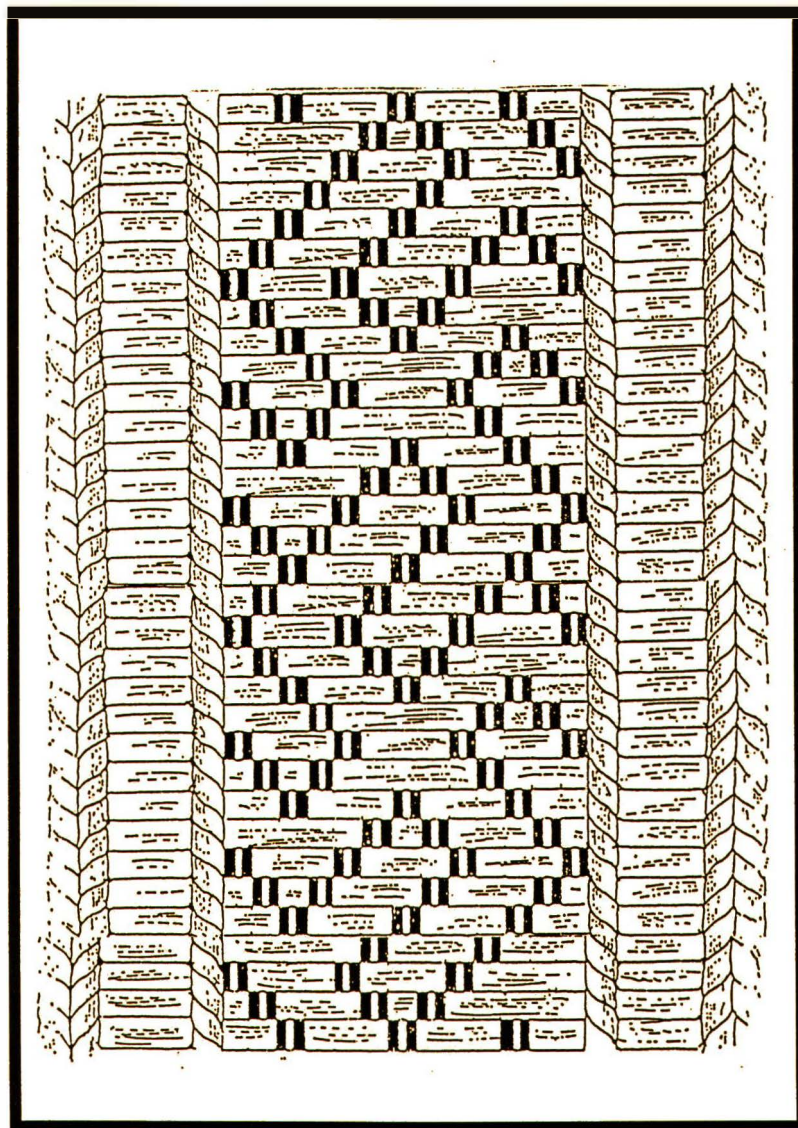


# Archaeological Textiles Newsletter



*Tablet-woven band from Hamar, Norway*

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## From the Editorial Board

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### Editorial

The international flavour of *ATN 20* is unmistakable - and that is how it should be! It was the Founding Editor's intention to cover as wide a geographical and chronological span in the Old World as possible. For the Editorial Board it is particularly encouraging to see articles by contributors whose work has not appeared in *ATN* before. Perhaps we should reiterate: if you have something to say about your current research or new views on old research - or just some provoking ideas - don't hesitate to give us the chance of printing them! *ATN* offers a platform to announce any textile-related work which you have in hand; and what you write can be the briefest of interim statements, if you so wish. The turn-round time between the receipt of your manuscript and its appearance in print will be as short as we can make it.

Many employers, universities and research institutes, are increasingly evaluating their employees in terms of their published output. As an outlet, *ATN* meets the strictest criteria: it is a multilingual international refereed learned journal. We need not be modest about what we can offer our authors.

Most of *ATN*'s subscribers are individuals, but there is also a list of subscribing institutions. It is in everyone's interest that *ATN* should be as widely and publicly accessible as possible. So, if your institutional library does not have it, get them to subscribe!

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**Notice to subscribers:** At intervals *ATN* publishes the current list of subscribers and their addresses. No one has ever objected to this; however, anyone who does not wish to appear is asked to contact the Editor. The autumn 1995 number of *ATN* will include the current list of subscribers.

Subscription renewal notices were sent out with the November 1994 issue of *ATN*. Subscribers who have not renewed their subscription by the end of 1995 will not receive the Autumn 1995 number.

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## Doing the Textiles

*Will you do the textiles?* Most textile scholars recognize this question, put to them by an archaeologist who has found some textiles and wants her/him to examine them. Following a positive answer, the archaeologist hands over the textiles to the specialist, and afterwards thankfully receives a report and a chapter entitled "The Textiles" for the forthcoming book. The archaeologist rarely has any suggestions for what he/she wants from the textile specialist, except, perhaps, a certain number of words and illustrations. The textile specialist is left to decide what to do with the textiles.

How, then, are we doing the textiles? What are we doing with them? The normal procedure is to analyse the textiles, make a catalogue, do some statistics to establish the relationship between fibres, spin, twills and tabbies, and discuss how this group fits in with other textiles from the area or period in question, highlighting any deviations from the normal. This is generally what the archaeologist expects, and gets. But is this really what we want? Those who have *done* several such groups of textiles will know about the boredom of repeating the same procedure as last year, and the doubts whether this is really very interesting.

Until recently, archaeology has tended towards the positivist ideal of finding the *Truth*. According to this school of thought, a theory must be proven true to be regarded as good science, and the worst that may happen to you is that somebody finds a fault in your work. This way, research easily turns into producing perfect descriptions, because these cannot be criticized. That is a main reason why so many archaeologists are guarding their finds so zealously: the merits go to him/her who publishes them, i.e. describes them in writing. That goes for textile archaeology as well. But is that really what we want to do? Perfect descriptions of textiles, ten or ten thousand of them, followed by comparisons and a few, indisputable (and often rather lame) conclusions?

Since the 1970's, archaeology has been moving away from the positivist ideals. Several new schools have appeared: processualists, structuralists, functionalism, postprocessualism, etc. Each of them emphasizes different ways of thinking. A main result of this development is pluralism: few people now care about *Truth*; instead, there are many truths, discussions, theories and arguments. As one of the leading theoretical archaeologists said at a seminar at our Department recently: it doesn't matter what you are saying, as long as you argue for it.

The new ideas have not yet really been adopted by textile archaeology, although some important efforts have been made. Elizabeth Barber's *Prehistoric Textiles* is a major step, as one of the first attempts to write a synthesis of the early history of textiles, and an exceedingly readable one at that. And it's amazing to see how widely it is being read: it's being quoted here, there and everywhere now, although it is only four years old. Another interesting effort has been done by Marie-Louise Stig Sørensen in a paper on the construction of gender through appearance, based on a study of Danish Bronze Age costumes.

This spring, several queries have appeared on my e-mail from students all over the world looking for textile studies with a theoretical perspective. The times they are a-changing. It's time to take up the challenge and start asking new questions when doing our textiles, like *why* instead of *how*, *where* and *when*. Doing that, we can make our textiles tell a story - many stories, and make doing the textiles much more fun.

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## Features

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### A Roman Textile Bracelet from Dorchester, Dorset

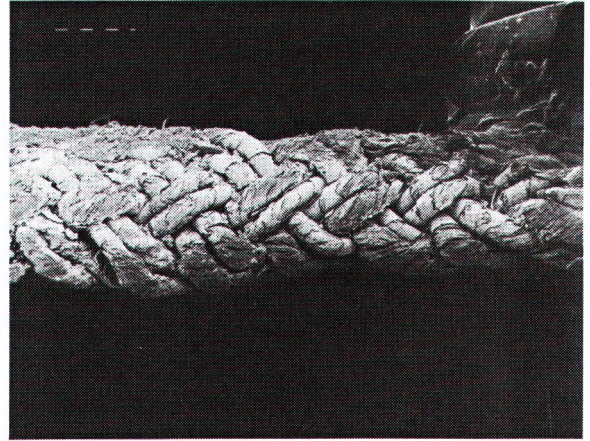
In 1938, a small textile bracelet was found in a presumed late Roman burial in the Colliton Park area of the city of Dorchester in Dorset, England. This area of Dorchester had once formed the north-west sector of the Roman town of Durnovaria and was excavated between 1937 and 1939 by Lieut.-Col.C.D. Drew and K.C. Collingwood Selby.

The textile was found on the left wrist of an infant, in a grave which was carefully dug into the natural chalk layer of the Dorchester landscape. The infant had been buried in a wooden coffin. The body was extended from north to south with the head to the south and facing east. The grave was located approximately 30 yards to the southeast of an elaborate, fourth-century, Roman town house.

The town house and the remains of other third- and fourth-century buildings were the main focus of the excavations of the 1930's. The interim reports of the excavations (Drew and Collingwood Selby, 1938, 1939) mention several infant burials within the buildings of Colliton Park, including five infants found within the floors and foundations of the town house, but there is no mention of the particular burial which contained the textile bracelet. The grave was apparently some distance from the town house, but its exact location is not marked on the site plan. The burial is listed by the Royal Commission on Historical Monuments as burial 215d and the textile identified as Colliton Park 1625 (RCHM(E) 1970:572-573).

The textile bracelet remained undocumented until this year when it was sent for analysis to the University of Manchester Ancient Textile Unit by Professor M.G. Fulford of Reading University, who in recent years has been re-examining the findings of the 1930's excavations in Colliton Park.

At a cursory glance, the textile bracelet is rather discouraging, its former beauty lost through burial. It is medium brown in colour and forms a small, slightly misshapen oval with a circumference of approximately 112 mm. The excavators described it as a cord or hair bangle, and without the benefit of magnification, the textile does appear as such. The first magnified views of the textile, however, revealed signs of metallic threads. Traces of a slightly dull, corroded silver wrapping could be seen on several of the yarns and although in very poor condition, the traces of metal indicated that each yarn



*Figure 1 A segment of the bracelet showing the braided structure made from metal-wrapped yarns. (6.4x, SEM photomicrograph: Trevor Jones.)*

in the textile structure was originally metal-wrapped (Figs 1 and 2).

The aesthetic properties of the metal thread have been so altered with burial that the original appearance of the bracelet can only be surmised, but when new, it must have resembled a piece of fine jewelry, the metallic yarns appearing as shiny silver wire.

The basic structure of the bracelet is a simple narrow braid, approximately 160 mm in length and 3 mm in width. Two pairs of metal-wrapped yarn



*Figure 2 Detail of the degraded metal warp on the yarns within the bracelet. Some portions of the metal are quite well preserved and show the straight, cut edge of the metal ribbon. (64x, SEM photomicrograph: Trevor Jones, UMIST.)*

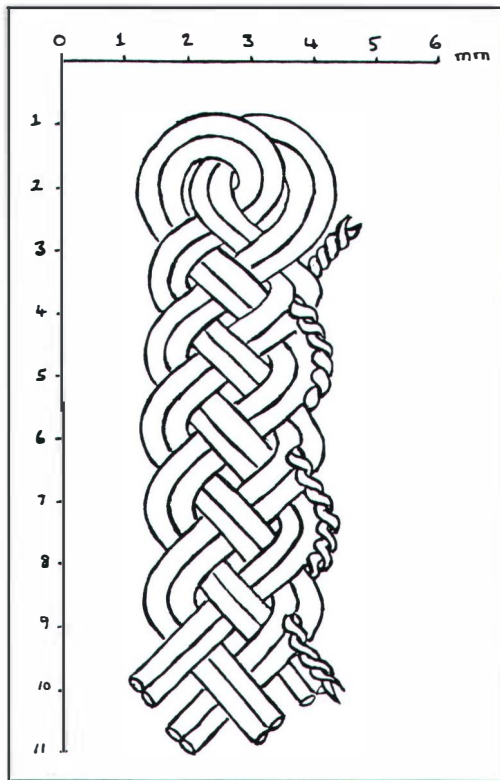


Figure 3 The braided structure - plain oblique interlacing with paired elements. The width is 3 mm and the length of one repeat is 6 mm. The supplementary yarn is only illustrated on one edge of the braid, but it appears to have been stitched around both sides of the entire braid. (Illustrated by J. Batcheller.)

were folded in half at the starting point of the braid to form four pairs of yarn and these four pairs have been obliquely interlaced in the regular over-under sequence of a four-strand braid.

In addition to the basic braided structure, there is a supplementary yarn which interlinks with every other yarn pair on either side of the braid (Fig 3). This yarn is in very poor condition and only appears sporadically around the edges of the bracelet. It is composed of two unspun strands of silk which are plied together with an S-twist. Although little of this yarn remains, it appears to have originally edged both sides of the entire length of the metallic braid and it may have been used to sew the braid to the backing or lining which is no longer present.

To form the small bracelet, it appears that the length of braid was wrapped around the infant's wrist and tied in place. The two ends of the braid are still tied tightly together in the simple square knot which was used for this purpose.

The metallic yarn of the braid is composed of a silk fibre core around which a thin ribbon of solid metal was wrapped in an S-direction spiral. The spiral

angle is quite flat or close to horizontal with just a slight, left-hand slope. The average width of the ribbon is 0.32 mm and the thickness is less than 0.01 mm. The edges are square or flat, indicating that the ribbon was cut from a flattened metal foil (Fig 2).

