

Catalogue

ARCHAEOLOGICAL PUZZLES IN A MUSEUM

Egyptian Fabrics from the 1st Millennium AD
at the National Museum of Denmark
(Online Exhibition)

Stage I: 1886-1891

Famous collectors and the European and Egyptian art market of the late 19th century

1886-1887: First textiles

Six textiles presented on five pieces of cardboard were purchased from an Austrian collector, antiquities and carpet dealer, Otto Theodor Graf (1840-1903). It is estimated that at least 2,600 Egyptian fabrics known to come from Graf's collection are scattered throughout museums and collections across Europe and the United States. The largest ensembles are in Vienna (Museum für Angewandte Kunst: MAK), Lyon (Musée des Tissus et des Arts Décoratifs), St. Petersburg (State Hermitage Museum), New York (Metropolitan Museum of Art) and Berlin (Skulpturensammlung und Museum für Byzantinischen Kunst). Graf and his agents worked mainly in the Fayum Oasis, Panopolis (modern Akhmim, Upper Egypt), Hermonthis (modern Armant, Upper Egypt) but also in other places. The entry book of the Collection of Classical and Near Eastern Antiquities notes that the textile fragments acquired from Graf come from "Middle Egypt", which may suggest a provenance from Fayum or elsewhere in this region, even from Akhmim, a location sometimes attributed to Middle Egypt. Numerous examples of "Graf's fabrics" of Fayum and Akhmim provenance can be seen, for example, in Berlin and in Vienna. [A.H.H., M.M.-G.]

The earliest surviving letter from Theodor Graf to the National Museum regarding the purchase of textiles is dated 6th May 1886. Graf apparently refers to an earlier exchange of words, admitting that the museum staff

already knew him in connection with the "Erzherzog Rainer" papyri [a collection of papyri acquired by Graf in Egypt in 1881/82, which he later sold to the Austrian Archduke Rainer Ferdinand] (fig. 13a, b, c).

In the letter to the curator Ludvig Müller, Graf recounts his recent stay in Egypt, where he excavated a large collection of "Graeco-Roman" textiles and clothing remains. Graf presents these discoveries as testimony to the high state of the textile industry at the time. The colours on the fabrics are well preserved and the decorative motifs are mostly made in tapestry technique. There are also several complete, well-preserved garments in Graf's possession.

Graf writes that he is aware that the museum sometimes acquires rare objects, and that it may not yet have such textiles and clothing, and that he proposes to enrich the collection. In order to form an opinion, Graf took the liberty of sending a parcel of five "plates" ("Tafeln") with small fragments so that the museum could consider purchasing his collection. Ludvig Müller replied on 13th May, but a copy of this letter has not survived.

In a second letter, dated 17th May 1886, Graf comments on Müller's reply, which shows that the shipment had arrived in Copenhagen and that Müller found the fabrics very interesting. Graf then proposed to Müller to purchase the entire collection, consisting of fabrics arranged on standardised "plates" of various sizes, undoubtedly corresponding to the size and state of preservation of the individual pieces. The collection consists of approximately 10 "plates" in 1/4 size, roughly corresponding to the size of the "plates" already sent to the

Museum, 30 "plates" in 1/2 size and 20 "plates" 1/1. The total price is 10,000 marks.

In his reply of 21st May Müller declined to buy the collection, but offered Graf 100 marks for the five pieces already sent to Copenhagen. On 26th May 1886 Graf accepts the offer of 100 marks, and on 31st May Müller sends the money. In the last letter concerning this purchase, dated 4th June 1886, Graf confirms the receipt of 100 marks and sends an invoice *post hoc*. [A.H.H., P.L.]

THEODOR GRAF

WIEN.

Adresse für Telegramme:
THEOGRAF, WIEN.

THEOGRAF, WIEN.

An die verehrliche Direction
des Königl. Museums
in Kopenhagen.

Mien am 6 Mai 1886

Wenn auch gewöhnlich unbekannt,
so gewisste ich nicht, daß Your mein Namen
unter dem richtigen Zusammenhange mit
der unter dem Namen „Papyrus Eyherzog
Rainer“ bekanntem und verbreiteten ge-
meinen großen Täuschung ging, und
Recht der Papyrus papt, bereits bekannt
sein wird, und daher ich mich die Freiheit
auf solche in folgenden Angelegenheit
an Sie zu wenden.

Maßstab meist langer Abschnitte, in
Egypten in der letzten Zeit oft in
sehr vielen Stücken gefunden
eine große Sammlung griechisch-römischer
Kunst und Gemäldes, und der ersten
Jahrhundert vor Christus datierend,
sind Ausgrabungen zu Tage zu fördern.

eine Sammlung mehr. Ganz so allgütig
 wie die ges. Fortentwicklung der Textl. Bestehen
 jener frühen Jahre wird mich und endlich
 der Ältern selber die vordrängende Natur der
 Bekleidungsstoffe und ihre in Farben
 gar verschieden, wohl im Gebrauche Textur
 auszufinden gräßliche Anwandlung!
 (Vergleichen sie ganz, wohl-fachere
 Gewänder in der neuesten Sammlung,
 jedoch mit auf so wenig auf den Kopf
 in Bekleidungsstoffe und die Trachten jener
 Periode sind die vorliegenden Bücher ganz
 informativ geworden.
 Es ist wohl möglich für eine gewisse
 Ueberzeugung, aber jener vordrängenden
 Textl. Abwende und ihre so vordrängenden
 Anwandlung zu geben und muß man
 von einem Blick über die Mängelhaftigkeit
 dieser Stoffe haben zu können, die Färbung
 selbst von Ältern sehen!
 Es ist mir bekannt, daß die Spender
 wohl auf die Beschaffung jener Objekte
 legen und nachher Hoffen sind
 Genießen und wissenschaftl. Fort
 wohl auch nicht so ohne Ansehen stehen
 wie die ersten, je so sehr das Land eines

offene Gelegenheitsarbeit geboten. Ihre Thätigkeiten
in Aufseherstellen resp. zu beirathen!
Nun kann es gehen, so mögen Ihre
Sie allen Hoffungen entgegen sind,
wahrlich ich bin, kann es nicht leicht
früher als Post 5 Tafeln und blieben
Wochen zu gut, Aufsicht, zugehen zu lassen
und bei ganz richtig, wenn Sie den Fall,
dass Sie meine Thätigkeit für Sie erkennen
zu werden einfluss, selbst für Aufsicht
zugehörig.
Neben der Lage ist es gemacht für,
auf Unterfindungen und die neuen
Ihre Thätigkeit einzugehen, dann werden
Sie die Tauschbarkeit haben, und die fünf
Tafeln auf gleichen Weg zurückzuführen.
So beschränkt man sich, sondern fast
für die Ihre und zugehörig Aufsicht und
zugehörig zu gehen

Knoder Graf
I. Schillingplatz.

Lyfward d. 13 Mai
L. Müller

13a, b, c. Theodor Graf's letter of 6th May 1886 to Ludvig Müller offering the sale of some textiles from his collection. On the last page one can see Müller's annotation of having sent a letter of reply on 13th May. Archives of the NMD.
Photo: Line Cecilie Eskerod Hansen
© NMD

No. 1
NMD Inv. 3116 + 3117

Fragments of the bottom part of a tunic
circa 7th-9th century

Fragments belonging to a linen tunic constructed of three parts, woven "in shape". Two decorative stripes (*clavi*) were woven together with the tunic, while the lower hem band, and perhaps also the trimmings and the band on a neckline were sewn on. The neck opening was most likely cut and rounded. [A.K.]

The *clavus* and the band bear decoration in tapestry technique made of dyed wool: red, yellow, green, blue. The *clavus* is decorated with stylised vegetal motifs (leaf? tree?), and the band features cross motifs inscribed in rhombuses. [M.M.-G.]

Technical analysis
[A.K.]

Measurements:

Inv. 3116: warp: 13 cm; weft: 4 cm
Inv. 3117: warp: 30 cm; weft: 19 cm

Ground weave:

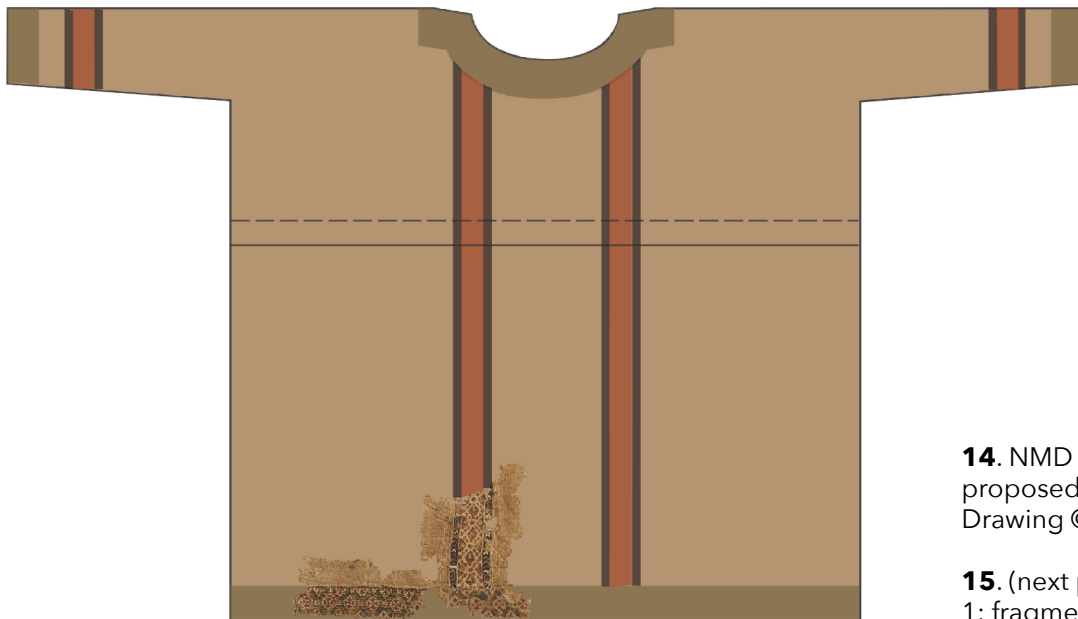
warp: S-spun, linen, 17/cm
weft: S-spun, linen, 16/cm
Balanced tabby

Clavus:

warp: rearranged per 2 by
crossing: 8 units/cm
weft: wool: S-spun; linen: S-spun,
70/cm

Applied hem band:

warp: S2Z linen, 7/cm
weft: wool S-spun; linen S-spun, 65/cm



14. NMD Inv. 3116 + 3117:
proposed reconstruction.
Drawing © Anne Kwaspen

15. (next page) Catalogue no
1: fragments of the bottom
part of a tunic (NMD Inv. 3116
+ 3117).
Photo: Søren Greve © NMD



No. 2
NMD Inv. 3119

Fragment of a tunic sleeve
circa 6th-8th century

Fragment of a long sleeve of a linen tunic woven "in shape". We do not know, however, whether this tunic was constructed from one or three parts. A rolled hem towards the outside is preserved. The sleeve was adorned with an applied band in tapestry, executed in red wool on linen warp. On the tapestry, a two-line geometric pattern has been made in linen using weft brocade technique, as well as soumak for borders. The central part of the band holds a motif of a ring with a stylised cross. [A.K., M.M.- G.]

Technical analysis
[A.K.]

Measurements:
warp: 18.5 cm
weft: 13,8 cm
Ground weave:
warp: S-spun, linen, 24/cm
weft: S-spun, linen, 18/cm
warp-faced tabby
Applied tapestry:
height (=warp): 5.5 cm
width (=weft): not complete
warp: S2Z linen, 12/cm
weft: S-spun wool, 90/cm
technique:
tapestry: linen S,
soumak: linen 2S,
vertical weft brocading: linen S2Z

16. Catalogue no 2: Fragment of a tunic sleeve (NMD Inv. 3119).
Photo: Søren Greve © NMD



No. 3
NMD Inv. 3120

Fragment of a tapestry decoration
circa 7th-9th century AD

Fragment of linen fabric of indeterminate shape, decorated with applied square tapestry (*tabula*) made of red and deep blue dyed wool on linen warp. A few motifs are made of linen in natural colour. [A.K.]

The decoration consists of geometric motifs arranged in nine squares; the whole is surrounded by an embellished border. The central motif, as well as those below and above, appears to represent a cross. Decorative *tabulae* were often placed on tunics, mantels or shawls. [M.M.-G.]

Technical analysis
[A.K.]

