeological Textiles	
8. Camilla Luise Dahl	41
The Use of Terminology in Medieval Scandinavian Costume History: An Approach to Source-based Terminology Methodology	
9. Anna Drażkowska	52
Haberdashery Elements made of Metal Thread: Conservation Problems	
10. Andrea Fischer	57
Current Examinations of Organic Remains using Variable Pressure Scanning Electron Microscopy [VP-SEM]	
11. Karin Margarita Frei	63
Textiles, Wool, Sheep, Soil and Strontium – Studying their Paths: a Pilot Project	
12. Ruth Gilbert	65
Not so much Cinderella as the Sleeping Beauty: Neglected Evidence of Forgotten Skill	
13. Annelies Goldmann und Eva-Maria Pfarr	69
Die Rekonstruktion des Vaaler Bändchens – ein archäologisches Kammgewebe aus Dithmarschen: Gemeinschaftsarbeit der Wollgruppe des Museumsdorfes Düppel, Deutschland	
14. Kordula Gostenčnik	73
The Magdalensberg Textile Tools: a Preliminary Assessment	

15. Dawid Grupa Silk Ribbons from Post-Medieval Graves in Poland	91
16. Malgorzata Grupa Silks from Kwidzyn Cathedral, Poland	95
17. Sunniva Wilberg Halvorsen Norwegian Peat Bog Textiles: Tegle and Helgeland Revisited	97
18. Susanna Harris Smooth and Cool, or Warm and Soft: Investigating the Properties of Cloth in Prehistory	104
19. Anne Hedeager Krag Oriental Influences in the Danish Viking Age: Kaftan and Belt with Pouch	113
20. Viktoria Holmqvist A Study of Two Medieval Silk Girdles: Eric of Pomerania's Belt and the Dune Belt	117
21. Linda Hurcombe Nettle and Bast Fibre Textiles from Stone Tool Wear Traces? The Implications of Wear Traces on Archaeological Late Mesolithic and Neolithic Micro-Denticulate Tools	129
22. Katrin Kania Construction and Sewing Technique in Secular Medieval Garments	140
23. Lise Ræder Knudsen Tiny Weaving Tablets, Rectangular Weaving Tablets	150
24. Annika Larsson Warriors' Clothing in the <i>Rigspula</i>	157
25. Christina Margariti, Dinah Eastop, Georgianna Moraitou and Paul Wyeth Potentials and Limitations of the Application of FTIR Microscopy to the Characterisation of Textiles excavated in Greece	162
26. Susan Möller-Wiering Evidence of War and Worship: Textiles in Roman Iron Age Weapon Deposits	167
27. Britt Nowak-Böck Bewahren und Erfassen – Anmerkungen zum Umgang mit mineralisierten Strukturen auf Metallen in der Denkmalpflege	174
28. Ruth Iren Øien Medieval Textiles from Trondheim: An Analysis of Function	181
29. Judit Pásztókai-Szeőke Curry-Comb or Toothed Weft-Beater? The Serrated Iron Tools from the Roman Province of Pannonia	187
30. Elvyra Pečeliūnaitė-Bazienė Textiles from the 3rd–12th Century AD Cremation Graves found in Lithuania	189
31. Silja Penna-Haverinen Patterned Tablet-Woven Band – In Search of the 11th Century Textile Professional	195
32. Riina Rammo Social and Economic Aspects of Textile Consumption in Medieval Tartu, Estonia	201

33. Antoinette Rast-Eicher Garments for a Queen	208
34. Éva Richter Our Threads to the Past: Plaited Motifs as Predecessors of Woven Binding Structures	211
35. Virginija Rimkutė The Neolithic Mats of the Eastern Baltic Littoral	217
36. Maj G. Ringgaard and Annemette Bruselius Scharff The Impact of Dyes and Natural Pigmentation of Wool on the Preservation of Archaeological Textiles	221
37. Elisabeth Ann Stone Wear on Magdalenian Bone Tools: A New Methodology for Studying Evidence of Fiber Industries	225
38. Amica Sundström A Bronze Age Plaited Starting Border	233
39. Synnøve Thingnæs Textile Craftsmanship in the Norwegian Migration Period	235
40. Klaus Tidow Textilfunde aus Ausgrabungen in Heidelberg	240
41. Kristýna Urbanová and Helena Březinová Textile Remains on a Roman Bronze Vessel from Řepov (Czech Republic)	242
42. Ina Vanden Berghe, Beatrice Devia, Margarita Gleba and Ulla Mannering Dyes: to be or not to be. An Investigation of Early Iron Age Dyes in Danish Peat Bog Textiles	247
43. Marianne Vedeler Dressing the Dead: Customs of Burial Costume in Rural Norway	252
44. André Verhecken The Moment of Inertia: a Parameter for the Functional Classification of Worldwide Spindle-Whorls from all Periods	257
45. Elizabeth Wincott Heckett Elite and Military Scandinavian Dress as Portrayed in the Lewis Chess Pieces	271
46. Anna Zanchi Headwear, Footwear and Belts in the <i>Íslendingasögur</i> and <i>Íslendingaþættir</i>	276
47. Irita Žeiere The Use of Horsehair in Female Headdresses of the 12th–13th Century AD Latvia	285
48. Hanna Zimmerman Two Early Medieval Caps from the Dwelling Mounds Rasquert and Leens in Groningen Province, the Netherlands	288
49. Elena S. Zubkova, Olga V. Orfinskaya and Kirill A. Mikhailov Studies of the Textiles from the 2006 Excavation in Pskov	291
Colour Plates	299

into consideration the colours of textiles and rules of the medieval dyeing trade (Pastoureau 2006, 141–148).