Elemental analysis by energy dispersive X-ray spectroscopy (EDS) indicated that the metal wrap is composed of silver and the corrosion products of silver - silver sulphide and silver chloride.

The fibres from the core of the metallic yarn and from the supplementary yarn were identified as silk filaments of the *Bombyx mori* species. Fig 4 is a cross section of the filaments from the core of the metallic yarn. The fibres show the characteristic triangle shape of cultivated silk with the usual variations in size and shape from very fine, almost cylindrical, to flat or ribbon-like. The cross sectional shape of the fibres is unlike wild varieties of silk which are flatter and more ribbon-like than the fibres from the textile bracelet.

The textile bracelet is a rare example of the use of silver thread from the Roman period, and it is one of the few finds of metallic thread from this period to have survived with the fibre core of the yarn still present and the textile structure preserved.

According to Wild (1992:9), by the fourth century AD, the period to which the textile bracelet belongs, the use of metal threads in textiles was commonplace. The archaeological evidence for these metal threads, however, suggests that the thread of choice was gold rather than silver. The typical gold thread was composed of a fibre core of silk with a ribbon of gold spiralled around it. When reported, the spiral direction of the metal wrap is in the Z-direction (Gath and Rahmani 1977:212 and 214 note 22; Wild 1970:131 and 1986).

Possibly because silver decomposes and corrodes more easily than gold, silver threads are simply under-represented in the archaeological record. However it is also possible that silver threads were less popular than gold during the Roman period.

Examples of silver threads have survived from earlier periods. A silver Etruscan garment, for example, is reported by Bonfante (1985:325) and an example of a silver ribbon wrapped on a now missing core is reported from classical Greece at Koropi (Beckwith 1954). However, after these very early examples, finds of silver threads are not reported until the Viking period when silver threads are found adorning the textiles from sites such as Birka (Geijer 1979), Mammen (Østergaard 1991), and Dublin (Pritchard 1988).

The function of the textile as an infant's bracelet seems to be unique for the Roman period. However, it is difficult to determine if the uniqueness of the bracelet is the result of poor preservation of similar textiles, or because the textile is in fact an unusual object. The wearing of bracelets was common enough in Roman times and items of jewellery are frequent grave finds. However, other examples of textiles used as jewellery are not reported amongst grave finds from Britain until the Anglo-Saxon period. From this period two examples of textile bracelets (tablet-woven bands with gold brocading weft) are reported by Crowfoot and Hawkes (1967:50).

The textile survived in a burial context and was remarkably well preserved because of the presence of the silver wrap. If there had been a fashion for textile bracelets made from silver-wrapped threads, or a tradition of children wearing such bracelets in the Roman period, then presumably other textile bracelets would have been found, having been preserved for the same reason that this bracelet was.

Many infants were discovered buried in the Roman buildings of Colliton Park and throughout Dorchester and yet no other textile bracelets (hair bangles or cords as they may have been described) have been reported amongst the grave goods. In fact, most infants have no burial goods. As well, from the Roman graveyards around the Dorchester area no other textile bracelets have been recovered, although a few textile remains and many impressions of cloth have been discovered in late Roman burials (Crowfoot 1982).

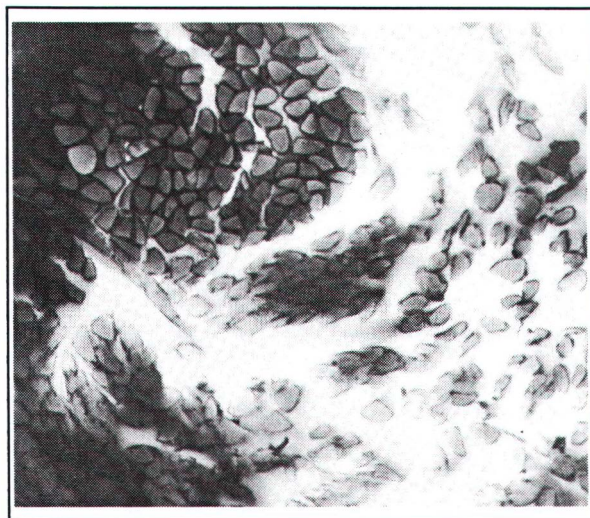


Figure 4 Cross section of the silk fibres from the core of the metallic yarn. Average fibre diameter is approximately 11 microns. (290x, photomicrograph: J. Batcheller.)

### Acknowledgements

I am grateful to the Department of Textiles at UMIST for allowing me access to the equipment in their microscopy lab which was needed for the documentation of the textile, and I would like to thank Trevor Jones of the same department who operated the scanning electron microscope and produced the clear images of the uncoated textile sample.

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## Berenike 1995

Although the textiles from the second (1995) season of excavation at Berenike in the Red Sea province of Egypt were mainly fragmentary, over 400 items were recorded on site in February-March 1995 (see *ATN* 18/19 (15) for the 1994 results). Most came from the extensive and rich midden deposits north of the exposed Temple of Semiramis and date to the fifth and possibly the fourth centuries AD. (The pottery evidence suggests at present that the site did not continue in occupation after c. AD 500.) They offer a valuable snapshot of the wide range of clothing and household textiles in use at a relatively wealthy late Roman trading port on the Red Sea coast, albeit one with attenuated lines of communication to the Nile Valley.

Cotton (often Z-spun) was surprisingly common. Characteristic cotton fabrics were on the one hand fine Z/Z checks based on blue and undyed yarns and on the other fine to medium-weight Z/Z and S/S tabbies. Flax, often difficult to distinguish from cotton in the more degraded specimens, was reserved for fine to medium S/S tabbies, basket

weaves and half-basket weaves and served as warp in some textiles containing tapestry-woven decoration.

Wool, a minority fibre at Berenike, appeared in various guises. There are some very fine wool tabbies, dyed (red) and undyed, a few Z/Z but most S/S; there are at least two three-colour weft-faced compound tabbies; and there is a handful of fine weft-faced 2/2 twill diamond twills and plain twills in Palmyrene style. While some tapestry-woven bands in wool were well preserved, others had lost most of their weft, and only the flax warp and flying needle yarns gave an inkling of the restrained purple bands. Heavy matting in plied goat hair is the only fabric which was probably produced locally.

Reinforced selvages were normal on the woollen fabrics and a variety of simple warp fringes occurred, but not transverse starting-borders or cords. Hems and seams tended to be carelessly sewn.

Three specific items deserve to be singled out. The first is a resist-dyed Z/Z cotton carrying in dark blue (and possibly a second paler colour) on a light ground a flower pattern. The second is a girdle plaited from dark brown and yellow goat hair. The third is the corner of an embroidered item showing interlocked scrolls along the edges and openwork pyramids within.

Despite Berenike's earlier preeminence in the Red Sea trade with India, there is nothing overtly exotic among the fifth-century textiles. While the Z/Z cotton checks may give pause for reflection, they may in fact come from Nubia or the oases where cotton is a recorded crop. Only time and a fuller distribution map will reveal whether the very fine twills were woven in the Nile Valley, or (say) Syria or Palaestina. What is obvious is that Berenicians could afford the best.

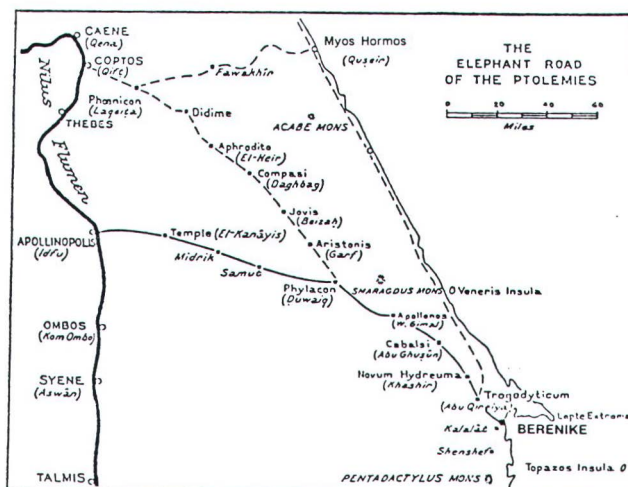


Figure 1 The location of Berenike.



An interim report on the 1995 season will appear in the second volume of *Berenike Reports*, to be published by CNWS, University of Leiden (Postbox 9515, NL-2300 RA Leiden, The Netherlands) early in 1996.

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## Die Goldstickerei der Altrussischen Landbevölkerung

Im Mittelalter war die Sitte, Festkleider mit Goldstickereien zu schmücken, weit verbreitet, wie in Altrußland, so auch in anderen europäischen Ländern.

In Moskau im Historischen Museum wird eine kleine, doch in vieler Hinsicht interessante Sammlung von Goldstickereien des Mittelalters aufbewahrt, die nicht nur eine Vorstellung von der Festkleidung jener Zeit gibt, sondern auch die Kultur Altrußlands und ihre wirtschaftlichen Beziehungen zu anderen Ländern schildert.

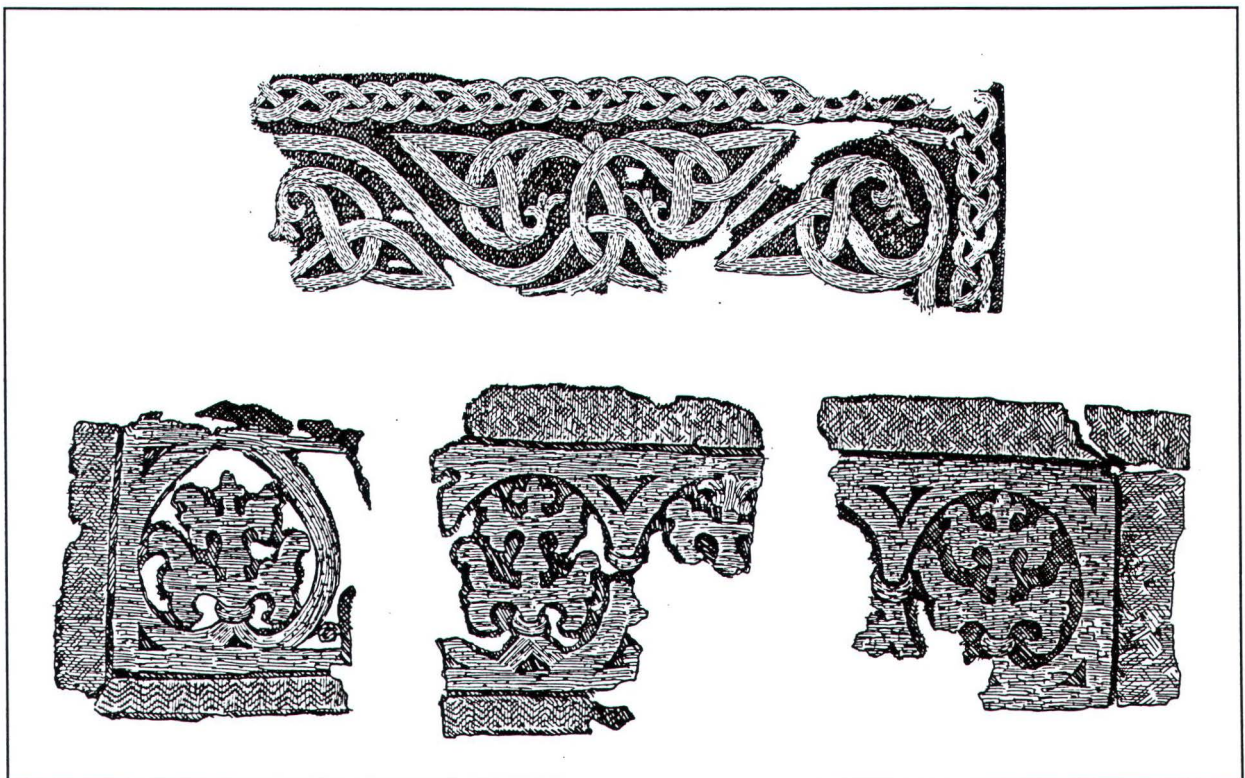
Diese Sammlung besteht aus 37 fragmentarischen Gegenständen der Frauenkleidung, die während archäologischer Forschungen (Anfang des 20. Jahrhunderts bis 1970) in Kurganen der Landbewohner aus der Umgebung der russischen Städte Moskau, Nowgorod, Smolensk, Vladimir und Jaroslawlj gefunden wurden. Wie sich aus den Beigaben in den Gräbern (Bronze- und Silberschmuck, Glasperlen) ergibt, gehören die Stickereien dieser Sammlung dem 12.-13. Jahrhundert an.

Nach einer sorgfältig durchgeführten Restaurierung des Materials der Sammlung wurde es offenbar, daß die Dorfbewohner ihre Festkleider entweder aus einem Wollstoff oder aus Leinen nähten und sie später mit Seide und Goldstickereien dekorierten; man konnte sogar einzelne gestickte Muster rekonstruieren.