Measurements:

warp: 12 cm
weft: 12.5 cm

Ground weave:

(it is not possible to distinguish between warp and weft): S-spun, linen,
12/cm x S-spun, linen, 10/cm

Tabula:

warp: linen, extended warp: 2.8 units/cm
weft: wool, S-spun, 62/cm; linen S-spun, 80/cm



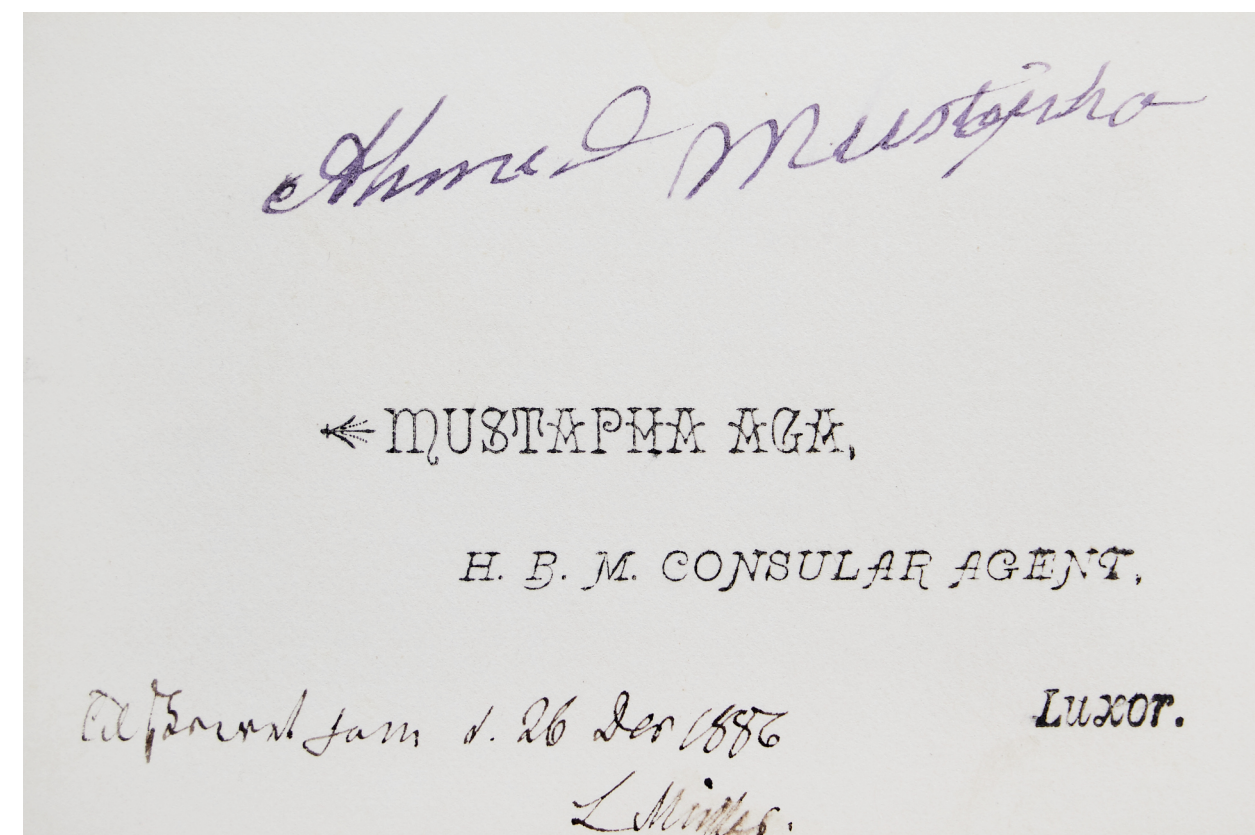
17. Catalogue no 3: Fragment of a tapestry decoration (NMD Inv. 3120).
Photo: Søren Greve © NMD

In 1886, the National Museum also received a cotton fabric with looped-warp fringes. The textile, given by **Ahmed Mustafa**, a British “consular agent” from Luxor, was transferred to Copenhagen by a certain Miss Lassen. The donated fabric was probably intended as an incentive for the director of the museum to purchase textiles and other objects through Ahmed Mustafa. It seems that in addition to the United Kingdom, Ahmed Mustafa also represented Belgium and Russia. His father Mustafa Aga Ayat was also a “consular agent”. [A.H.H., M.M.-G.].

On “consular agents”, see section about “**Egyptology, Egyptomania, and Egyptian textiles**” in the *Introduction*.

We do not know anything about the origin of this fabric. However, based on an analysis of the raw material (cotton) and the spin direction of the threads (“S”) we can only assume that it was made locally, most likely in one of the oases, **Kharga** or **Dakhla**, or perhaps in **Nubia**, the only regions in Egypt where cotton was grown in those days. The fabric probably comes from a tomb in **Western Thebes**, and dates from the Roman period. [M.M.-G.]

For more about what the raw material can say about the origin of a fabric, see **Case study 1**.



18. Business card of Ahmed Mustafa, a British “consular agent” from Luxor. Archives of the NMD. Photo: Line Cecilie Eskerod Hansen © NMD

No. 4
NMD Inv. 3212

Fragment of a cotton cloth
circa 1st-3rd century AD

Fragment of a cotton fabric, probably a blanket decorated with warp fringes. There are visible coloured threads at the right part of the fringe band, most likely inserted by Margrethe Hald to help in the analysis of the weave. [A.K., M.M.-G.]

For more about Hald's method of technical analyses of textiles, see **Case study 7**.

Technical analysis
[A.K.]

Measurements:
warp: 50 cm + fringes: 11 cm
weft: 132 cm
Ground weave:
warp: S-spun, cotton, used in pairs: 5 units/cm
weft: S-spun, on, first 8 cm used in pairs: 12 units/cm, next single use: 23/cm weft-faced tabby: basket weave and half basket weave
Warp fringes:
special braided border where the warp threads end in long fringes
Weft fringes:
22 cm from border a weft is inserted combined with Ghiordes knots of 4.5 cm long

19. Catalogue no 4: Fragment of a cotton cloth (NMD Inv. 3212).
Photo: Søren Greve © NMD



1891: Robert Forrer's "puzzles"

The most important group of textiles (49 fragments) was acquired by the National Museum of Denmark (NMD) in 1891 from **Robert Forrer** (1866-1947) (fig. 20). Forrer was an archaeologist, antiquarian and collector of Swiss origin, settled in Strasbourg. He used to divide the textiles into "lots" and to record his transactions in a notebook currently preserved in the Archaeological Museum of Strasbourg. The textiles sold to the NMD, recorded in January 1891, belong to the "Lot II". Fabrics from the same lot were also sold to, among others, Christiania (former name of Oslo), Mainz, and Stuttgart. [A.H.H., A.G.]

Regarding the letters exchanged between Robert Forrer and Ludvig Müller, director of the museum at that time, see **Case study 2**. On Forrer's notebook see **Case study 3**.

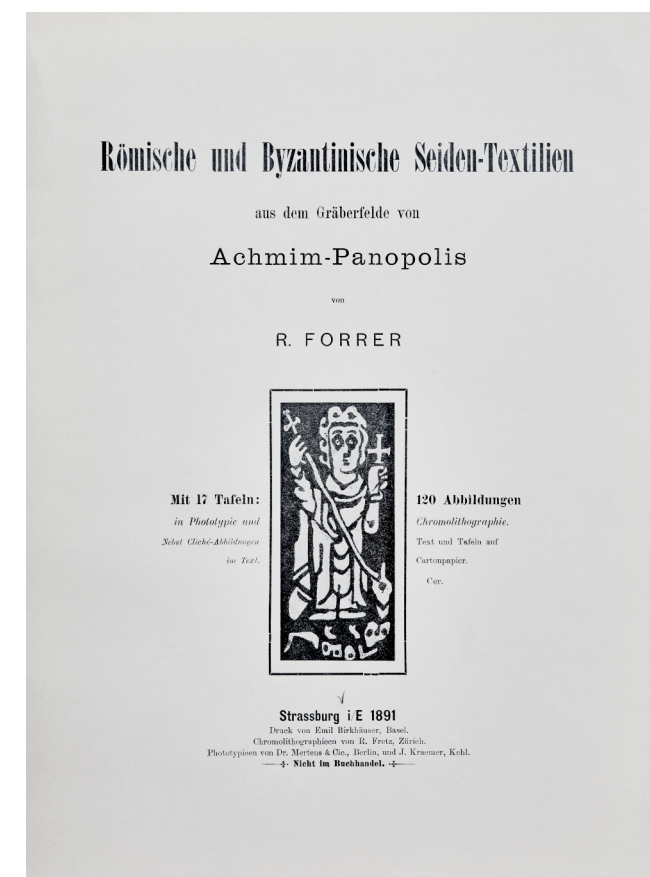
We can assume with a high degree of probability that Robert Forrer cut and separated fragments of one fabric and registered them in more than one lot. He then sold the fragmented textiles to different collections or to other dealers, and this phenomenon has created a situation where we have, for example, three very similar textile fragments now in three different museums, and each of these fragments is given a different provenance, although they probably have the same origin. [M.M.-G.]

For more on scattered fragments probably from the same fabric, see **Catalogue Nos. 5-9** and **Case studies 4** and **5**. See also a section about **"Duplicated fabrics" and multiple production of textiles** in the **Introduction**.



20. Robert Forrer (1866-1947) in his office at the museum in Strasbourg. The photo dates from 1917. Archives the Archaeological Museum of Strasbourg. Photo © Musées de la ville de Strasbourg

21. First page of Robert Forrer's *Römische und Byzantinische Seiden-Textilien aus dem Gräberfelde von Achmim-Panopolis*, Strasbourg, 1891. The copy of this book in the NMD library may have been sent personally by Forrer, however, there is no dedication. Photo: Line Cecilie Eskerod Hansen © NMD

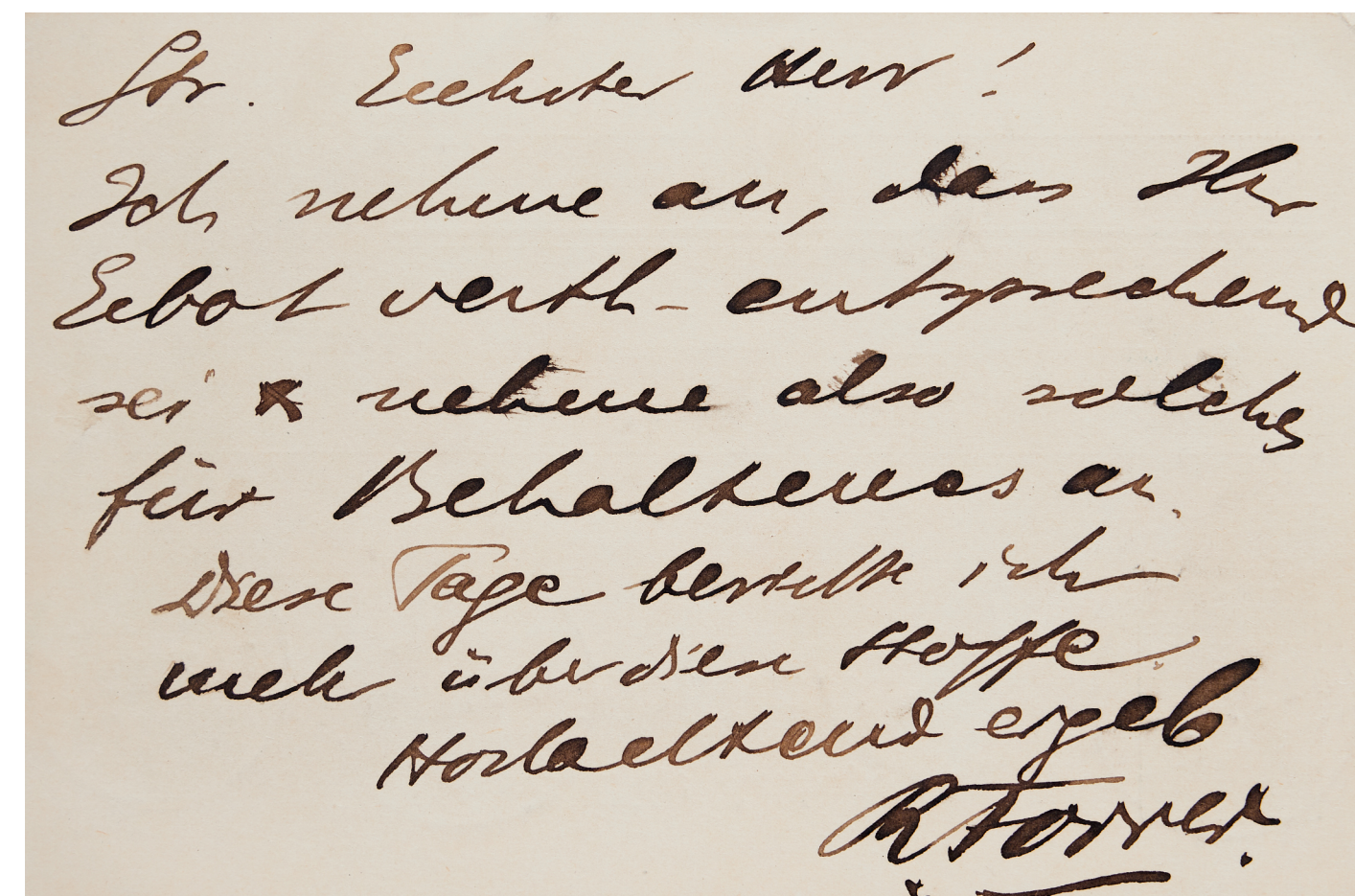


The provenance of these fabrics is given as “**Akhmim-Panopolis**”, but it is possible that some of them also come from the **Fayum** (cf. **Case study 2**). In fact, the titles of all Forrer’s books on textiles, as well as the title of his notebook, cite the name of Akhmim as the findspot of the described fabrics. In the introduction to *Die Gräber und Textilfunde von Achmim-Panopolis* (1891) Forrer states directly that his agent got the textiles from there. Nevertheless, this information should be treated with caution because the name Akhmim was a kind of “trademark” in those years and could be used by the dealers to increase their income, as has been demonstrated by Cäcilia Fluck (Fluck 2008). Moreover, it seems that Forrer himself sometimes gave his customers contradictory information on the findspots of the textiles. [A.G.]

