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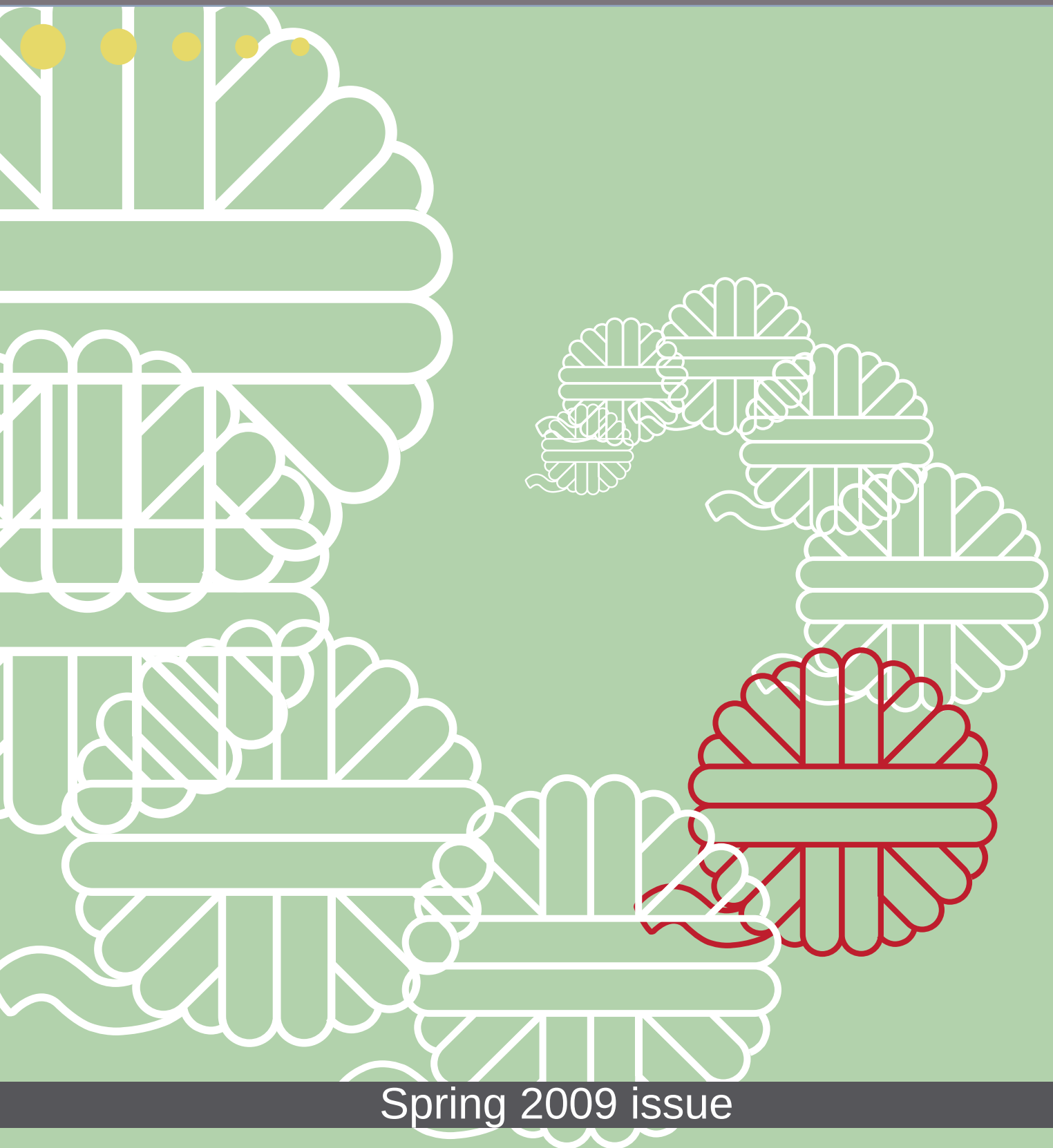
ARCHAEOLOGICAL TEXTILES NEWSLETTER



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Editorial

Issue 48 includes articles about new finds from Egypt, Russia and Ukraine, as well as new information about some old finds from Germany.
Over the past years numerous textile scholars have expressed a wish to have a list of all articles published in the ATN. Since April 2009, the contents of issues ATN 1-45 are available on the ATN website and can be searched for topics or authors. We hope this will be a useful tool for the archaeological textile community.
By far the most important event (and not in a good way) of the past months has been the announcement about the closing of the Textile Conservation Centre in Southampton. It is hardly possible to overestimate the significance of this not only for textile conservators but all researchers working with archaeological textiles. Following notice, reprinted from the Antiquaries Journal (March 2009), expresses our sentiments.

Too late for the Textile Conservation Centre?
Though the final decision to close the Textile Conservation Centre in Southampton was announced on 21 February 2009, the UK press only seemed to have woken up to the fact over the Easter weekend when, too late for campaigning to save the Centre, several newspapers reported that the entire staff of the Centre will be laid off in November, bringing to an end decades of conservation work by an organization recognized internationally for the excellence of its work.
Under the headline 'Textile Conservation experts face the sack in a material world', The Times reported that the Centre that had trained half the leading textile conservators in the world 'faces becoming history itself'. 'Like darts, ceremonial pageantry and whisky distilling, textile conservation is one of those specialist fields in which Britain still leads the world', the report said, quoting Peter Longman, deputy chairman of the Textile Conservation Centre Foundation, as saying that the expertise of the staff, built up over more than thirty years will be 'scattered to the winds'. The centre's reputation is founded on the professional training that it offers, he said, and its graduates dominate a vital niche of the heritage world: 'if you go into any major museum in the world, from the Getty Institute to the British Museum, half the trained textile conservators have come from the Textile Conservation Centre'.
Other museum professionals and conservation experts also expressed their sense of outrage. Jerry Podany, President of the International Institute of Conservation, called it 'a betrayal of trust' that would damage the world's textile heritage, while Sandra Smith, Head of Conservation at the Victoria and Albert Museum, called it shocking and catastrophic.
For the Telegraph, which also reported the story, the stark issue is that there will now be nobody to preserve the toy cat Bagpuss, star of children's TV, nor to restore the topsail of Lord Nelson's flagship HMS Victory, the boots worn by Henry VIII or the fake leather trousers of 'Queen' frontman Freddie Mercury.

The **Annual General Meeting for 2009** was held in Hallstatt, Austria on the 7th of June in conjunction with the 4th General Meeting of the DressID project.

Present:
Margarita Gleba, Eva Andersson Strand, Ulla Mannering, Susan Möller-Wiering, Marie-Louise Nosch, Karina Grömer, Peter Bichler, Isabella Bender-Weber and Dagmar Drinkler.

As no additional proposals have been sent in by the members, the agenda was the following:
1. Election of a chairperson, if somebody so wishes: Ulla Mannering elected as chairperson.
2. The report of the board for the period since the previous annual general meeting: Eva B. Andersson Strand, Margarita Gleba and Ulla Mannering reported that the website is functioning well. The fees remained unchanged in 2009. Two issues for 2008 have been published, and there is a regular submission of contributions to the newsletter.
3. Presentation and approval of the revised account of 31st of December 2008.
4. Decisions concerning individual and institutional subscription fee for 2010: the yearly membership fee for individual and institutional will be raised with 5-9 € if necessary to cover rising printing and postage costs.
5. Election of 3 members of the board and 1 deputy member for the current financial year: Eva B. Andersson Strand, Margarita Gleba, Ulla Mannering remain as board members, Carol Christiansen remains as deputy. Karina Grömer was added to the list of *ad hoc* scientific board members.
6. Election of an auditor and 1 deputy auditor member for the current financial year: Marie-Louise Nosch and Lauritz H. Gregersen stay as auditor and deputy.

The editors

Kristin H. South, Joyce Y. Smith, Giovanni Tata and Charles Wifred Griggs

"Face bundles" in early Christian burials from the Fayum, Egypt

The Ptolemaic to late Byzantine cemetery of Fag el-Gamous is situated on the eastern edge of the Fayum, about 100 km south of Cairo, Egypt. It lies just past the modern limits of irrigation and extends eastward into the desert. Fag el-Gamous has been systematically excavated by Brigham Young University, USA, since 1981, with a resulting plethora of textile finds. The burials are packed into shafts dug directly into the hard sandy substratum, often with many layers of burials within the same shaft. These shafts consistently lie on an east-west axis, varying slightly in keeping with expected seasonal variations in solar alignment. The oldest burials have a westward-facing orientation, but after one or at most two layers of such burials, the higher (later) burials switch to an eastward-facing orientation. We believe that these burials belong to a Christian population, based on associated objects and burial patterns (Griggs 1988). Small crosses appear intermittently, either on necklaces, as stand-alone finds, or woven into the textiles. We estimate the dates for the Christian portion of this cemetery to fall within the range of AD 200-600.

The burials employ only textile wrappings with no wooden or stone sarcophagi (Fig. 1a); nevertheless, they often mimic the shape of earlier Egyptian sarcophagi by the addition of extra padding material to create an exaggerated height at the head and foot areas (Fig. 1b).

Fig. 1a. Mummies 2006-SE 15, 16, and 17

Fig. 1b. Mummy 2000-SE 25

This created shape must be intentional and may serve in part to emphasize the human shape of the wrapped body: without additions at head and feet, the prone body resembles nothing more than a puffed cylinder. The superstructure over the foot area is often composed of the fringes and ends of the sheets used to wrap the body; they are folded up and over the feet. Sometimes additional sheets are folded and placed directly over the feet as additional padding[1].

The head area, the focus of this article, can be built up using various materials. Typically, these materials include the following:

1) Tunics or plain sheets of linen folded over the face.
2) Small wads of cloth, reeds, flax tow and/or wool roving.
3) Rectangles of linen folded into strips and supported in place by smaller folds or wads of linen.

The first and second types of face padding are frequently but not consistently present. The third, in contrast, occurs on almost every head-west burial that is well-preserved enough to display it. This includes burials of men and women, adults and children.

In the 2009 season of excavation, 25 burials definitely included these "face bundles," while two others may have had one. Thirty-nine additional burials were incompletely preserved in the head and face area, making it impossible to determine if a face bundle was originally present. Only one burial with the head area intact did not include a face bundle (NE 2), and the photographs of this burial indicate that much of the body was indeed skeletalized, suggesting that incomplete preservation may have been a factor in the face bundle's absence. Thus, in every case where it could be stated definitively, a face bundle was present. In cases where a face bundle was not found, its absence could be explained in almost every instance by

the preservation index of the burial.
Some variation in the contents of these face bundles occurs, but the general pattern is unmistakable. They usually consist of linen strips laid over the face area and many include a linen twist as the furthest layer from the face. They are made of torn strips of linen (no wool and very rarely any color) even on burials that otherwise include brightly colored textiles. The most common weaves are 1/2 and 2/2 basket weave. The strips are folded 3-6 cm wide and doubled lengthwise to make the strips 13-20 cm long. When a deliberately prepared twist of linen is present, it always comes as the outermost layer (Fig. 2).

Fig. 2. Prepared twist of linen (2005-SW 26)

The twist is tight and secure, often with visible stitching to hold it in place. The number of layers below the twist (*i.e.* between the twist and the face) can vary but usually amount to a depth of around 10 cm.
These face bundle finds differ from hanks of linen thread in that they are torn strips that have been twisted into shape after weaving rather than plain unwoven linen thread. When thread and other unspun fibre does appear in the head superstructure, it functions as padding in a smaller area. A rare exception, found in 2005 (SW 19) was a twist made of non-woven palm fibre (Fig. 3).

Fig. 3. A twist made of non-woven palm fibre (2005-SW 19)

Of the 2009 finds, twelve of the twenty-five with face burials have been studied. Six included only folded strips of linen with no twist. Three included a twist turned in the Z-direction, and two included S-direction twists. The final number of this twelve contained a cylinder of cloth, in the position of a twist, rolled and stitched to keep its shape (Fig. 4). This type of find is not typical. Another unusual find, unique to this year's excavations, was a burial (NE 10) that included two twists instead of one (Fig. 5).

Fig. 4. A burial with two twists instead of one (2009-NE 10)

With such a small sample, we prefer not to make generalizations about the frequency of each of these inclusions (no twist, s-twist, and z-twist), but we do find it striking that the two s-twist burials were found close to each other at the greatest depths (150 and 185 cm) of any of the face bundle burials studied so far. One of these burials (NE 49) had a 4th century AD potsherd associated with the burial. Each of the other types of face bundles were scattered throughout the square and at the full range of depths. Of the twelve burials with face bundles, two were child burials; both of these burials had folded strips but no twist. No face bundles have ever been found on a head-east burial.