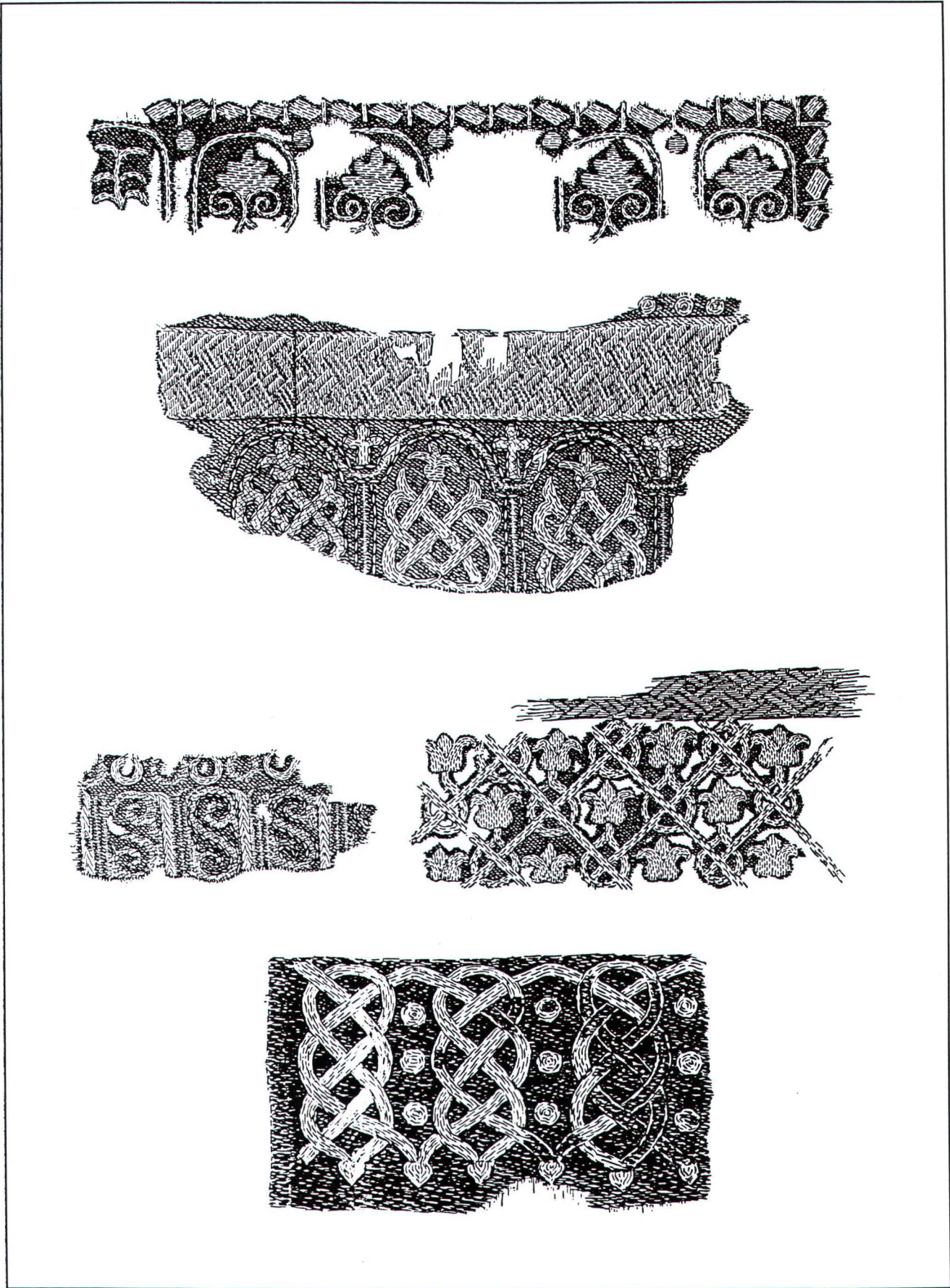
Mit Seidenstreifen wurde der Halsausschnitt benäht, aus Seide wurden die Kragen zugeschnitten; breite (5-8cm) zurückgeschlagene und schmale (2-4cm) Stehkragen, unter die häufig ein Stück Birkenrinde untergelegt war, damit der Stehkragen die Form besser hielt.

Die Dorfbewohner benutzten für die Festkleider hauptsächlich glatte, einfarbige Seide, oft in Rot, die billiger war als die gemusterten vielfarbigen Seidenstoffe. Die Seide wurde aus Byzanz und den Ländern des Nahen Ostens nach Rußland importiert.

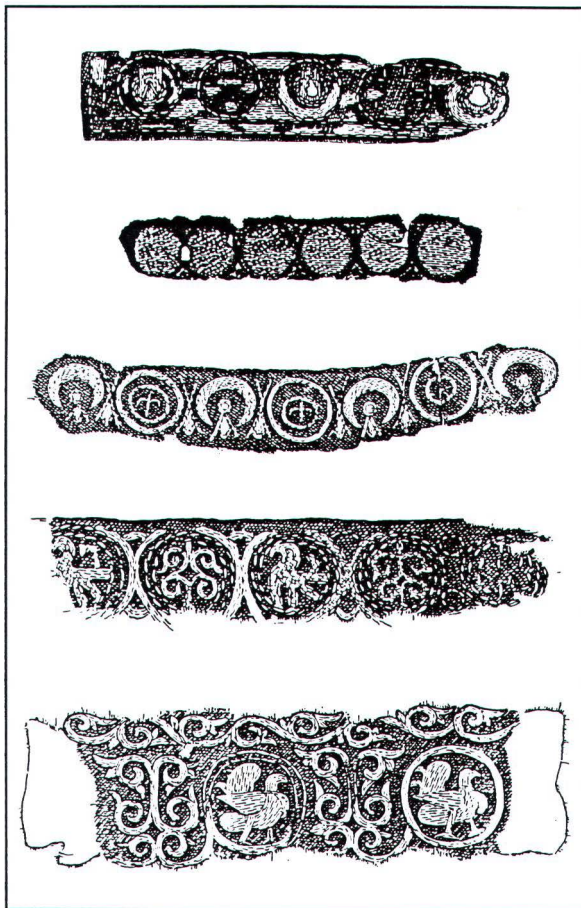
Das Hauptmaterial für die Goldstickerei bestand aus sehr dünnen, silbervergoldeten Lahn, die um eine



Tafel 1a.



Tafel 1b.

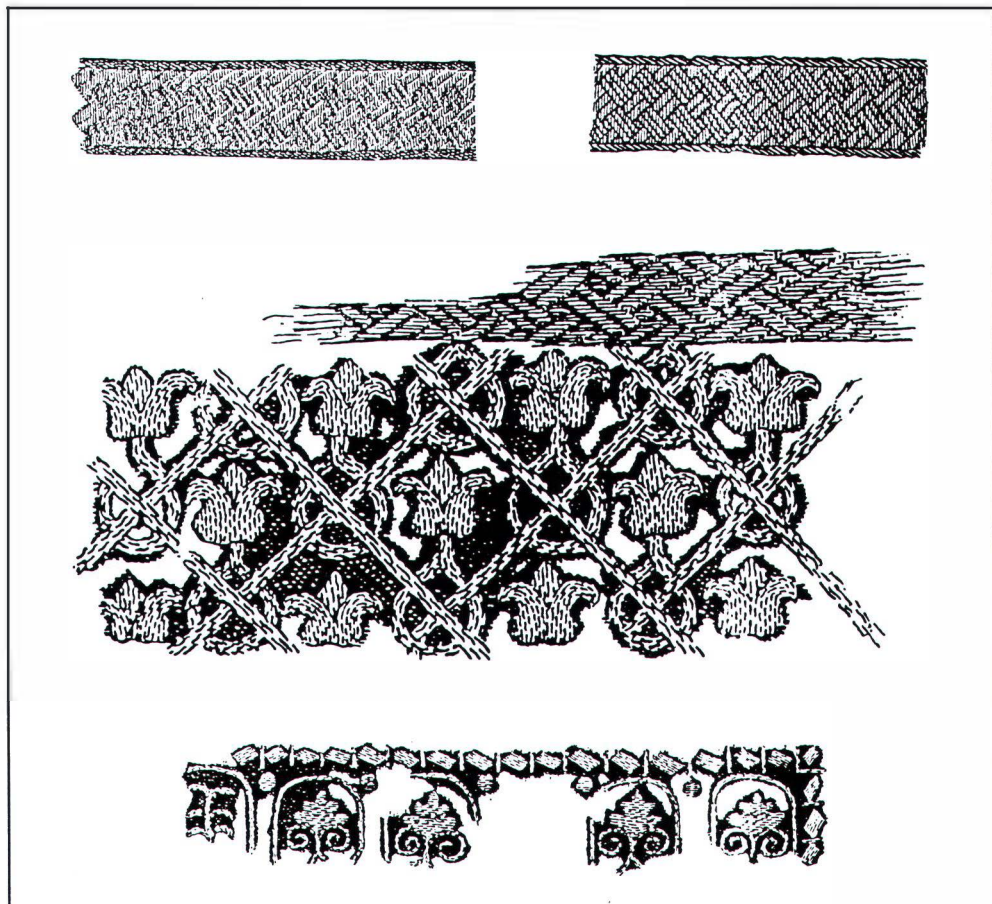


etwas gröbere Leinenseele gesponnen waren. Die Metallfäden wurden aus denselben Ländern wie die Seidenstoffe nach Rußland importiert.

Die Technik der Goldstickerei war ziemlich kompliziert. Beim Sticken bildeten die Metallfäden auf der rechten Seite der Arbeit lange Stiche und kurze auf der linken Seite; dabei war es schwierig, die Fäden durch den kostbaren Seidenstoff zu ziehen. Um den teuren Stoff nicht zu beschädigen, mußte man mit einem scharfen Werkzeug kleine Öffnungen in den Stoff schneiden, durch die die Nadel mit dem Faden leicht hindurch ging; auf der rechten Seite der Stickerei lagen die Metallfäden eng aneinander und bedeckten die ganze Oberfläche des Musters. Das goldene Muster war mit einer deutlichen Kontur von Stielstichen umgeben; einzelne Motive des Ornaments waren in farbiger Seide mit Plattstich gearbeitet.

Ende des 12. und Anfang des 13. Jahrhunderts trat in Altrußland und in anderen europäischen Ländern ein Übergang zu einer etwas leichteren Art der Goldstickerei ein. Der Metallfaden wurde nicht mehr durch die Seide gezogen, sondern auf der rechten Seite der Arbeit mit winzigen Stichen mittels eines Seidenfadens in der Farbe des Stoffes angenäht. Die Werke der Goldstickereien der altrus-

Tafel 2.



Tafel 3.

sischen Landbewohner sind Dank ihrer technischen Vollkommenheit und des Reichtums der dekorativen Motive bewundernswert.

In den Handarbeiten der altrussischen Landbewohner waren folgende Muster besonders verbreitet: verschiedene großartige Flechtmotive, wunderbar geflochtene Stengel, stilisierte Blumen und geometrische Figuren (vgl. Tafel 1). Besonders interessant sind die Muster, die eine funktionelle Bedeutung haben: Die Darstellungen von Lebensbäumen und Vögeln symbolisieren ein langes, an Kindern reiches und glückliches Leben. Der Halbmond war Symbol des Mondes, die Gruppe kleiner Kreise symbolisierte das herrlichste in der Welt, die Sonne (vgl. Tafel 2).

Einige gestickte Muster sind identisch mit den byzantinischen gemusterten, aus Goldfäden gewebten Bändern des 12. Jahrhunderts (vgl. Tafel 3).

Das gestickte Herzmuster entspricht einer Seidenstickerei, die in der Sammlung des Kestnermuseums in Hannover zu sehen ist.

Die Kunst der Goldstickerei, so ist nach den archäologischen Funden zu urteilen, hatte einen wichtigen Einfluß auf die Entwicklung des Handwerks in den Städten Altrußlands. In den Arbeiten von Juwelieren und Bildhauern findet man häufig dekorative Muster der Goldstickerei wieder, ebenso in Zeichnungen und Ausschmückungen von Manuskripten.

Die Handwerker des 12.-13. Jahrhunderts haben bei Darstellungen ihrer Kunstwerke beständig die Motive der schöpferischen Kraft des Volkes benutzt.

*Maja V. Fechner*  
*Moscow*  
*Russia*

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## New Light on the Origin of Longwools

The origin of the Longwool type of fleece found in such British sheep breeds as the Lincoln and Wensleydale has always been a mystery. The wool of Longwooled sheep is unique in having great length and curliness as well as lustre. There was no evidence of its existence before the 18<sup>th</sup> century and I thought that the Longwool fleece might have originated as a mutation (Ryder, 1993). I here outline two recent archaeological investigations of mine that have thrown light on the history of this fleece type, if not its biological origin.

The first of these concerns the burial of a Roman child which was discovered at Arrington near Cambridge in 1990 during the laying of a water pipeline. The child had been buried in a lead-lined coffin on which had been placed some pipeclay figurines. These were probably ritual objects and the archaeologists were most impressed by the statuette of a mother-goddess. This was identified as coming from Rhineland and dated as 2<sup>nd</sup> century AD. I was more excited by the sacrificial animals, which comprised figurines of a bullock and three rams, two of which were identical.

I examined and measured the sheep figurines at Cambridge University. The complete pipeclay sheep from Arrington were horned and had a straight nose, i.e. neither a convex Roman nose nor a primitive, concave *dished* nose. The head of the third incomplete sheep was of the same shape and also had horns with the usual ridges. The tail was of medium length, reaching to just below the hocks, i.e. it was neither a primitive short tail nor a long tail.