The “Forrer textiles” at the NMD were most probably purchased in Cairo from a dealer named **Marius Panayiotis Tano**. The Tano family held one of the most prosperous and longest-running antiquities businesses in Cairo (from 1870 until 1972). The founder of the “dynasty” was Marius Panayiotis (date of birth unknown, died in 1906). He was a Greek from Cyprus and he is said to have studied archaeology in France before coming to Egypt. He held French citizenship and he donated and sold a lot of textiles to museums in France, for example, the Louvre, Musée des Tissus in Lyon, and the Musée égyptien (today Musée d’archéologie Méditerranéenne) in Marseille. [A.G.]

For more information about the Tano family, see works by Oliver Masson (1977), Robert S. Merrillees (2003) as well as by Fredrik Hagen and Kim Ryholt (2016, p. 266)

22 a, b. A postcard sent by Robert Forrer to Ludvig Müller confirming the conditions of the transaction (16th January 1891). Archives of the NMD. Photo: Line Cecilie Eskerod Hansen © NMD



Are they fragments of the same fabric?

No. 5

NMD Inv. Unr_a

Fragment of a tunic

circa 5th-6th century AD

Decorated strip, probably fragment of a *clavus*, although sleeve decoration cannot be ruled out as well. The tunic from which this strip comes was of linen. The decorative motif is made in tapestry technique, and some details were executed using flying thread brocading. [A.K.]

The ornament consists of six medallions formed from vine scrolls, in which a naked man and an animal are depicted alternately. The man, his left arm protected by a shield and perhaps a piece of cloth, was probably a *bestiarius*, who took part, voluntarily or as a prisoner, in fights with wild and often exotic animals in Roman circuses. The depicted animals are not easily identified: lion (?), hare (?) and wolf (?).

An almost identical depiction is found on a piece of fabric kept at the National Museum of Art, Architecture and Design in Oslo (Inv. OK-03601), also purchased from **Robert Forrer**, and it is likely that both fragments come from the same tunic. In addition, it seems that the same pattern, with minor changes, was used to weave other *clavi*, such as an example in the Victoria & Albert Museum, London (Inv. 201-1891). [M.M.-G.]

Technical analysis [A.K.]

Measurements:

warp: 4.5 cm
weft: 26 cm

Ground weave:

warp: 40/cm S-spun linen
weft: only 2mm, 8/2mm = 40/cm
S-spun linen balanced weave, very fine open structure

Tapestry:

warp: 18-20 units/cm
weft: wool Z-spun 70-75/cm, paired
linen S-spun 48 units/cm

23. (left) Catalogue no 5:
clavus from a tunic (NMD Inv.
Unr_a).
Photo: Inger Marie
Helgasdatter Mulvad © NMD

24. (right) *Clavus* from a tunic.
National Museum of Art,
Architecture and Design, Oslo
(Inv. OK-03601).
Photo: Frode Larsen ©
Nasjonalmuseet, Oslo



No. 6
NMD Inv. 3670_14

Fragment of decorative bands
circa 3rd-5th century AD

Fragment of linen cloth with blue-purple wool bands woven into it. These two sequences of triple stripes probably constructed a *clavus* or sleeve band decoration of a tunic, however, they might also have decorated a shawl or other fabric. [A.K., M.M.-G.]

Similar fragments are also found in other collections, such as in the Jagiellonian University Museum in Cracow (Inv. MUJ- 636-T: MUJ 750/46, 5455/IV), Natural and Cultural Heritage Museums (MUHO) in Bergen (Inv. VK 05674) and the Landesmuseum Württemberg in Stuttgart (Inv. GT 4477). They were all purchased directly from **Forrer**, and what we know of the technical analysis (Stuttgart), it is consistent with the analysis done on the fragment from The National Museum of Denmark, thus giving a high probability that they come from the same fabric or the same workshop. The origin of the fragment from Stuttgart is identified as the **Fayum Oasis**. [M.M.-G.]

Technical analysis
[A.K.]

Measurements:
warp: 12.5 cm
weft: 19.5 cm
Ground weave:
warp: S-spun, linen, 22/cm
weft: S-spun, linen, 10-11/cm
warp-faced tabby
Striped pattern:
warp: alternately rearranged per 4 and 1 by dropping, 5 units/cm
weft: wool, S-spun, 36/cm; linen, S-spun, 56/cm

25. Fragment of decorative bands. Landesmuseum Württemberg in Stuttgart (Inv. GT 4477).
Photo © Landesmuseum-Stuttgart

26. Catalogue no 6: fragment of decorative bands (NMD Inv. 3670_14).
Photo: Søren Greve © NMD

27. Fragment of decorative bands. Bevaringstenestene, Museumssenteret i Hordaland (MUHO), Bergen (Inv. VK 05674).
Photo: Heidi Seilfaldet © MUHO

28. Fragment of decorative bands. Jagiellonian University Museum, Cracow (Inv. MUJ-636-T: MUJ 750/46, 5455/IV).
Photo: Mateusz Kozina © MUJ



Fig. 25



Fig. 26



Fig. 27



Fig. 28

No. 7
NMD Inv. 3670_16

Fragment of tapestry decoration
circa 3rd-5th century AD

Purple wool band with "plaid pattern" in three rows, rosettes inscribed within. The details of the ornaments are made by brocade technique with flying thread. This band could belong to a *clavus* or sleeve band decoration of a tunic, but perhaps it decorated a shawl or other fabric. [A.K.]

Two almost identical textile fragments are known: one in the National Museum in Gdańsk (Inv. 138398); the other in the Art and History Museum in Brussels (Inv. ACO.Tx.0181). The Gdańsk fragment was acquired from **Robert Forrer**, and its provenance is given as the **Fayum**. The fabric from Brussels, with provenance from **Akhmim**, was bought from **Franz Bock** (1823-1899), a German theologian and art collector, or perhaps **Albert Daninos Pasha** (1843- 1929), a French archaeologist of Greek origin. However, dealers often exchanged objects from their collections, and Bock's numerous purchases from Forrer are recorded in his notebook: two purchases are attested in October-December 1889 from Forrer's "Lot I". Moreover, it is not impossible that Bock acquired these fragments while in Egypt (1885 and 1886), perhaps from the same dealer as Forrer. It cannot be excluded that another example also belongs to this group: a fabric currently in the Pushkin Museum in Moscow (Inv. KT 480), originally held in the former Völkerkundemuseum in Berlin that was purchased from **Heinrich Schliemann**. [M.M.-G., A.V.P.]

Technical analysis
[A.K.]

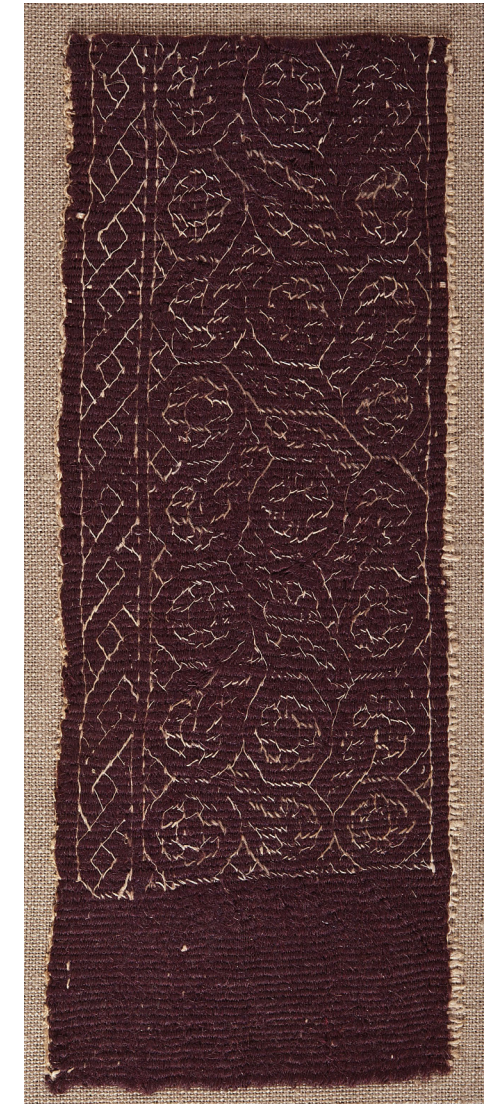
Measurements:
warp: 7,3 cm
weft: 16.5 cm
Flying thread band:
warp: alternately rearranged per 2 and 3 by crossing, 7 units/cm
weft: wool, S-spun, 56/cm Linen, S-spun for flying thread brocading



29. Fragment of tapestry decoration. Art and History Museum in Brussels (Inv. ACO.Tx.0181).
Photo © Creative Commons CC BY- MRAH/KMKG



30. Catalogue no. 7: fragment of tapestry decoration (NMD Inv. 3670_16).
Photo: Søren Greve © NMD



31. Fragment of tapestry decoration. National Museum in Gdańsk (Inv. 138398).
Photo: Małgorzata Kwiatkowska © NMG

No. 8

NMD Inv. 3670_1537

(1537 is the number given by Forrer)

Fragment of a compound tabby fabric

Early 4th- early 6th century AD

A fragment of a wool fabric with an overall pattern of birds in octagons, executed in weft-faced compound tabby technique. A detailed analysis of technique and comparison to pieces in other collections have helped to set the piece in its Late Roman context. After a very close look, it is even possible to reassemble the original textile and to see that it was used as a garment. [B.T.]

For more on this fabric, see **Case study 4**.

Publications

Hedeager Krag (2021), p. 66; Thomas (2021).

Technical analysis

[B.T.]

Measurements:

20 x 13.5 cm

Warp:

white wool, all yarns single, S- spun;
warp proportion: 1:1
binding warp 7-8 threads/cm
main warp 7-8 threads/cm
warp step = 1
main warp threads per pattern repeat:
35

Weft:

brown wool, white wool, all yarns
single S- spun
weft sequence: 1,2,1,2
up to 44 passées/cm (= 88 lats)
weft step (découpure trame): irregular,
5-8 passées/découpure, mainly 6
passées/découpure; weft steps per
pattern repeat: 34

Unicolour stripe:

extended tabby with paired warp ends
(half basket weave); weft: blue wool,
single, S-spun, 80 threads/cm

32. Catalogue no. 8: fragment
of a compound tabby fabric
(NMD Inv. 3670_1537).
Photo: Søren Greve © NMD

3670



No. 9
NMD Inv. 3671_17

Fragment of a silk samite fabric
circa 7th-9th century AD

A fragment of samite weave with a cream colour decoration on a purple-brown background. It belongs to a large group of so-called "Akhmim silks", which were often registered in museum collections as coming from **Akhmim**. These textiles are usually bicoloured, with a light pattern on a dark background. The motif depicted is a lion looking backwards. He has a big round eye. Above his back and next to his head, a plant motif is partially preserved. Beneath the lion is a horizontal line. On both sides, the fragment has a border of heart shaped petals. [B.T., A.V.P.]

For more about this textile, see **Case study 5**.

Publications
Hedeager Krag (2021), p. 66.

Technical analysis
[B.T.]

Measurements:
6.3x7.5 cm
Techniques:
weft-faced compound twill, Z-direction
Warp:
binding warp: white silk, Z-spun, 18 threads/cm; main warp: white silk, Z-spun, 18 threads/cm; warp proportion: 1:1
warp step: 1
main warp threads per pattern repeat: > 107 no full pattern repeat preserved
Weft:
weft 1 (lat 1): white silk, no twist (STA), 38-40 threads/cm; weft 2 (lat 2): violet silk, no twist (STA), 38-40 threads/cm; weft sequence: 1,2,2,1
weft step: 2 passées
2 bobbins of each colour
Traces of sewing:
sewn hem at both sides, sewing stitches in centre of piece, sewing yarn: 2SZ



33. Catalogue no. 9: fragment of a silk samite fabric (NMD Inv. 3671_17).
Photo: Søren Greve © NMD

Are these motifs based on the same pattern sheet?