Fig, 5. A cylinder of cloth (2009-NE 36)

The inclusion of the face bundle can create the impression of a grotesque, non-naturalistic shape as one views the wrapped mummy; this may be the result of overzealousness on the part of the preparer, if indeed the purpose of the face bundle is as a cosmetic addition designed to make the mummy appear lifelike. Alternatively, the contents of the face bundle may have served another, more symbolic purpose. There are very few

indications that any of these burials went through the formerly requisite process of mummification[2]. These burials are somewhat later than the portrait mummies found in the Fayum (see McGhee in this issue), including at least one from an unrecorded part of this cemetery, excavated in 1901 by Grenfell and Hunt (Bierbrier 1997, 17). The pointed, almost triangular shape created by the face bundles, however, makes it clear that a flat portrait would not have fit over them and thus we conclude that the population represented by this section of the cemetery (separate in time or space or both from the portrait mummies) had no expectation of portrait inclusion in their burials. Likewise, there are no signs of masks or cartonnage in these Christian burials, although, like the mummy portraits, that element has been found in a few of the earlier Roman burials at this site.

A cursory search through studies of burials from this period has not resulted in any direct parallels, although there are some tantalizing hints. Beatrice Huber's careful recent examination of a 4th to 6th century AD Christian burial from Kom el-Ahmar/Sharuna, located in the Nile Valley about 100 km south of Fag el-Gamous, reveals an external parallel: the area over the face is built up into a pointed, triangular shape, but the contents of the face bundle differ greatly. Huber describes a superstructure of seemingly randomly placed wads of linen and palm sticks that together create the shape needed for the external decoration of the head portion of the mummy (2006, 65-67; 2007, 41-45). She mentions one internal layer that was "folded several times" and fitted around the head (2006, 67), but this description does not sound like an exact match to the numerous layers of folded linen found on the burials at Fag el-Gamus.

Ulrike Horak's article summarizing burial practices in the early centuries of our era (1995, 39-71) also comments generally that superstructures occur over the face and feet in some burials; in most cases, though, their contents include bunches of plant material that she sees as having a protective function. The finds from Qarara (Horak 1995, 65) do correspond to those from Fag el-Gamus on the surface. They have a similar triangular shape over the head and another structure over the feet. The ribbon bindings are brightly colored in red, black, and undyed linen. The internal structures at Qarara, however, are not described as similar to the rectangles and twists of linen that we see at Fag el-Gamus, even though the Qarara burials, dating to the fifth to seventh centuries, overlap with the most recent of the Fag el-Gamus burials.

The community at Kellis in Dakhleh Oasis was geographically separate from the Fayum, but its exact chronological parallel makes it an important comparison population. Although both pagan and early Christian burials have been found and studied there (Bowen 2003), no similar face bundles have been found in either population (Bowen, personal communication).

The 6th to 7th century AD burials at the monastery of Epiphanius provide a possible but somewhat late parallel. For the well-preserved burial in Grave 7, I repeat Winlock's (1926, p. 48) own description: "over the face were thin pillows of folded cloth between the [four] different layers [of sheets used to wrap the body]." How these "pillows" exactly appeared is unstated, but these words certainly could stand in for a description of the pieces at Fag el-Gamous. The pieces at our cemetery, however, are not interleaved between full sheets that cover the body but rather lie together over one of the layers closest to the body.

The photographs of the Theban monk from Grave 7, shown in Plate XII of Winlock and Crum (1926), show five stages of unwrapping the burial. A spiral bump over the face does appear to be a positive match to the Fag el-Gamous burials, but the photography does not show the "thin pillows of folded cloth" that are removed from this area. As the photographs proceed from left (fully wrapped) to right (the skeleton), it becomes apparent that the appearance of a twisted column comes at least in part from one sheet tucked across the front much like the French twist hairstyle (in the second photograph from the left), and in a lower layer from the end of one of the sheets having been twisted together and aligned down the middle of the face, then tucked in under a rope around the neck to hold it in place (the fourth photograph from the left). The exact alignment of the twist down the middle of the face may be entirely coincidental, but it does make us wonder if it intentionally evokes an earlier face bundle practice.

In the nearly thirty years of excavation at Fag el-Gamous, hundreds of burials have been exhumed. A large percentage of well preserved head-west burials includes face bundles, most of which follow the formal description given above, with a stack of folded linen placed over the face area and often followed by a twist of linen. As the two exceptions from this year's excavations show, there can be interesting variations from this pattern.

We do not assume that face bundles are unique to the necropolis of Fag el-Gamous, but they seem not to have been found or noted in many of the other burial sites of the same period in Egypt. Although this study has by no means been exhaustive, it does suggest that these finds are unusual. It is our hope that more information about these curious finds will emerge with future work, both at our site and at others throughout Egypt.

Notes

[1] See, for instance, the second layer of linen on the burial described in K. South (forthcoming).

[2] Only two burials in the 2009 season were authentically mummified (NE 4 and NE 57); the remainder were naturally desiccated after burial.

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Lauren McGhee

Work in progress: Roman painted funerary portraits from Antinoopolis, Egypt

My doctoral thesis examines the development of Roman-period painted funerary portraiture from Antinoopolis, the settlement founded c. AD 130 in Middle Egypt by the Emperor Hadrian to commemorate the mysterious death by drowning of his favourite, the youth Antinous. Found at sites across Roman Egypt, the mummy portraits comprise a group of over 1000 paintings dated to between the 1st and the 4th centuries AD which constitutes the only corpus of colour portraits to survive from Classical antiquity (Walker 1997, 1). They were executed by anonymous artists using the tempera or encaustic techniques, and were painted either on wooden panels that were placed over the face of the deceased and incorporated in the mummy wrappings or on linen shrouds that enveloped the entire body. The examples from Antinoopolis include both types of mummy portrait, dated to the 2nd, 3rd and 4th centuries AD. This longevity of production therefore provides the ideal opportunity for a site-specific investigation of the evolving nature of portrait production in Roman Egypt, with a focus on the visible changes in self-presentation and fashions over time.

To provide some background, Antinoopolis lies on the right bank of the Nile, close to the present-day village of el-Sheikh Ibadeh, and is set on a narrow strip of desert delimited by mountains to the north, east, and south, and by the river to the west. As Egypt's fourth Greek city or polis, it was intended to provide a bastion of Hellenism in Middle Egypt (Bell 1940, 134; Thompson 1981, 44-46), and as such was populated with residents of Greek stock, predominantly drawn from the city of Ptolemais to the north, and from villages in the Fayum region. The site was initially excavated beginning in 1896 by the French archaeologist Albert Gayet. In the course of successive campaigns that spanned 18 years, Gayet and his team uncovered a rich variety of mummy portraiture. Yet, together with much of the material excavated, the portraits have become divorced from their original context. Many of the tombs investigated by the archaeologist had already been pillaged in antiquity, and, indeed, the site had suffered significant degradation over time. Aside from the ancient tomb disruptions, Antinoopolis was more or less destroyed in the early 19th century, its stone taken for construction or burnt for lime, and over time a large proportion of Antinoite material, including portraits and textiles, became dispersed on the antiquities market and in private collections through the wide-scale, illegal looting of burials. Additionally, Albert Gayet's campaigns, for which we

lack a true diary or journal, neglected to record context or stratigraphy. Governed by the will of his patrons, the excavations were carried out with bias and haste, and the subsequent treatment of the material and its division amongst museum collections was largely economically motivated (as discussed in Calament 1989; Calament-Demerger 1998; Calament 2005a and 2005b).

This thesis seeks to tackle the problem of the dispersal of the mummy portraiture and its separation from its original context, and, crucially, to assess the paintings as a coherent group. The core paintings under consideration comprise the thirty-three examples for which Antinoite provenance is confirmed. These include nineteen pieces which were directly referenced in Gayet's publications, today divided between the Egyptian Museum in Cairo, the Musée du Louvre in Paris, the Musée des Beaux-Arts in Lyon and the Museo Egizio (Musei Vaticani) in Rome, as well as 11 portraits that reached the Musée des Beaux-Arts in Dijon as accessions resulting from Gayet's will (Quarré 1941). Two further portraits are included due to the assertion of Antinoite provenance in their accessions records, while one piece was identified by Calament from a photograph of a display cabinet in the 1909 exhibition of Gayet's finds (Calament 2005a, 15, fig. 15; Cortopassi 2008, 308). However, the thesis catalogue also features 32 further mummy portraits which have been ascribed to Antinoopolis in various publications (Parlasca 1969; 1977; 1980; Parlasca and Frenz 2003), as well as several other figured representations from the site including fresco paintings and miniature painted wooden tablets.

In addition to investigating issues of burial context and the materials employed in portrait manufacture, a key focal point for the thesis is the self-presentation of the deceased in the paintings. The mummy portraits have already been subjected to a fairly exhaustive treatment regarding the hairstyles and jewellery which they display, since such features can be used as dating criteria based on their imitation of imperial court fashions seen on datable figured representations from across the Roman Empire (e.g. Drerup 1933; Borg 1996). However, analysis of the garments worn by the portrait subjects has generally revolved around using specific case studies to illuminate issues of profession, ethnic background or religious affiliation (e.g. Doxiadis 1995), despite Walker's emphasis on the value of clothing in establishing further chronological frameworks for the portraiture (Walker 1999). What is lacking thus far is an in-depth, site-oriented study of clothing in painted funerary portraiture in its local context.

The longevity of portrait production at Antinoopolis and the comparatively high proportion of painted shrouds from the site augments the rather limited waist-up view provided by the panel portraits, which tend just to show the head and shoulders of the deceased. On certain pieces, for example, we can identify garment length, some decorative features or finishes on the lower edges (such as fringing), and we may even ascertain details of footwear. We are also fortunate, when dealing with Egypt generally, in having at our disposal an unusually large number of actual preserved garments and textile fragments as well as leather shoes and sandals, which survive as a result of the country's favourable climatic conditions and its particular burial customs in antiquity. Many thousands of pieces are today assembled in worldwide museum- and private collections and include finds from excavated contexts, as well as unprovenanced examples purchased on the antiquities market. Finds of textiles and shoes at Antinoopolis were especially plentiful and the extant collections form an essential record with which to compare the portraiture.

As well as assessing the hairstyles, jewellery and footwear worn by Antinoopolis' portrait subjects, this thesis seeks to establish the main garments depicted and to chart changes in their cut, construction, chosen fibre, colour and decoration over time. For example, the 2nd century AD paintings present individuals of both genders wearing a sleeveless tunic, or Greek chiton, with plain monochrome clavi that is mirrored in contemporary excavated garments from Mons Claudianus and the Cave of Letters in Israel. However, on portraits of women this tunic is supplanted at some point in the 3rd century AD by the voluminous, long-sleeved dalmatic. A number of portrait shrouds from Antinoopolis depict this garment, embellished by richly decorated bands whose motifs find parallels in extant textile collections.

It is intended that such comparisons will illuminate the degree of reality in the self-presentation of Antinoopolis' portrait subjects. Furthermore, the objective is to highlight the ways in which garments, jewellery and footwear were exploited by the deceased to express their status and social membership, and to stress their identity as the Νέων 'Ελλήνων ('New Greeks') in this distinctive local community (Bell 1940, 134).

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Margarita Gleba and Alla Nikolova

Early twined textiles from Sugokleya (Ukraine)

The 2004 excavation season of the prehistoric Sugokleya kurgan in Ukraine produced some extraordinary archaeological finds consisting of small fragments of fabric and fibre. Textiles dating to the Early Bronze Age are exceedingly rare, especially in Ukraine and the neighbouring regions. Even when they are recovered from archaeological contexts, these fragile finds are rarely studied and/or conserved. The finds from Sugokleya are hence of great significance to our understanding of fiber technology in this geographical area during the third millennium BC. They provide important comparative material to the contemporary textiles from the Eurasian steppe contexts in Russia (Shishlina 1999; Shishlina, Orfinskaya and Golikov 2000; 2002; 2003).

Burial 5

Two fragments of dark brown fabric were found under the right foot of probably a man in Burial 5, belonging to the Pit-Grave Culture (Yamnaya Kultura, *c.* 2500 BCE). They were treated with acrilate immediately in order to preserve the fragile structure of these objects. It appears that the fibre remains were preserved thanks to the piece of wooden bark on which they lay.