The dimensions indicate the conformation of the body: length 125 mm, height at the withers 100 mm, depth of body 55 mm and girth 155 mm. This is clearly a well-proportioned (well-bred and well-fed) animal with good meat conformation. It accords with the description of a good ram given by various Roman writers, the desirable features including: a deep chest, wide shoulders and loin, short legs and a long tail. There was no hint of the unimproved sheep characteristics such as slenderness that are known from skeletal remains to have been common until after the Middle Ages (Ryder, 1983).

Sheep figurines have long been used by archaeologists as indicators of the presence or absence of fleece. My own more detailed studies have discerned from the shape of the wool staples which kind of fleece was represented in the figurines (Ryder, 1984). The fragmentary figurine from Arrington had pointed wool staples of primitive hairy (Hairy-medium) type, within which the individual wool fibres were indicated by streaks (Ryder, 1993). The two identical wool figurines had a short fleece in which the wool staples were indicated by blobs within which were circular marks indicating a curl. Curly fleeces are rare in representations. Curliness is not usually found in either very fine or very coarse (hairy) fleeces. Curly wool is seen today mainly in English Lustre Longwools. Invariably these have long staples with wool fibres of medium diameter. There was a fragment of cloth with the child's burial, but the wool fibres in it were particularly fine (Ryder, 1993).

Textiles of medium wool are not infrequent among Roman remains, however, and the robust body of the Arrington sheep is like that of modern Lustre Longwools. The Roman Medium wool has been interpreted as being a primitive Longwool like the modern demi-lustre Romney breed (Ryder, 1983). This sheep has a fleece intermediate in length between that of the Shortwool and the Longwool. Could it be that a curly Longwool existed on the continent during the Roman period? The curly Arrington fleeces had the appearance of a recently shorn Lustre Longwool. This type (now hornless) did not become prominent again until the 18<sup>th</sup> century, when it was localised in England.

The sheep figurines are therefore of immense interest not only in illustrating the type of ram described by Roman writers, but in indicating two kinds of fleece, and in particular in providing a hint of the existence of curly wool on the continent that later emerged in the English lustre Longwoolled type of sheep. Even if these sheep are stylised, they indicate that such sheep existed and they are not being assessed in isolation, but in relation to wool in textile remains and scores of such figurines described previously (Ryder, 1993 and 1984).

#### **The Solway Sheep**

The second investigation concerns a fleece together with sheep bones which was discovered during peat stripping on Solway Moss, Cumbria, during June 1992. The sheep remains were excavated by Dr Sue Stallibrass of the Archaeology Department of Durham University. The calibrated carbon-14 date of a rib bone was AD 1659, and of the fleece, AD 1652. This contrasted with the date of the surrounding peat, which was Neolithic. This find is of immense interest because: (a) entire wool staples had survived; (b) few wool remains have been found between the Middle Ages and the modern period; and (c) the seventeenth century is the earliest date at which one might expect to find evidence of breeds in contrast to the fleece types of the medieval period.

The first remarkable feature was the length and hairiness of the staples - 25.5 cm. This staple length immediately identifies the sheep as *modern*, because primitive sheep had a fleece no longer than 6 cm. The staples appeared to be from the modern *mattress* grade of the Hairy type of fleece, which has a length of 34 cm. But staples of this length today are more commonly found in Lustre Longwool fleeces which range from 23 to 36 cm in length.

Under the microscope the coarser fibres were seen to have the typical wide, latticed medulla of hairy fibres and many of the fibres had diffuse natural pigmentation. Fibre measurements gave a mean

fibre diameter of 37.0 microns. The modal value of 30 microns was unusually high for a Hairy type of fleece and the diameter distribution was virtually symmetrical. These features are typical of a Medium type of fleece, which with the staple length recorded here would be a Longwool. Finally, the percentage of medullated fibres was very low for a Hairy fleece. Medullated fibres are virtually absent from modern Longwools. The first impression of a Hairy fleece was therefore not borne out by the fibre diameter measurements.

Before considering to what modern breed this might have been the precursor, one can compare the wool with that I measured in yarns from the Kendal Pattern Book (Satchell et al., 1990). This was dated 1770 and half of the yarns had been spun from Longwools that were coarse by modern standards. The mean fibre diameters ranged from 30.7 to 36.9 microns. The proportion of medullated fibres ranged up to 25 per cent and included many with a wide latticed medulla, as in the Solway fleece. Any medullation in Longwools today is of the narrower non-latticed type. There was natural pigmentation in 58 per cent of the Kendal samples. The Solway fleece therefore compares well with the Kendal data.

#### **Native Breeds in the Solway Area**

In that locality, to what breed type is the sheep likely to have belonged? Descriptions of local sheep throughout Britain dated around 1800 indicate several broad groups (Ryder, 1983). Scotland and the western parts of Britain had white or tan-faced sheep in which only the rams had horns. These sheep, such as the Cheviot breed, are not Longwools and, except for the Herdwick, do not have a Hairy fleece. The next major group was the hairy black-faced horned type of the Pennines to the east. This type was taken into Scotland to give rise to the modern Scottish Blackface breed. Modern Pennine breeds of this type are the Rough Fell and the Swaledale.

The white-faced Longwools (which today lack horns) originated in the Midlands where they gave rise to the Leicester breed, and by 1800 the main type of sheep in Lincolnshire was the Lincoln Longwool, which had spread into the East Riding of Yorkshire. From here the Longwool had jumped to eastern Durham and Northumberland to become the Teeswater breed, which in turn, back in Yorkshire, gave rise to the Wensleydale Longwool. Records of the purchase of wool in Kendal during the 18<sup>th</sup> century indicate that some wool came from Leicestershire and some from the northeast, which accorded with the Longwoolled type in the Kendal measurements and suggested the Leicester and Teeswater breeds respectively.

Why was there a Longwoolled sheep on Solway Moss in the middle of the 17<sup>th</sup> century? Records indicate that the 18<sup>th</sup> century was the century of the Longwool. This was when Bakewell improved the Leicester breed and his *New Leicester* was used to improve native Longwools in other parts of the country. A *synthetic* breed with Leicester influence was the Border Leicester, which was developed from a cross with the Cheviot. The earliest record of the crossing of the Cheviot with the (English) Leicester, however, is 1746. The Solway evidence therefore not only confirms the existence of the Longwool 50 to 100 years before existing records, but indicates a coarse fleece like that represented in the Kendal Pattern Book of 1770. It also shows that Longwools were being taken into the Scottish Border area a century before we have documentary evidence for such an introduction. The Solway find has amply fulfilled its potential value.

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## Restaurierung und Präsentation antiker Textilien aus Palmyra. Bericht über die Arbeiten 1994.

Im Rahmen des Kooperationsabkommens zwischen der syrischen Antikendirektion, dem Deutschen Archäologischen Institut und der Universität Bern wurden 1994 Restaurierung, Konservierung und Präsentation der antiken Textilien aus Palmyra fortgesetzt und zum Abschluss gebracht (s. Bericht 1993). Die Arbeiten wurden wieder von der Kulturhilfe des Deutschen Auswärtigen Amtes finanziert und von folgenden Institutionen unterstützt: der Generaldirektion der Altertümer und Museen Syriens, dem Deutschen Archäologischen Institut in Berlin und Damaskus, der Deutschen Botschaft Damaskus, dem Nationalmuseum in Damaskus, den chemischen Laboratorien der Marmara Universität Istanbul und des Musée d'Art et d'Histoire Genf sowie dem Centrallaboratorium Amsterdam.

Zur Vorbereitung der Arbeiten in Syrien wurden zunächst in Bern, Genf, Istanbul und Amsterdam verschiedene Material- und Farbanalysen durchgeführt und in Bern im Rahmen eines Werkvertrages, Textilanalysen und Zeichnungen angefertigt sowie grossformatige Text- und Informationstafeln vorbereitet.

Zwischen dem 18. April und 29. Mai 1994 fand die Arbeitskampagne in Syrien statt, die wieder unter Leitung von Kh. al-As'ad und dem Berichtersteller stand. Mitarbeiter waren Dr. J. Chehade, (Konservator der griechisch-römischen Altertümer im Nationalmuseum von Damaskus), M. Faris (Chefrestaurator der syrischen Antikendirektion), R. al-Ahmad (Mitarbeiterin des Palmyra Museums), Dr. A. Stauffer/Bern (Textilrestauratorin und Kunsthistorikerin). Zu allen während der Kampagne in Syrien anfallende Arbeiten wurde wieder eine Ortskraft der Antikendirektion zur Ausbildung hinzugezogen.

Im **Nationalmuseum von Damaskus** wurde die permanente Ausstellung in 8 Vitrinen mit entsprechenden englischen und arabischen Informationstafeln und Beleuchtungen definitiv montiert.

Thematisch stehen dabei folgende Schwerpunkte im Vordergrund:

1. Lokale Textilproduktion und Herstellungstechniken: Leinen, Wolle, Baumwolle
2. Lokale Dekorationsarten
3. Färbedrogen
4. Lokale Textilmuster und ihre Verbreitung in

anderen Denkmälergattungen (Skulptur, Bauornamentik, Wandmalerei, Mosaik)

5. Seidenimport aus China und die *Seidenstrasse*
6. Seidenfabrikation, -verarbeitung und -dekoration sowie deren lokale Imitationen

Insgesamt umfasst die Ausstellung 23 Textilrahmen und 8 Informationstafeln. Nochmal die doppelte Anzahl fertig montierter Rahmen wurde im Depot gelagert: Auf diese Weise ist es der Museumsleitung möglich, die Exponate gelegentlich auszuwechseln, ohne dass die permanente Ausstellung in Damaskus reduziert werden muss.

Die restlichen Depotbestände, einschliesslich der 1993 wieder entdeckten bisher unbearbeiteten Fragmente aus dem Nachlass von R. Pfister (über 95 Inv.Nr.), wurden wie in den Vorjahren dokumentiert, konserviert und untersucht. Anhand eines neu erstellten Gesamtinventars ist der ganze Bestand palmyrenischer Textilien des Damaszener Museums künftig der Forschung leicht zugänglich.

In **Palmyra** wurde ein eigener Raum des Museums im ersten Stock für die Präsentation der Textilien hergerichtet. Die permanente Ausstellung in ebenfalls 8 Vitrinen folgt demselben didaktischen Prinzip wie in Damaskus, zusätzlich erweitert um die Darstellung verschiedener Aspekte der in Palmyra praktizierten Mumifizierung. Insgesamt umfasst die Ausstellung, deren Eröffnung für 1995 geplant ist, 29 Textilrahmen und 4 Informationstafeln. Auch in Palmyra wurde aus denselben Gründen wie in Damaskus nochmal die doppelte Anzahl montierte Rahmen im Depot gelagert und ebenfalls ein Gesamtinventar angelegt.

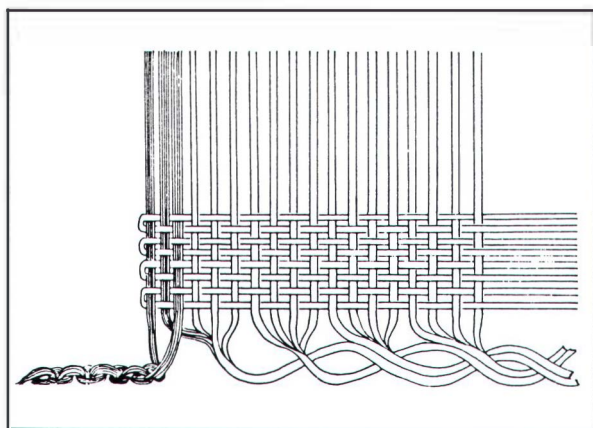


Abb. 1 Palmyra, Museum. Woogewebe mit Webe-kante und Gewebeabschluss, aus dem Turmgrab des Atenatan (9 v. Chr.). (Umzeichnung: A. Stauffer.)

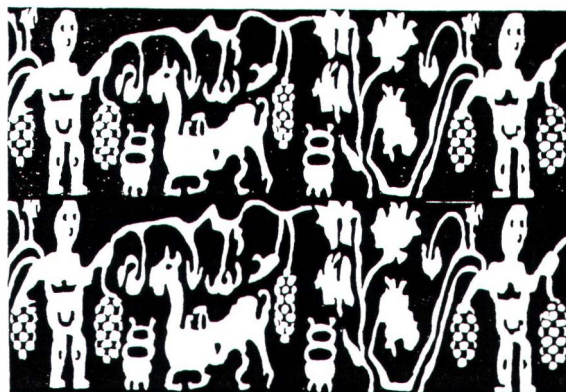


Abb. 2 Palmyra, Museum. Chinesische Seide aus Turmgrab Nr.65, mit Darstellung einer Weinernte. (Umzeichnung: A. Stauffer.)

Damit sind Restaurierung, Konservierung, Dokumentation und Präsentation aller antiken Textilien aus Palmyra (620 Inv.Nr. ca 2,000 Textilfragmente) abgeschlossen. In einer kurzen, für 1995 geplanten Kampagne sollen gezielt technische Kontrollen durchgeführt und die permanente Ausstellung in Palmyra eröffnet werden.