Another interesting element is a band sewn on a piece of tabby textile, in the shape of a cross. It has two recurring ornaments made of gold thread. First is a bird with its wings outstretched, possibly an eagle. The other is a spray of flowers. Each ornament section is separated from the other with a plain fragment of textile resembling gauze.

In analysing the entire textile collection, the question of who could have been buried in such expensive clothes, in so rich an environment, arises. There are two hypotheses: It could be the burial places of three Grand Masters of the Teutonic Order, Werner von Orseln, Rudolf Konig von Wattzau and Henryk von Plauen. Excavations to locate their burials have been carried out for years (Pawłowski 2007). Although the rules of their Order forbade such luxury, these rules had been created for the lower ranks and not for the superiors; therefore, they still could be the burials of the Grand Masters themselves. Another possibility is that it could be the burial place of the Pomeranian bishops, as Kwidzyn was their property and their

burials naturally had priority there. However, it is difficult to answer this question at this stage of the enquiry, although it continues to puzzle scholars.

Notes

- 1 Dendrochronological studies of the coffins were made by Prof. Tomasz Ważny from the University of Nicolaus Copernicus in Toruń. The first coffin was made of wood cut in 1325, the others came from the end of 14th century.
- 2 Anthropological analysis was made by Dr. Alicja Drozd and Dr. Tomasz Kozłowski from the Anthropology Department of the University of Nicolaus Copernicus in Toruń.

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17 Norwegian Peat Bog Textiles: Tegle and Helgeland Revisited

by Sunniva Wilberg Halvorsen

Migration Period graves in Norway have left us with a large collection of textiles especially famed for beautiful and well preserved tablet weaves. Less well known, and far fewer, are textile finds from peat bogs. This article presents a new investigation of the two peat bog textile finds from the Migration Period: Tegle and Helgeland.¹

Tegle and Helgeland are both located in Rogaland, in south-western Norway. Rogaland was heavily populated in the Migration Period, AD 400–575 (Myhre 1983, 160). Both finds are located in the vicinity of Early Iron Age farms. The Tegle farm is situated in the Jæren area, a very flat and agriculturally rich region. Tegle lies by a lake, which stretches through a landscape of several wealthy Early Iron Age finds. Close by is a place called Frøyland, or Freya's land. This name appears in the vicinity of Helgeland, too. Additionally, the name Helgeland might be interpreted as 'holy land'. There is quite a distance between the two finds. The Helgeland bog is situated in the bottom of a fjord, at a highland plateau above Helgeland, the innermost farm in the valley.

Both finds consist only of textiles and fibres, and seem to have been intentionally deposited. The nature of the textiles in the find is very diverse. Both were found during peat cutting in the interwar period. The finds have been discussed by earlier scholars, primarily from a technical point of view (Dedekam 1924; von Walterstorff 1928; Hoffmann 1964). The new investigation was aimed at taking a more holistic view of the finds, considering the material from both a technical and a contextual angle. Some of the results of these new investigations are presented here.

Tegle

The Tegle find was discovered in 1921, and published by Hans Dedekam in 1924. The find consists of a cloth bag, with several different artefacts inside: a warp, a sprang tube, a fringed band, a fine twill textile fragment, unspun wool, yarn, threads of twisted hair, and a bone needle which is now lost (Figs 17.1–17.3). It is ¹⁴C dated to AD 445–545 (Halvorsen forthcoming).

Best known is the warp, which is made with a tablet-

woven starting border (Fig. 17.2). The weft of the tablet weave was drawn out in loops, creating the warp threads. The same technique was applied when producing the 206 cm long band with a fringe on one side (Fig. 17.3 top). Both the twill fragment and the sprang tube have different variations of functional tablet-woven borders. The warp and the tablet-woven boarder have provided important insight into understanding of warp-weighted loom. In 1928, Emilie von Walterstorff demonstrated how the find could illuminate Iron Age weaving technology (von Walterstorff 1928). Marta Hoffman developed this research further and, in 1959, she presented a new technical analysis of the Tegle find (Hoffman and Trætterberg 1959). She later applied this research to a collection of modern warp-weighted looms from the Nordic countries. This resulted in her seminal PhD thesis: *The warp-weighted loom: Studies in the history and technology of an ancient implement* (Hoffmann 1964). Since then, the Tegle find has been, and still is, frequently referred to in publications on prehistoric weaving.

