

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



# ARCHAEOLOGICAL PUZZLES IN A MUSEUM

ARKOLOGISKE PUSLESPI  
PÅ MUSEUMET

**Egyptiske tekstiler fra det 1. årtusinde e.Kr.  
På Nationalmuseet  
(Onlineudstilling)**



Figures used for the borders:

Introduction & Cover:

Catalogue no. 3: Fragment of a tapestry decoration

Catalogue:

Catalogue no. 16: Fragment of a tunic

Case study 1:

Catalogue no. 4: Fragment of a cotton cloth

Case study 2:

Catalogue no. 11: Fragment of a tapestry band

Case study 3:

Catalogue no. 7: Fragment of tapestry decoration

Case study 4:

Catalogue no. 8: Taqueté fabric

Case study 5:

Catalogue no. 9: Silk fragment with lion

Case study 6:

Catalogue no. 15: Fragments of a calves

Case study 7:

Catalogue no. 21: Fragment of a hairnet

Case study 8:

Catalogue no. 22: Sock

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Website in English

<https://en.natmus.dk>

Hjemmeside på Dansk

<https://natmus.dk>



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2<sup>nd</sup> edition - 2023

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## Making an exhibition

This presentation is the result of a collective work within the research project entitled RECONTEXT "Reconstructing the history of Egyptian textiles from the 1st Millennium AD at the National Museum of Denmark". The project was funded by two Danish foundations: Aage og Johanne Louis-Hansens Fond and Beckett-Fonden, and led in 2021-2022 by Dr Maria Mossakowska-Gaubert. Hosted by the Centre for Textile Research (CTR), Saxo Institute, University of Copenhagen, RECONTEXT was conducted in close collaboration with the National Museum.





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## Museums, collections and archives involved in the exhibition:

The institutions listed below kindly provided and agreed to the publishing of photographs of objects within their collections to be used in the exhibition as comparative material.

- Ägyptisches Museum und Papyrussammlung, Berlin
- Badisches Landesmuseum, Karlsruhe
- Centrum Archeologii Śródziennomorskiej Uniwersytetu Warszawskiego [Polish Centre of Mediterranean Archaeology, University of Warsaw]
- Kunstsammlungen, Chemnitz
- Landesmuseum Württemberg, Stuttgart
- Musée Archéologique, Strasbourg
- Musée Art & Histoire / Museum Kunst & Geschiedenis, Brussels
- Musée des Tissus et des Arts Décoratifs, Lyon
- Muzeum Narodowe w Warszawie [National Museum of Warsaw]

- Muzeum Narodowe w Gdańsku [National Museum of Gdańsk]
- Muzeum Uniwersytetu Jagiellońskiego [Jagiellonian University Museum], Cracow
- Museumssenteret i Hordaland (MUHO) [Natural and Cultural Heritage Museums], Bergen
- Narodni Muzej Slovenije [National Museum of Slovenia], Ljubljana
- Nasjonalmuseet [National Museum], Oslo
- The Petrie Museum of Egyptian Archaeology, London
- The Phoebus Foundation, Antwerp
- Rigsarkivet [Danish National Archives], Copenhagen
- Römisch-Germanisches Zentralmuseum, Mainz
- Skulpturensammlung und Museum für Byzantinische Kunst, Berlin
- Victoria and Albert Museum, London

## Open access documents and iconographic material used in the exhibition sourced from:

- British Museum, London
- British Newspaper Archive
- Kraks Vejviser
- Mediesteam [Danish Royal Library's digital media collection]
- Metropolitan Museum of Arts, New York
- National Digital Newspaper Program's Chronicling America.
- Princeton University Libraries Digital Maps & Geospacial Data
- Samling af Anmeldelser til Handelsregistre [Collections of Announcements for the Trade Registers]
- Yale University Art Gallery





## Introduction

The Collection of Classical and Near Eastern Antiquities at the National Museum of Denmark (NMD) holds 112 textile fragments from Roman, Byzantine, and Early Medieval Arab Egypt, comprising the richest ensemble in Denmark. The research value of these fabrics lies in the diversity of technique and raw material, the variety of object types, and the richness of their iconography. Moreover, the history of this collection is an excellent example of how European museums acquired textiles from Egypt. The highlights of the collection are fragments identified as parts of tunics of various kinds.