Im Rahmen der Öffentlichkeitsarbeit wurden 2,000 farbige Faltblätter gedruckt und der syrischen Antikendirektion zur Verteilung übergeben. Neben Führungen in Palmyra und Damaskus für durchreisende Kolleginnen und Kollegen, Reisestipendiaten der Deutschen Botschaft wurde in Vorträgen an den Universitäten in Besançon, Turin und Mainz sowie auf dem C.I.E.T.A. Kongress in Lyon über das Projekt berichtet.

Aus den wissenschaftlichen Ergebnissen der diesjährigen Kampagne sind zwei besonders hervorzuheben: Auf chinesischen Seidenstoffen wurden Buchstaben entdeckt, die teilweise eine Lokalisierung und Datierung dieser Textilien ermöglichen; dabei handelt es sich zum einen um eingewebte chinesische Schriftzeichen, zum andern um griechische Buchstaben, die offensichtlich sekundär mit schwarzer Russtinte auf monochrome chinesische Seidengewebe aufgetragen worden sind. Ein anderes Ergebnis der Restaurierungsarbeiten ist die Wiedergewinnung von Schnittmustern verschiedener Kleidungsstücke, u.a. von Mänteln, Tuniken, Kaftanen und Hosen. Die noch ausstehende wissenschaftliche Aufarbeitung des gesamten Materials soll zu einer interdisziplinären Abschlusspublikation führen, die für 1996 vorgesehen ist.

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## Tablet-Woven Bands from the Middle Ages

An interesting textile discovery was made during the 1991 archaeological excavation of the old cemetery at the ruins of the medieval Hamar Cathedral, Norway. Only the calf bones (fibula and tibia) of a human skeleton were preserved, but underneath the knee lay several textile fragments.

The skeleton-textile assembly was removed as a unit and taken to the conservation laboratory at Hedemark Museum. Xradiographic analysis at the local hospital revealed a band-like image, later discovered to be caused by metal threads.

The lifted unit was excavated in the conservation laboratory. The textile fragments were still organic and neither encased in nor replaced by metal corrosion products. They were wrinkled and hard, but with some degree of flexibility. The fragments were cleaned in lukewarm distilled water and documented. A thorough technical analysis followed.

The results of the analysis showed that the textiles were extremely interesting indeed. They consist of three different types of tablet-woven bands, embroidery and the remains of something which most

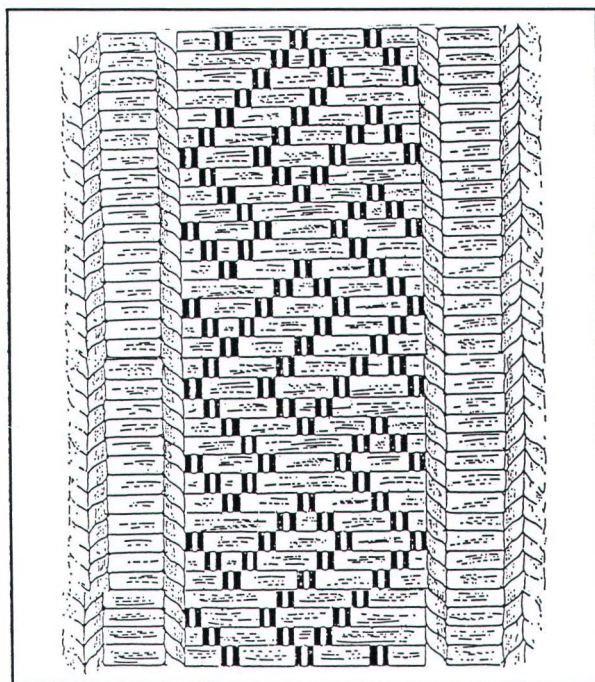


Figure 1 Band III - silver thread in the weft. (Illustrated by E. Hoff.)

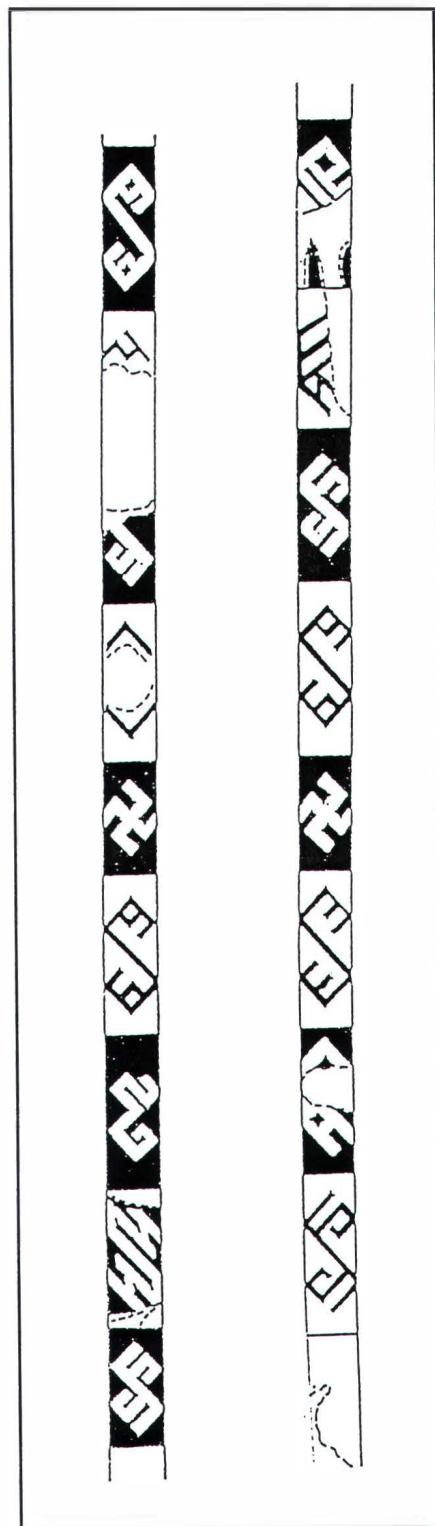


Figure 2. Band I and II - silver thread in the warp. (Illustrated by E. Hoff.)



probably is lacework. The various fragments all have remains of silver and gold metal threads. Otherwise wool and silk threads were used.

One band is of a known type with silver thread in the weft (Fig 1). But the sensational aspect of this find is the two different types of band with silver thread in the warp (Fig 2)! The embroidery is executed in couching with silver thread, but some gold thread has been used as well. Gold thread is also found in the above-described lacework.

Figures known from European textiles from prehistory and the Middle Ages are found in the four fragments of the tablet-woven bands.

The technical analysis will be presented at the 6<sup>th</sup> NESAT Symposium in Borås, Sweden in 1996.

*(translated by E. Peacock)*

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## Textiles, Loomweights and Spindle Whorls from Kadesh-Barnea, Sinai

The excavations at Kadesh-Barnea were directed by Dr. Rudolf Cohen between 1976 and 1982<sup>1</sup>. The site is located in northern Sinai, in a fertile valley irrigated by the spring of 'Ain el-Qudeirat. The site, mentioned many times in the bible<sup>2</sup>, served as a fortress and a settlement in the period of the Monarchy. Three fortresses were built one on top of the other from the tenth century BCE until 586 BCE.<sup>3</sup> All excavated material will be returned to the Egyptian Authorities at the end of 1994.

### Textiles

Fifty textile fragments were found outside the fortress (60 x 40 m) near the western wall on a floor of the seventh century BCE (second stage). Among them six are made of two different textiles stitched together. All of them are small, carbonized and deteriorated (the biggest one is 7 x 6 cm). A few were not catalogued because of poor preservation. All the textiles are made of linen<sup>4</sup>, medium S-spun, plain weave: in 34 (out of 56) the warps slightly outnumber the wefts: 12-24 warp threads per cm and 8-20 weft threads per cm. Seven textiles are warp-faced: 14-30 warp threads per cm and 4-13 weft threads per cm. Usually the warp threads are thinner than the weft threads. Two textiles have remains of a plain selvedge and one has a crowded selvedge.

Vestiges of sewing were found on 16 (out of 50) textiles, and used for seams (3), patches (3) and hems (10). The stitches are made of SZZ linen threads, usually carefully made, but some are irregular, coarse and not uniform in size. The edges of the patches were folded in and sewn on the torn parts which were not cut and removed as in the textiles of Kuntillat 'Ajrud<sup>5</sup>.

### Discussion

The textiles resemble those from Kuntillat 'Ajrud (eighth century BCE) in material, the high quality of spinning in S direction, in weaving and selvedges; but no wedges were found in the textiles from Kadesh-Barnea. Sewing is similar, but no 'Ajrud seam has been noticed. Also no selfbands were found at Kadesh-Barnea as at Kuntillat 'Ajrud.

Use: All the textiles are very delicate and made of thin threads apparently used as garments. No coarse material suitable for sacking was found as at Kuntillat 'Ajrud.

Origin: The textiles are similar to those from Kuntillat 'Ajrud and not to those found in Egypt. As the area of Beth Shean valley was famous for producing linen<sup>6</sup> they probably imported the threads or the textiles from there. Whorls and loomweights indicate that at least some spinning and weaving were done at the site.

### Loomweights

Twenty-four perforated doughnut loomweights were found at Kadesh-Barnea, most of them from the second fortress, in groups of 3-4 loomweights, on floors. They are made of unbaked clay and only six are fired. Seven bear grooves at the beginning of the perforation. Their weight ranges from 24.5 to 272.7 g, with an average of  $98 \pm 51.8$  g.

Their shape (doughnut) and material (unbaked clay) are typical of the Iron Age in Israel. The weight of loom weights from other sites of this period in Israel was usually in the range of 200 to 500 g, but toward the end of the Iron Age their weight was lower, around 100 g. The weight of the loomweights continued to decrease in the Persian period<sup>7</sup>.

### Spindle Whorls

Thirty one whorls were found at different *loci*, mostly on floors. Twenty four are made of reused ceramic in disk shape; the others are of baked clay (2), chalk (1), bone (1) and basalt (3). The weight of the reused ceramic whorls is from 12.5 to 106.7 g, with an average of  $39.2 \pm 25.4$  g. They appeared in Israel from the Neolithic period but they are especially typical of the Iron Age period.

### Comments

1. My thanks are due to Dr. Rudolf Cohen for his permission to publish this article and for his helpful comments in reading the material, to Alisa Baginski and Tamar Schick.

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## Textilfunde, die die Ausgräber vergessen haben... (Report 1)

### Textilien aus der Nikolaikirche in Kiel

Im Magazin des Textilmuseums Neumünster befand sich ein in Packpapier eingewickelter Fundballen mit dem Vermerk "Textilfund aus der Nikolaikirche Kiel 1950". Weitere Angaben waren nicht vorhanden. Es dürfte sich um Textilien aus einem Grab in der Kieler Nikolaikirche handeln, die am Ende des 2. Weltkrieges fast vollständig zerstört wurde. Sie wurden wahrscheinlich in einer Notgrabung kurz vor Beginn des Wiederaufbaues der wichtigsten Kirche Kiels geborgen. Im Rahmen der Aufarbeitung von älteren Beständen aus der Sammlung des Textilmuseums Neumünster wurden die Kieler Funde im Frühjahr 1978 von Eva Jordan erstmals textilkundlich untersucht.

Zunächst wurden alle Textilreste ausgebreitet, um festzustellen, in welchem Zustand sie sich nach so langer, unsachgemäßer Lagerung befanden. Dabei zeigte sich, daß vor allem die Gewebe sehr brüchig geworden sind und eigentlich einer Restaurierung bedurften. Dies war leider aus Kostengründen damals nicht möglich.

Die Ergebnisse der textiltechnischen Analyse sind in der Tabelle 1 zusammengefaßt. Fast alle Textilien bestehen aus Seide, für eine Klöppelspitze und die Stickerei hat man zusätzlich Metall-Lahnfäden verwendet. Ob es sich jedoch um Gold- oder Silberlahnfäden handelt, müßte eine ergänzende chemische Analyse klären. Die Seidenfäden sind heute

von gelber, gelbbrauner bzw. mittelbrauner Farbe, die Metallfäden sind dagegen grau.

Die Taft-, Atlas- und Samtgewebe sind hinsichtlich ihrer Qualität und ihres Gewebeaufbaues mit anderen Funden aus Ausgrabungen in Norddeutschland zu vergleichen. Dagegen konnten wir für die Bänder mit Kantenverzierungen bisher keine ähnlichen Stücke als Vergleichsfunde nachweisen. Dies trifft auch für das gemusterte Drehergewebe zu. Es handelt sich um hochwertige Gewebe, die sich im 17. oder 18. Jh., in dem sie vermutlich angefertigt wurden, nicht jedermann leisten konnte. Dies trifft auch für die Klöppelspitzen zu.

Über die Verwendung der Kieler Textilien läßt sich folgendes aussagen:

Unter den Atlasgeweben (Nr. 1) befinden sich verschiedene Reste, die darauf hindeuten, daß es sich um Teile eines Hemdes handelt. Abgesehen von dem Stück eines Ärmels ist noch die Stulpe aus doppelter Gewebelage vorhanden. Durch zwei Öffnungen - versäubert mit Überwendlichstichen - ist zum Zusammenbinden ein Seidenband (Nr. 12) gezogen. Mit Bändern werden auch die Reste des Vorderteils zusammengehalten.