No. 10

NMD Inv. 3670_990
(990 is the number given by Forrer)

Fragment of a tapestry decoration
circa 4th-6th century AD

Fragment of a linen fabric with a woven-in tapestry band made of purple wool. On both sides of the central plainwoven stripe are friezes with a vine motif. Some details of this motif are executed in flying thread brocading technique. It is possible that the fragment belonged to the *clavus* of a tunic, or it was a decorative strip of a mantel or other fabric.
[A.K., M.M.-G.]

A fragment of fabric with an identical pattern but slightly different proportions (the central stripe is wider and vine friezes are narrower) can be found in the Badisches Landesmuseum in Karlsruhe (Inv. H 480). It is very likely that the fabric to which it belonged was decorated using the same pattern sheet, and perhaps made in the same workshop as the fabric from NMD. The Karlsruhe fabric was acquired from **Franz Bock** (see **Catalogue No. 7**). [P.L.]

Technical analysis [A.K.]

Measurements:
warp: 10 cm
weft: 22 cm
Ground weave:
warp: S-spun, linen, 25/cm
weft: S-spun, linen, 15/cm
warp-faced tabby
Tapestry:
warp: alternately rearranged per 2 or 3 by crossing, 10 units/cm
weft: wool, S-spun, 48/cm
Linen S-spun used as single yarns for tapestry and flying thread brocading



34. Catalogue no. 10:
fragment of a tapestry
decoration (NMD Inv. 3670_
990).
Photo: Søren Greve © NMD



35. Fragment of a tapestry
decoration. Karlsruhe
Badisches Landesmuseum (Inv.
H 480).
Photo: Thomas Goldschmidt ©
BLM Karlsruhe

No. 11
NMD Inv. 3671_1

Fragment of a tapestry band
circa 5th century AD

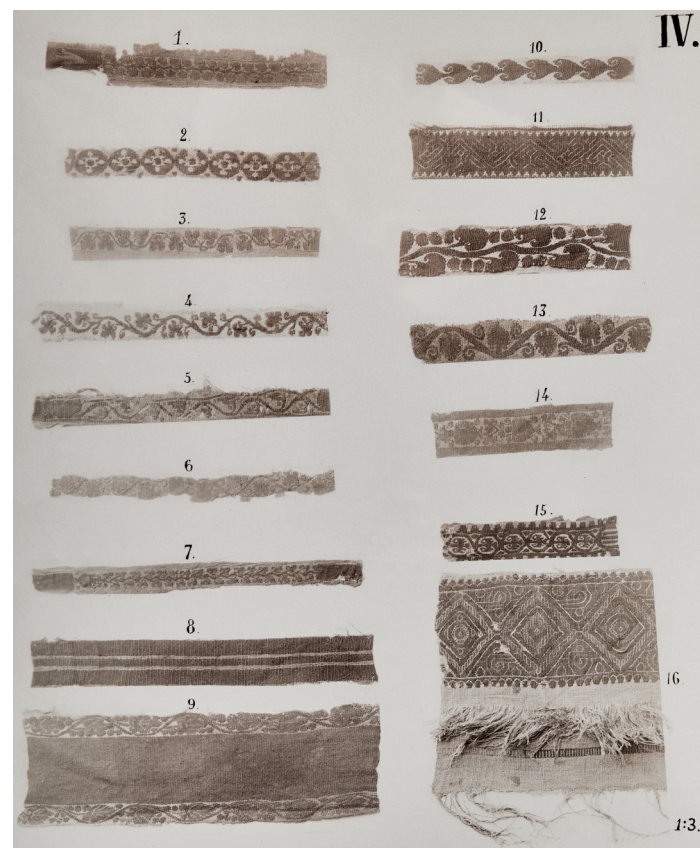
Linen fabric with a band decorated with a stylised vine scroll. The ornament is executed in blue-black wool in tapestry technique. It may be a fragment of *clavus* decorating a tunic. [A.K.]

A similar motif, but made of violet-purple wool and framed by slightly thinner stripes than on the NMD fabric, is depicted on a fabric kept in the National Museum of Slovenia in Ljubljana (Inv. N 6336), as well as on a band from the Kunstsammlungen Chemnitz (Inv. Ko 170). Both these fabrics were acquired from **Franz Bock** (see **Catalogue No. 7**). In addition, in the Forrer's book *Die Gräber und Textilfunde von Achmim-Panopolis* (1891), plate no. IV, fragment no. 7 also appears to belong to the group of bands decorated with a stylised vine scroll. The resemblance of these fabrics to the band from NMD may suggest that all were woven according to the same model and/or in the same workshop. [M.M.-G.]

36. Plate no. IV from Forrer's book *Die Gräber und Textilfunde von Achmim-Panopolis* (1891). Photo: Line Cecilie Eskerod Hansen © NMD

Technical analysis
[A.K.]

Measurements:
warp: 7 cm
weft: 26.5 cm
Ground weave:
warp: S-spun, linen, 18/cm
weft: S-spun, linen, 12/cm
warp-faced tabby
Tapestry:
warp: alternately rearranged per 2 and 3: 6 units/cm
weft: S-spun, wool: 36/cm + S-spun, linen: 40/cm



37. Catalogue no 11: fragment of a tapestry band (NMD Inv. 3671_1). Photo: Søren Greve © NMD



38. (centre) Fragment of a tapestry band. Kunstsammlungen Chemnitz (Inv. Ko 170). Photo: Bertram Kober (Punctum Leipzig) © bpk/ Kunstsammlungen Chemnitz

39. (bottom right) Fragment of a tapestry band. National Museum of Slovenia in Ljubljana (Inv. N 6336). Photo: Tomaž Lauko © National Museum of Slovenia



Reconstructing a pattern sheet: the same model for different visual media?

No. 12

NMD Inv. 3670_1

Fragment of a tunic

circa 5th-6th century AD

Shoulder part of a linen tunic decorated with woven-in *clavi* and *tabulae* made in tapestry technique using monochrome purple wool. It is not known whether the *clavi* were the full length of the tunic or whether they were short (see the reconstruction of this second variant), or whether the tunic was woven in one piece or in three parts. [A.K.]

In the central part of the *tabula* a naked, crouching woman is depicted. There is probably some kind of cloth over her left arm. On her right-hand side one can see a cylindrical box, called a *pyxis* in Greek. This kind of container, made of bone (ivory), ceramic or wood, was used in Classical

Greece to hold toiletries. The frame of the composition, as well as the *clavus*, are decorated with stylised vine scrolls. It would appear that the depicted woman is performing her toilet. The cloth hanging from her hand would therefore be a towel. Looking at this scene, one gets the impression that it is inspired by images of the crouching goddess Aphrodite surprised in her bath, an iconographic motif well known in Hellenistic and Roman art, mainly sculpture and terracotta, and widespread in Egypt at the time. Aphrodite, the deity of love and fertility, was identified in Hellenistic and Roman Egypt with the goddesses Hathor and Isis. We do not know, however, how this depiction was interpreted by the person, most likely a Christian, to whom this tunic belonged. [M.M.-G.]

Technical analysis [A.K.]

Measurements:

warp: 22 cm
weft: 34 cm

Ground weave:

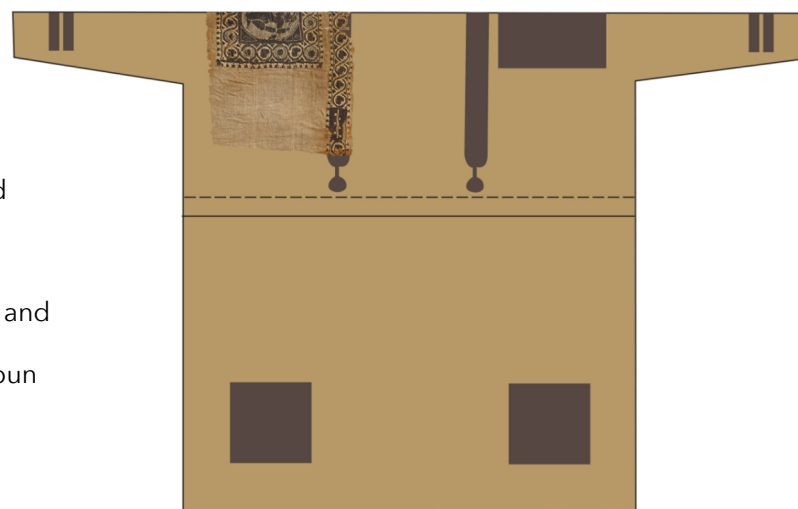
warp: S-spun, linen, 21/cm
weft: S-spun, linen, 17/cm
warp-faced tabby, almost balanced tabby

Clavus:

height = warp: 3.5 cm
warp: alternately rearranged per 2 and 3: 9 units/cm
weft: Z-spun, wool: 56/cm and S-spun linen: 72/cm

Tabula:

height = warp: 16 cm
width = weft: 15.7 cm
warp: alternately rearranged per 2 and 3: 9 units/cm
weft: Z-spun, wool: 56/cm and S-spun linen: 72/cm



40. (opposite page, bottom) NMD Inv. 3670_1: proposed reconstruction.
Drawing © Anne Kwaspen

41. (right) Statue of Aphrodite. Roman copy (1st or 2nd century AD ?) of an of an earlier Hellenistic original (perhaps 2nd century BC).
Photo: The Trustees of the British Museum (CC BY-NC-SA 4.0)

42. (bottom) Catalogue no 12: fragment of a tunic (NMD Inv. 3670_1).
Photo: Søren Greve © NMD



Foreign pattern, Egyptian weaving, and various collections

No. 13

NMD Inv. 3671_9 + 3671_10

Fragments of a tapestry decoration circa 6th-7th century AD

Two wool fragments from a tunic or perhaps from a rectangular mantle. The textiles seem to belong to a U-shaped band: Inv. 3671_9 to the vertical part, and Inv. 3671_10 to the horizontal band. [A.K.]

A similar fragment, from the horizontal part, is kept in the Art and History Museum in Brussels (Inv. ACO.Tx. 55): its provenance is indicated as **Akhmim**. The bands bear a frieze with depictions of ibexes or, considering their long, ringed horns, of antelopes, arranged in pairs. The animals stand back to back, but with their heads turned towards a tree, probably a date palm, which stands between them. The antelopes have almost human eyes and wear collars and ribbons.

The subject and composition, as well as the colour scheme based on intense green, yellow, red and turquoise, point to Persian influence

Technical analysis [A.K.]

Measurements:

NMD Inv. 3671_9:	warp: 26.5 cm weft: 9.8 cm
NMD Inv. 3671_10:	warp: 12.6 cm weft: 50.5 cm

Ground weave:

warp: S-spun, undyed wool, 10/cm
weft: S-spun, dark green wool, 50/cm
fine weft-faced tabby

Tapestry:

weft: undyed, red, blue, green and blue-black wool: S-spun: 36-54/cm
slit tapestry, slanted wefts and dove tailing
slits sewn with dark green wool S2Z

from the time of the Sassanid Dynasty (3rd to 7th century AD). Egypt came under Sassanid occupation for a period of one decade (619-629 AD), but trade contacts and the exchange of artistic and technical ideas had already taken place long before this period.

Taking into account the twist of the thread ("S"), typical for Egypt, the fragments presented here belonged to a fabric woven in Egypt, but most likely an imitation of a Persian textile, made of silk or wool. Depictions of ibexes, deer, antelopes and other horned animals, presented in pairs or individually, were one of the dominant motifs in Sassanid art. These motifs can be found on a variety of media, such as textiles (fig. 43), stucco, seals, as well as glass, silver and ceramic vessels. The palm tree here symbolises the mythical Tree of Life. In a Christian context, the whole composition can be linked to an image of Paradise. [M.M.-G.]