A) Fragment A (Fig. 1), the larger of the two, measures 5 by 3.3 cm, its thickness ranging between 0.3 and 0.5 cm. Threads are relatively coarse, measuring about 0.1 cm in thickness. Two-three layers of the fabric are visible, reserved on a whitish substratum and soil. Thread count in System A is 7-9 threads/cm, and the threads appear to have a slight Z twist. Thread count in system B is 6-7 threads/cm. The structure of the weave appears to be somewhat unbalanced tabby. However, the poor preservation and the stiffness of the fibres resulting from the acrilate impregnation do not permit a more accurate identification. It is not unlikely that the fabric was in reality warp-twisted, like fragment B.

B) The smaller piece B (Fig. 2) measures 3.1 by 2.3 cm and has a thickness of 0.5 cm. The fragment is better

preserved, allowing for a better examination of its structure. At least 4 layers are visible in the section indicating that the fabric was folded when deposited in the burial. Threads in both systems are about 0.1 cm thick and have a slight S twist. System A has a thread count 9 threads/cm. Thread count in system B is 4-5 threads/cm. In the fragment, 2 threads of the system A are twisted 180 degrees before crossing the threads of system B. The technique of the weave is thus twining. However, because there are no edges preserved it is impossible to tell whether warp or weft was twined. Technology in either case would be different: whereas weft twining can be accomplished on a loom, warp twining requires loose warp ends to be fixed at one end only (Seiler-Baldinger 1994, 50 and 61).
C) In addition to the fabric pieces, some remains that look like fibre have been preserved on a piece of wood, possibly part of the coffin (Fig. 3). No fabric structure is visible, but the fiber accumulation may have belonged to a mat.

Burial 24

Remains of twisted fiber were recovered from burial 24.
D) Thick cord about 2 cm long and S-plied with two threads (Fig. 4).

Fibre

All fragments were examined under 10x magnification and the disposition and coarseness of fibres suggest that, in all cases, they may be of vegetal nature. Flax or hemp are likely in the case of fragments found in Burial 5, while some sort of tree bast may have been utilized for the cord from Burial 24. Acrilate impregnation makes more precise fibre identification difficult and more specialised investigation is necessary in order to identify the nature of the fibres.
Although previously it was believed that the use of wool in the western parts of Eurasia started only in the second half of the third millennium BC (*i.e.* by the time of the Catacomb-Grave Culture), we now known that fibres of both vegetal and animal origin were available to the Bronze Age populations of Ukraine and the greater Eurasian zone (Orfinskaya, Golikov and Shishlina 1999). Thus, in the Majkop Culture textiles of the 4th millennium BC, wool, flax and possibly cotton fibres were used (Shishlina, Orfinskaya and Golikov 2003). The textile remains from Eastern Iranian site of Shahr-I Sokhta dated to the mid-3rd millennium BCE and thus, contemporary with the Sugokleya finds, are mostly made of wool (Good 1998, 658-659; Good 1999).

Discussion

Preliminary examination of the Sugokleya material indicates that at least two different types of fabrics were deposited in Burial 5. The first, fragment A, was woven in tabby or was twined. The structure of fragment B, definitely made using some kind of twining technique, merits special attention. Twined fabrics have been found on other Pit-Grave sites in Ukraine. Thus, two imprints of a cloth with twined warp appear on ceramic fragments from Dneprorudnij in Zaporozhye (Orfinskaya, Golikov and Shishlina 1999, 76 no. 25; Shishlina 1999, 48

Fig. 1.

Fig. 2.

Fig. 3

Fig. 4.

Fig. 10.2; Shishlina, Orfinskaya and Golikov 2000, 113 Fig. 1).Twined textile imprints have been found on pottery excavated in the Neolithic settlement of Nida, on the Baltic coast of Lithuania (Rimantienė 1989) and the Neolithic settlement Limba (near Alba Julia) in Romania (Mazare 2998). Textiles with twined structure and gauze-like appearance have been found in North Caucasus in burials of the Majkop culture (Novosvobodnaya Kurgan 2) dated to 3700-3200 BCE (Shishlina, Orfinskaya and Golikov 2002, 2003). Other examples come from Russian Bronze Age sites (Orfinskaya, Golikov and Shishlina 1999, 76). It has been suggested that the warp twining was accomplished with the help of tablets (Shishlina, Orfinskaya and Golikov 2003, 337).
Some of the earliest examples of twining have been identified in the Near East and date to the Neolithic period: at the 8th millennium BC Syrian site Tell Halula, (Alfaro in print) and at Çatal Hüyük, central Anatolia, dated ca. 6000 BCE, although here the fabric is weft-twined and has more of a net-like structure due to large distance between the paired wefts (Burnham 1965; Barber 1991, 128, Fig. 4.5).
In Europe, weft-twined textiles and mats have been found at Swiss Pfyn Culture sites Niederwil-Egelsee, Steckborn Schanz Pfyn (Bazzanella et al. 2003, 248-249, 251, 25, 263), as well as at Wetzikon-Robenhausen (Altorfer and Médard 2000, 55).
The third fibre object found in Burial 5 may have been that fragments A and B from Burial 5 have several layers suggests that they were folded before being deposited in

the grave.
The Pit-Grave Culture population was capable of producing a variety of complex fabrics as indicated by the yarns of various qualities, varied spin direction of threads (if only tentatively identified) and at least two technologically different weaving techniques: plain weave, produced on some kind of loom, and twined fabric, possibly made with the help of other tools. In general, the Sugokleya finds fit well within the corpus of contemporary Eurasian material. Future studies of the contemporary textile technology should include search for the presence and examination of textile tools, such as loom weights, spindle whorls and other implements.

Acknowledgments

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Olga Orfinskaya and Asia Engavatova

Medieval textiles from the necropolis of Dmitrov Kremlin, Russia

Fragments of garments with gold thread have been found in kurgan burials and cemeteries of the 11-14th centuries in many regions of Russia (Samokvasov 1916; Sheliapina 1973; Fechner 1993; Darkevich and Borisov 1995; Sedova 1997). The collection of the State Historical Museum in Moscow, which includes 63 such finds, is among the best investigated (Fechner 1993). As a rule, archaeological investigation of gold thread has concentrated on the questions of dating and provenance of gold textiles found in the territory of Rus. However, only very few publications include analyses of gold threads and metal composition investigations (e.g. Pogodin 1996). During archaeological excavations in the territory of the Dmitrov Kremlin, which were undertaken in connection with building works, several burials were discovered near the Dormition Cathedral. Based on the typology of finds and stratigraphy, the burials are dated to the 12-16th centuries. Of great interest are 5 burials, which contained fragments of garments made of silk and gold threads. Table 1 summarises the finds.

Gold and silk bands from burials No. 36, 56, 17 and 18

All of the investigated fragments of bands were woven with silk and gold threads. The widths of the bands are 1.3-3.0 cm. The patterns are generally geometrical (braid, herringbone, diamond) and small, except in the first find, which has a complex pattern with a warp repeat of 7 cm (Fig. 1). Two types of binding were used in the ground weave: warp-faced rep (Fig. 2) and 2/1 warp-faced twill (Fig. 3). In every case, silk warp threads almost completely cover the silk weft threads and create a ground weave on which gold thread weft forms the pattern. The gold threads are connected to the ground weave by the warp threads in twill or tabby, depending on the pattern. In all cases, warp threads are made of thick S2z-plied yarn. The ground weave has the same yarn type in three cases (Nos. 1, 3, 4), but in band No. 2 the weft is formed by a single-spun yarn, albeit of the same thickness as the plied warp. In all cases, the thread count of the ground weave weft is equal to the gold-thread count. The gold thread is of the filè type, with silk core. The analysis of the metal shows that the metal strip in find No. 1 is two-layered. In the remaining finds, gilded silver thread was used (Orfinskaya et al. 2002). In all samples, the gold strip is s-twisted around the core. The core was made of silk of possibly red colour (Engavatova et al. 2005).

Table 1. Objects of investigation.

Burial No.	Sex	Age (in years)	Description	Band No.
36	M	undeterminable	Fragment of a trimming, possibly from a sleeve. Consists of wide and narrow gold-woven silk bands.	1
56	M	25-30	Collar made of a silk ribbon with gold embroidery.	2
17	F	9-12	Collar with buttons. Consists of a gold-woven silk band, decorative cord and base textile.	3
18	F (?)	undeterminable	Collar sewn from a gold-woven silk band.	4
61	F	20-25	Headgear of silk textile and metal appliqués (type 2). Remains of a collar on a bark base, with metal appliqués (type 1) and beads.	-

Table 2. Technical characteristics of gold-woven bands.

Band no.	Band whidth (cm)	Pattern	Repeat pattern length/ width (cm)	Binding	Warp (silk) twist	Ground weft (silk) twist	Thread count (+ gold thread)	Gold thread type
1	3	diamonds, crosses	7.0/3.0	warp-faced tabby	S2z	S2z	83/28 + 28	Filé (metal and silk), s-twisted Double metal layer
2	1.3	braid	0.3/1.0	2/1 twill	S2z	z	46/28 + 28	Filé (metal and silk), s-twisted Gilded silver
3	2.5	braid	0.8 /0.7	warp-faced tabby	S2z	S2z	66/ 28 + 28	Filé (metal and silk), s-twisted Gilded silver
4	1.5	herringbone	0.5/2.5	2/1 twill	S2z	S2z	40/40 + 40	Filé (metal and silk), s-twisted Gilded silver

One of the most important but least investigated ques tions is the origin of production of gold-woven bands. Analysis of the investigation results permits several observations. All finds are made of silk, and silk objects were imported to Rus. Gold threads of the filé type with a silk core are typical of western textiles of the 10th century, while in the East, technologically different types of gold threads were used during this period (Lantratova 2002). Mariya Fechner (1982; 1993) proposed two production areas: Byzantium and Spain. The investigated material appears to fit into the group of the Byzantine imports; however, in order to get a definitive answer regarding the production location of gold-woven textiles, a much more substantial work on the surviving material must be carried out, based on specific technological criteria.

The patterns of the bands are characteristic of the Byzantine area. Braid pattern (Fig. 4) is among the most common motifs. This may be explained by the relatively simple repeat pattern. Herringbone pattern, like the braid, is also common and relatively simple in execution. More complex is the diamond pattern, which has a repeat pattern consisting of three elements (Fig. 5). We were unable to find direct comparisons to this pattern, however its style is similar to the diamond patterns in other examples in the collections of the Moscow State Historical Museum (Fechner 1993). The binding type also does not give an answer to the question of origin. The ground weaves used in the bands are tabby and

Fig. 1. Band 1.

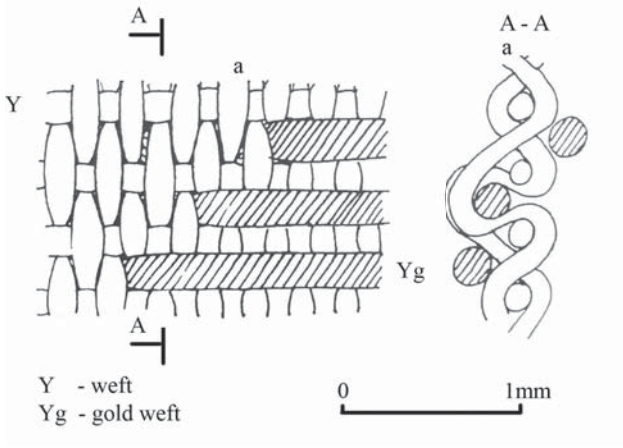

Fig. 2. Band 1. Schematic drawing of the warp-faced tabby: a – warp; b – weft; c – gold weft.

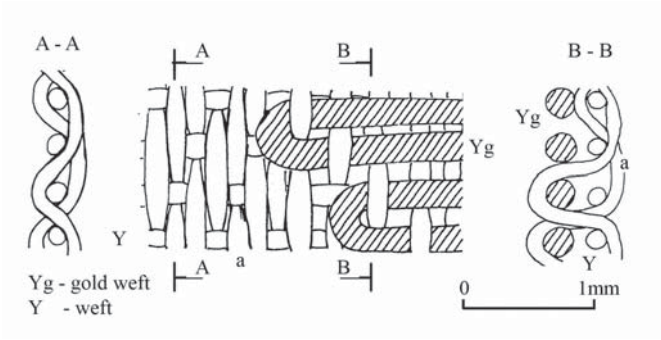

Fig. 3. Band 2. Schematic drawing of 2/1 twill.

2/1 twill and this choice is probably connected to the width of the band. The twill binding is more complex; the narrow twill band is prevented from twisting due to the changing direction of twill lines at the borders and in the centre (Fig. 6). The widest band No. 1 has a high warp density, which probably prevents it from deformation during stress. This combination of tabby and twill is particularly useful for the production of bands. The choice of ground weave hence is unlikely to be connected with the production centre; rather, it is connected to the function of the item. The combination of gold with red colour was regarded as prestigious and was common in many areas, including Byzantium and Rus. Based on this information, we would attribute all four finds to Byzantine production.