As the find is important for understanding weaving technology, it has been much discussed by scholars. The aim of the present study was to focus on other aspects of the find, such as the tube made in sprang technique (Fig. 17.3 right). It has often, and without much discussion, been referred to as a stocking. Margrethe Hald also suggested it might be a loose sleeve (Hoffmann and Trætterberg 1959, 45; Hald 1962, 19). I wished to gain a closer understanding of its function. Sprang is a very flexible technique, but tablet weaving is not. As the sprang is 40 cm long, and the tablet-woven edges are quite narrow, 26 cm in circumference, this would indicate whom it was made for and how the sprang tube would fit. The question was turned into an experiment, with the help of the Historical-Archaeological Experimental Centre, Lejre in Denmark. A number of people of varying sizes, ages and both sexes tried on a reconstituted version of the sprang piece.

It turned out that very few adults could fit it over the ankle, but several women could use it as a loose sleeve. It was the opposite for the children, who could easily use it as a legging, but not as a sleeve. The best fit was for pre-adolescent children around 10 years old. The result might not be directly

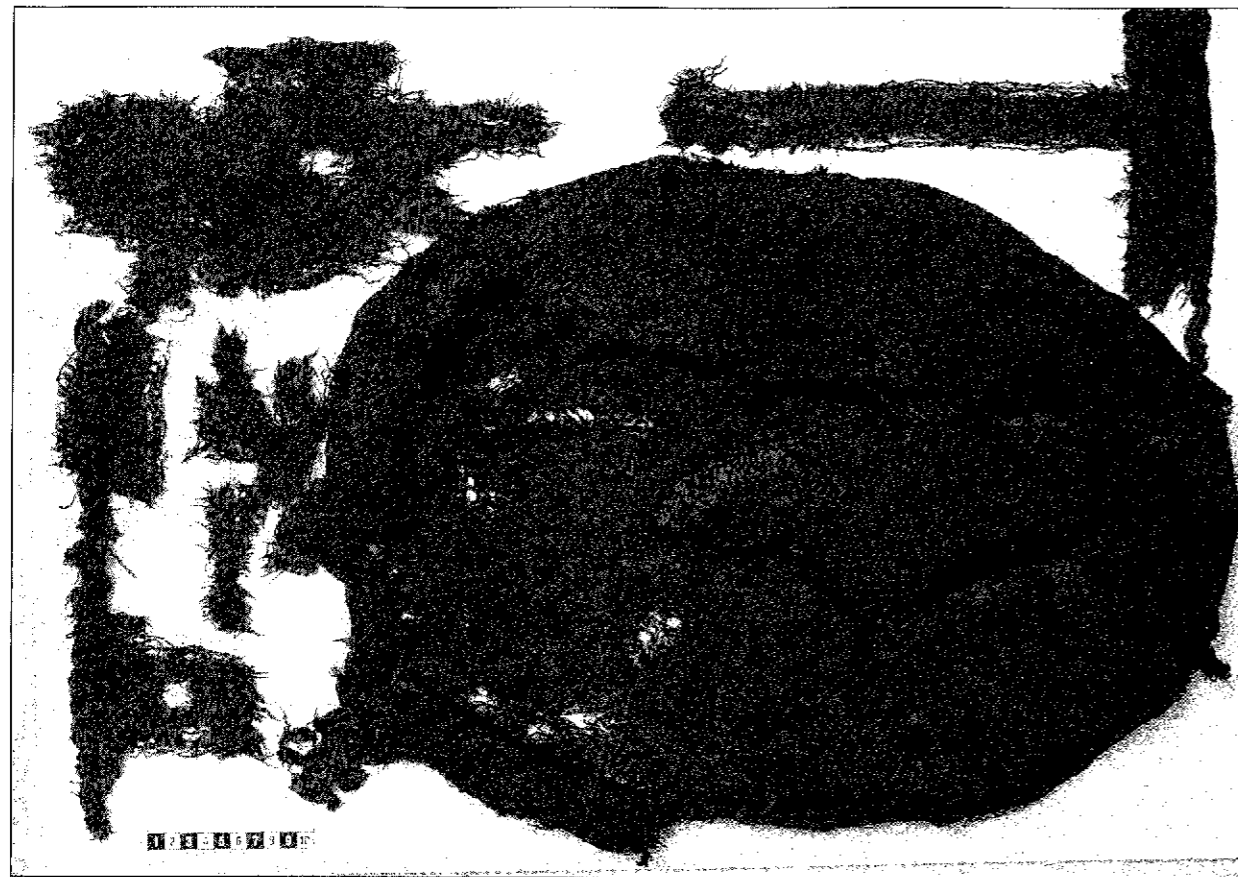


Fig. 17.1. The bag from the Tegle find and some of its contents: the bag (© Arkeologisk Museum i Stavanger).