43. Textile fragment with an ibex, 6th-early 7th century AD. Wool, dovetailed-tapestry weave.
Photo: Yale University Art Gallery Public Domain





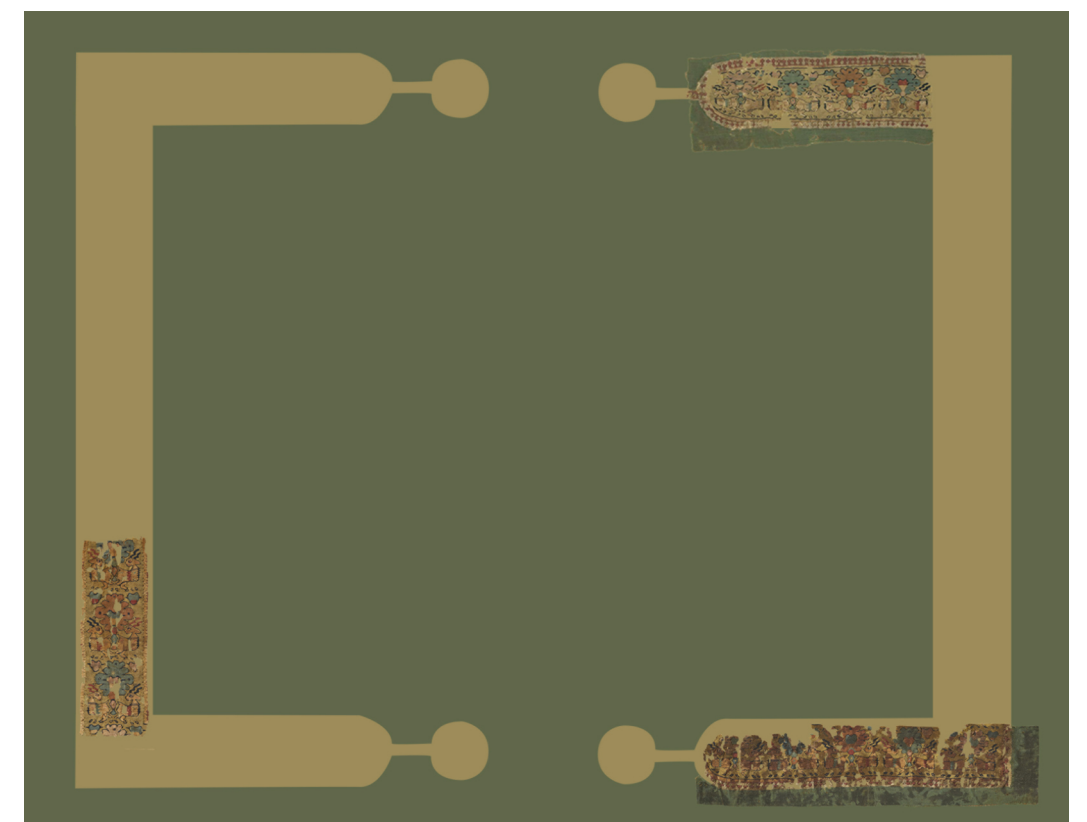
44.a (left) Catalogue no 13:
fragments of a tapestry decoration
(NMD Inv. 3671_10).
Photo: Søren Greve © NMD

45. (right) Fragments of a tapestry
decoration. Art and History Museum
in Brussels (Inv. ACO.Tx. 55).
Photo © Creative Commons CC BY-
MRAH/KMKG



44.b (top) Catalogue no 13:
fragments of a tapestry
decoration (NMD Inv. 3671_9).
Photo: Søren Greve © NMD

46. (bottom) NMD Inv. 3671_9 +
NMD Inv. 3671_10 + Inv. ACO.
Tx. 55: proposed reconstruction.
Drawing © Anne Kwaspen



STAGE II: 1932-1943

Egyptologists and antiquities dealers

1932: Textiles from the German art market

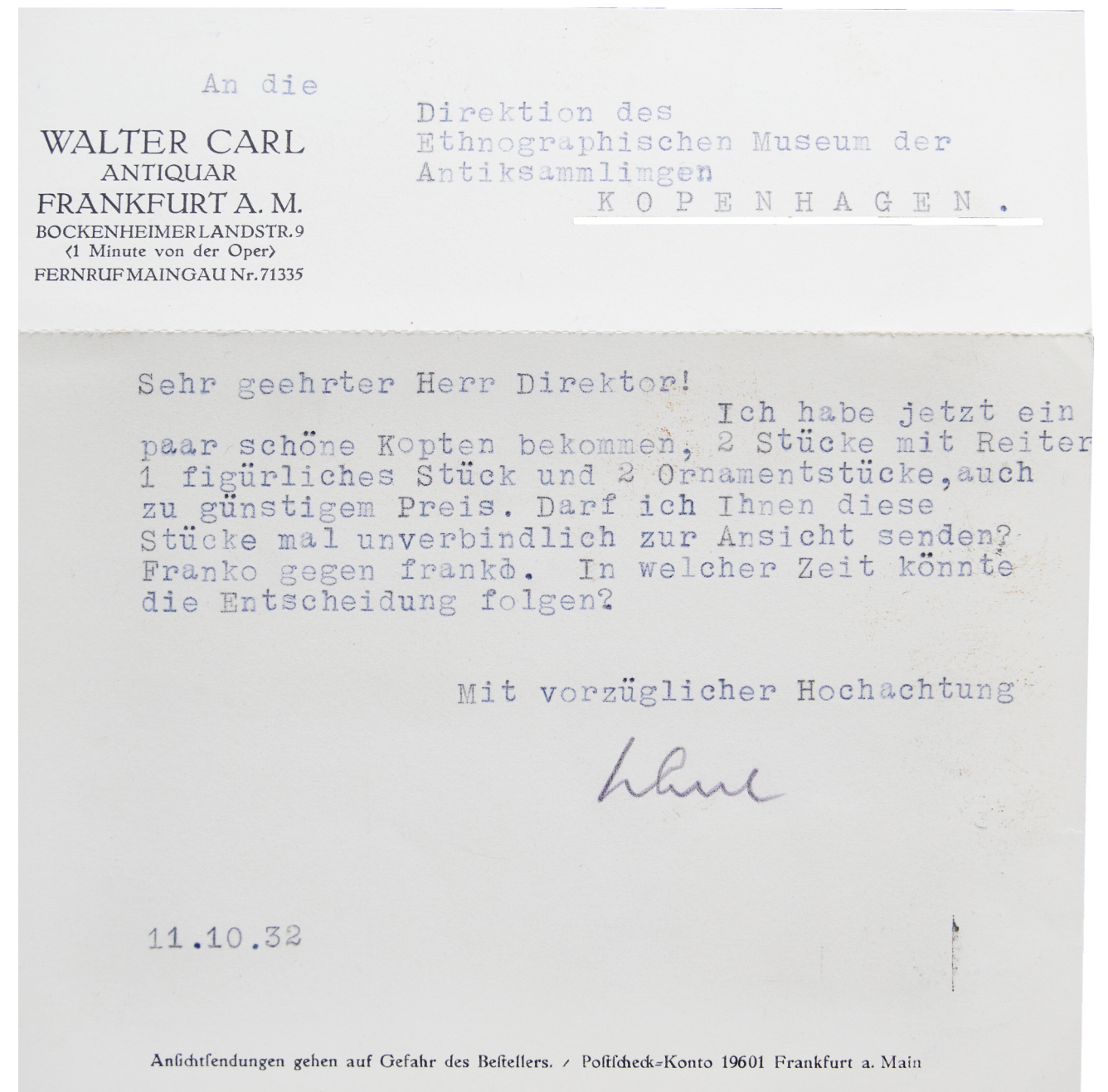
The National Museum of Denmark purchased two textile fragments from a German art dealer and collector from Frankfurt am Main, **Walter Carl** (1884-1956). Carl was in contact with the National Museum many times over the years from 1926 to 1934. Walter Carl would communicate by letters with enclosed photos of the objects in question. Sadly, these photos were almost always returned. In 1926, Carl offered a "Coptic" piece coming from **Theodor Graf - Sammlung Graf Wien** - but this was not bought, and in September 1932 he offered a "Coptic" textile decorated with an urn and grapes. This offer was also rejected.

On 11th October 1932 Walter Carl contacted the NMD again, writing that he had some new items on offer: "Ich habe jetzt ein paar schöne Kopten bekommen, 2 Stücke mit Reiter, 1 figürliches Stück und 2 Ornamentstücke", and on 25th

47. Letter from Walter Carl, dated 11th October 1932, in which he informs the museum director of five new "Coptic" fabrics for sale. Archives of the NMD.
Photo: Line Cecilie Eskerod Hansen © NMD

October he sent these five pieces for inspection. The museum requested in a letter dated 12th November to purchase textiles numbers I and IV, and asked for any information regarding the find spot and collection history. The price given by Carl was 125 Reichsmark for No. I (one of the "riders"), and 65 Reichsmark for No. IV (one of the "ornamental pieces"). These fabrics were the most expensive

two of the lot. Carl sent a reply on 12th December concerning the provenance of the pieces. He stated, apparently in contradiction to what he had said earlier on, that the textiles had been in his private collection for "many years", and that they originated from a museum collection that had been dissolved. In 1933-1934, Walter Carl offered yet more pieces, but no other fabrics were bought from him. [A.H.H.]



No. 14

NMD Inv. 9376

Fragment of a pillowcase (?)

circa 5th-6th century AD

Fragment of a linen pile weave with a richly decorated tapestry *tabula* appliqué. The tapestry is made of purple wool with some details done in yellow and orange wool, as well as in flying thread brocading technique. [A.K.]

The square panel is divided into five registers. The central, circular medallion shows a horseman, probably a hunter. A hare runs under the horse's legs. Four naked boys - *erotes* - each carrying a bird (duck?) are depicted in the four corners of the composition. The *erotes* are separated by floral motifs. Representations of horsemen accompanied by *erotes* are common on Byzantine fabrics from Egypt and often attributed to the workshops of the **Akhmim-Panopolis** region. Such themes are part of the classical tradition, but when assimilated into the Christian iconographic canon, a horseman could be interpreted as a "Holy Rider" symbolising the triumph of Good over Evil. However, the motif can also be seen as a simple hunting scene. The classification of this type of square-shaped fabric with a loop structure and a tapestry *tabula* as a pillowcase is widespread, but remains debatable. [M.M.-G.].

Publications

Buhl (1974), p. 46-48; Hedeager Krag (2021), p. 68.

Technical analysis

[A.K.]

Linen fabric

Measurements:

warp: 31.5 cm
weft: 37 cm

Ground weave:

warp: S-spun, linen, 19/cm
weft: S-spun, linen, 9/cm
every 8th weft is a pile weft

Pile:

loop over 1 warp; 5 warps
between every loop; pile weft =
2S linen; length loops = 2 cm

Applied textile

Measurements:

warp: 19.5 cm
weft: 18.5 cm

First a coarse linen weave:

warp: S-spun, linen, 11/cm
weft: S-spun, linen, 10/cm
balanced weave

Tabula:

In tapestry technique, with flying
thread brocading and vertical weft
brocading for details
warp: single warp: not to determine if
it is wool or linen:
S-spun, 12/cm
weft: wool + linen: all S-spun,
60/cm



48. Catalogue no 14: fragment of a pillowcase? (NMD Inv. 9376).
Photo: Søren Greve © NMD



1933: A Danish dealer and the British art market

Ten fragments were bought from **Florence Johansen**, former wife of captain **Peter Johansen** (1881-1948), a Danish dealer, collector and traveller. The textiles were acquired by Johansen at an auction in **London**, but so far we do not have any more information on their provenance. [A.H.H., M.G.H.]

For more about Florence and Peter Johansen as art dealers, see **Case study 6**.

No. 15

NMD Inv. 9436 + 9437 + 9438

Fragments of a *clavus* circa 5th-6th century AD

Three fragments of a woven-in purple *clavus* of a wool tunic with fringes at the hem. The decorative motifs are made in the flying thread brocading technique. Some "fake" parts are noted at Inv. 9438: the plain purple stripe is a patchwork of glued parts, most with warp in the wrong direction. It is likely that these "cosmetic" changes were made for the purposes of the auction at which these fabrics were displayed. The pattern of rosettes inscribed in the octagons seems to be inspired by the decor often seen on wool taqueté. [A.K., M.M.-G.]

Technical analysis [A.K.]