The aim of the online exhibition "Archaeological Puzzles in a Museum" is to give an insight into the history of the collection and the textiles therein. It is also an opportunity to present some of the problems a researcher encounters when trying to "reconstruct" this history, and these issues apply not only to the Egyptian textiles at the National Museum of Denmark, but also to the vast majority of museums worldwide with collections of ancient fabrics. The methods used in this type of research have much in common with putting together a jigsaw puzzle from different boxes, with mixed up elements from various images, and always with pieces missing. Thanks to the interaction of specialists from various fields, we can present the history of the collection and its objects as seen from different perspectives. However, this is not a definitive history; research on some aspects will continue and new data will certainly emerge.

Dr Maria Mossakowska-Gaubert  
September 2022

## How to visit the exhibition [M.M.-G.]

The exhibition consists of three parts. The introduction includes general information on what a collection of Egyptian textiles is, how it is created, and the methods of reconstructing its history and the objects that form it. The catalogue presents 30 selected fabrics, arranged according to the four stages of the collection's history. This section also contains detailed information on how and from whom the various objects were acquired. The given dating of the objects in the Catalogue is approximate and is based mainly on stylistic criteria.

For the visitor who wishes to go deeper into various topics, we have prepared eight case studies which will allow you to see some of the documents (notably the correspondence between dealers and the museum, and a dealer's notebook), to get to know an extraordinary woman who was the pioneer of ancient textile studies in Denmark, and to gain an insight into the activities of a collector and dealer operating in the 1920s and 1930s in the Scandinavian art market. These case studies also provide an opportunity to discover the significance of the raw material used for the fabric in the investigation of the dating and the provenance of textiles. In addition, three exceptional objects are presented in an in-depth manner.

To make reading easier, bibliographical references have been kept to a minimum, and the reader can find a selected bibliography at the end of the catalogue. For explanations of technical vocabulary used in the text, such as "soumak", "tabby weave", "tapestry", "taqueté", etc., you can consult the multilingual lexicon

developed by the *Centre International d'Étude des Textiles Anciens* in Lyon (CIETA), which is available, [here](#), through open access.

Most of the fabrics shown are characteristic elements of tunic decoration or fragments thereof, such as *clavus*, *orbiculus*, *tabula* etc. To make it easier to situate these elements, they are marked on the schematic drawing presented below (see fig. 12).



## Building a textile collection

**Why are so many fabrics from Egypt in museums around the world?**  
[M.M.-G.]

**Egyptian textile preservation: climate and geography**

Climate and geography are the main reasons why the largest number of ancient textiles from the entire Mediterranean region preserved to the present day originate from Egypt. The dry, hot climate and the sands of the desert are ideal conditions for preserving organic fibres: flax, cotton, wool, silk. However, these conditions do not prevail throughout Egypt; the Nile Delta region, humid and with a huge floodplain, has left us almost no woven artefacts.

**Archaeological textiles: chronological diversity**

Egyptian textiles from different historical periods are held in collections all over the world. They include textiles from the Pharaonic Period (circa 3100 BC - 332 BC), from the era after Egypt was conquered by Alexander the Great and then ruled by the Graeco-Macedonian Ptolemaic Dynasty (332 BC - 30 BC), from the time when it was part of the Roman Empire (30 BC - 395 AD), then the Eastern Roman Empire, so-called Byzantium (395 - 641 AD), from a short but important period for textile history of Persian occupation (619 - 628 AD), and finally when the country became part of the Arab Muslim world (since 641 AD).

Among the surviving textiles, however, there are large chronological differences and disparities. This situation is obviously related to the lapse of time, but probably also to the

fact that the vast majority of textiles come from burials. The differences in burial practices evidenced in the various epochs of Egyptian history – mummification, cremation, burial of the body without additional procedures – are reflected in the form and quantity of textiles found. Textiles are less frequently found in other archaeological contexts such as settlements, cult buildings or simply rubbish deposits. Thus, textiles from the Pharaonic and Ptolemaic periods are mainly mummy wrappings and funerary shrouds. The more substantial finds from Early Roman period are rags deriving from the rubbish heaps of quarries, forts, ports and other places. Finds dating to the Late Roman, Byzantine and later eras primarily come from funerary contexts and consist of items of clothing, shrouds, soft furnishings, and other textiles. The textiles from this era are much more complete and abundant compared to findings from earlier periods.

The burial of the dead dressed in their clothes, without any additional treatment to the body, should be linked to the spread of Christianity in the Nile Valley, which occurred particularly rapidly in the 3rd and 4th centuries AD to become the dominant religion of Egypt. The destruction of the Serapeum and the Great Library in Alexandria in 391 AD on the initiative of the Bishop Theophilus, and the official closure of the Temple of Isis on the island of Philae in 537 AD, can be considered two key events marking the final stage in the process of cultural and religious transformation of Egyptian society, which also coincided with political changes.