In our opinion, an interesting element of these bands is the division of the sleeve trimming (burial 36) and collar (burial 17) into two unequal parts along the band. In the first case, the division is obtained by the use of two different bands with different widths. In the second case, a cord was sewn onto the wide band, dividing it into two unequal parts with a ratio 1:2. Such asymmetrical division of collars and sleeve trimmings may be due to the influence of contemporary fashion or, alternatively, has a symbolic meaning.

In addition to the bands, the silk fabric used as base for

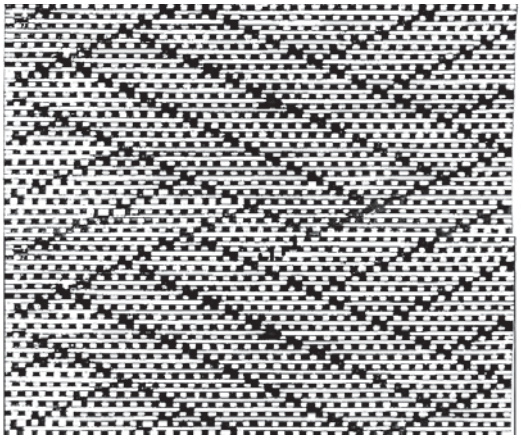

Fig. 4. Band 3. Pattern imitating a braided band.

the collar band (No. 3) was investigated. The textile is a tabby, woven of untwisted flat silk yarn with a thread count of 22/30 thread per cm (Fig. 7). While such simple tabby textiles could have been produced anywhere, the absence of twist in the yarn indicates an eastern origin, e.g. Central Asia or the Far East (China).

Burial 56 also contained a collar made of silk fabric with gold thread embroidery. The textile is a samite (Fig. 8) and its binding, thread thickness and twist direction correspond to the numerous well investigated finds of Mediterranean origin (Fechner 1993). The embroidery is made with a gold thread of filé type with an undyed silk core, although the gold has almost completely disappeared. Another thread used for the embroidery was made of dark-brown silk. Both silk and gold threads were used in embroidery in ancient Rus. Historical sources tell us that the sister of Grand Prince Vladimir Monomachos (1053-1125), Anna Vsevolodovna, in 1086 opened a school in the St. Andrew's monastery in Kiev to teach girls gold and silver embroidery. Furthermore, embroideries from Rus are mentioned in monastic records of the 12th century on Mount Athos (Novitskaya 1956; Fechner 1993). The embroideries in

Fig. 5. Band 1. Drawing of pattern of band 1, consisting of three elements.

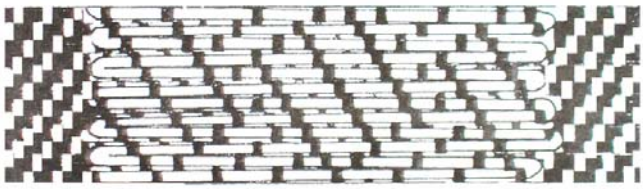

Fig. 6. Band 2. Schematic drawing of band 2. At the edges, twill has Z direction, while in the centre it has S direction.

the monasteries were made with silk and gold threads brought from the west. In burial No. 17, silk threads were used to attach the buttons to the various collar parts, which were just like gold threads brought from the west.
It is known from finds in other medieval necropoleis that gold-woven bands were usually used as trimming on sleeves or collars, as well as decorations on garment

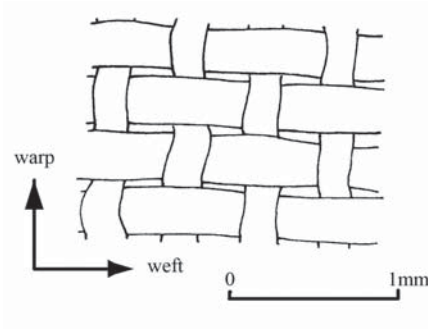

Fig. 7. Textile of collar lining (band 3), tabby weave.

edges (Fechner 1974). Despite the survival of collars and sleeve trimming the garments could not be reconstructed. The collars could have been independent elements, worn like necklaces (Fechner 1974; Samburova 1976). This is the most likely interpretation for the collar found in the girl's burial No. 17. The length of the collar is 35 cm, which corresponds to a medium size of a neck opening of a shirt of a (modern) adult woman. For a child of 10-15 years, such a collar would have been loose.
The preserved textile fragments indicate that in two burials (Nos. 17 and 18) there were garments with standing collars sewn of gold-woven bands, while in one burial (No. 56) the collar was made of embroidered fabric. One of the burials (No. 36) contained a fragment of a sleeve trimming made with two types of silk band.

Female headdress from burial 61

Female burial No. 61 provided a unique opportunity for a detailed investigation of a medieval female headdress. The investigation of this find followed the stratigraphy of the burial (Fig. 9). The first layer consisted of very dark hair and small skin fragments of the deceased, which were covered with dark soil particles. The hair was covered by a thin dark layer "X", which was best preserved under the appliqués. At first, it seemed that these were humified organic remains. However, microscopic examination showed that the layer also contained silk fibres and threads. This discovery allowed us to conclude that the headdress consisted of a silk textile, although the silk thread remains were too decayed to allow an identification of the weave.
Metal ornamental appliqués (type 2) were preserved on the skull on top of layer "X", positioned in a line across the forehead. The appliqués have a rectangular shape and measure 1 x 0.6 cm, with a thickness of 0.1 cm. Their surface is patterned with parallel lines running along the short side at an angle of 30 degrees. All four corners of the appliqués have small holes, through which they were attached to the fabric. Microscopic analysis allowed for identification of gilding in the grooves, while it is absent

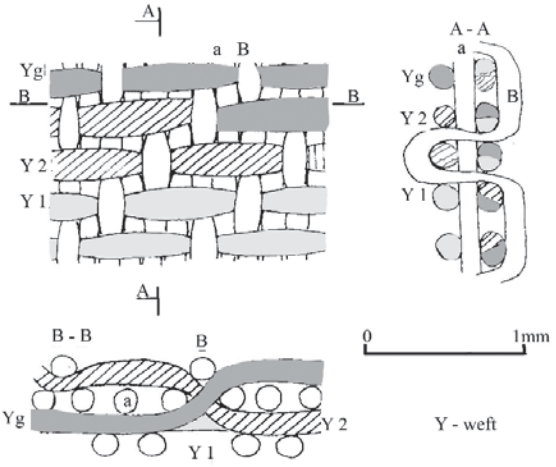

Fig. 8. Schematic drawing of the silk samite from burial 56.

on the convex surfaces of the appliqués. The metal composition analysis (Engavatova et al. 2005) indicates that these appliqués were made of gilded silver.
On top of the appliqués was a layer of a tabby textile, which may have been a veil or a head scarf. A small preserved fragment provides an impression of what it looked like. An irregularity in the weave, which is noted three times along one weft thread, suggests an intentional patterning technique (Fig. 10).
Just below the skull and above the rib, a second row of appliqués (type 1) was preserved. They were positioned on a thin layer of birch bark, which was covered with a 1-1.5 mm thick layer of a dark organic substance. Just like in the case of layer "X", at first glance it appeared to be a layer of dirt, but detailed microscopic analysis identified silk fibre in this layer "Y" as well. Thus, it appears that a silk textile was in direct contact with the birch bark, to which appliqués of type 1 were attached. In between the appliqués were oval glass beads with a diameter of 1-2 mm. Type 1 appliqués also have a rectangular shape, measuring 0.8 x 0.6 cm and with a thick-

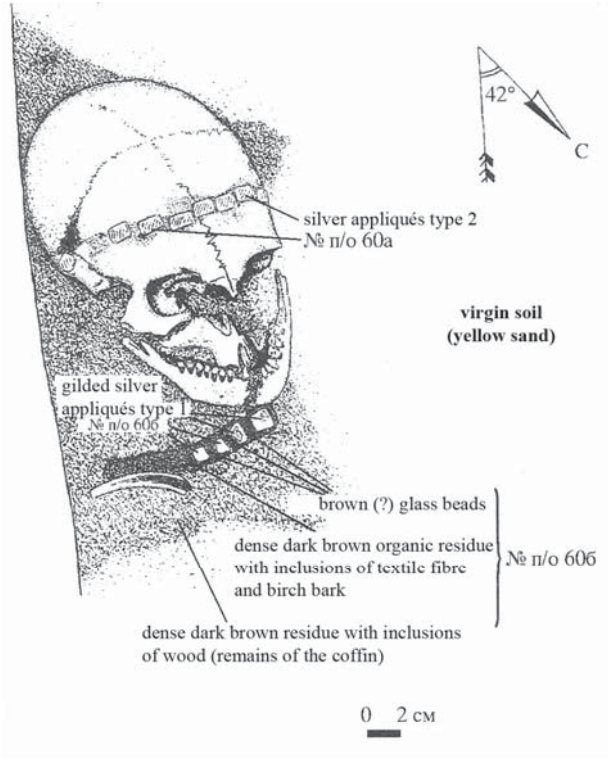

Fig. 9. Drawing of the head area of burial 61.

ness of 1 mm. However, they have a different decorative pattern. The appliqués have holes in all four corners and in one of them remains of a silk thread were preserved, probably used to sew it to the substrate. The configuration of type 1 appliqués in the burial and their analyses indicate that they belonged to a collar, which consisted of silk textile on a birch bark base and appliqués and beads sewn on the textile.

The investigation of the metal composition and production method (Engavatova *et al.* 2005) permits us to conclude that type 1 appliqués are made of three metal layers, which is unusual for this period. Metal analysis showed that layer 1 was made of almost pure silver, gilded on both sides; layer 2 was made of gold-silver alloy and gilded; layer 3 was not as well preserved, but appeared to be the same as layer 2 and probably also gilded. The gilding in this case is quite unusual, since the alloy was covered by almost pure gold.

The reconstruction of the costume detail from burial 61 is presented in Figure 11. The forehead of the young woman was covered by a silk fabric decorated with gilded appliqués. On top of that she wore a scarf or head cover of fine silk with pattern band. This would be in accordance with the reconstruction of contemporary female burial costume suggested by Saburova (1988). In addition, the young woman wore a garment with silk collar on a bark base, decorated with glass beads and gilded appliqués. The presence of birch bark indicates that the collar was stiff and upright.

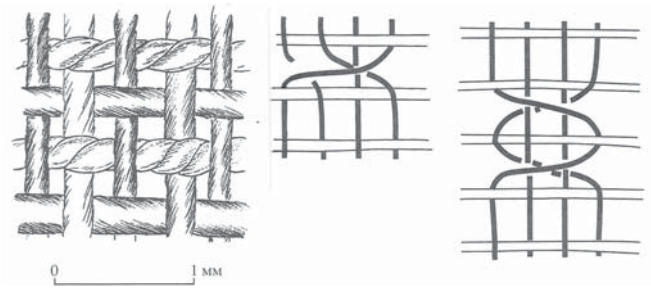

Fig. 10. Drawings of bindings of the silk head cover: 1) tabby; 2) area with damaged weave; 3) decorative binding.

Conclusions

Five of the burials of the Dmitrovsk Kremlin contained fragments of garment elements made of silk: three collars and a sleeve trimming of gold-woven bands and two collars of silk fabric, one with gold embroidery and the other with sewn-on gilded appliqués and beads.

In burial 36, a fragment of gold-woven band was found in a secondary context. It was identified as a sleeve trimming. Sleeve decorations are exceedingly rare in ancient Russian contexts.

A well preserved cuff of a sleeve was found in the burial of Vladimir, son of Yaroslav the Wise, who died in 1052. Cuffs are also preserved in the burial of Varlaam of Khutyn who lived in the 12th century (Yakunina 1955). Fechner mentions a sleeve decoration in the collection of the State Historical Museum in Moscow, decorated with a gold-woven band, which was found in the Moscow region (Fechner 1971, 219).

Burial 61 contained a burial costume of a young woman that included a forehead cover and thin, light, semi-transparent head veil. No direct comparisons have been found so far but similar light fabrics are known from other burials. Thus, a thin silk gauze-like textile was preserved on the skull in a 13th century burial in Moscow Kremlin (Sheliapina 1973, 58). Remains of thin textiles are also known from Old Russian hoards of 12-13th centuries (Fechner 1974, 69). Such thin fabrics were made of silk tabby and decorated with in-woven designs, gold thread embroidery (Mikhailovskij hoard found in 1903) or gold-woven bands (12th century burial in Smolensk, church of Ioann Bogoslov, excavated by Khozerov in 1924). Appliqués from collars and headdresses are ubiquitous in the territory of the entire Rus, including peripheral regions of the 12-13th centuries (Saburova 1976, 229). The appliqués were made of stamped or gilded silver and various alloys (Kuzmina 2006).