Measurements:

Inv. 9436:

warp: 10.2 cm

weft: 31 cm + 2.5 cm fringes

Inv. 9437:

warp: 7.5 cm

weft: 28 cm + 0.7 cm fringes

Inv. 9438:

warp: without fake fragments: 7.5 cm

weft: 22.5 cm

Ground weave:

warp: S-spun, undyed wool, 9/cm

weft: S-spun, undyed wool, 37/cm

weft-faced tabby

Clavus:

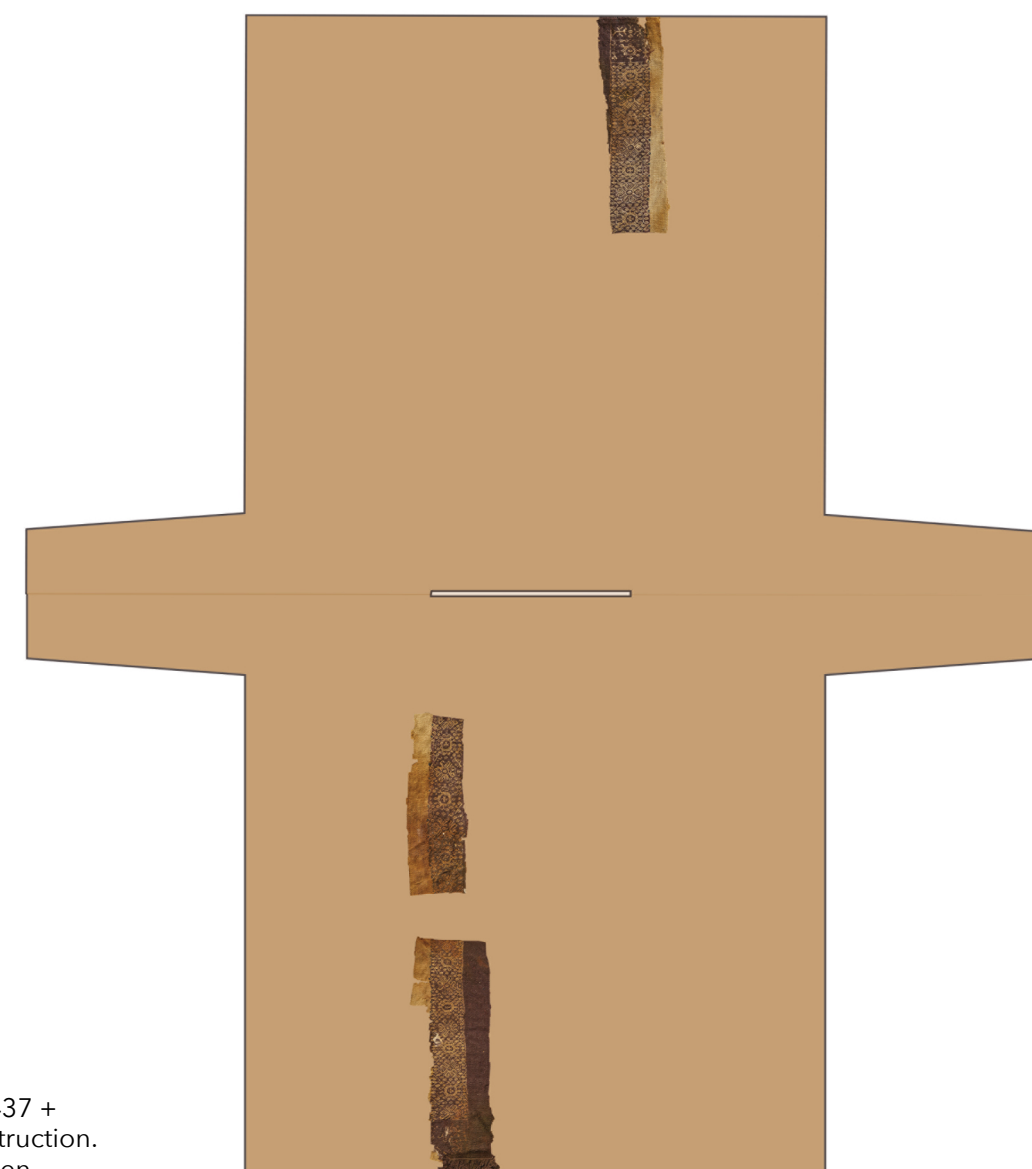
width: not complete

length: total length of tunic (not complete)

stripe of plain purple weft: S-spun purple wool, 40/cm stripe with flying thread brocading, with undyed wool S-spun

Hem:

3 selvedge units + extra weft thread S3Z to create the fringes



49. NMD Inv. 9436 + 9437 + 9438: proposed reconstruction. Drawing © Anne Kwaspen



50a,b,c Catalogue no 15:
fragments of a *clavus* (NMD
Inv. 9436 + 9437 + 9438).
Photo: Søren Greve ©
NMD



1939-1943: Danish Egyptologists and the Egyptian art market

In 1939, the Danish Egyptologist **Erik Iversen** (1909-2001), educated at the University of Copenhagen under Hans Ostenfeld Lange, gave two fabrics purchased in **Egypt** to the National Museum. No information as to the origin of the fabrics is available. [A.H.H.]

No. 16

NMD Inv. 10113

Fragment of a tunic circa 4th-5th century AD

Fragment of a wool tunic with a *clavus* preserved over the entire height of the tunic. Two selvedge units of the neck opening slit are visible. The tunic was woven in one piece. Decorative motifs on the *clavus* are made in vivid, contrasting colours: red, orange, yellow, purple and green on a blue background. A blue background is not often found on *clavi*. Decoration is composed of schematic figural motifs depicting human and animal (perhaps peacocks and gazelles) silhouettes, and stylised floral motifs. [A.K., M.M.-G.]

Technical analysis [A.K.]

Measurements:

warp: 15 cm
weft: 111 cm + 4 cm fringes

Ground weave:

warp: S-spun, undyed wool, 9/cm
weft: S-spun, undyed wool, 30/cm
weft-faced tabby

Clavus:

total length of tunic: $106 + 106 = 212$ cm
height = warp = 7.5-8 cm technique:
tapestry, dovetailing, vertical weft
brocading weft: wool, all S-spun + linen S-spun coloured wool: blue: 65/cm; purple: 52/cm; red: 36/cm

Hem:

2 selvedge units of 2 weft fringes: 4 cm, twined per loop

Tuck:

was closed, now open
width: probably 4 + 4 cm

Neck opening:

finger weaving to reinforce the neck slit corners and to finish the edges: with undyed wool S4Z countered twining at 2 cm from neck slit corners: 2x countered twining with S2Z, over 4 under 2 countered twining at 2.5 cm from neck slit corners: countered twining with 2S, over 2 under 2



51. Catalogue no 16: fragments of a tunic (NMD Inv. 10113). Photo: Søren Greve © NMD

In 1943, **Hans Ostenfeld Lange** (1863-1943), a Danish Egyptologist and Chief Librarian at the Royal Library, 1901-1924, donated two fragments of textiles to the National Museum of Denmark. These fabrics were acquired for his private collection most probably during one of his two stays in **Egypt**: 1899-1900 and 1929-1930. The textiles were part of a larger collection of Egyptian objects that Lange bequeathed to the NMD. During his time in Egypt, Lange was also instrumental in acquiring objects for Danish museums, and he played a pivotal role in the formation of the important Papyrus Carlsberg

Collection, University of Copenhagen. Lange had intimate knowledge of the dealers and agents acting in Egypt, including the **Tano** family, as demonstrated by Fredrik Hagen and Kim Ryholt (2016). Lange certainly purchased the textiles through his established network, but at the moment the source of the textiles is not known. [A.H.H.]

We do not know where and from whom these fabrics were acquired, but the theme and the way of making the decorations may suggest that they were produced in workshops of the **Akhmim** region. [M.M.-G.]

No. 17
NMD Inv. 12138

Fragment of a tunic sleeve
circa 7th-9th century AD

Fragment of a tapering sleeve with two applied tapestry bands, with motifs executed in coloured wool: red, green, yellow, blue, brown and black. The sleeve belonged to a linen tunic woven in form, in three pieces. [A.K.]

The main band (No. 2) depicts scenes from the life of the Virgin Mary. The scene in the upper right-hand corner, showing a woman kneeling before a figure with wings – surely an angel – alludes to the Annunciation that Mary will become the Mother of God. This scene, in “mirror image”, is repeated in the lower right-hand register. The central medallion shows two women in a welcoming embrace: this is the Visitation of the pregnant Mary to Elizabeth, her cousin, who was expecting John, later known as John the Baptist. Due to the poor state of preservation of the scenes in the left registers, interpretation is not obvious. [M.M.-G.]

Technical analysis
[A.K.]

Measurements:
warp 34 cm
weft 34 cm
width sleeve at hem: 16 cm
distance applied band 1 to hem: 0 cm
height of band 1: 7.5 cm
height of band 2: 14 cm

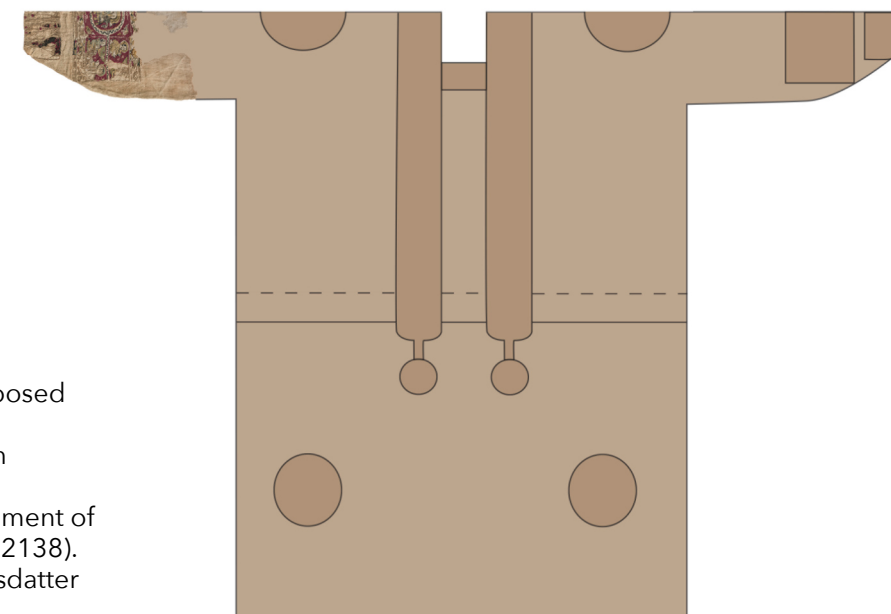
Ground weave:
warp 12-17/cm S-spun linen
weft 12-14/cm S-spun linen
balanced weave
selfbands between the two bands:
paired weft

Band 1:
warp 11/cm S2Z linen
weft wool 48/cm S-spun, wool 52/cm S-spun

Band 2:
warp: 10-11/cm S2Z linen
weft: wool all S-spun 60-65/cm + linen S-spun

Sewing yarn:
S2Z linen

Publications
Erikson (1996), p. 69-71; Al Rawi Kövari (2008), p. 120; Hedeager Krag (2021), p. 67.



52. NMD Inv. 12138: proposed reconstruction.
Drawing © Anne Kwaspen

53. Catalogue no 17: fragment of a tunic sleeve (NMD Inv. 12138).
Photo: Inger Marie Helgasdatter Mulvad © NMD



No. 18
NMD Inv. 12137

Fragment of a tunic with *clavus*
circa 7th-9th century AD

Fragment of a linen tunic with an applied *clavus* decorated in the tapestry technique using wool in different shades of blue, brown, yellow, red, ochre and green. The tunic was woven in shape in three parts: a waist tuck formed after sewing all the elements together is visible. [A.K.]

The figurative scenes depicted on the *clavus* are inspired by the New Testament. The figures are presented in a very compact way. Seven episodes are preserved, but they are not always clear. Some of these appear to depict Jesus raising the dead: the top two scenes are perhaps from the story of Jairus' daughter (Mk 5:21-24, 35-43), the fifth scene tells of the widow's son from Naim (Lk 7:11-17), and the sixth may be the raising of Lazarus (Jn 11:38-53). The last scene might show Peter raising Dorcas (Acts 9:36-37). The third scene depicts most likely Christ Pantocrator seated on a throne, while the fourth register is as yet without interpretation. The letters of the Coptic alphabet appear around the representations, but they do not form any words. [M.M.-G.]

Publications

Erikson (1996), p. 68-69; Al Rawi Kövari (2007), p. 148-149.

Technical analysis
[A.K.]

Measurements:

warp: 22.5 cm
weft: 68 cm

Ground weave:

warp: S-spun, linen, 14/cm
weft: S-spun, linen, 14/cm
balanced tabby

Finishing:

sewing yarn: linen S2Z
width of waist tuck: 5.5 cm near *clavus*

Clavus:

total length of tunic: incomplete
height = warp = 9 cm
warp: S2Z linen, 14/cm
weft: wool, all S-spun except red is Z-spun
ochre: 58/cm
red: 36/cm



54. Catalogue no 18: fragment of a tunic with *clavus* (NMD Inv. 12137).
Photo: Inger Marie Helgasdatter Mulvad © NMD

STAGE III: 1936-1937

The beginnings of research on Egyptian fabrics at the NMD

1936-1937: Margrethe Hald's "puzzles"

Sixteen, or perhaps 17 objects were transferred in 1936 to the Museum from **University College London** for in-depth analyses by expert on ancient textiles, **Margrethe Hald** (1897-1982), who was at that time an associate of the NMD. Some of these fabrics have retained the labels identifying the samples to be analysed. We have no data as to whether these studies were in the end carried out. [A.H.H., M.G.-H., M.M.-G.]

From a letter written in June 1936 by Grace M. Crowfoot's (1879-1957) to Hald, it appears that the fabrics have been "duplicated" ("cut out" or, most likely, similar fabrics have been provided to M. Hald). In addition to these 16 fabrics, a sock (**Catalogue No. 22** and **Case Study 8**) also appears to have come from London, if we understand Crowfoot's allusion in her letter correctly: "I was working again at the College [...] and found some more good pieces of the 'knitting' [...]". [M.G.-H.]