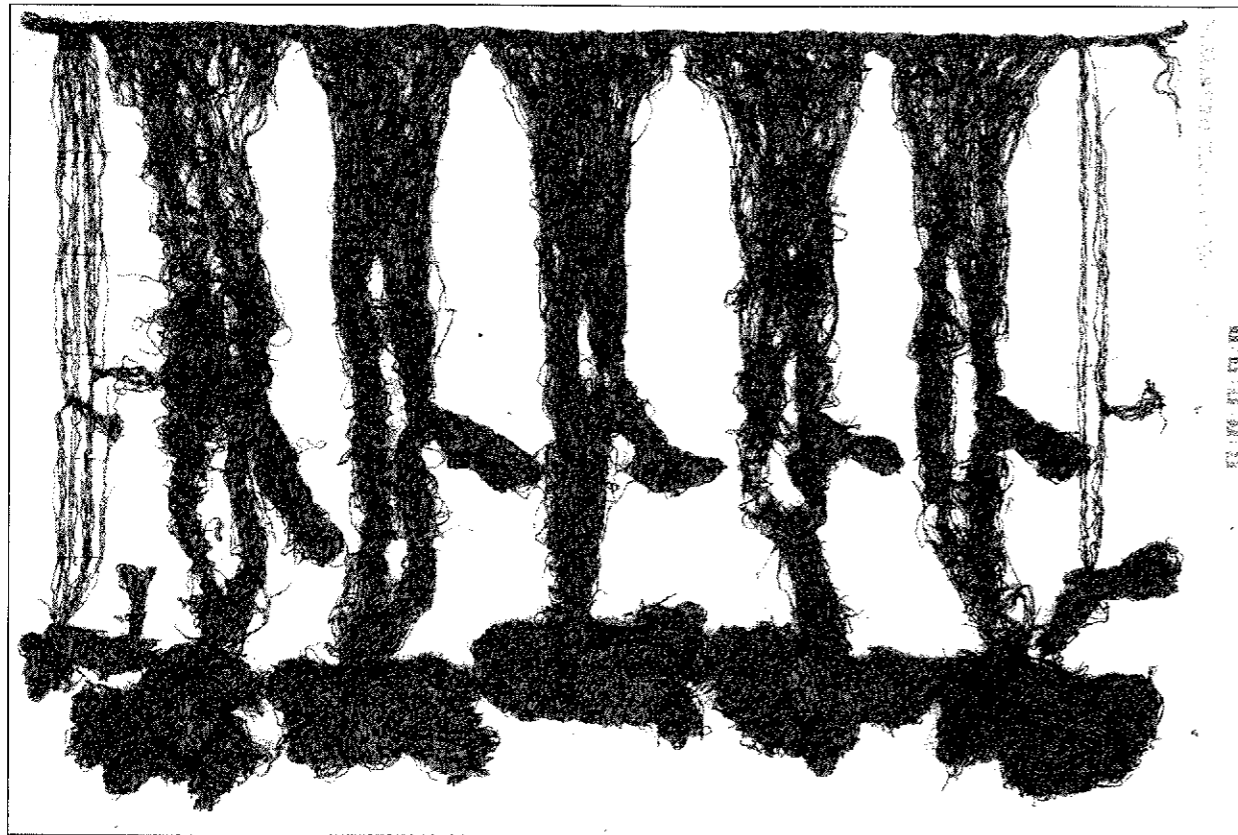


Fig. 17.2. The warp from the Tegle find (© Arkeologisk Museum i Stavanger).