We do not know the social class of the five deceased in the burials of Dmitrov Kremlin, but certainly their position was above average. No doubt, gold-woven and embroidered textiles served as a symbol of higher social class, and in 1216, before the Battle of Lipovets, prince Yaroslav Vsevolodovich told his troops: "If the shoulder-collar is gold-embroidered – kill!" (Katasonova 2006).

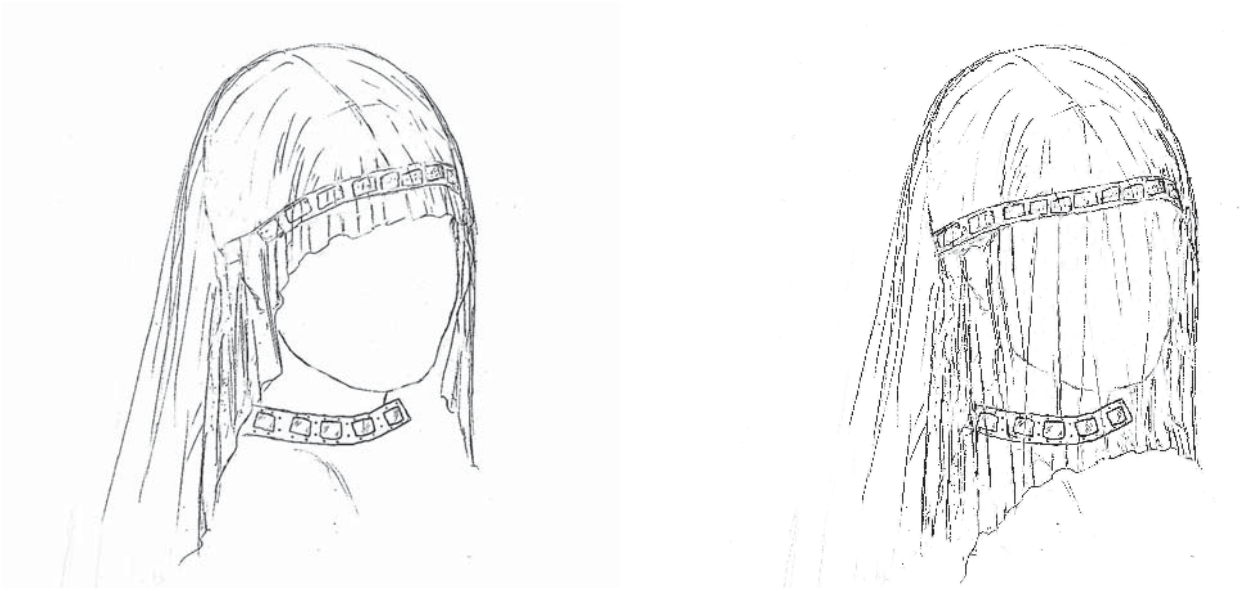

Fig. 11. Two reconstructions of the woman's headgear from burial 61 (Drawing by Margarita Tokmancheva).

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Translated from Russian by Margarita Gleba

Susan Möller-Wiering

Ein Seitenblick auf die Textilien aus der Wurt Tofting

Bei der Suche nach zeitlich und räumlich nahem Vergleichsmaterial zu Textilien aus den kaiserzeitlichen Waffendepotfunden von Thorsberg und aus Dänemark (Möller-Wiering im Druck) bietet sich u.a. das Material aus der Wurt Tofting an der Westküste Schleswig-Holsteins an. Den Hintergrund für diesen Vergleich bildet die Frage, inwieweit die Textiltypen und -qualitäten aus den Waffendepots den Geweben aus anderen Quellen – Siedlungen, Gräbern – gleichen oder sich davon unterscheiden. Das Material aus Tofting wurde 1955 von Karl Schlabow veröffentlicht und ist in das 3. Jahrhundert n. Chr. zu datieren (S. 94). Trotz der geringen Zahl an Funden[1] stellt es eine wichtige Quelle zur Kaiserzeit dar, da Siedlungsfunde aus dieser Periode selten sind. Bei der eigenen Untersuchung ergaben sich Ergänzungen und Berichtigungen zu Schlabows Publikation. Daher sei es gestattet, die neuen Ergebnisse kurz darzustellen, obgleich die aktuelle Analyse nicht in allen Punkten die optimale Tiefe erreichte.
Textil Nr. 6 in Schlabows Zählung bezeichnet das größte Fragment, mit Abmessungen von etwa 20 x 30 cm. Es besteht aus zwei Stücken - A und B - wohl des-

selben, nur mäßig gut erhaltenen Stoffes in z/s-gesponnenem Garn. Bei diesem Rautenköper sind die Wechsel teilweise in Diamantköperweise gewebt, teilweise aber als Gänseaugen. Im z-gesponnenen System wurde eine Mustereinheit mit 10 Fäden beobachtet, eine andere mit 12 Fäden; im s-orientierten System wurden drei Einheiten zu je 9 Fäden gezählt. Die Einstellung beträgt 9-11/9 Fäden pro cm. Die Garnstärke lässt sich schwer bestimmen, da die Faserverluste groß sind. An recht gut erhaltenen Stellen sind ca. 0,7 mm im z-System zu messen und etwas höhere Werte von 0,8-1,0 mm im s-gesponnenen Garn. Das Fasermaterial ist nicht besonders fein, doch recht gut homogenisiert. Das Zusammenspiel der beiden sehr verschlissenen Stücke A und B ist schwer durchschaubar. Jedenfalls ist nicht eines komplett auf das andere aufgesetzt, sondern sie überlappen sich nur ein Stück. Die Kanten sind jeweils nach innen umgelegt und mit einem doppelten s-Garn überwendlich befestigt, d.h. eine Kante des Stücks A ist auf Stück B genäht und eine Kante des Stücks B auf Stück A. In diesem Überlappungsbereich ist Gewebe A teilweise sehr aufgelöst, so dass zu damaliger Zeit zwei Maßnahmen durchgeführt wurden, um den Stoff in diesem Bereich zu sichern. Erstens heftete man den Rand des noch einigermaßen intakten Teils des Stücks A mit Steppstichen eines zS-Zwirns auf Stück B. Und zweitens schnitt man die losen Fadenenden von A nicht einfach ab, sondern bündelte sie grob und befestigte sie wiederum auf Stück B (Abb. 1). Alle Maßnahmen wurden zwar mit wenig Sorgfalt ausgeführt, doch zeugen sie davon, wie intensiv das Material genutzt wurde.

Bei der Suche nach zeitlich und räumlich nahem Vergleichsmaterial zu Textilien aus den kaiserzeitlichen Waffendepotfunden von Thorsberg und aus Dänemark (Möller-Wiering im Druck) bietet sich u.a. das Material aus der Wurt Tofting an der Westküste Schleswig-Holsteins an. Den Hintergrund für diesen Vergleich bildet die Frage, inwieweit die Textiltypen und -qualitäten aus den Waffendepots den Geweben aus anderen Quellen – Siedlungen, Gräbern – gleichen oder sich davon unterscheiden. Das Material aus Tofting wurde 1955 von Karl Schlabow veröffentlicht und ist in das 3. Jahrhundert n. Chr. zu datieren (S. 94). Trotz der geringen Zahl an Funden[1] stellt es eine wichtige Quelle zur Kaiserzeit dar, da Siedlungsfunde aus dieser Periode selten sind. Bei der eigenen Untersuchung ergaben sich Ergänzungen und Berichtigungen zu Schlabows Publikation. Daher sei es gestattet, die neuen Ergebnisse kurz darzustellen, obgleich die aktuelle Analyse nicht in allen Punkten die optimale Tiefe erreichte.

Textil Nr. 6 in Schlabows Zählung bezeichnet das größte Fragment, mit Abmessungen von etwa 20 x 30 cm. Es besteht aus zwei Stücken - A und B - wohl desselben, nur mäßig gut erhaltenen Stoffes in z/s-gesponnenem Garn. Bei diesem Rautenköper sind die Wechsel teilweise in Diamantköperweise gewebt, teilweise aber als Gänseaugen. Im z-gesponnenen System wurde eine Mustereinheit mit 10 Fäden beobachtet, eine andere mit 12 Fäden; im s-orientierten System wurden drei Einheiten zu je 9 Fäden gezählt. Die Einstellung beträgt 9-11/9 Fäden pro cm. Die Garnstärke lässt sich schwer bestimmen, da die Faserverluste groß sind. An recht gut erhaltenen Stellen sind ca. 0,7 mm im z-System zu messen und etwas höhere Werte von 0,8-1,0 mm im s-gesponnenen Garn. Das Fasermaterial ist nicht besonders fein, doch recht gut homogenisiert. Das Zusammenspiel der beiden sehr verschlissenen Stücke A und B ist schwer durchschaubar. Jedenfalls ist nicht eines komplett auf das andere aufgesetzt, sondern sie überlappen sich nur ein Stück. Die Kanten sind jeweils nach innen umgelegt und mit einem doppelten s-Garn überwendlich befestigt, d.h. eine Kante des Stücks A ist auf Stück B genäht und eine Kante des Stücks B auf Stück A. In diesem Überlappungsbereich ist Gewebe A teilweise sehr aufgelöst, so dass zu damaliger Zeit zwei Maßnahmen durchgeführt wurden, um den Stoff in diesem Bereich zu sichern. Erstens heftete man den Rand des noch einigermaßen intakten Teils des Stücks A mit Steppstichen eines zS-Zwirns auf Stück B. Und zweitens schnitt man die losen Fadenenden von A nicht einfach ab, sondern bündelte sie grob und befestigte sie wiederum auf Stück B (Abb. 1). Alle Maßnahmen wurden zwar mit wenig Sorgfalt ausgeführt, doch zeugen sie davon, wie intensiv das Material genutzt wurde.

Fund Nr. 7 besteht aus fünf Fragmenten eines einfachen 2/2 Köpers in z/s-gesponnenem Garn. Das größte Stück misst etwa 10/6 cm. Besser erhalten ist der Stoff jedoch in

Abb. 1: Im Zuge einer Reparatur gebündelte Fäden auf Textil Nr. 6

einem kleineren, nur etwa 1,5 x 3 cm messenden Fragment. Dort liegt die Fadendichte bei 13 Fäden pro cm und die Garnstärke bei ca. 0,5-0,6 mm, jeweils in beiden Systemen. Das Fasermaterial ist augenscheinlich Wolle, recht gut aufbereitet im Hinblick auf Homogenität und Parallelität, wenngleich nicht besonders fein und anscheinend pigmentiert. Eines der Fragmente besitzt ein-

en 0,6 cm breiten Saum in z-Richtung. Der Stoff ist dort zweimal umgeschlagen und mit überwendlichen Stichen befestigt. Als Garn fand ein zS-Zwirn Verwendung.
Ein weiteres befestigtes Stück befindet sich an einem anderen Fragment, dieses Mal jedoch parallel zum s-orientierten System. Diese Kante, die aufgrund des sehr mäßigen Erhaltungszustandes sowie der Kürze der Zeit nicht intensiv genug untersucht werden konnte, läuft jedoch nicht über die volle Breite des Stückes von ca. 7 cm, sondern bricht auf einer Seite kurz vor Erreichen des Fragmentrandes ab. Auf diesem letzten Abschnitt von etwa 1 cm Breite reicht das Gewebe über die Kante hinaus. Am gegenüber liegenden Fragmentrand werden wohl fünf Fäden des Kantenbereichs in einem Knoten zusammengefasst.
Brettchengewebte Kanten blieben an zwei von insgesamt acht überwiegend schlecht erhaltenen Fragmenten erhalten, die Schlabow unter der Nr. 8 zusammenfasste. Das Grundgewebe ist ein 2/2 Rautenköper in z/s-gesponnenem Garn mit 10-11/13 Fäden pro cm. Weder die Art des Rautenköpers noch die Anzahl der Fäden pro Mustereinheit kann hier näher bezeichnet werden. Die recht große Variabilität in der Fadenstärke von ca. 0,4 - 0,8 mm mag einerseits auf Substanzverlust und andererseits auf Druck zurückzuführen sein. Auch hier ist die Wolle recht gut aufbereitet. Das größere Fragment der erwähnten Brettchenkante ist etwa 17 cm lang. Die sechs Brettchen wurden ausschließlich mit s-gesponnenen Garnen bezogen und alternierend ausgerichtet (Abb. 2). Ein Wechsel der Drehrichtung wurde nicht beobachtet. Das Fach des Brettchenbandes wurde gewechselt, bevor sein Schussgarn gewendet und wieder in das Gewebe hineingeführt wurde. Diese Vorgehensweise mag zusammen mit der Tatsache, dass das Schussgarn der Brettchenkante das s-gesponnene System des Grundgewebes repräsentiert, dafür sprechen, dass es sich um eine Seitenkante handelt. Das zweite Fragment mit Brettchenkante ist schlechter erhalten als das eben beschriebene und hat keine weiteren Informationen beigetragen.