Perhaps some textiles were also sent to Hald by the **Kaiser-Friedrich-Museum** in Berlin (today Museum für Byzantinische Kunst in the Bode-Museum [MBK.]). Unfortunately, Margrethe Hald's investigations into this material were not completed. However, some of the results of her trip to Berlin were published in 1946 in an article entitled "Ancient Textile Techniques in Egypt and Scandinavia. A comparative study" (*Acta Archaeologica* XVII, p. 49-98). [C.F.]

For more about Margrethe Hald, her correspondence with Crowfoot, and her study trips to London and Berlin, see **Case Study 7**

The textiles transferred by UCL and the Kaiser-Friedrich-Museum are the only ones in the collection that almost certainly come from an archaeological context. They were most likely found during excavations by **Flinders Petrie** (1853-1942), perhaps in **Lahun** or in **Hawara**, and by **Georg Schweinfurth** (1836-1925) in **Krokodilopolis**. These archaeological sites are all located in the **Fayum Oasis**. [M.M.-G.]

55. Margrethe Hald (1897-1982), a Danish textile historian and curator at the NMD.
Photo: private archives



"Puzzles" from London

No. 19

Inv. 722/36 D

Fragment of a tunic

circa 7th-9th century AD

Fragment of a child's woollen tunic with woven-in ornaments. A part of the left sleeve with three bands, as well as the shoulder part with a *clavus* and an *orbiculus*, have survived. The tunic was woven with very narrow, open sleeves. A short *clavus* divided into three pendent terminals. Simple, geometric motifs on purple tapestries are executed with flying thread brocading and soumak techniques. An additional

stripe was woven in red wool at the side edge. Around the sleeve edges and the side edges there is a typical Egyptian stitch, in purple wool, reinforcing the armpit area.

A label is attached on the red wool stripe: "No. 1. Farve og uld prøve" ("No. 1. Colour and wool sample"), undoubtedly left by Margrethe Hald. [A.K.]

Technical analysis

[A.K.]

Measurements:

warp: 58 cm
weft: 44 cm

Ground weave:

warp: S-spun, undyed wool, 8/cm
weft: S-spun, undyed wool, 53/cm
weft-faced tabby

Sleeve:

preserved length: 19 cm
width: 9.5 cm
selvedges: 2 units of 6 warps

Sleeve bands:

3 woven-in bands: 3.6 cm, 2.8 cm and 3.9 cm
width: 5.7 cm
weft: S-spun purple wool: 40/cm
flying thread brocading and soumak in S2Z linen

Tapestry in arrow-shape:

weft: S-spun purple wool: 40/cm
flying thread brocading in S2Z linen

Clavus:

height = warp = 9.5 cm
width = weft = not complete +/- 23.3 cm + 23.3 cm = 46.6 cm
weft: S-spun purple wool: 40/cm
flying thread brocading and soumak in S2Z linen

Orbiculus:

height = warp = 13 cm
width = weft = 8.5 cm
weft: S-spun purple wool: 40/cm
flying thread brocading and soumak in S2Z linen

Neck opening:

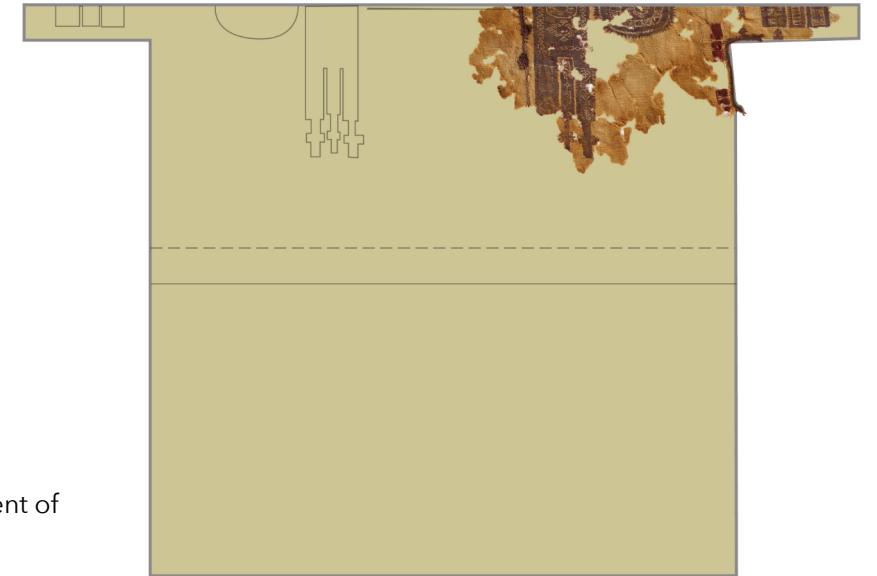
not preserved, probably woven-in neck slit; sewn on cords at neck corners

Weft twining near neck opening:

countered twining in purple wool, ending in tassels: over 4 under 2 with 3 x S3Z; countered twining with alternating undyed and purple wool: over 2 under 2 with S3Z yarns

56. NMD Inv. 722/36 D:
proposed reconstruction.
Drawing © Anne Kwaspen

57. Catalogue no 19: fragment of
a tunic (NMD Inv. 722/36 D).
Photo: Søren Greve © NMD



No. 20

Inv. 722/36 M + 722/36 N

Sleeves of a tunic

circa 5th-8th century AD

Two wool sleeves of the same tunic. It is not certain what type of tunic these sleeves belonged to: woven in one piece or in three pieces (see the reconstruction drawing). Two white stripes are woven in at the sleeve edges. A red stripe, with broché motifs

made in linen and wool, is sewn on the finishing edge of both sleeves. On the sleeve Inv. 722/36 M, one can see weft twining reinforcement between the sleeve and the tunic body.

A label by Margrethe Hald: "Prøve 6. Uld" ("Sample 6. Wool") is attached to the sleeve Inv. 722/36 N. [A.K.]

Technical analysis [A.K.]

Measurements

722/36 M:

warp: 51 cm

weft: 57.5 cm

722/36 N:

warp: 45.5 cm

weft: 30 cm

Ground weave:

warp: S-spun, yellow wool, 8/cm

weft: S-spun, yellow wool,
45/cm

weft-faced tabby

White stripes:

in S-spun, wool: 30/cm at hem of
sleeve at 0 cm and 6.5 cm from edge,
height 2.2 and 3.8 cm

Broché bands:

sewn on at finishing border

height = warp = 12.5 cm

width: = weft = 3.5 cm

warp: red wool, S2Z, 19/cm

weft: red wool, S-spun, 2S, 12 units/cm

broché: linen, 2S and green wool, 2S

Finishing:

Selvages:

3 units, of which 2 are reinforced with
extra weft

Sewing yarn:

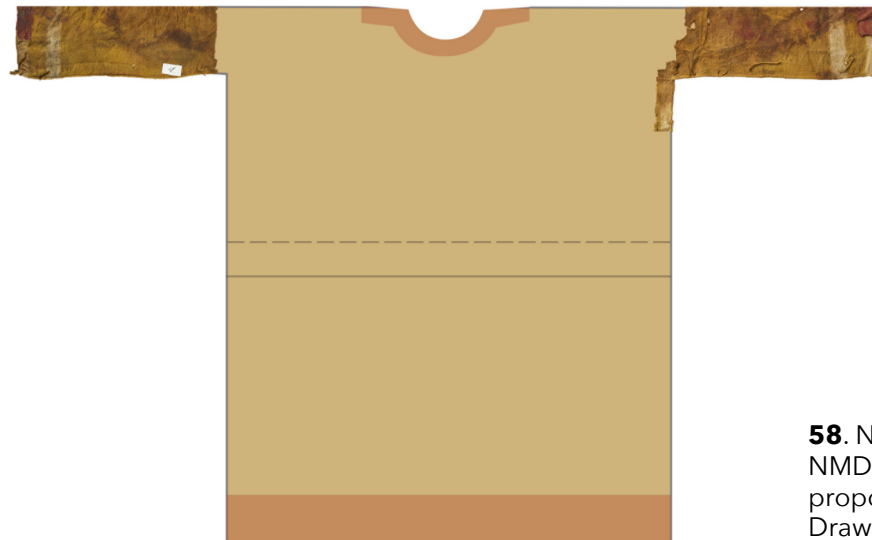
wool S3Z

Starting border at 722/36 N:

countered twining with 8S yellow wool

Finishing border at 722/36 M:

first 2x single weft twining with white
wool, next the warp worked into a
twined cord running along the edge



58. NMD Inv. 722/36 M +
NMD Inv. 722/36 N:
proposed reconstruction.
Drawing © Anne Kwaspen



59a. Catalogue no 20: sleeve of
a tunic (NMD Inv. 722/36 N).
Photo: Søren Greve © NMD

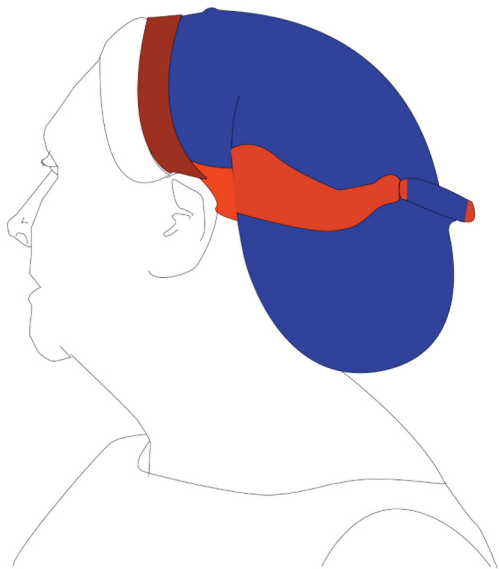
59b. Catalogue no 20: sleeve of
a tunic (NMD Inv. 722/36 M).
Photo: Søren Greve © NMD

No. 21
NMD Inv. 722/36 H

Fragment of a hairnet
Roman or Byzantine period

Fragment of a wool hairnet most likely of rectangular shape, made in "sprang" technique. The decorative pattern of dense interlinking sprang was made with brown wool with extra twining around the basic structure in yellow and red. [A.K.]

The textile made with this non-weaving technique consists only of warp. To produce a sprang item, the threads are stretched at both ends on a simple frame and then interlinked. Sprang headdresses were very fashionable in Roman and Byzantine times. [M.M.-G.]



Technical analysis
[A.K.]

Measurements:
length: 39 cm
width: 32 cm
Structure:
pattern of dense interlinking sprang
made with brown wool S2Z, with extra
twining around the basic structure in
yellow and red
Decrease of width at the top:
6 rows of 2 threads taken together,
next 6 rows of 4 threads together
double chain stitches to finish the
centre

60. NMD Inv. 722/36 H:
drawing reconstructs the way
this hairnet was worn, but is
not a reconstruction of this
particular example.
Drawing © Anne Kwaspen

61. (opposite page) Catalogue
no 21: fragment of a hairnet
(NMD Inv. 722/36 H).
Photo: Søren Greve © NMD



No. 22

NMD Inv. Unr_y

Sock

circa 3rd-4th century

Wool sock made using the S-crossed cross-knit looping variant of nalbinding. It has a split toe for wearing with thong sandals and is for the right foot. A label has been sewn on inside the heel, "Prøve 11. Uld" ("Sample 11. Wool"), most likely by Margrethe Hald. [A.-M.D.]

For more about this sock, see **Case study 8**.

Technical analysis

[A.-M.D.]

Measurements:

circa 21 cm long; 8.6 cm high

Yarn:

three strand Z-spun, S-Ply wool

Gauge:

4 stitches/1 cm by 5 rows/1 cm

"Puzzles" from Berlin?

No. 23

NMD Inv. Unr_i

Technical analysis

[A.K.]

Measurements:

warp: 27 cm

weft: 111 cm

Ground weave:

warp: S-spun, undyed wool, 11-15/cm

weft: S-spun, undyed wool, 30/cm

weft-faced tabby

Starting border:

braid 3 x 2(S2Z), next a countered twining in alternating red and yellow 3S wool: over 2, under 2 followed by a red wool stripe of 0.4 cm

Bands and stripes:

all S-spun, 40/cm

Selvedge:

2 units of 6 dark brown wool warp threads

Fragment of a shawl or blanket

circa 4th-8th century AD

Wool cloth, probably part of a shawl or blanket, with woven-in plain coloured bands. The main motif, woven at 5 cm from the starting border, is composed of two red bands between which runs a black one. The bands are separated by yellow, green, white and blue stripes, and the entire composition is contained within blue stripes. A narrow, striped pattern is also visible near the starting border. [A.K.]

This fabric has a lot of similarities with some fragments currently in the Museum für Byzantinische Kunst in the Bode-Museum, Berlin and the Museum für Kunst und Gewerbe in Hamburg. While not cut from the same fabrics, they may have been woven in the same workshop. [C.F.]

For more about this topic, see **Case Study 7**.