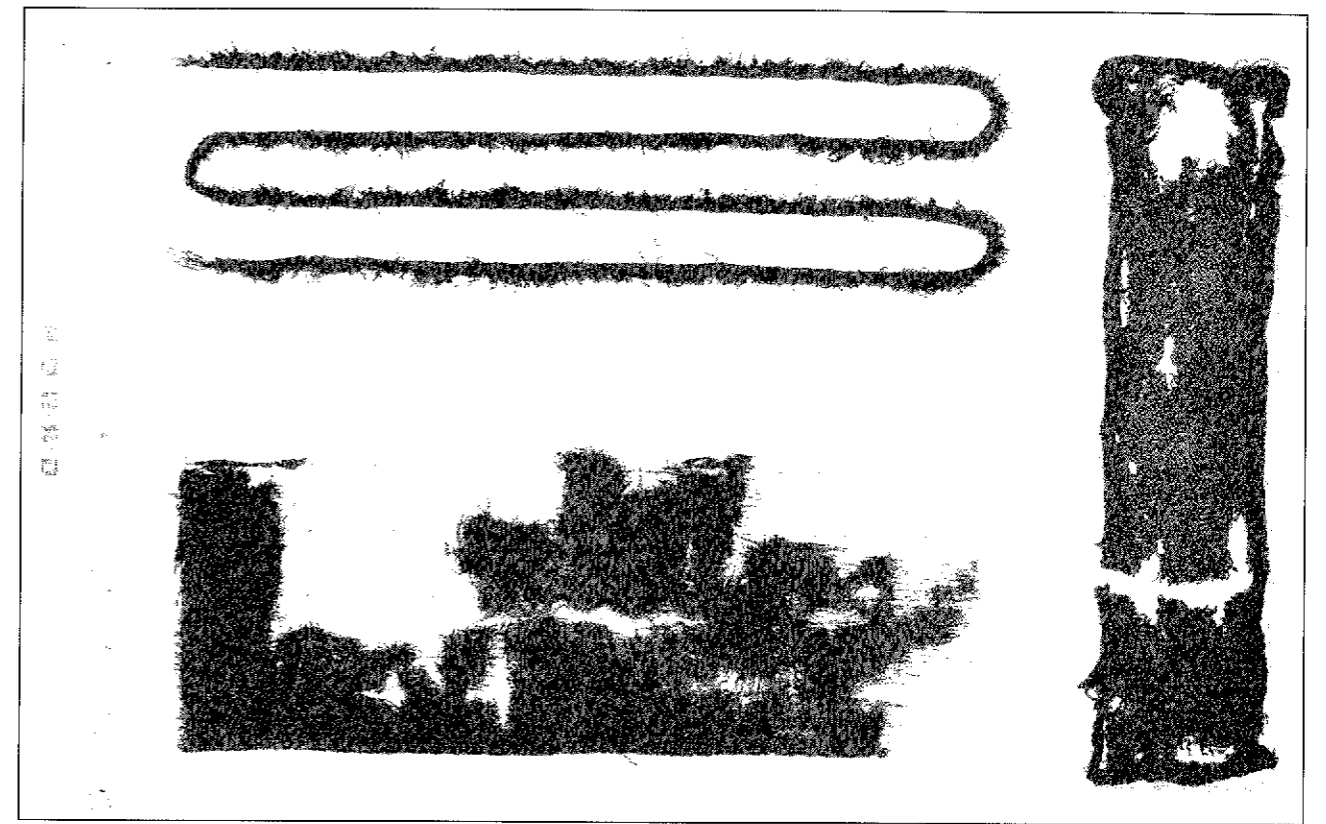


Fig. 17.3. The Tegle find contents: top left - fringe; bottom left - twill fragment; right - sprang tube (© Arkeologisk Museum i Stavanger).

applicable to people of the Iron Age, as different lifestyles would have affected bone and muscle size. However, other finds indicate that the conclusion is valid. A sprang item was probably found at the feet of a girl in a Roman period grave in Fallward, in northern Germany (Kadereit 2005, 15). From Roman York comes another sprang tube, 51 cm long and 38 cm around the opening, which is probably more suitable for a grown up (Henshall 1951). My conclusion is that the Tegle sprang item was probably a legging, used by a relatively young person. It is also worth noting that Migration period costumes seem to have had long sleeves,² although there can of course be variations according to age, status, workload and weather.

Along with the textiles, the Tegle find contained different qualities of yarn, as well as unspun wool. A few twisted threads identified earlier as woollen, seem to be made of hair, possibly human. It is interesting to note how much the quality and thickness of the yarn varies. There is a light, plied yarn which is smooth and even, but the rest of the yarns are quite coarse and unevenly spun. Compared to the fine quality of the threads in the fringe and the twill fragment, this might indicate that the different textiles and yarns have been made by more than one person. I suggest that the yarn might have been spun by a somewhat unskilled person, possibly the owner of the sprang tube. One possible explanation for the varying yarn quality is that the sprang tube could have belonged to a child, who made some of the yarn. A further plausible explanation for the qualitative variations is low wool quality.

The bag itself has been somewhat neglected, since in previous studies the objects it contained were of more interest. Although it is coarsely made, it is still a very interesting piece, being the only known Iron Age bag in Norway. It is sewn together with large stitches and gives a somewhat sloppy impression. The varying size of the pieces adds to this impression. Random stitching suggests that it was also repaired. A patched up part at the back indicates that the bag was made of a secondary-use textile, but the few loose pieces that exist today were torn off when it was discovered. The drawing illustrates how they probably fit together, according to twill-lines, seam types and edges (Fig. 17.4).

The fabric of the bag is a 2/2 twill with 8 z-spun threads per cm in both directions. The bottom is elliptical, 12 × 36 cm. The bag measures 52 cm lengthwise. One side is made of an oval piece of fabric; the other side is made of three pieces of different dimensions. The bottom and side seams and the long seam in front are sewn in a thick thread and long running stitches. The loose piece in the left corner of the figure 17.1 was sewn with smaller stitches, but with the reverse side of the seam outwards, showing the raw edges of the fabric. The bottom and sides have no edging, but the longest front seam does. The opening is only partly edged and lined. One of the loose fragments from the bag has a woven tubular selvedge. The occurrence of different kinds of edging in the woven fabrics of a closed find like this might indicate that choice of edging technique was based on the intended use of the fabric, rather than on weaving traditions.