Abb. 2: Brettchenkante an Textil Nr. 8

Unter der Nr. 9 hat Schlabow vier 2/2 Köperfragmente zusammengefasst. Eines davon ist aus z/s-gesponnenem Garn gewebt und wird hier als Nr. 9a bezeichnet. Die anderen drei stammen von einem Gewebe mit s-gedrehten Fäden in beiden Systemen, hier Nr. 9b genannt. Wechselnde Köpergrate wurden weder auf Nr. 9a noch auf Nr. 9b beobachtet, d.h. in beiden Fällen handelt es sich nach meiner Analyse um Gleichgratköper. Die Qualität aller dieser Stücke ist deutlich geringer als bei den übrigen Textilien aus Tofting. Im Falle von Nr. 9a ist die Wolle sehr gemischt, also mit hohen Anteilen sowohl feiner als auch auffallend grober Fasern, und die Garnstärke beträgt im z-System etwa 0,8-1,1 mm, im anderen System liegt sie mit rund 1,0-1,5 mm noch deutlich darüber. Dementsprechend grob ist die Einstellung: 7/6-7 Fäden pro cm. Im Falle von Nr. 9b ist das Fasermaterial etwas besser sortiert. Die Fadendichte wurde auf einem Fragment wiederum als 7/6-7 Fäden pro cm² bestimmt, auf einem anderen wurden 10/6 Fäden pro cm gezählt. Erschwert wurden die Messungen durch eine häufig verfilzte Oberfläche. Darunter litt auch die Bestimmung der Garnstärke, die bei etwa 0,6-0,8 mm bzw. bei ungefähr 1 mm zu liegen scheint. Eines der Fragmente von 9b besitzt eine mit nur drei Brettchen gewebte Kante. Für deren Kette wurde überwiegend z-gesponnenes Garn verwendet, im äußeren Brettchen aber auch s-gedrehtes Garn. Der Aufbau der Brettchenkante kann hier nicht exakt wiedergegeben werden, und es bleibt offen, ob es sich um eine Anfangskante oder vielleicht eher um eine Seitenkante handelt. Dennoch ist festzuhalten, dass der Schuss des Brettchenbandes häufig nicht sofort wieder in das Gewebe zurückgewendet, sondern erst etwas später wieder integriert wird. Diese Beobachtung könnte auch für Mehrfarbigkeit des Stoffes sprechen.
Das übereinstimmende Merkmal aller Textilien aus Tofting ist die grundlegende Webart, der 2/2 Köper, viermal in z/s-, einmal in s/s-gesponnenem Garn. Dennoch ist das qualitative Gefälle recht groß. Der Gleichgratköper Nr. 7 fällt nach Klaus Tidows (2000, 108) Einteilung bereits in die Gruppe der feinen Stoffe, wenn auch in deren untersten Bereich. Der unregelmäßige Rautenköper Nr. 6 gehört in die Kategorie der mittelfeinen Stoffe wie auch der etwas feinere Rautenköper Nr. 8. Die beiden Gleichgratköper 9a und 9b müssen dagegen als grob bezeichnet werden. Das Fasermaterial ist in den beiden groben Textilien deutlich weniger gut aufbereitet als in den übrigen. Die ursprünglichen Funktionen sind an diesen Stücken nicht abzulesen. In Thorsberg und den dänischen Waffendepots herrschen ebenfalls 2/2 Köper deutlich vor, im Falle der Rautenköper auch oft mit entsprechenden Mustereinheiten (Möller-Wiering im Druck). Allerdings ist die Fadenzahl pro cm² durchschnittlich eindeutig höher, und Gewebe mit s-orientierten Garnen in beiden Systemen sind sehr selten.

Anmerkungen

[1] Schlabow vergab 10 Fundnummern. Die Nummern 1-5 bezeichnen verschiedene unversponnene Tierhaarproben, die aktuell nicht miteinbezogen wurden. Der lt. Schlabow nicht näher identifizierbare Fund Nr. 10 lag nicht zur Untersuchung vor.

[2] Die Textilien werden im Archäologischen Landesmuseum, Schloss Gottorf, in Schleswig/DE aufbewahrt. Ich danke Frau Dr. Ingrid Ulbricht für die Bereitstellung des Materials.

[3] Als Mustereinheit bezeichne ich die Anzahl von Fäden zwischen zwei Stellen, an denen der Köpergrat seine Richtung wechselt. Der sonst übliche Terminus „Rapport" umfasst die Fadenzahl bis zur Wiederkehr desselben Köpergrates, also zwei Mustereinheiten. Da die beiden Hälften eines Rapportes jedoch nicht selten unterschiedlich viele Fäden umfassen, bevorzuge ich zur Beschreibung der Webstücke und ihrer Qualität allgemein die Daten der Mustereinheiten.

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Irene Skals

Journées d'études de l'AFET, 20-21 November 2008 Paris, France

I did not know of the French association for the study of textiles, L'Association Française d'Etudes des Textiles shortened to l'AFET , before I was offered to participate in its meeting on the subject of archaeological textiles in November 2008. I was asked to present the research project concerning the Danish Iron Age bog textiles, performed by the Centre for Textile Research in collaboration with the Danish National Museum, where I work. It turned out to be two intense days of lectures, illustrating the importance of an interdisciplinary approach to the study of ancient textiles, a study so complex that it cannot be done by one particular field of research alone. The program was extremely varied and comprised an interesting mix of archaeology, experimental archaeology, technical analyses and analyses by modern scientific methods as well as conservation and art history. With regards to the timeline, we moved from the Neolithic to the 21st century AD, and geographically we covered the world from Mongolia to Peru and Greece, and learned about textiles from different areas of France as well as collections from different parts of the world in French museums.

L'AFET is an association that exists without a lot of publicity. It is a forum where people from many different professional backgrounds can share their common interest in textiles and I am happy to have had this opportunity to get acquainted with this organisation.

Joanne Cutler

Textile Terminologies in the Ancient Near East and the Mediterranean Area from the 3rd to the 1st Millennium BCE

4-8 March 2009, Copenhagen, Denmark

A European Science Foundation exploratory workshop, Textile Terminologies in the Ancient near East and the Mediterranean Area from the 3rd to the 1st Millennium BC, was held at Copenhagen University, 4-8 May 2009. The extant texts from the Ancient Near East and Eastern Mediterranean contain numerous terms describing textiles and textile techniques, as well as references to specialised textile occupational titles; however, the meaning of much of this extensive vocabulary is unclear. The aim of the workshop, which was co-convened by Marie-Louise Nosch (Danish National Research Centre for Textile Research, Copenhagen) and Cécile Michel (Centre National de la Recherche Scientifique, Maison de l'archaéologie et de l'ethnologie, Nanterre, France), was to provide a forum for the comparison of these rich textile terminologies. Twenty papers were presented by speakers from a wide range of international institutions. The workshop opened with an introduction and presentation of the work of ESF, by Cécile Michel and Marie-Louise Nosch. This was followed by a general session on terminologies; Susanne Lervad (Templus Aps, Danterm, Denmark) and Pascaline Dury (Centre de Recherche en Terminologie et Traduction, Université Lyon 2, France) examined the terminology of textiles from a linguistic point of view, while Sophie Desrosiers (Ecole des Hautes Etudes en Sciences Sociales, Paris, France) investigated what criteria - used to tell apart categories of textiles - might help to connect terms to textiles. The discussion of terminology was complemented by a presentation by Eva Andersson Strand (Centre for Textile Research, Copenhagen, Denmark), who gave an introduction to the basics of textile technology and additionally presented some of the results of the experimental spinning and weaving tests that had been carried out at the Centre for Textile Research.

Catherine Breniquet (Université Blaise-Pascal, Clermont-Ferrand II, France) opened the following session by considering how texts, iconography and archaeology could be combined to give a more complete picture of weaving in Mesopotamia during the Bronze Age. The next set of papers focused on the 3rd millennium BC. Ole Herslund (University of Copenhagen, Denmark) discussed the classification of textiles in the ancient Egyptian writing system, demonstrating that the 'textiles' category included not only other artefact groups, but also a number of verbs and adjectives denoting actions and states of being. Jana Jones (Macquarie University, Australia) re-examined the Egyptian Early Dynastic and Old Kingdom 'linen lists' in the light of both recently excavated relief slabs and the technical realities of textile production. Benjamin Foster (Yale University, USA) reviewed the textual and the iconographic evidence for different types of garments during the Sargonic period, and offered identifications in the texts for certain items of clothing. Maria Giovanna Biga (Università di Roma 'La Sapienza', Italy) then gave an overview of the coloured textiles recorded in the archives of Ebla, observing that the differences in colour appear to have had a symbolic, ritual value in some instances. Franco Pomponio (Università de Messina, Italy) discussed a small group of unpublished Neo-Sumerian tablets belonging to the British Museum, examining the evidence they provide for the production and typology of textiles. Also considering Neo-Sumerian records, Hartmut Waetzoldt (Ruprecht-Karls Universität, Heidelberg, Germany) sought to identify some of the different types of fabric mentioned in the texts, on the basis of the relation of the listed weights of the warp and the weft threads respectively.

With the focus shifting to the 2nd millennium BC, Cécile Michel and Klaas Veenhof (Leiden University, the Netherlands) addressed the question of what types of textiles the Assyrians traded in Anatolia. Agnès Degrève and René Lebrun (Université Catholique de Louvain, Belgium) then reviewed the terms for wool and linen in the Hittite, Luvian and Lycian texts, and Juan-Pablo Vita (CSIC, Instituto des Estudios Islámicos y del Oriente Próximo, Zaragoza, Spain) reported on the current state of knowledge with regard to Ugaritic and Akkadian textile terminology in the Late Bronze Age archives from Ugarit. Agnete Wisti Lassen (University of Copenhagen, Denmark) then examined Akkadian textile terms relating to tools, work procedures and occupational titles, in the light of archaeological and experimental data. The 2nd millennium BC session closed with a discussion of the textile terminology attested in the Mycenaean Linear B tablets. Maurizio del Freo (Università di Roma 'La Sapienza' Italy), Françoise Rougemont (CNRS, Maison de l'archéologie et de l'éthnologie, Nanterre, France) and Marie-Louise Nosch outlined the vocabulary associated with textiles in the Mycenaean records, further considering the possible Minoan origins for some of these terms through a comparison with the surviving Linear A corpus. Eugenio Luján (Universitad Complutense de Madrid, Spain) followed this with a consideration of Mycenaean textile terminology and the evidence for the organization of textile production in relation to a series of tablets written by a particular scribe (scribe 103). Moving into the 1st millennium BC, Francis Joannès (Université de Paris I Panthéon, Sorbonne, Maison d'archéologie et de l'ethnologie, Nanterre, France) reviewed the textile vocabulary found in the written documents of the Neo-Babylonian period, considering differences in the terminology used by the great religious institutions and the non-religious sector in order to ascertain whether these implied different modes of production and use; Stefan Zawadzki (Adam Mickiewicz University, Poznan, Poland) then spoke about Neo-Babylonian garment terminology in non-cultic contexts. Next, Miguel Ángel Andrés-Toledo (University of Salamanca, Spain) examined Old Indian and Old Iranian textile terminology, demonstrating that some of the words in these textile vocabularies belong to Indo-Iranian and even Indo-European formulas. Finally, Agnès Garcia Ventura (Universitat Pompeu Fabra, Barcelona, Spain) discussed the remains of textiles found on a group of Neo-Sumerian, Ur III foundation figures, which had been used as wrappings.

The workshop closed with a visit to the recently re-opened Danish Prehistory exhibit at the National Museum, and this was followed by a dinner hosted by the Centre for Textile Research. The four day event served to bring together scholars working on textile terminology in the written records of diverse areas and periods, and several suggestions for follow up research activities and other potential joint collaborative ventures were proposed. The papers will be published as an edited volume in 2010.