Das Gewebe Nr. 2a (Teile I-VII) gehört zu einem langen Mantel. Für die beiden Vorderteile hat man die volle Breite des Gewebes von 55 cm ausgenutzt, der Rücken ist tailliert geschnitten. Um eine größere

Weite zu erreichen, wurden Seitenteile eingesetzt. Die langen Ärmel werden zu den Handgelenken hin enger. Unter dem Arm reichte die einfache Gewe-  
breite allerdings nicht aus, so daß noch ein Keil  
eingenäht wurde. Als Halsausschnitt sind hinten und  
vorn je vier tiefe Falten eingelegt und die Kante ist  
mit einem 1.3 cm breiten Bändchen versäubert. Die  
Nähte sind mit Vorstichen zusammenge-  
näht. Der Mantel wurde vorne geschlossen, und zwar sind  
noch 32 Ösen vorhanden, Knöpfe fehlen jedoch.  
Die Schlaufen der Ösen sind aus vier Strängen  
geflochten, von denen zwei aus je zwei Seidenlahn-  
fäden, einer aus drei und einer aus vier Fäden be-  
stehen. Der Mantel war an Ärmeln, Schultern und  
Halsausschnitt sowie am Saum und an der Ver-  
schlußkante mit der Klöppelspitze (Nr. 6) verziert.  
Es sind allerdings nur noch sehr kleine Reste übrig  
geblieben. An Stellen, wo die Borte gesessen hatte,  
sind die Seidennähgarnfäden noch erhalten.

Die übrigen Gewebe sind vermutlich die Reste  
eines Sackes (Nr. 2, Teil IX), eines Kissens (Nr. 2,  
Teil X) und eines Beutels (Nr. 3).

### Nachbemerkung

Die bemerkenswerten Textilfunde aus der Kieler  
Nikolaikirche befinden sich auch heute noch im  
Textilmuseum Neumünster. Eine abschließende  
textilkundliche Bearbeitung steht allerdings noch  
aus. Trotzdem stehen die bisherigen Untersuchs-  
ergebnisse interessierten Textilforscherinnen/Textil-  
forschern zur Verfügung, da in absehbarer Zeit eine  
Konservierung bzw. Restaurierung nicht möglich  
sein wird.

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| Kiel - Nikolaikirche |                     |                            |              |                         |                 | Einstellung<br>(1 cm) |       |                           |                      |   |
|----------------------|---------------------|----------------------------|--------------|-------------------------|-----------------|-----------------------|-------|---------------------------|----------------------|---|
| Fund-<br>Nr.         | Textil-<br>technik  | Bindung                    | Foto/<br>Dia | Material                | Farbe           | Kette                 | Schuß | Gewebe-<br>breite<br>(cm) | Funktion             | Bemerkungen                                 |
| 1                    | Gewebe              | A 1/7 (3)                  | x            | Seide                   | gelb            | 45                    | 95    |                           | Hemd ?               |   |
| 2a)<br>(I-XII)       | Gewebe<br>(Samt)    | Rips                       |              | Seide                   | braun           | 60                    | 40    | 55                        | Mantel<br>(I-VII)    | Seitenkante in<br>K 3/1-Spitzgrat           |
| 2b)<br>(XII-XIV)     | Gewebe<br>(Samt)    | Rips                       |              | Seide                   | braun           | 50                    | 35    | 51                        |                      | Seitenkante in<br>T 1/1 (dreifarbig)        |
| 3                    | Gewebe<br>(Damast)  | A 1/4 u.<br>A 4/1          | x            | Seide                   | gelb            | 80                    | 80    |                           | Beutel ?             | m. aufgenähter<br>Klöppelspitze             |
| 4                    | Gewebe<br>(Dreher)  | u. T 1/1                   | x            | Seide                   | gelb            | 10                    | 8     |                           |                      | m. Seitenkante in<br>T 1/1 (15 Doppelfäden) |
| 5                    | Gewebe<br>(Band)    | T 1/1                      |              | Seide                   | gelb            | 60                    | 30    | 2,9                       |                      | m. Seitenkanten<br>in T 1/1 u. Rips         |
| 6a-c)                | Klöppel-<br>spitzen | Löcher- u.<br>Leinenschlag | x            | Seide u.<br>Metall-Lahr | gelb u.<br>grau |                       |       |                           |                      | Breite:<br>ca. 1,5, 3 und 4 cm              |
| 7                    | Gewebe              | T 1/1                      |              | Seide                   | gelb            | 85                    | 35    |                           |                      | mit aufgenähten<br>Bändern (Nr. 8 u. 10)    |
| 8a-d)                | Gewebe<br>(Band)    | T 1/1                      |              | Seide                   | gelb            | 75                    | 20    | 0,8                       | Schmuck-<br>Rosetten | auf Gewebe Nr. 7                            |
| 9                    | Stickerei           |                            |              | Seide u.<br>Metall-Lahr | gelb u.<br>grau |                       |       |                           |                      | wohl zu Samt 2 b)<br>gehörend               |
| 10                   | Gewebe<br>(Band)    | T 1/1                      |              | Seide                   | gelb            | 65                    | 35    | 1,3                       | Schmuck-<br>Rosette  | auf Gewebe Nr. 7                            |
| 11                   | Gewebe<br>(Band)    | T 1/1                      |              | Seide                   | gelb            | 70                    | 30    |                           | Schmuck-<br>Rosette  | nur noch eine<br>Seitenkante vorhanden      |
| 12                   | Gewebe<br>(Band)    | T 1/1                      |              | Seide                   | gelb-<br>braun  | 30                    | 25    |                           |                      | stark im Zerfall<br>(an Gewebe Nr. 1)       |

Tabelle 1.

## The Farm Beneath the Sand

Summer 1995 will be the fourth season of archaeological excavations of a Norse farm in the Western Settlement, Nuuk Community, Greenland. The 15 participants who come from Denmark, Iceland, Greenland and one from Canada must be flown to the site by chartered helicopter since it lies a long way from navigable waters. Climate and economics limit this season to one month.

Ten rooms have been excavated to date, and the functions of most of them have been clearly defined. The weaving room is probably the most exciting for those interested in textiles. Parts of two warp-weighted looms have been recovered, in all probability the oldest known in a North Atlantic context. In addition spindles and spindle whorls have been found.

Loom weights have been found in large numbers, and textile fragments were spread throughout several rooms. In addition to the more common fabrics constructed of sheep's wool, fabrics woven of goat hair have been recovered. One woven-in white stripe in a brownish fabric identified as wool from a polar hare, and a neck garland of human hair from a light-haired Norseman are among the more curious survivals.

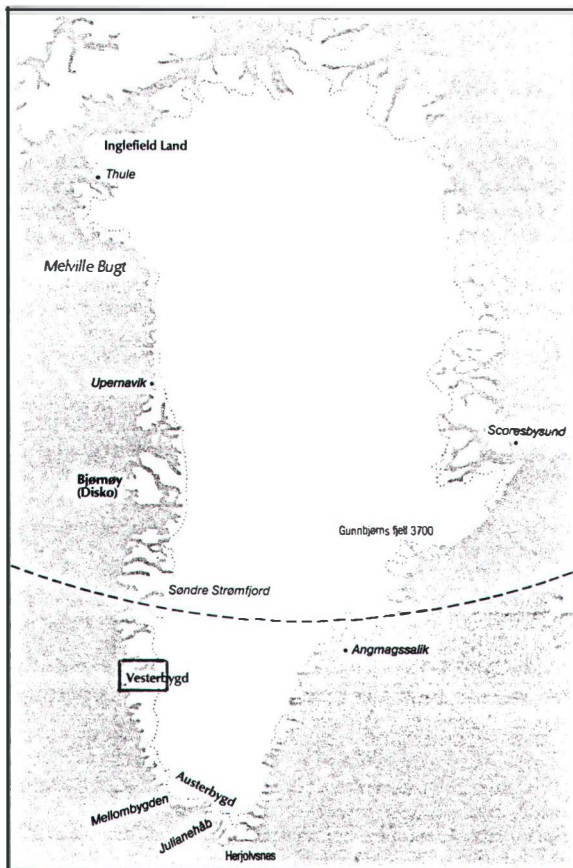


Figure 1 Map of Greenland indicating area of site.

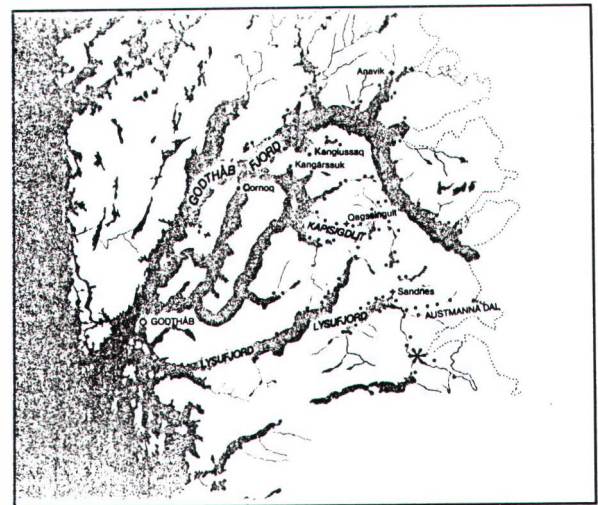


Figure 2 Location of the farm beneath the sand.

A runic inscription found in a living room has been interpreted as Tor and Bardur. Thus, we know the names of two of the farm's inhabitants.

Today the farm lies literally in the middle of a river. Earlier the river ran in a bed in a plain with the farm lying close alongside the banks. When the archaeologists arrived at the site for the third season (1993), the river had split in two. Now excavation is a race against time. Perhaps the site will have disappeared altogether when the team arrives this summer. The initial part of the excavation season is spent removing 11 months of shifting sand, after which the sun can begin to thaw the permafrost, which hides the archaeological finds. <sup>14</sup>C dating indicates that the oldest part of the farm is from about the year 1000. The weaving room was in use about 1200-1250.

(translated by E. Peacock)

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### The Bronze Age Lady from Borum Eshøj, Denmark

Such a lot of cloth in one skirt! That was one of the reasons that the Kalmar Länsmuseum in Sweden decided to construct a copy of the woman's costume from Borum Eshøj, Denmark. To let a single person work through the long process from raw wool to finished costume using techniques as authentic as possible. That person was sure to gain invaluable experience.

The Borum Eshøj costume consists of a skirt, belt and hair net (see Broholm and Hald, 1940; Glob, 1971; Munksgaard, 1974). It had never before had a copy constructed, and that was another reason for starting the project. Several details offered interesting challenges: how to construct the beautiful belt, and how to wear a 3.41 m wide wool skirt. Further it was the costume of an older woman in her late fifties. Most interest in Bronze Age costumes has been focused on the teenage girls from Egtved and Skrydstrup. To Kalmar Länsmuseum's Education Department the project has contributed great value. The Museum runs a mobile education service, specialising in ancient technology. The project was run by two people: a textile artist and an archaeologist. A full report will be published in 1996.

#### Preparation

Before starting much preparation was necessary. Several test samples were woven on different types of loom, and various wool qualities were tested. We had the opportunity of studying the original during

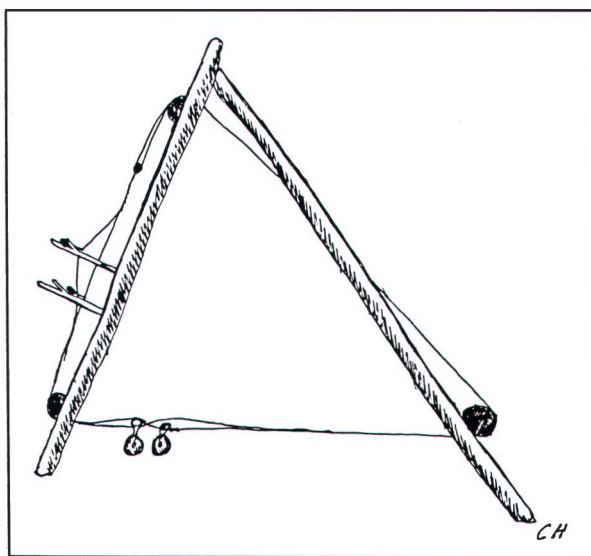


Figure 1.

a visit to the National Museum in Copenhagen. Here we were met graciously by the Textile Conservation Department and generously offered much help and advice. This experience meant a lot to the project.

#### Choosing and Preparing the Wool

Today's sheep are very different from those of the Bronze Age, and we realised that we could not get both the right quality and the right colour. We decided that fibre was more important, and chose the wool of the Gute sheep. The fleece of the Gute sheep is fairly unchanged since the Viking Age. The wool is moulted in the early summer and can be picked easily; the colour is mainly grey. The wool that went into the skirt came from the islands of Gotland and Öland, and from the County of Kalmar. The wool of the blouse comes exclusively from the original Gute sheep stock on the island of Lilla Karlsö, off Gotland.

We used a deer antler comb to prepare the wool for spinning. Many prehistoric antler or bone combs show deep vertical wear marks. Could the reason be that they were used for hard, intensive work such as wool combing, rather than for the daily toilette of human hair?