**“Coptic” textiles?**

At this point it is worth mentioning that

the terms “Coptic Period” and the related “Coptic textiles” often appear together, especially in older scholarly literature. The very word “Coptic” is derived from the Greek “Aigýptios”, which is an adjective meaning simply “Egyptian”. The term “Aigýptios” was adapted into Arabic as *qibṭ*, and under Arab rule *qibṭ* became a denomination for the indigenous Egyptian Christians and their culture. Modern European languages adopted the word “Copt” to describe Egyptian Christians via the Latin *Cophṭus* – *Coptus*, a term used by travellers visiting Egypt in 16th-17th centuries. From the 17th century onwards, scholars studying Egypt began to use this term to designate Egyptian Christians, their religion and all other aspects of their culture and identity.

Regarding the history of the word “copt”, more information can be found in the work of Christian Cannuyer (1996)

Therefore, it is difficult to speak about a “Coptic Period” in the history of Egypt: it is not obvious when it should begin and when it ends. It is equally imprecise to use the adjective “Coptic” in the field of art or material culture: one does not know who made an object of art or of everyday life, and with the exception of iconography with explicit Christian symbolism, other motifs were not necessarily perceived by the creator or recipient as emanating from Christian culture, and were often certainly not perceived as such. These terms lead to many misunderstandings, both historically and culturally, and to avoid them it seems more appropriate to use strictly historical vocabulary, such as “Byzantine Period” and “Medieval Arab Period”, and consequently, “Egyptian art from the Byzantine Period”, or

“Christian art (if one is sure of the meaning) from Medieval Arab Egypt”.

**Egyptology, Egyptomania, and Egyptian textiles**

The fascination of Europeans with Egypt over the centuries was fuelled by the stories of the Bible, as well as by artefacts brought back by travellers, including crusaders, pilgrims, and merchants, who would explore the area and return with accounts of these expeditions. In 1822 Jean-François Champollion (1790-1832) managed to read the hieroglyphic script using, among other sources, the so-called Rosetta Stone, a stela bearing a decree from 196 BC by King Ptolemy V, written in hieroglyphic, demotic and Greek script. This stela was discovered in 1799 by the French expedition to Egypt led by Napoleon Bonaparte. The decryption of ancient Egyptian writing laid the foundations for a new scientific discipline: Egyptology. However, post-Pharaonic Egypt did not arouse as much emotion as the pyramids, tombs, temples and the hieroglyphic texts engraved or painted on their walls, or written on papyrus scrolls. At that time only Alexandria, the capital of Ptolemaic, Roman and Byzantine Egypt, with its Great Library, and famous mathematicians, geographers, philosophers, theologians and other scholars, figured in the general consciousness of European elites as a symbol of the highest level of scientific, artistic and literary development in the ancient world.

The 19th century witnessed a great interest among the scientific community for the study of the history, culture and art of Egypt. Within this context artefacts, not only of the Pharaonic period, became desirable objects for the development of



scientific research, and also as collectable items both for museums and private individuals. Moreover, a certain "Egyptomania" arose in Europe and North America, exciting a taste for Egyptian objects and their copies, as well as works inspired by Egyptian art and architecture.

Most items of small size, including textiles, were excavated *en masse* from ancient graves by peasants, local traders, European dealers, either personally or with the help of local agents, and by representatives of museums or private collectors. Throughout the 19th century, "consular agents" were also very active, supplying antiquities to the countries they represented. They had a status that gave them diplomatic immunity, although very often they had no real ties to the country they represented. The end result was that antiquities were exported from Egypt by collectors, dealers, tourists, diplomats etc. almost without any control.

From the 1850s the first more or less methodical archaeological excavations began in Egypt, at that time primarily conducted by French and English archaeologists and Egyptologists. However, this did not prevent many monuments from being stolen by excavation workers and then sold on the antiquities market. This is also the period in which the custom of sharing finds from excavations was established. So, for example, half of the objects found by Auguste Mariette (1821-1881) in Saqqara, where he excavated from 1850 to 1854, went to the Louvre, while the other half remained in Egypt and later became part of the collections of the Egyptian Museum in Cairo. New standards in excavation techniques and elaborate methods of documenting

archaeological material, especially ceramics, were introduced into Egyptian archaeology by a British Egyptologist, William Matthew Flinders Petrie (1853-1942), who, starting in 1884, excavated numerous sites all over Egypt and Palestine.