Cherine Munkholt

Website: Meet Danish Prehistory (Møder med Danmarks oldtid) http://oldtiden.natmus.dk/

In collaboration with the Centre for Textile Research, the National Museum of Denmark recently launched a website on prehistoric artefacts in their collection that is of interest to textile researchers. The virtual exhibition displays artefacts from six periods: the Mesolithic, Neolithic, Bronze Age, Early Iron Age, Late Iron Age and Viking Age. They contain text descriptions, images, and a few videos pertaining to the artefacts, their provenance and their context.

The textual descriptions are aimed at a general and specialist audience. The interactive 3D digital images are of great relevance for the researcher. A rotational device renders the objects in 3D and a zooming function enable the objects such as the dress of the Huldremose woman, or the Egtved girl to be examined in minute detail. Of special interest to textile scholars are the images and accompanying texts to Bronze Age finds such as the costumes of the family from Borum Eshøj, the woman from

Skrydstrup, the Egtved girl, the man from Muldbjerg and the Trindhøj man; the clothes of the Huldremose woman and the rich collection of jewellery of the Årslev woman, as well as those of the woman from Himlingøje; and the richly decorated Viking Age costume of the Mammen man.

At the time of writing (28.05.09), the English language site was not yet complete. This is a pity as the Danish version written by Ulla Mannering and Margarita Gleba also includes a comprehensive thematic section on how people dressed in prehistoric times (See horizontal menu *Livet i Oldtiden*). It contains seven main sections: the preservation of textiles; costume design; technology and production which includes subsections on: visual expression, fibre, spinning, weaving, looms, sprang technique, tablet weaving, and finishing; Stone Age costume which includes subsection on skins worn by stone age hunters and textile technology; Bronze Age costume which includes subsections on an introduction to female and male costumes, accessories, in depth analysis of female and male costume, shoes and footwear, textile technology, and hairstyles; an introduction to Early Iron Age costume including subsections on the lack of gender differentiation in costume, Roman inspiration, costumes of textile fabric, costumes of animal skin, shoes, textile technology, colour and patterning, hairstyles, and jewellery; and finally a section on the Late Iron Age and Viking Age with subsections on gender differentiation of costume, the development of costume, animal skin and furs, shoes, textile technology, colours patterning and decoration.

Missing from the English section, but included in the Danish version are also a plan of where the artefacts are located in the museum (oversigtskort), a read aloud version for the visually handicapped (oplæsning), megadata on the website such as information on copyright, contributors including editors and photographers, funding bodies, software used (om sitet), and links. The English version will soon be completed. The entire website would also be richer and more valuable to both students and researchers if references for further reading could have been provided. Finally, for those interested in digitizing artefacts, a description of the project's history, do's and don'ts in the actual process of building the website, and information on the community of users would be a welcome addition. This website provides an international audience not only with greater insight into the prehistory of Denmark but also a fantastically detailed glimpse into the rich prehistoric textile collection of the National Museum of Denmark.

Ulla Mannering

12th biannual Early Textiles Study Group meeting

5-6 December 2008, London, UK

In December 2008, the 12th biannual Early Textiles Study Group conference was held in London. The theme of the conference was Textiles in Art: from the Bronze Age to the Renaissance, and the organisers, Hero Granger-Taylor, Rosalind Janssen and Lisa Monnas had invited speakers covering a wide time span and geographical area. The first day was spent at the Society of Antiquaries of London, Burlington House, which provided a wonderful, relaxed and stimulating atmosphere for the conference. The papers presented the first day focused on textile designs and silk finds with interesting lectures by Sophie Desrosiers (Paris, France) on the textiles represented in the Dame à la Licorne tapestry, Paola Frattaroli (Verona, Italy) on Venetian decorative textiles, Zhao Feng (Hangzhou, China) on Chinese silks, Stephanie Bunn (St. Andrew, UK) on felt, Zvezdana Dode (Stavropol, Russia) on silk from Caucasian Ulus of the Golden Horde and Elena Phipps (New York, USA) on Andean textiles.

The second day took the participants to the Courtauld Institute of Art, Somerset House, where the conference continued with lectures on textile representations in early art from Mesopotamia (Hero Granger-Taylor, London), Greece (Marie-Louise Nosch, Copenhagen), Egypt (Lauren McGhee, Oxford), Scandinavia (Ulla Mannering, Copenhagen) and India (Rosemary Crill, London) from prehistory until the 5th century AD. In the afternoon, the audience were taken back to textiles from more recent periods like 14th century Korea (Sim Yeon-ok, Seoul) or the European Renaissance (Lisa Monnas, London, Jane

Bridgeman, London, Rembrandt Duits, London and Maria Hayward, Southampton).
Looking at textiles in art was an inspiring topic and a refreshing perspective that made researchers from different parts of the world meet and exchange information and research results. The conference fully demonstrated that textiles contain an international visual language. The programme was additionally enriched by the visits and guided tours to various museums.
On the last day, at the business meeting of the organising committee, it was decided that the next meeting will be held in London in 2010, organised by Helen Persson from the Victoria and Albert Museum. For many years, the Early Textiles Study Group meeting have been organised by John Peter Wild, Manchester. The organizers hope that by bringing the conference to London, a wider audience will participate in future meetings. The conference papers will not be published together, but most speakers promised to publish their contributions in various journals.

Dissertations

Dr. Kaziko Sakamoto, Oriental History Department, Osaka University, has just been awarded a PhD for her thesis based on silk textiles from Turfan: Cultural Exchange on the Silk Road.

Dr. Petra Linscheid, Freie Universität Berlin, Germany, has just been awarded a PhD for her thesis: *Frühbyzantinische textile Kopfbedeckungen.*

Dr. Susan Martin, University of Manchester Museum, has just been awarded a PhD for her thesis: *Ancient Egyptian Mummy Wrappings: A Study of their Application, Form and Function*.

Recent articles and websites

E.Kvavadze, I Gagoshidze (2008)Fibres of silk, cotton and flax in a weaving workshop from the first century A.D. palace of Dedoplis Gora, Georgia, *Vegetation History and Archaeobotany* 17, 211-215 (Springer electronic edition Supplement 1, S211-S215).

I. L. Good, J. M. Kenoyer and R. H. Meadow (2009) New Evidence for Early Silk in Indus Civilization, *Archaeometry* 50

K. Frei, R. Frei, U. Mannering, M. Gleba, M.-L. Nosch, H. Lyngstrøm (2009)Provenance of ancient textiles – a pilot study evaluating the Sr isotope system in wool, *Archaeometry* 51, 2 (2009) 252–276

K. M. Frei, I. Skals, M. Gleba and H. Lyngstrøm (2009) The Huldremose Iron Age textiles, Denmark: an attempt to define their provenance applying the strontium isotope system, *Journal of Archaeological Science* (preprint online)

Useful websites:
Prehistoric costumes of Denmark in the collections of the National Museum of Denmark:
http://oldtiden.natmus.dk

Fibre identification catalogue:
http://www.furskin.cz/

Clothing in Early Rus:
http://www.strangelove.net/~kieser/Russia/KRC.html

Projects by Irene Good: http://www.ancientcloth.org/

Danish Dress Journal:
http://www.dragt.dk/dragt-journal/dragtjournalen.html
(in Danish)

New publications

***Aspects of gender identity and craft production in the European migration period iron weaving beaters and associated textile making tools from England, Norway and Alamannia*, by Sue Harrington. Oxford, BAR International Series 1797, 2008 (in English)**
ISBN-13: 978-1-4073-0218-8
Grave goods show that women were identified as weavers in the early Anglo-Saxon period, rather than specifically spinners, as occurs later. A key piece of weaving equipment found in migration era burials is the iron beater, shaped during this period like a sword. Spear shaped beaters appear later in the seventh century. This study is centred on a corpus of sword and spear shaped beaters not only from Anglo-Saxon England (centred on East Kent), but also from Norway, where the earliest examples are found and from Alamannia. Conclusions are drawn about the processes and social composition of textile production, including any separation of weaving and spinning, and discuss why tools associated with the women's task of weaving should be shaped as objects with masculine associations.
Price £ 35.00
http://www.oxbowbooks.com/bookinfo.cfm/ID/85206//Location/Oxbow

***Dress and the Roman Woman: Self-Presentation and Society*, by Kelly Olson. London/New York, Rutledge, 2008 (in English)**
ISBN: 978-0-415-41475-3
In ancient Rome, the subtlest details in dress helped to distinguish between levels of social and moral hierarchy. Clothes were a key part of the sign systems of Roman civilization – a central aspect of its visual language, for women as well as men. This engaging book collects and examines artistic evidence and literary references to female clothing, cosmetics and ornament in Roman antiquity, deciphering their meaning and revealing what it meant to be an adorned woman in Roman society. Cosmetics, ornaments and fashion were often considered frivolous, wasteful or deceptive, which reflects ancient views about the nature of women. However, Kelly Olson uses literary evidence to argue that women often took pleasure in fashioning themselves, and many treated adornment as a significant activity, enjoying the social status, influence and power that it signified. This study makes an important contribution to our knowledge of Roman women and is essential reading for anyone interested in ancient Roman life.
Price £ 65.00
http://www.routledgeclassicalstudies.com/books/Dress-and-the-Roman-Woman-isbn9780415414753

***Greek and Roman Dress from A to Z*, by Liza Cleland, Glenys Davies, Lloyd Llewellyn-Jones. London/New York, Rutledge, 2007 (in English)**
ISBN: 978-0-415-22661-5
Who dressed as a woman in an attempt to commit adultery with Julius Caesar's wife? How did the ancient Greeks make blusher from seaweed? Just how does one wear a toga? If, as many claim, the importance of clothes lies in their detail, then this a book that no sartorially savvy Classicist should be without. Greek and Roman Dress from A to Z is an alphabetized compendium of styles and accessories that form the well-known classical image: a reference source of stitches, drapery, hairstyles, colours, fabrics and jewellery, and an analysis of the intricate system of social meanings that they comprise. The entries range in length from a few lines to a few pages and cover individual aspects of dress alongside surveys of wider topics and illuminating socio-cultural analysis, drawn from ancient art, literature and archaeology. For those who want to take their reading further, there are references to both primary sources and modern scholarship.
Price £ 65.00
http://www.routledgeclassicalstudies.com/books/Greek-and-Roman-Dress-from-A-to-Z-isbn9780415226615

***Roman Dress and the Fabrics of Roman Culture*, by Jonathan Edmondson and Alison Keith. Toronto, University of Toronto Press, 2008 (in English)**
ISBN: 0802093191
The book investigates the social symbolism and cultural poetics of dress in the ancient Roman world in the period from 200 BCE-400 CE. Editors Jonathan Edmondson and Alison Keith and the contributors to this volume explore the diffusion of Roman dress protocols at Rome and in the Roman imperial context by looking at Rome's North African provinces in particular, a focus that previous studies have overlooked or dealt with only in passing. Another unique aspect of this collection is that it goes beyond the male elite to address a wider spectrum of Roman society. Chapters deal with such topics as masculine attire, strategies for self-expression for Roman women within a dress code prescribed by a patriarchal culture, and the complex dynamics of dress in imperial Roman culture, both literary and artistic. This volume further investigates the literary, legal, and iconographic evidence to provide anthropologically-informed readings of Roman clothing.
Price $ 85.00
http://www.utppublishing.com/pubstore/merchant.ihtml?pid=10144&lastcatid=88&step=4

Announcements
Ars Textrina International Textiles Conference: Natural Fibres – A World Heritage

2-3 September, 2009

Textile scholars, curators and practitioners are invited to submit abstracts for papers to be presented at the 2009 Ars Textrina International Textiles Conference. The conference will provide a multi-disciplinary forum for textile theorists and practitioners, museum professionals with interests relating to textiles and their collection, exhibition and documentation, as well as teachers and academic researchers, and those with interests spanning socio-cultural aspects of historic, contemporary and future textiles. Since 2009 has been designated 'The year of Natural Fibres', the principal focus of the conference will be on natural fibres, their processing and consumption.
The 2009 Ars Textrina International Textiles Conference will be hosted by the University of Leeds International Textiles Archive (ULITA) in association with the School of Design, University of Leeds. A number of sessions will be held over a two-day period. The official language of the conference is English.