The find from Tegle was probably intentionally deposited in the bog. The find consists of a collection of new and old objects. The sprang item has been worn and repaired. The fringed band has been attached to something, and it still has pieces of sewing thread. The twill item was probably worn out before it was placed in the bag. These three objects are also of fine quality. The fringe and the twill fragment even have traces of dyes (Vanden Berghe *et al.* 2009). The new and unfinished objects, the warp and the yarns, are of a far lower and more varied quality. It seems to be a selection of personal items, as both the clothing and the unfinished items must have been closely connected to the person who owned and made them. The unfinished textiles were probably intimately connected to the craftsman, as that person's skills would be reflected in the products.

The Tegle find is famed for its tablet-woven warp. The warp certainly testifies to a specific handicraft process, but also to the craftsman. The yarn bears the fingerprint of the spinner. As all the objects inside the bag would need to be transformed to gain economic value, I suggest that it is the social and personal value from the items' past lives that imparted the material real value. I would suggest that the different artefacts inside the bag have ascribed value and meaning for the people, places and social situations connected to them.

Helgeland

The textiles from the bog at Helgeland are less famous, but still of great interest. Found during peat cutting, and partly excavated by an archaeologist, textiles were unearthed between 1929 and 1932. Bjørn Hougen published the find in 1933, and discussed it in more detail in 1935 (Hougen 1933; 1935, 83). Textiles were found in a 20 × 1 m wide area of the Helgeland bog. Several earlier reports on textile finds in the bog indicate that the bog contained quite a few textiles, spread out over a vast area. Except for two glass beads, only textiles and fibres have been found in the bog. The find contained fragments of a broad tablet-woven band, several fragments of woven textiles, a little piece of unspun wool, some thick wool threads and a bundle of hair. There were no reports of human remains other than a lump of human hair wrapped with twisted braids. One of the now lost finds was described as a wrapped up bundle of fabric, fastened with a metal pin. The fact that the textiles were wrapped might indicate that they were deposited without any connection to human remains. Braids cut from human hair have been found in bogs in Norway, Denmark and Holland (Brøndsted 1958, 277; Ingstad 1961, 33; van der Sanden 1999, 219). The vast area of textile finds, the description of the lost find and the lack of human remains make it difficult to interpret Helgeland as being connected to burials. It rather indicates that textiles were deposited in the bog on their own. The find is ¹⁴C dated to AD 425–535 and the tablet-woven band and the woven twill fragment D differ only by five years (Halvorsen forthcoming). Although ¹⁴C provides the date when the wool was taken from the sheep, it may indicate that the textiles were deposited within a rather short span of time.

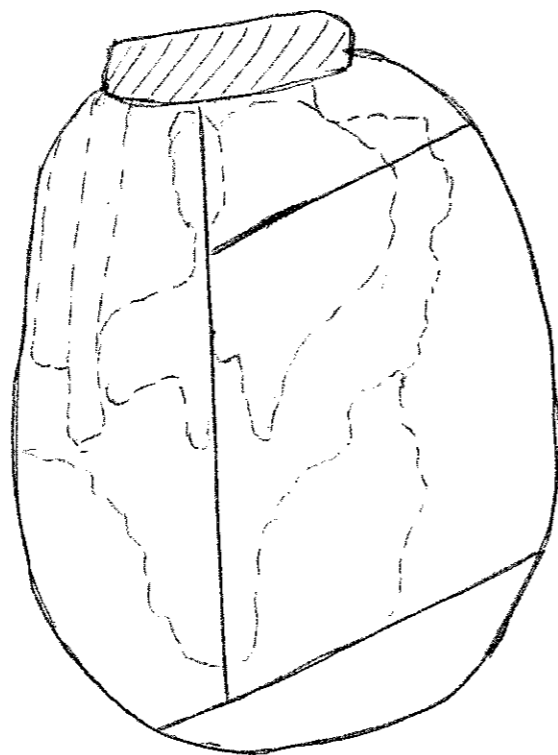


Fig. 17.4. A sketch of how the Tegle bag was stitched together. The fully drawn lines indicate seams, while punctured lines indicate the preserved fragments (Drawing: S. Halvorsen).

The woven fragments seem to have come from different items of clothing. As the textiles were primarily unearthed by peat diggers, the relationship between the different fragments is unknown. The fragments were grouped A–S according to the way they were found in the same lumps of peat, but these groups seem to contain fragments of different qualities. The woven textiles all fall within the overall quality of Migration Period textiles. They are 2/2 twills, with 8 to 16 threads per cm, most often 12 to 14 threads per cm. Fragment C is proved to have traces of the blue dyestuff indigotin probably from the plant woad (Vanden Berghe *et al.* 2009).