62. Catalogue no 22: sock
(NMD Inv. Unr_y).
Photo: Søren Greve © NMD



63. Catalogue no 23:
fragment of a shawl or
blanket (NMD Inv. Unr_i).
Photo: Søren Greve © NMD



No. 24
NMD Inv. Unr_d

Fragment of a shawl or blanket
circa 4th-8th century

Fragment of a wool weave, probably from a shawl or blanket, decorated with two woven-in plain coloured bands. Both bands are red, but the wider one is bordered with black stripes. The narrow band is located immediately adjacent to the edge and to short fringes. [A.K.]

It is possible that this fabric comes from the same workshop as one of the textile fragments from the Museum für Byzantinische Kunst in the Bode-Museum, Berlin. [C.F.]

For more about this topic, see **Case Study 7**

64. Catalogue no 24:
fragment of a shawl or
blanket (NMD Inv. Unr_d).
Photo: Søren Greve © NMD



Technical analysis
[A.K.]

Measurements:
warp: 12 cm
weft: 31.5 cm
Ground weave:
warp: S-spun, undyed wool, 12/cm
weft: S-spun, undyed wool, 29/cm
weft-faced tabby
Coloured bands:
wide band
height 4.5 cm
narrow band
height 0.5 cm
Finishing:
finishing border with first weft
twining over 2, under 2 with 2S wool,
next: warp fringes of 0.5 cm length. An
extra thread is wrapped around the
fringes

STAGE IV: 1951-1964

Enlargement of the
iconographic repertoire of the
collection

**1951: A Czech dealer, a Danish
ethnographer, and the Egyptian art
market**

The museum purchased one fabric from a Czech collector and dealer **František Zapletal** a.k.a. **Mehdi Ben Zapletal** (? - 1969). He maintained contacts with dealers from all over Europe and the Mediterranean Basin. Zapletal supplied objects, mainly classical antiquities to the National Museum in Prague, but also to the National Museum in Copenhagen and other European collections. In addition, as a convert to Islam, in the 1930s and 1940s Zapletal was a member of the Muslim community council in Czechoslovakia. After the Second World War, perhaps in 1951, he left Czechoslovakia and moved to Paris. Currently we do not have any information about the origins of the textile bought by NMD from Zapletal. [A.H.H., M.M.-G.]



No. 25
NMD Inv. 13172

Orbiculus
circa 4th-5th century AD

A woven-in *orbiculus* made in the tapestry technique from multi-coloured wool. It is most likely cut from a linen tunic. [A.K.]

The *orbiculus* depicts a bird, perhaps a quail, sitting on the branch of a tree or bush with flowers in bloom. The bird motif, often appearing on textiles, especially from the 4th and 5th centuries, was also common on Roman mosaics. The only example of such a mosaic from Egypt is found at Kom el-Dikka in Alexandria. Nine panels are decorated with images of birds: parrot, swamphen, quail, peacock, a pair of pigeons, duck and water hen; two panels are not preserved. The composition was found in what was probably a bedroom (*cubiculum*) of a villa built in the 2nd century AD. [M.M.-G.]

Technical analysis [A.K.]

Measurements:

warp: 13 cm
weft: 14 cm

Ground weave:

warp: S-spun, linen, 25/cm
weft: S-spun, linen, 15/cm
warp-faced tabby

Orbiculus:

warp: alternately rearranged per 2 and 3, 8 units/cm
weft: yellow and red, S-spun; purple, blue, lemon, pink, Z-spun + linen S-spun
purple wool: 80/cm
linen: 55/cm

Publications

Egypt and Western Asia (1968), p. 39;
Hedeager Krag (2021), p. 68.

65. "Birds mosaic" from Kom el-Dikka, Alexandria, 2nd century AD. Panel with the image of a quail.
Photo: Waldemar Jerke © Polish Centre of Mediterranean Archaeology of the University of Warsaw

66. Catalogue no 25: *orbiculus* (NMD Inv. 13172).
Photo: Søren Greve © NMD



No. 26
NMD Inv. 13255

Tapestry fragment
circa 6th–8th century AD

This piece of tapestry may come from a *clavus* or tunic sleeve band decoration. It was woven separately and later sewn on. It is decorated with representations of stylised vegetal motifs, arranged in the shape of hearts and candelabra. [A.K., M.M.-G.]

Technical analysis
[A.K.]

Measurements:
warp: 6 cm
weft: 19 cm
Tapestry:
warp: S2Z linen, 9/cm
weft: S-spun red wool, S-spun linen:
60/cm
technique: slanted wefts, slits

69. Catalogue no 26: tapestry
fragment (NMD Inv. 13255).
Photo: Søren Greve © NMD

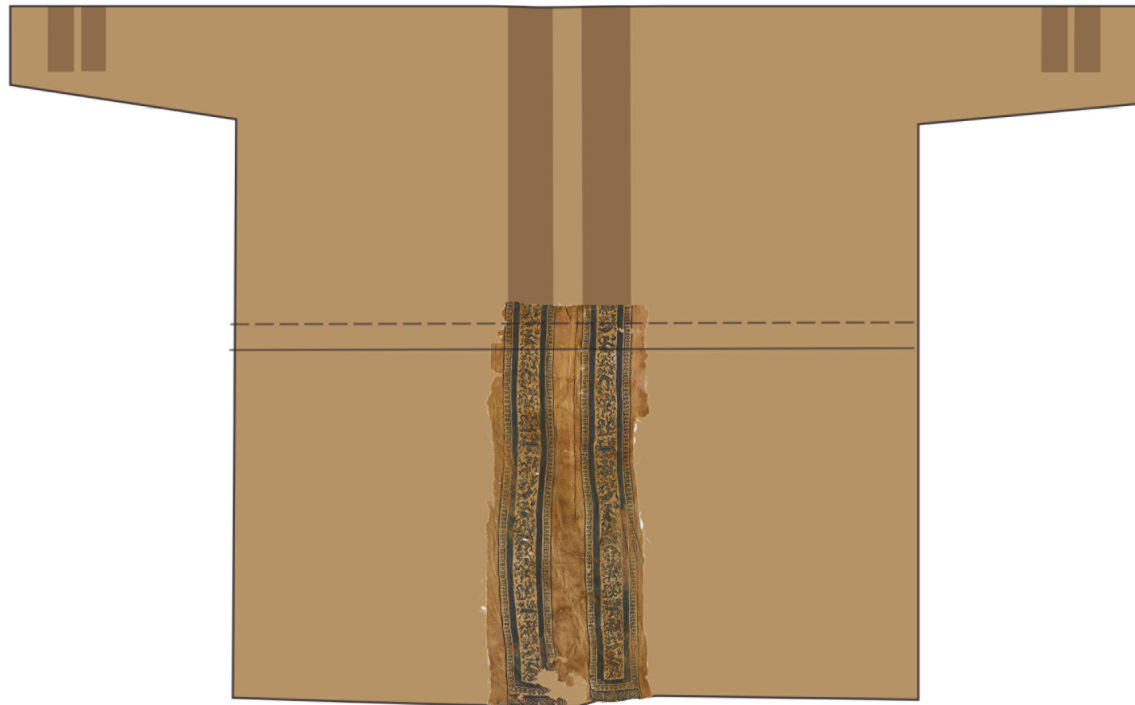


1962: A textile from the French art market

One of the fabrics was purchased in Paris, undoubtedly from a dealer, by **Thorkild Ramskou** (1915-1985), at that time a curator at the NMD. An archaeologist and specialist in the Viking Age, he was also secretary of the Royal Nordic Society of Antiquaries (1963-1972). [A.H.H.]

In the second half of the 20th century **Paris** remained one of the leading European and world antiquarian markets, with no shortage of objects from Egypt. In 1962 the "French Antiques Fair", held annually since 1956 in the capital, changed its format

to become more international with a much wider scope, and was renamed the "**Biennale des Antiquaires**", also known simply as the "**Paris Biennale**", to be held every two years in the Grand Palais. It is possible that it was during this first Biennale that Ramskou bought the Egyptian fabric for the National Museum. He might also have purchased it directly from one of the Parisian dealers and collectors, but recent contacts with antiquarians operating in Paris or related to the French market in the 1960s, such as the Kevorkian Gallery and Khawam Brothers, have unfortunately not yet resulted in the identification of this fabric. [M.M.-G.]



71. NMD Inv. 14514: proposed reconstruction.
Drawing © Anne Kwaspen



70. Catalogue no 27:
fragment of a tunic (NMD
Inv. 14514).
Photo: Søren Greve © NMD

No. 27
NMD Inv. 14514

Fragment of a tunic
circa 5th-7th century AD

Fragment of a wool tunic woven in one piece, with two woven-in *clavi* relatively close to each other. This arrangement of *clavi* is very rare. The motifs in tapestry technique are made of purple wool on an undyed wool background. The *clavi* are patterned with numerous small figures of horsemen and animals, most likely hunting scenes. A contrasting border filled with geometric motifs surrounds the entire composition. [A.K., M.M.-G.]

Technical analysis [A.K.]

Measurements:

warp: 36 cm
weft: 91 cm

Ground weave:

warp: S-spun, undyed wool, 8/cm
weft: S-spun, undyed wool, 25/cm
weft-faced tabby

Clavus:

total length of tunic: incomplete
height = warp = 11.3 cm
technique: tapestry, details in flying
thread brocading and vertical weft
brocading in S and 2S wool
weft: undyed and black, all S-spun
black: 38/cm
undyed: 62/cm

1964: The last textile, a return to the Scandinavian art market

The last fabric from late antique Egypt was acquired by the National Museum in 1964. It was purchased in **Stockholm**, from **Tove Alm** (1912-1979), a Swedish collector and amateur archaeologist. She started collecting when she went to Egypt in

the 1930s as a nurse. Some five hundred fragments of fabrics originally belonging to Tove Alm can be now found in various collections and museums in Sweden, Denmark, Norway, Germany, Austria, Italy and Spain. [A.H.H., M.M.-G.]

No. 28
NMD Inv. 14755

Fragment of a tunic sleeve
circa 5th-7th century AD

Fragment of the sleeve of a wool tunic, decorated with two woven-in bands made in the tapestry technique. Details of some motifs are made in flying thread brocading and vertical weft brocading technique. The pattern of purple wool on an undyed wool background depicts small, schematic figures of four-legged animals and birds. [A.K., M.M.-G.]

Technical analysis
[A.K.]

Measurements:
warp: 26 cm
weft: 32.5 cm
Ground weave:
warp: S-spun, brown wool, 8/cm
weft: S-spun, brown wool, 25/cm
weft-faced tabby
Tapestry bands:
width: 25 cm
height: 8 and 8 cm
weft: purple and undyed wool: 32/cm
+ linen for flying thread
Finishing:
hem is not preserved
3 selvedge units

72. Catalogue no 28: fragment of a tunic sleeve (NMD Inv. 14755).
Photo: Søren Greve © NMD



Examples of fabrics of unestablished provenance

No. 29

NMD Inv. Unr_c

Fragment of a tunic

circa 8th-9th century AD

Fragment of a child's woollen tunic with short sleeves cut to shape. The neck opening is horizontal at the back, rounded at the front. The edges of the neck opening and the sleeves are decorated with embroidery stitches in blue, yellow, green and red wool. [A.K.]



Technical analysis [A.K.]

Measurements:

warp: 12 cm
weft: 41 cm

Ground weave:

warp: S-spun, undyed wool, 12/cm
weft: S-spun, undyed wool, 16/cm
weft-faced tabby, almost
balanced tabby

Arm opening:

circumference: 18 cm
edge is folded towards the inside and
finished with embroidery stitches, all
S3Z

Neck opening:

edge is folded towards the inside and
finished with embroidery stitches, all
S3Z + reinforced with Egyptian
reinforcement stitch all along the edge
in brown wool S3Z

Side seam:

cut to shape: run-and-fell seam with
red and blue wool S3Z



No. 30

NMD Inv. Unr_z

Fragment of a knotted net

Date undetermined

Knotting is a non-woven technique practiced in Egypt as early as the Neolithic Period for making fishing nets. In fact, the same technique was also used during the Pharaonic period and later to make items of clothing, such as hairnets or skirts and dresses from decorative beads attached to a net of linen threads. [M.M.-G.]

Technical analysis [A.K.]

Measurements:

24 cm x 9 cm

Used cord:

linen S5Z or S6Z



73. (opposite page, top) NMD
Inv. Unr_c: proposed
reconstruction.
Drawing © Anne Kwaspen

74. (opposite page, bottom)
Catalogue no 29: fragment of a
tunic (NMD Inv. Unr_c).
Photo: Søren Greve © NMD

75. Catalogue no 30: fragment of
a knotted net (NMD Inv. Unr_z).
Photo: Søren Greve © NMD

Map of Egypt

The map shows the sites where fabrics currently held in the NMD were possibly found or purchased.



76. Drawing © Szymon Maślak. Adaptation of the map: Maria Mossakowska-Gaubert.

2nd edition - 2023
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