As far as the antiquities trade is concerned, the first antiquities shop in Egypt was opened in 1862 in Cairo by Selim Khawam. In 1888 the Egyptian Antiquities Service established a "sales room" in the Egyptian Museum, stocked with materials acquired throughout Egypt by local inspectors. In 1912, on the initiative of the French Egyptologist Gaston Maspero (1846-1916), at that time Director General of the Egyptian Antiquities Service, Ismail Sirry Pasha, Minister of Public Works, promulgated a law regulating the sale and export of Egyptian antiquities. From then on, all dealers had to have official licenses issued by the Antiquities Service, and items exported outside Egypt had to have the appropriate certification. Further regulations and legal restrictions on the antiquities trade promulgated by Egyptian authorities appeared in 1951 and then in 1979, but it was not until 1983 that taking antiquities out of Egypt was completely banned under the Egyptian Law on the Protection of Antiquities, known as Law No. 117.

On the topic of Egyptology and Egyptomania, as well as the antiquities trade in Egypt, see works by Frederik Hagen and Kim Ryholt (2016) and Donald Malcolm Reid (2019)

### Egyptian antiquities throughout the history of the National Museum of Denmark [A.H.H.]

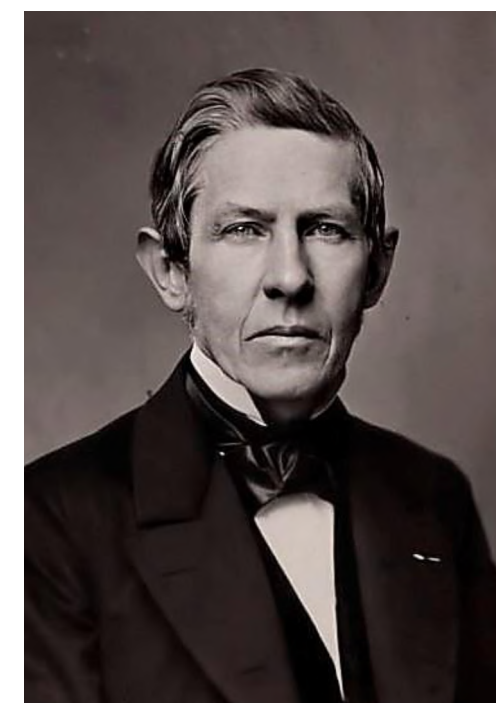
The National Museum of Denmark acquired its current name in 1892, but its history and formation stretches back into the 17th century and the Royal Danish Kunstkammer at Copenhagen Castle. The collections of the Kunstkammer were universal in scope and also held a few objects from Ancient Egypt. Equally important for the history of the National Museum was *Den Kongelige Commission til Oldsagers Opbevaring* (Royal Danish Commission for the Preservation of Antiquities), which aimed at the collecting, registration and preservation of the nation's historical monuments and objects. It was founded in 1807 and soon developed into a public museum with Christian Jürgensen Thomsen (1788-1865) as a driving force. Thomsen is best known today for introducing the three-age system, a ground-breaking method for dating prehistoric artefacts.

In 1845, Thomsen opened a new Ethnographic Museum, based on objects from the former Kunstkammer: the chosen location was Prinsens Palæ, the present seat of the National Museum. In 1851, the *Antik-Cabinet*, or Collection of Antiquities followed suit. Finally, in 1854, the Danish prehistoric collection was also installed here. Each of these collections were carefully systematised and curated by Thomsen himself. He believed that these collections were collectively important for the understanding of the development of mankind. As an example of this, Thomsen would encourage the comparative study of stone tools, not only from Scandinavian prehistory, but also from cultures, old and new, around the

world.

In 1866, the year after Thomsen died, Ludvig Müller (1809-1891), was appointed head of the Collection of Antiquities (fig. 1). At that time the number of Egyptian antiquities had grown significantly, primarily due to diplomats and traders who were active in Cairo and Alexandria. In 1851 the Collection of Antiquities was greatly enriched by the addition of a large collection of Greek and Italic vases, formerly the property of King Christian VIII.