Most of the fragments are rather small, and it is not known whether textile variations are due to disturbances in the bog, or to real differences in quality. This makes it difficult to determine how many different textiles there were originally. Based on a comparison of the fabric qualities and variations in sewing techniques, I find that there must be at least seven different textiles. At least three of these must be from clothing, as they have a neck opening and two different sets of gores (Fig. 17.5).³ Additionally, there are a few fragments with sewn edges, and two with tubular selvages. The new investigation of the woven fragments also made it clear that one small fragment (P), interpreted by Hougen (1933) as a weft-faced fabric, is instead a 3 cm broad warp-faced band.

The Helgeland bog also contained what is probably the best preserved tablet weave from the Early Iron Age in Norway (Fig. 17.6). The band stands alone in the Norwegian Migration Period, both in terms of its dimensions and technique. Migration Period bands are primarily patterned either by



Fig. 17.5. One of the woven fragments (E) with inserted gores, from the Helgeland find. (© Arkeologisk Museum i Stavanger).

individually turning of the tablets, or by adding a decorative pattern weft of horsehair in a tapestry-like technique (Nockert 1991). The Helgeland band is made completely of wool; it is 10–11.5 cm wide, with a maximum of 81 tablets. Stitches indicate that one edge has been attached to another object. The band is patterned with a yellow pattern weft, in 9–14 cm wide rectangles, with plain patterned rectangles of 2–3 cm in between. The ground weave is simple warp-twisting technique, with paired tablets in a fishbone pattern. The ground weave looks purple-reddish, though only yellow dye components have been detected in these threads (Vanden Berghe *et al.* 2009). An impressive number of rather large fragments are preserved. The preserved fragments indicate a band at least 250 cm long. This measurement is based on fitting all the fragments into the smallest possible length, based on the sizes of the continuous patterned and blank rectangles, together with the twisting direction of tablets and occurrence of weaving mistakes (Fig. 17.6).

When the band was first analyzed, Bjørn Hougen divided the fragments into groups A and B, describing them as possibly two bands (Hougen 1933, 60–64). However, the

same weaving mistake, that of tablets twisting the wrong way in certain places, is repeated in both band groups on the same tablets. I therefore find that these fragments are most likely from one band, or at least one warp. The most notable difference between A and B groups is in the preservation. The fragments grouped as B are more disintegrated.

The first publication of the Helgeland find left some doubt as to how the band had been constructed (Hougen 1933). A few scholars have commented on it (Geijer 1972, 273; Nockert 1991, 83; Ræder Knudsen 1996, 37; Collingwood 1996, 250), but it had not been further investigated or discussed. Part of my project was to understand which techniques had been applied to make the band. The approach was to combine a new analysis of the fragments with test weaving of the possibilities that had been proposed earlier. Bjørn Hougen (1933; 1935) proposed that the bands were either brocaded or embroidered (1933, 61–62). When Hougen's notes were published posthumously in the volume on the Oseberg textiles (Christensen and Nockert 2006, 129), it became clear that he had changed his view on the technique in the Helgeland band, considering it to be brocaded soumak.

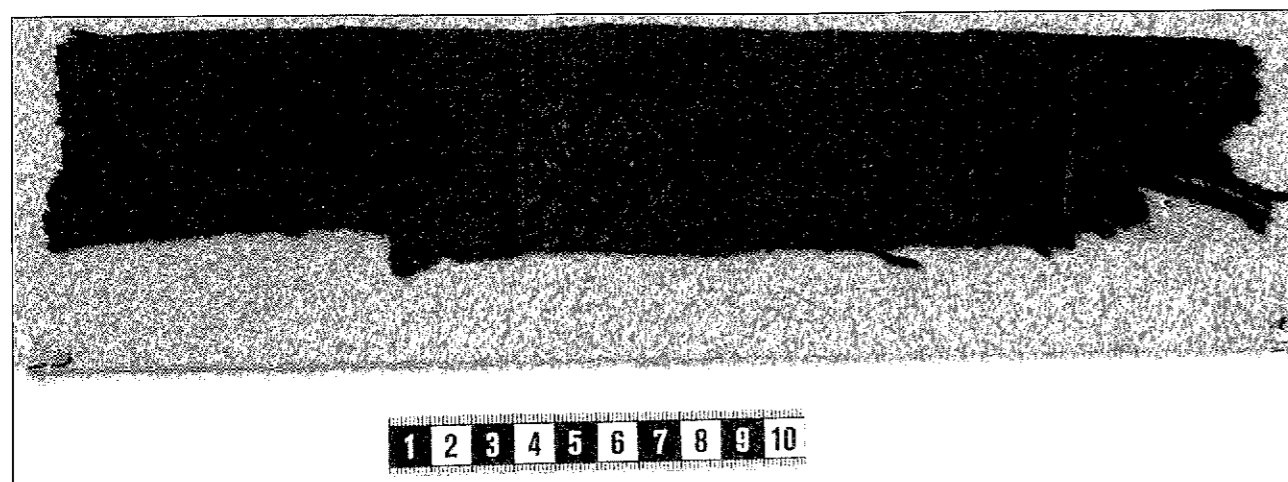


Fig. 17.6. One fragment (Af) from the broad tablet weave from the Helgeland find (© Arkeologisk Museum i Stavanger).