For more information, visit: http://ulita.leeds.ac.uk

Katrin Kania

European Textile Forum
7-13 September 2009, Eindhoven, Netherlands

Working in historical textile crafts can be a very lonely affair. To help remedy this, we are organising a get-together we named "European Textile Forum" for people working in historical textile crafts. The event will take place on 7-13 September 2009 in Eindhoven, Netherlands. The programme consists of three parts: An archaeological spinning experiment in the morning; free time to demonstrate, try out and talk about textiles and textile techniques in the afternoon; as well as a series of short paper sessions in the evening hours. We would like to present current projects, reconstructions, technical problems or research work during those talks. Poster

presentations, including a "show-and-tell" of your current project in progress, are also very welcome.
We want to give fifty textile experts the opportunity to meet at the museum for one whole week, each with his or her project(s), and there is free time to work, chat, demonstrate and talk about textiles and textile crafts during the day. We have chosen dyeing, tablet weaving and spinning as main focus points of this first forum, but experts for all other textile techniques are more than welcome as well. The time frame for techniques is set from the Bronze Age to the early 16th century AD.
The museum is open to the public and we are inviting other weavers, spinners, dyers, etc. to come so they can also sit, work and talk with both guests and participants. With this opportunity for everybody interested in textiles, we want to help establish a better communication between professionals and non-professionals like Living History enthusiasts - because we are sure that both sides will profit from a closer contact with each other. On the weekend there will be a small market for textiles, fibres and textile tools in the museum. With this market, we hope to supply craftspeople with tools and materials that can be hard to find.

For more information see http://www.textilforum.org.

Les tombes mérovingiennes de la basilique de Saint-Denis

La science au service de l'archéologie
Cinquantième anniversaire de la découverte de la tombe de la reine Arégonde, épouse de Clotaire Ier et mère du roi Chilpéric Ier (1959-2009).
8 Avril – 4 octobre 2009

Exposition-dossier présentant pour la première fois l'ensemble des objets découverts dans les sarcophages mérovingiens de la basilique de Saint-Denis (dont le mobilier de la reine Arégonde) ainsi que les résultats des recherches pluridisciplinaires et internationales menées depuis 2000 sur le contenu des tombes (restes organiques humains, animaux et végétaux, objets métalliques précieux, gemmes).
La nécropole mérovingienne fouillée sous la basilique de Saint-Denis par Edouard Salin († 1970), puis Michel Fleury († 2002) et Albert France-Lanord († 1993) dans les années 1950/1980 est un site archéologique unique à deux titres. D'une part il a révélé les tombes de personnages de haut rang (surtout des femmes) ayant appartenu à la cour royale mérovingienne de Paris, dont celle de la reine Arégonde, épouse de Clotaire Ier († vers 580) et mère de Chilpéric Ier (né vers 534, roi de 561 à 584). D'autre part, du fait de leur situation privilégiée dès l'origine dans une église (la basilique édifiée par sainte Geneviève à la fin du Ve siècle), ces tombes en sarcophage ont été préservées des eaux pluviales, ce qui a permis la conservation exceptionnelle de nombreux restes organiques correspondant à des vêtements le plus souvent luxueux (soie rehaussée de galons en fils d'or) auxquels répondaient des bijoux et des accessoires vestimentaires en or et en argent dont beaucoup étaient ornés de gemmes (grenats en particulier).
Ces découvertes marquantes ont été publiées par Michel Fleury et Albert France-Lanord en 1998 dans un monumental ouvrage, Les trésors mérovingiens de la basilique de Saint-Denis (Ed. Gérard Klopp).
En 1994 puis en 1996 (mobilier d'Arégonde), les trouvailles de la basilique de Saint-Denis, propriété de l'Etat et jusqu'alors dispersées, ont été regroupées et affectées au musée d'Archéologie nationale (MAN). Ce fut l'occasion du lancement, dès 2000, d'un ambitieux programme de recherche sur les objets d'or et d'argent et les gemmes qui pouvaient les orner, réalisé au Centre de Recherche et de Restauration des Musées de France (C2RMF) et coordonné par Thomas Calligaro, ingénieur de recherche, avec en particulier le recours à l'accélérateur de particules AGLAE. On a pu ainsi dé-

terminer que tandis que les grenats utilisés au VIe siècle provenaient d'Inde et de Ceylan, ils étaient remplacés au VIIe siècle par des exemplaires notamment originaires de Bohême, sans qu'une explication historique et économique satisfaisante ait pu être encore trouvée.
En 2003, les restes organiques des fouilles de Saint-Denis, non localisés depuis les années 1970 (ossements, tissus, cuirs, etc.) ont été retrouvés et aussitôt affectés au MAN. Ils font l'objet depuis 2005 d'un programme de recherches plurisdisciplinaires qui a permis de mieux connaître les inhumés (études des restes osseux) et leurs vêtements, avec des résultats parfois spectaculaires, ces travaux étant dus à Véronique Gallien et aux docteurs Claude Rucker et Yves Darton (Centre d'Etudes, Préhistoire, Antiquité, Moyen Age/CEPAM, Sophia-Antipolis, Valbonne, Alpes-Maritimes). C'est ainsi qu'on a pu établir que la reine Arégonde n'était pas morte vers 45 ans mais vers 60 ans, qu'elle était légèrement handicapée de la jambe droite, à la suite d'une poliomyélite contractée dans la petite enfance, et qu'elle était affectée par la « maladie de Forestier » (épaississement anormal de certains os). Des analyses ADN ont été menées sur 13 squelettes, dont celui d'Arégonde, afin de tenter de vérifier l'existence de liens de parenté (études réalisées par le Prof. Jean-Jacques Cassiman, Center Human Gentics de l'Université de Louvain).
La reconstitution consacrée de son costume a d'autre part été largement modifiée grâce aux études d'Antoinette Rast-Eicher (Archéotex, Enneda, Suisse) pour les textiles (avec le précieux concours de Sophie Desrosiers pour les soieries), et de Marquita Volken (Gentle Caft, Lausanne), pour les cuirs.
Sans attendre la publication exhaustive de ces travaux de laboratoire, qui interviendra en 2010 sous la forme d'un nouveau catalogue des tombes *, il est apparu souhaitable de présenter le bilan de ces recherches au public en 2009, à l'occasion du 50e anniversaire de la découverte de la tombe d'Arégonde par Michel Fleury.
Ce sera tout d'abord l'occasion d'honorer la mémoire d'Edouard Salin, de Michel Fleury et d'Albert France-Lanord et de souligner leurs travaux pionniers de laboratoire au service de l'archéologie.
Ce sera également l'occasion de présenter au public, pour la première fois, non seulement tous les objets (bijoux, accessoires vestimentaires, objets personnels) découverts dans les sarcophages mérovingiens de la basilique de Saint-Denis, mais aussi les restes organiques qui viennent d'être réétudiés au moyen des techniques de laboratoire les plus performantes. De façon thématique, les restes organiques les plus significatifs seront exposés, accompagnés de posters expliquant les recherches effectuées et les résultats obtenus : anthropologie et paléopathologie des restes osseux ; textiles, broderies de fils d'or, galons tissés aux planchettes ; cuirs (ceintures, chaussures, jarretières) ; colorants (le manteau en satin de soie d'Arégonde était le seul vêtement teint à la pourpre, couleur traditionnellement réservée aux cours impériales dans l'Antiquité) ; composition des métaux précieux des objets de parure et accessoires vestimentaires ; identification des gemmes utilisées pour les orner, dont une majorité de grenats.
Une place de choix sera naturellement réservée à la tombe de la reine Arégonde, qui était la mieux conservée. De ce fait, elle a pu bénéficier d'analyses scientifiques particulièrement poussées et innovantes qui ont complété et parfois modifié les études de laboratoire pionnières menées à son sujet par Albert France-Lanord dans les années 1960.
A l'issue de cette exposition, l'ensemble de la documentation archéologique provenant des tombes mérovingiennes de la basilique de Saint-Denis exceptionnelle bénificiera d'une présentation permanente, y compris le mobilier funéraire d'Arégonde, auparavant exposé au musée du Louvre.
Afin de pallier l'absence de catalogue, les visiteurs auront à leur disposition un Petit journal, ainsi que les dossiers aimablement publiés par les revues Histoire et Images médiévales et L'archéologue.

Query

An on-line-database for 14C-dated textiles (from early times until the end of 1rst millennium AD) is about to be finished. It is undertaken by the Dept. of Christian Archaeology of Bonn university (Sabine Schrenk [responsible], Frank Albert, Anne-Sophie Lüttge; programmed by Eberhard and Jan Orzekowsky), in collaboration with the KIK IRPA in Brussels (Mark van Strydonck).
The internet address will be:
www.textiles-dates.info (available soon).

For immediate information, please turn to: schrenk-sa@netcologne.de. From July 2009 onward please contact: 14ctextiles@uni-bonn.de.

If you have any radiocarbon dates from textiles you would like to add to this database (and we hope you do!), please contact us!

Sabine Schrenk, Köln

Query

I am seeking historical and/or archaeological evidence for textiles which could be described as "checker work". In my opinion these might be categorized "honeycomb", "waffle" or "huckabuck" weaves - as they are referred to today.
The time period in question is indeed longue durée – from 2000 BCE to 1200 CE, and the geography spans from Egypt and Mesopotamia in the east to Andalusia in the west.
References for these contemporary weaves may be found in:
Black, M. (1971) *New Key to Weaving*. New York. pp. 318-323.
deRuiter, E. (2002) *Weaving on 3 Shafts*. Nijmegen. pp. 23-25, 28-33.
Emery, I. (1994) *The Primary Structures of Fabrics*. Washington. pp. 124-127.
Nisbet, H. (1978) *Grammar of Textile Design*. Bombay. pp. 78-93.
Watson, W. 1921. *Textile Design and Colour*. London. pp. 78-87
Woodhouse, T. (1912) *Textile Design, Pure and Applied*. London. pp. 58-73

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Textile Calendar

June-December 2009

8 April-4 October 2009: Exhibition: The Merovingian graves finds from the basilica of St-Denis/Paris, Musée d'Antiquités Nationales in St.Germain-en-Laye, Paris, France
www.musee-antiquitesnationales.fr

31 March-28 June 2009: Court Pomp and Royal Ceremony, Versailles, France
http://www.chateauversailles.fr

14 May-6 September: Exhibition Last Germans in Bohemia, Východočeske Musem in Pardubice
http://www.vcm.cz/program/displays/germani.html

2-3 September 2009: Ars Textrina International Textiles Conference: Natural Fibres – A World Heritage, Leeds, UK
http://ulita.leeds.ac.uk

7-13 September 2009: European Textile Forum, Eindhoven, Netherlands
http://www.textilforum.org

12 September-1 November : Gunnister Man: reconstructing a life, exhibition of early 18th century woven and knitted clothing from bog burial, including complete reconstruction. Shetland Museum and Archives, Lerwick, Shetland, U.K. www.shetlandmuseumandarchives.org.uk

15-20 September 2009: European Association of Archaeologists, Riva del Garda, Italy
http://e-a-a.org/2009.htm

5 June-25 October 2009: Gesponnen und Vervoben Textiles zu Zeiten von Römern und Germanen, Tuchmacher Museum Bramsche, Germany
http://www.tuchmachermuseum.de

3 July-30 October 2009: The world of the Tollundman, Silkeborg Museum, Denmark
http://www.silkeborgmuseum.dk/

4-6 November 2009: Textile Conference at Nordiska Museet, Stockholm, Sweden. For more information contact marianne.larsson@nordiskamuseet.se

General Information

Guidelines to Authors
The ATN aims to provide a source of information relating to all aspects of archaeological textiles. Archaeological textiles from both prehistoric and historic periods and from all parts of the world are covered in the ATN's range of interests.

1. Contributions can be in English, German or French.

2. Contribution may include accounts of work in progress. This general category includes research/activities related to archaeological textiles from recent excavations or in museums/galleries. Projects may encompass technology and analysis, experimental archaeology, documentation, exhibition, conservation and storage. These contributions can be in the form of notes or longer feature articles.

3. Contributions may include announcements and reviews of exhibitions, seminars, conferences, special courses and lectures, information relating to current projects and any queries concerning the study of archaeological textiles. Bibliographical information on new books and articles is particularly welcome.

4. References should be in the Harvard System (e.g. Smith 2007, 56), with bibliography at the end (see previous issues). No footnotes or endnotes.

5. All submissions are to be made in electronic text file format (preferably Microsoft Word) and are to be sent electronically or by mail (a CD-ROM).

6. Illustrations should be electronic (digital images or scanned copies at 600dpi resolution or higher). Preferred format is TIFF. Illustrations should be sent as separate files and not imbedded in text.
Colour images are welcome.

7. All contributions are peer-reviewed by the members of scientific committee.

8. The Editors reserve the right to suggest alterations in the wording of manuscripts sent for publication.

Please submit contributions by post to:
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