#### The Question of Loom

Early Bronze Age textiles often have wedges. This indicates that the warp must have been unevenly strained during weaving, resulting in a convex shape that the wedges compensated for. From this one can draw the conclusion that the warp must have been stretched over fixed beams - a tubular loom. The skirt was 341 cm wide. To be on the safe side, we estimated that we needed a warp length of 645 cm. This meant that it had to be woven over three beams. The web then constituted a triangle with the vertical side towards the weaver (Fig.1). We lack evidence of looms of the Bronze Age, except for their products - the textiles - and a small number of loom-weights. The existence of these few loom-weights might be explained by the way we constructed our loom.

During the weaving, a thought came up: maybe the loom beams were fastened directly onto the posts carrying the roof of the house. The distance between these posts fits quite well for a loom. It

would have been a very practical arrangement, but one which has left no traces for the archaeologist to find.

### **Warping**

The warp is very hard spun, 45-50°. It is S-spun and has a cross-section diameter of 1-1.5 mm. This derives from using an over-weighted spindle and running it against the thigh. This provides considerable speed and a very strong yarn, but one which purls easily. This problem was solved by winding the yarn in tight balls and steeping them in hot water. The warping was done while the yarn was still wet, and it was left to dry on the loom. This process both straightened and strengthened the thread.

During warping and weaving a rod served as warp-lock. After finishing the web the loops left by the rod were plaited into a border, the equivalent of which can be seen on the front of the original Borum Eshøj skirt.

The warp was 194 ends wide. To achieve a good shed two sets of heddle rods were used. The upper had 8 cm long heddle loops and the lower 2 cm long loops. The heddle yarn was spun very hard and thin, and plied into a 2-ply yarn.

### **Weft and Weaving**

The weft is not as hard-spun as the warp, but it still tended to purl when released. It is Z-spin, 40-45°, with a cross-section diameter of 1-1.5 mm. A yarn like this would be unmanageable during weaving. To get it right, it was wound on a reel and dipped in hot water. After drying on the reel it was wound on sticks which later were used as shuttles.

In the beginning it was difficult to get a clean shed. The back yarns tended to join the threads of the artificial shed. This was counteracted by placing rods slightly longer than the width of the web into the sheds. These were later moved to the lower, horizontal section of the loom and provided with loom-weights at both ends (Fig.1). This was effective and could explain the stray finds of Early Bronze Age loom weights. The width of the weave quickly declined. It became necessary to keep the web straight by tying it to the side posts. After that a width of 168 cm was kept for 550 cm. The weaving direction was upwards. It is quite possible to weave downwards but then you have to sit down and rise again for each change of shed.

Just as on the original, a wedge was woven at the ending to get an oblique line. This border was later to be sewn to the plaited border. After cutting the web down the rod forming the warp-lock was carefully withdrawn and the loops plaited into a decora-

tive border. The fabric was now loose, hard and stiff as sacking.

### **Fulling**

Fulling took place on a flat rock. Water was boiled in a copper kettle, the folded cloth placed flat on the rock, and hot water poured over it. Barefooted women then trampled it. During the process the fabric was folded in different ways to get a satisfactory fulling. As this was done in early December, the cloth quickly lost warmth, and fresh, hot water had to be poured onto it. This caused the natural soft soap of the wool to disappear, and it had to be replaced by artificial soap.

The fulling lasted two hours. On a warm sunny day the warm rock would surely have made it possible to finish the work much quicker.

### **Accessories**

The **hair net** was constructed from two-ply wool, Z2S, in the sprang technique. The net contains 158 threads twisted into a beautiful pattern; each end is fastened by a six-ply yarn.

The **belt** was woven in warp-faced tabby with spin pattern stripes: the warp threads are divided into three sections. The middle section consists of Z-spun yarns, the outer ones S-spun threads. The effect is clearly visible. It has been discussed whether the belt was made as a tablet braid on a rigid heddle or on a *normal* loom with soft heddles. We chose the latter alternative and set up a tubular warp for the belt.

When the belt was ready the beautiful tassels remained. At one end the belt had 104 fringes, at the other 88. Each fringe was made of 4 threads: first two yarns were plied into one, then the two 2-ply yarns plied together. The end of the thread was open for making a loop. The loop was sewn over and finally all the loops threaded on thread. Making the tassels was very time-consuming!

### **Reviving the Bronze Age**

In our opinion, a huge degree of authenticity is of vital importance to the results of an experiment. Our aim was consequently to get as close as possible to the original, and to the original conditions of production. Naturally people from the 20<sup>th</sup> century AD cannot convert themselves into Bronze Age people, but making the effort certainly taught us much. It is, for example, quite possible to achieve a satisfactory yarn using a suspended spindle. In the Bronze Age, the yarn needed for the costume may well have been spun over a longer period and by several people. We did it as a concentrated effort by one person. We also found that it was possible to find answers to the questions of

looms and weaving techniques, despite the lack of surviving Bronze Age textile tools. We may even have found the answer to why only a few loom weights have been found in Bronze Age settlements. They may well have served for stretching the tubular weft over the beams of the loom.



Figure 2.



Figure 3.

Over the years several suggestions of how the costume was worn have been presented (Hansen, 1980 with further references.) Maybe all of them were used depending on the circumstances and the weather. The Peplos version in particular comes out very beautifully with wide folds at the back (Figs 2-4). It was certainly a sign of great wealth wearing such an amount of cloth and taking it with you into the next world.

#### References

Broholm, H.C. and Hald, M. (1940). *Costumes of the Bronze Age in Denmark*. Copenhagen.

Glob, P.V. (1971). *Högarnes folk*. Stockholm.

Hansen, H.H. (1980). Skrydstrup-kvindens dragt. *Aarbøger for Nordisk Oldkyndighed & Historie* 1978 (139-149).

Munksgaard, E. (1974). *Oldtidsdragter*. Copenhagen.

*Carina Holm and Per Olin  
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Sweden*



Figure 4.

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## Worth Noting

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### Information Wanted

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#### Cloth Seals

Kari Berg, student at the Faculty of Archaeology and Cultural History, University of Trondheim, is currently researching the cloth seals found during archaeological excavations of the Archbishop's Palace, Nidaros Cathedral, Trondheim, Norway. She would like contact with researchers and students interested in exchanging ideas and knowledge about lead seals and the medieval cloth trade in Europe.

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Norway*

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#### Clothing and Textiles

I have been doing some reading about the clothing and textiles of the Viking Age. I've read about the cloth and dyes used. I have peered at gold brocaded tablet-woven bands. I have studied little stags done with wire and mica, and braided passamenteries. What I don't have a good feel for is how they all fit together. I know what the basic clothing looked like, but what did the actual embellished clothing look like? Where was the tablet weaving placed? What patterns were formed by the applied strips?

Could someone point me to some information that would help me *see* the clothing. Has anyone done any reconstructions or drawings of the more elaborate pieces? I would need the information in English (or something with really good pictures). Are there any good books or articles that could help me?

*Ann Fairburn  
E-mail: 73672.3317@compuserve.com*

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#### Late Saxon Textiles

Philippa Henry, PhD student at the Department of Archaeology, University of Durham, UK, is undertaking research into changes in scale and mode of

textile production in Late Saxon England, and how this relates to developments in textile production technology, and changes in the social, political and economic base of England during the tenth and eleventh centuries.

If anyone knows of any unpublished material on Late Saxon textiles and production technology, as well as any obscure documentary sources relating to textile production, please contact Philippa Henry.

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#### Metod/Meotod - The Measurer of Thread

I am currently researching the Anglo-Saxon theology of Wyrð (variously designated the *web of life* or, indeed, the three Fates who were responsible for the weaving of the web). The concept of *thread* as a representation of *life* is all important. The second of the Fates, who measured the thread, may be identified with Metod or Meotod, literally *measurer*, though often translated as *creator*. She/he was subsequently absorbed into the Christian ethos.

I would be grateful for any information or references which might further this research, in particular references to Wyrð, Metod or associated subjects and the results of practical archaeology which might support their importance, e.g., unexplained textile grave goods and representations of thread in other media, such as wood/stone carving, jewellery, etc.

All communications will be answered and acknowledgements for information used included in book to be published in 1997.

*Helen M. Stevens  
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### New Textile Finds at Lønne Hede, Denmark

Excavations in May this year at Lønne Hede in Jutland, Denmark, have yielded several graves with well-preserved textile remains from the 1<sup>st</sup> and 2<sup>nd</sup> centuries AD. An earlier find from 1969 has supplied the data for the reconstruction of a blue and red woman's costume (Munksgaard and Østergaard, 1988). The recent finds offer a singular chance of reconstructing a whole group of costumes from the Early Roman Iron Age. The excavations were directed by Lene B. Frandsen, Varde Museum. The finds are now at the Conservation Centre for Ribe, Ringkjøbing and Sønderjylland Counties, awaiting conservation.

#### Literature

Munksgaard, E. and Østergaard, E. (1988). Textiles and costumes from Lønne Hede. An Early Roman Iron Age burial. *Archaeological Textiles. Report from the 2<sup>nd</sup> NESAT Symposium, 1.-4.5, 1984.* Copenhagen (39-52).

*Lise Bender Jørgensen, on behalf of:*

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Denmark*

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### More on the Scythian "Princess" Found in Altai Mountains, Russia, Near Chinese Border

In the last issue of *ATN* (18/19, November 1994) preliminary information was given about the 1993 grave find from the permafrost area of the Ukok High Plateau, Atai Mountains and further details requested from readers. Many subscribers have replied referring to the extensive and beautifully illustrated article in *National Geographic*.

Regula Schorta, Head, Textile Conservation, Abegg-Stiftung, Berne, Switzerland, has written that the garments from the female grave, and an item of male dress from another grave excavated in 1990 have been conserved at the Abegg-Stiftung during the last few months. As can be seen from page 27 these garments are presently on view as part of the Summer Exhibition at the Abegg. A member of the

team of Russian archaeologists who carried out the excavation, Miss Elena Shoumakova, spent a three-month internship in the conservation workshop and took part in the project.

The following *précis* of information comes from the publication accompanying the Summer Exhibition, *Meisterwerke der Textilkunst 1995*, Abegg-Stiftung and was kindly made available by Dr. Schorta. The Institute of Archaeology and Ethnography of the Russian Scientific Academy (Siberian Branch) sent all the woven textile finds to the Institute. In the grave Ak-Alakha 1 (circa. 400 BC) there were two coffins from which a pair of trousers had survived. These were in wool 2/2 twill with a cloth width of 27 cm and composed of four pieces. A square of cloth served as a gusset. The cloth was woven from sheep's wool mixed with traces of camel hair, and dyed with madder.

From the woman's grave, Ak-Alakha 3 (circa 400BC) the skirt, girdle and pouch, and blouse are extant. Pieces of felt also survived but were not sent to the Institute; nor was the pouch. The long skirt was made of wool again with traces of camel hair in a fine 2/2 twill. The skirt was constructed from three pieces with two seams joining sections. The dyes are red, yellow and a strong red. The width at the bottom is 225 cm. The skirt was at the natural waist on the body in the grave but the length would then fall far below her feet so perhaps it was worn higher on the body in life. The girdle is made from red wool with tassles at each end. There was a mirror in the pouch.

The blouse is made from an almost transparent silk cloth which is undyed. The silk is not from the cultivated silkworm but is wild silk (i.e. Tussah silk). The cloth is at least 155 cm wide in tabby weave. The seams at the neck, centre front, dropped upper armholes and wrists are all edged with a narrow red wool plaited band.

The young woman wore an elaborate hairstyle and headdress. Her long hair was twisted around her head and a tall headdress extended above. This headdress is composed of a small cap of fine black wool on a firm layer of wool felt with the narrow shield-shaped ornament also made of the fine black wool rising above. There is a further ornament of animals in front and a long wooden stick to keep it secure. The coiffure was kept in place with a tube-like hairnet.

As noted, these garments are on exhibition from May 7 - November 1, 1995 at the Abegg-Stiftung,

Werner Abegg Strasse 67, 3132 Riggisberg, Bern, Switzerland.

### Literature

Polosmak, N. (1994). A mummy unearthed from the pastures of heaven. *National Geographic* 186(4) (80-103).

Womack, H. (1995). Siberian 'Lady' still youthful after 2,400 years. *The Independent*, 8. February (14-15).

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### The Manchester Medieval Textiles Project

The Manchester Medieval Textiles Project, a computerised catalogue and annotated bibliography of medieval textiles of the British Isles, has made considerable progress this year. With the help of Maria Fitzgerald, our tireless research assistant, progress has been made refining the database, collecting published material (and photocopying everything practicable, so that we build up a reference library) and inputting data. As a necessary preliminary we have compiled a Thesaurus of search terms and a larger Glossary, of which the Thesaurus will be a subset. We have utilised the usual reference books, such as AAT, CIETA/Burnham and ICOM, but we are finding ambiguities and divergent definitions, and would appreciate the opinions of specialists.

If any reader would like to contribute to our work on the Glossary, please get in touch with us, and await the arrival of a large wad of paper.

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### More on "More on Silk in Ancient Egypt"

Additional note to the article "More on Silk in Ancient Egypt" *ATN* 18/19, p 24.

"I am indebted to Carol Andrews, Egyptologist at the British Museum, for pointing out that among all the very detailed records of imports into Egypt there is no mention of silk, and indeed that there is no word for silk in the language. She also cast doubt on the dating of the mummy on which the silk was found, so in addition to investigating the possible source of the silk, she thinks that the mummy ought to be re-dated using modern methods."