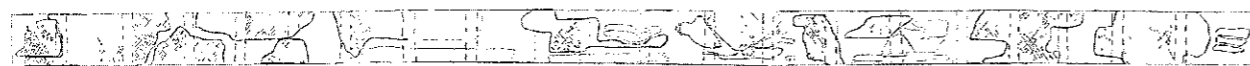


Fig. 17.7. An illustration of how all the fragments in the Helgeland band might fit together, to create the shortest possible band. Each patterned area is approximately 10 cm long and each blank area is about 2 cm long (Drawing: S. Halvorsen).

The new analyses included drawings of each pattern weft thread in each fragment, with variations such as weaving mistakes, stitches and number of tablets. Registering how the pattern thread behaves on the back of the band turned out to be an important key to understanding the technique. Unfortunately, the pattern thread is hardly ever preserved either in the front or in the back of the band. This is clearly due to decomposition, not the technique. There are a few places where both sides are completely preserved. The pattern is somewhat the same on both sides, but is far more irregular on the reverse, with the pattern thread in different angles and even crossing over itself.

Test weaves of the different proposed techniques were compared to the new analyses of the band. Bjørn Hougen's first idea of ordinary brocading (Hougen 1933, 61), where the pattern weft follows the ground weave when not visible on the front side, had to be discarded because the pattern weft does not show on the reverse with this technique. His second idea of brocading (Hougen 1933, 62), where the pattern thread floats on the back when not patterning the front, and thus forms a negative of the front side pattern, was also discarded. The back of the original band does not show a negative of the front pattern. Hougen (1933, 62) also thought there were indications of the pattern having been embroidered onto the band after it was woven. Although this might be a possible way of doing it, it would be far more time-consuming than weaving a pattern. The pattern threads run parallel with the ground weft, and this is hard to achieve by inserting it after the band is woven. Furthermore, as I have observed that the pattern thread runs in the shed in some places, the theory of it being embroidered does not hold true.

Hougen's notes on brocading with soumak (Christensen and Nockert 2006, 129) indicate a technique where the

pattern thread passes over the front threads, then backwards beneath them, then up and forwards again. It has a lot in common with embroidery, but is done while weaving. The pattern thread in the Helgeland band does clearly turn backwards, but there are flaws with this technique as well. It can only be used to cover whole areas, if the thread is not put in the shed between the blank spaces in the pattern. The band has a pattern thread that lies in the shed in a few places, but it does not seem to be the rule everywhere. I made two more tests, where I used several discontinuous pattern threads to build the different parts of the pattern. Merely weaving with discontinuous pattern wefts was not successful either, as the pattern thread did not lie in the shed, and the reverse side seemed too perfect. The last test was done by letting several discontinuous threads weave soumak, sometimes floating in the back, and sometimes lying in the shed. This seems to be quite close to the original. The band thus seems to be brocaded with soumak, with several discontinuous pattern threads following different parts of the pattern. Where the pattern thread needs to move between areas in the pattern, it is put either in the shed or floats at the back, depending on what is most convenient and how wide the leap is. It is thus a combination of different techniques. The band was not made with the thought of having a nice looking reverse side. As I see it, the same pattern could have been accomplished in a far simpler and faster way. The reasons for using this more time-consuming technique may be due to some colour variations that are not visible anymore. It can also be rooted in the social framework of the handicraft, or how the craftsman used to think of pattern weaving.

Conclusions

The textile finds from the Helgeland bog were scattered over a wide area. We do not know to what extent textiles have been discarded by earlier peat diggers, or how the preserved textiles relate to one another. It is not known whether there were one or several instances when textiles were deposited. As in the case of all bog finds, there are too many unknown variables. These factors make it difficult to draw conclusions on the prehistoric setting that led to the textiles being deposited. The Tegle find, being a closed find, provides us with slightly more information. We know the items were deposited together, at the same time. Although bog finds are difficult to interpret, these two finds have given us some important knowledge. Apart from being of great importance to our understanding of textile technology of the Migration Period, these two finds are significant for what they can tell us of textiles as social objects. The fact that they were deposited, probably due to a mixture of their economic, biographic and symbolic value, tells us that textiles and textile production were meant to be more than merely keeping warm and looking good. These are textiles that have meant something and had their own stories. The textiles have probably been deposited in the bogs due to the importance ascribed to them.

Notes

- 1 This paper is based on an MA thesis in archaeology written at the University of Bergen in 2007: *Myrfunn av tekstiler – en ny undersøkelse av funnene fra Tegle og Helgeland*.
- 2 There are several finds of wrist clasps in female graves from the Migration Period. One example comes from a female grave at Døsen, Hordaland: B6090, grave 2.
- 3 The fragments of S5960D, E and K seem to belong to a gored piece of clothing, as S5960E has a gore. S5960D was ¹⁴C dated to AD 530-535 (Halvorsen forthcoming).

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