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### Correction: NESAT V

In the paper on the finds from the Norse settlement on Greenland (Arneborg and Østergaard, 1995) Fig 6, page 175, was identified as a staple of wool. The text should read a staple of reindeer wool.

### Reference

Arneborg, J. and Østergaard, E. (1995). Notes on archaeological finds of textiles and textile equipment from the Norse western settlement in Greenland (a preliminary report). In Jaacks, G and Tidow, K., Eds., *Textilsymposium Neumünster. Archäologische Textilfunde - Archaeological Textiles 4.-7.5.1993 (NESAT V)*. Textilmuseum Neumünster, Neumünster (162-177).

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### Revival of the Archaeological Leather Group

The Archaeological Leather Group has recently been revived. Its aims are to promote the study of

leather and leather objects from archaeological contexts, by leather scientists, conservators and artefact specialists.

The first issue of the re-launched *Archaeological Leather Group (ALG) Newsletter* appeared this spring. It is planned to have two issues of the newsletter per year, Jan./Feb. and July/August. In addition to articles on the recent research in Scotland and Roman nailing patterns, the first issue has notices of meetings, publications, etc.

Subscription rates are: ordinary (UK and overseas) - £10.00; student (UK and overseas) - £5.00. Subscription payment can be sent to Christopher Calnan, Treasurer - ALG, 57 Park Avenue South, Northampton NN3 3AB, UK.

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## Errata

To the article "Correction" by Dr. M.L. Ryder which appeared in *ATN* 18/19, p 23. A line was omitted from the following sentence: "I did not imply that the fibres were actually being used like modern cashmere, but rather that these were goat-fibre contaminants in the wool caused by the common practice of running goats with sheep."

The Editor apologises for this oversight.

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## Exhibitions

***Heavens' Embroidered Clothes: One Thousand Years of Chinese Textiles***  
23. June - 17. September, 1995  
Hong Kong Museum of Art, Hong Kong

Exhibition of Chinese textiles from the Song, Yuan, Ming and Qing dynasties. Jointly organised by the Oriental Ceramic Society of Hong Kong and the Urban Council. The 300 objects on view range from the Song to the Qing dynasties and include more than 20 pieces of *kesi* and embroidery from the Liaoning Museum in Shenyang, China; rare examples of needlelooping, Ming rank badges and Imperial robes from a noted private collection and a large embroidered Yongle mark *thanka*.

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## AdR Arbeitsgemeinschaft der Restauratoren / Association of Restorers

Heidemarie Farke wishes to inform the readership of *ATN* about the AdR (Association of Restorers). The association has ten Study Groups which concentrate the exchange of ideas within specific working fields. The Archaeology, Excavation and Textiles Study Groups would be of interest to readers.

For further information, contact

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Germany

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## Missing Persons

The postal service has returned a number of copies of the last issue (18/19) of *ATN*. If anyone knows of the whereabouts of the following people, please either let them know their copy is in Trondheim or contact the Editor.

T. Jennings (London, Ontario, Canada)  
J. Kjar (Albany, NY, USA)  
R. Scott (Anglesey, Gwynned, Wales, UK)  
G. Snell (Copenhagen, Denmark)

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## Graduate Show

September 21. - October 29, 1995  
Courtauld Institute of Art, London, UK

The Textile Conservation Centre's graduating students' practical object treatments and investigative projects will be presented in the Prints and Drawings Gallery.

## Masterpieces of Textile Art

May 7 - November 1, 1995  
Abegg-Stiftung, Bern, Switzerland

The summer exhibition at the Abegg is made up of three sections. The first part consists of finely painted large cloths made to be hung in churches

between the nave and the chancel during the Lenten season. They date from the late medieval period and are unusual and rare examples of this type of art from Germany. These pieces have recently been conserved at the Institute.

The second part of the exhibition displays two examples of cloth and garments from grave excavations. The first consists of clothing from the recent excavations of Pazyryk culture graves (see Update page 25). The second is of cloth remains from the tomb of King Rudolph I of Bohemia (reigned 1306-1307 AD) from the Cathedral in Prague. These pieces have also been conserved at the Institute.

The third section is made up of a third of the Abegg's medieval textile holding which comprises the Egyptian and Spanish part of the collection. This exhibition marks the publication of the Catalogue of the Institute's collection of medieval textiles: Otavsky, K. und Salim, M.A.M. (1995). *Mittelalterliche Textilien I (Ägypten, Persien und Mesopotamien, Spanien und Nordafrika)*. Abegg-Stiftung, Riggisberg.

#### ***Textiles from Masada***

June 1. - October 1995

British Museum, London, UK

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## **Conferences**

### ***Chinese Textiles: Technique, Design and Patterns of Use***

The Textile Society of Hong Kong

June 24-25, 1995

Hong Kong

The conference will explore the development of Chinese textiles from the Warring States period up to the present. Illustrated lectures will address such topics as the decorative links between textiles and ceramics in the Ming and Qing periods, the genealogy of silk tapestry and Chinese garments, the Daoist tradition of liturgical clothing, as well as many other topics relating to the history and aesthetics of Chinese textiles. Each lecture will include a discussion period and the programme includes tours of the exhibition to be led by several experts in the field.

For further information:

Chinese Textile Conference

c/o 1 Balberose

134 Pokfulam Road

Hong Kong

Tel: (852) 2817 3305

Fax: (852) 2817 1128

### ***Symposium on Spinning***

September 8.-10, 1995

Ethnographic Museum, Gothenburg, Sweden

Spinning is an ancient handicraft which is the base of all textile manufacturing. It appears all over the world and therefore has developed in different ways depending on local conditions such as available materials. It has traditionally been a female handi-

craft that still leaves traces in our symbolic language.

This symposium wishes to emphasize spinning for many reasons. First there have to be different spinning techniques and therefore they have to be taught through a living tradition. Second the subject should be looked upon from a historical point of view. It is a very important subject economically and historically for women.

Third this symposium is to enable contacts and understanding between different groups of people within Scandinavia, and between Scandinavian women, and for instance immigrant women. It is of great importance that theorists and practitioners meet, since practitioners often find it difficult to put their knowledge into words. The meeting between these groups is an extremely important part of this symposium.

Speakers include: Bengt Molander, Britt-Mari Näsström, Lise Bender-Jørgensen and Bertil Fröden from the University of Gothenburg, Sven Erik Isaksson of the Ethnographic Museum, Kerstin Gustafsson, Gertrud Grenander-Nyberg, Anna Ekerwald, Marta Hoffman (Norway), Dorothy Miller (USA), Satu Hukkinen (Finland), Elinbjört Jonsdottir (Iceland), Nicolina Jensen Beder (Faroe Islands).

For information contact:

Kerstin Gustafsson

Ethnographic Museum

Gothenburg, Sweden

Tel: (46)-(0)31-612430/612779

Fax: (46)-(0)31-7730920.

***Wool Seminar: The World of Colour***

September 15-17, 1995  
Glamsbjerg, Denmark

This wool seminar is the third arranged by De Fynske Fåreavlere / The Funen Sheep-Breeders Association. These weekend theme seminars of lectures and workshops enable people interested in wool to gather to exchange experiences and broaden their knowledge. This year's theme is colour.

Further details are available from Marianne Jørgensen, tel: (45)-64-721512.

Those wishing to attend should contact:

Uldseminar 1995  
Dorthe Mortensen  
Kalvegangen 23  
DK-5471 Sønderlø  
Denmark

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***Textile Conservation Centre Conferences***

The Textile Conservation Centre based at Hampton Court Palace, UK is this year celebrating its 20<sup>th</sup> anniversary. This is to be marked by a series of three one-day conferences to be held in London to explore and debate conservation issues.

***Room for Interpretation***

July 1, 1995  
Wigmore Hall/Wallace Collection, London, UK

Issues of taste, authenticity and viability will be debated. Chaired by Dr. Geoffrey Beard, speakers include Rosalind Savill (Director, Wallace Collection), Kate Gill (Textile Conservation Centre), Lesley Wilson (freelance upholstery conservator), Paul Tier and Colin Jenner (Wallace Collection), and Ian Bristow and Julius Bryant (English Heritage). The day will conclude with discussion groups in the Wallace Collection.

***The Fabric of Art***

September 22, 1995  
Courtauld Institute of Art, London, UK

How should practitioners and conservators view and assess painted textiles in relation to paintings? This topic will be chaired by Professor Christopher Green and discussed by Michael Archer (Chelsea College of Art), Stephen Hackney (Tate Gallery), Doreen Rockliff (Textile Conservation Centre), and Lynn Szygenda (Embroiderers' Guild).

***Sacred Dirt***

October 16, 1995  
Museum of Mankind, London, UK

The relationship between ethnographic textile and dirt in its many aspects will be discussed. Chaired by Dr. Howard Morphy, speakers include Professor Mary Douglas, Paul Hughes (leading dealer in pre-Columbian textiles), Amy de la Haye (Victoria and Albert Museum), conservators from the Horniman Museum and curatorial staff at the Museum of Mankind.

Further details of these conferences are available from:

The Textile Conservation Centre  
Apartment 22, Hampton Court Palace  
East Molesey, Surrey KT8 9AU  
UK

Tel: (44) (0)181 977 4943  
Fax: (44) (0)181 977 9081

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## Reviews

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### Conferences

#### *Eva Jordan Farbach: Archäologisches Textil- und Lederkolloquium*

Am 25.10.1994 fand im Freiburger Colombischlösschen ein Kolloquium zum Thema "Archäologische Textil- und Lederfunde" statt, zu dem das Institut für Ur- und Frühgeschichte zusammen mit dem Landesdenkmalamt Baden-Württemberg eingeladen hatte. Die Veranstaltung begann mit zwei Vorträgen, die die Leder- und Textilfunde aus der Latrinengrube des Freiburger Augustinerklosters zum Inhalt hatten.

*Frau Dr. Fingerlin* (Landesdenkmalamt Baden-Württemberg, Abt. Archäologische Denkmalpflege, Freiburg) wies in ihrem Beitrag die Tätigkeit eines Flickschusters im Kloster nach, der vermutlich von städtischen Schustern ausgediente Schuhle als Flickmaterial bezog. *Frau Banck* (Institut für Ur- und Frühgeschichte, Freiburg) stellte ihre Forschungsergebnisse an den Textilien aus derselben Latrinengrube vor und verglich sie mit entsprechenden Textilfunden des norddeutschen Raumes. Anschließend konnten die Funde u.a. unter Binokularen besichtigt werden, wobei sich manches interessante Gespräch ergab.

Nach der Mittagspause folgte ein Referat von *Herrn Tidow* (Textilmuseum Neumünster), in dem er betonte, dass die kirchlichen und musealen Sammlungen mittelalterlicher Textilien und deren technologische Erforschung stärker bei der Bearbeitung archäologischer Textilien berücksichtigt werden sollten.

In den beiden letzten Vorträgen kamen mit *Frau Farke* (Archäologisches Landesmuseum der Christian-Albrechts Universität, Schleswig) und *Frau Bartel* (Bayerisches Landesamt für Denkmalpflege, Bamberg) zwei Restauratorinnen archäologischer Textilien zu Wort. Sie wiesen an Hand von Beispielen darauf hin, wie wichtig der umsichtige, verantwortungsvolle Umgang mit metallenen Grabungsgut ist, auf dessen Oberfläche häufig ankorrodierte, mineralisierte Textilreste zu erwarten sind. Diese können oft genug wertvolle Hinweise auf deren Gebrauch geben.

In dieser Veranstaltung wurde einmal mehr deutlich, welcher Stellenwert in der archäologischen Forschung der Erhaltung und Berücksichtigung der zumeist unscheinbaren textilen Grabungsfunde zukommt.

*Heidemarie Farke*  
*Archäologisches Landesmuseum*  
*Schloß Gottorf*  
*D-24837 Schleswig*  
*Germany*

(Reprinted from *ICOM-CC Textile Working Group Newsletter* 1 (1995).)

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## Source Materials

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The *Archaeological Textiles Newsletter* aims to provide a source of information for those who are studying textiles primarily as archaeological objects. Contributions to the *Newsletter* are welcome, and should be in accordance with this concept.

1. Contributions can be in English, German or French. If necessary, items in Russian will be accepted, but these will be translated into English.
2. Contributions may include short references to recently published books, journals, articles and to forthcoming exhibitions, seminars, conferences, special courses, lectures, etc., information concerning work in progress (see note 3), and any queries concerning the study of archaeological textiles.
3. Work in Progress. This is a general category which includes, for example, work on archaeological textiles from recent excavations or in museums. Items in this section should contain information, if available, about the following: where the textiles were found; the relevant dates; who excavated the site and when; the range of textiles found; who is responsible for the cataloguing of the textiles and where they are to be published. These notes should not exceed a maximum of 750 words per item.

Maps showing the position of the relevant sites would be greatly appreciated.

4. Send submissions in typed form preferably on computer diskette produced in IBM compatible WordPerfect or Word format. Line drawings and photographs are accepted, but photographs must be of good quality.
5. The editors reserve the right to suggest alterations in the wording of items sent for publication.
6. The deadline for contributions is May 1<sup>st</sup> and November 1<sup>st</sup>, for the Spring and Autumn issues respectively.

Submissions should be addressed to:

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