At the end of the 19th century the Collection of Antiquities had grown into a rich and diverse ensemble, which was able to demonstrate the



1. Ludvig Müller (1809-1891), a Danish numismatist and archaeologist, was head of the Royal Collection of Coins and Medals, from 1865, and also director, from 1866 until his death, of the Collection of Antiquities in the Royal Museum of Fine Arts in Copenhagen. Photo © Danish Royal Library



material history of the cultures of the Ancient Mediterranean, with an emphasis on the Classical cultures of Greece and Rome. During the second half of the 19th century and into the early 20th century most additions to the collections were as a result of private donations or purchases. The donations typically came from Danish diplomats, scholars, artists or architects. The purchases were in some cases conducted by museum staff or colleagues who would actively seek out auctions or dealers, predominantly in Europe, while in other cases collectors or dealers would present their lots to the museum at their own initiative.

The formation of the late antique textiles collection at the National Museum followed this pattern quite closely. Based on the evidence found in the correspondence and other archival material, there was no intention to systematically build a large and focused collection of late antique textiles. On the contrary, the collection expanded in a more "coincidental" fashion, with the exception of the Margrethe Hald acquisitions. Late antique textiles were most likely viewed as a material which could, on the one hand, elucidate the transition from Pharaonic Egypt to the Classical world, and on the other, as valuable comparative material alongside pieces from Danish prehistory and the ethnographical collections.

#### **Collecting Egyptian textiles [M.M.-G.]**

Four stages in the construction of the National Museum collection of Egyptian textiles can be distinguished. Its beginnings were connected to the thriving art market of the late 19th century (56 fragments). The fabrics

were purchased at this stage from dealers and collectors, such as Theodor Graf, Ahmed Mustafa and Robert Forrer. Then, in the 1930s and 1940s, textiles were acquired in smaller quantities from dealers (12 fragments), Walter Carl and Peter Johansen, as well as by donation and through wills (4 fragments) made by two Egyptologists, Erik Iversen and Hans Ostenfeld Lange. Again, in the 1930s, 16 or perhaps 17 objects were transferred to the NMD by University College London, and most likely some others by the Kaiser-Friedrich-Museum in Berlin (perhaps two or three fragments) for analysis by a textile expert, Margrethe Hald. The last acquired fabrics (six fragments) in the 1950s and 1960s came from the Egyptian and European art market. To date, the source of origin of 15 fragments from the NMD has not been established.

#### **Exhibiting Egyptian textiles [A.H.H.]**

The textiles from Theodor Graf were some of the first late antique textiles to arrive in Denmark. In early March 1887 Valdemar Schmidt (1836-1925), professor of Egyptology at the University of Copenhagen, gave a lecture on the textiles to Det Kongelige Nordiske Oldskriftselskab (The Royal Nordic Society of Antiquaries). This society, which is still in existence, was founded in 1825 with the intention of studying and furthering knowledge of Nordic history, languages and monuments.

**2.** Valdemar Schmidt (1836-1925), the first professor of Egyptology at the University of Copenhagen and in Denmark.  
Photo © Danish Royal Library





At monthly meetings, scholars would give lectures sometimes on subjects not pertaining to Scandinavia. Schmidt was a member of the society, and he would also on other occasions present new acquisitions to the Collection of Antiquities. The society was housed in the same buildings as the collection, thus the objects were in close proximity. (fig. 2)

Schmidt's presentation of the textiles from Graf, termed "samples", touched on a number of subjects. According to a newspaper report in *Berlingske Tidende* from the following day, 2<sup>nd</sup> March 1887, these were: changes in burial customs, materials and techniques, and finally how these garments would shed new light on the attire of Roman "senators".

The earliest exhibiting of the textiles is not documented in detail, but it seems likely that a fair number of pieces from both Theodor Graf and Robert Forrer were on display not long after their arrival in the museum. Photographs of the exhibition showcases from the 1930s, but taken after 1951, reveal that around 25 pieces were then on display, including the large tunic from the Petrie Museum, University College London, and some of the recent additions from Hans Ostenfeld Lange and Mehdi Ben Zapletal. It is possible that these additions to the collection replaced some of the pieces from Forrer or others. The textiles were shown as a part of a chronological section dealing with Greek and Roman Egypt. The mode of display was dense, with the textiles presented almost like a jigsaw puzzle (fig. 4).



**3.** Exhibition showcase presenting Egyptian textiles at the NMD. Photo taken in 1992. Archives of the National Museum of Denmark  
Photo © NMD

**4.** (opposite page) Exhibition showcase arrangement from the 1930s, presenting Egyptian textiles at the NMD (photograph from 1951). Archives of the National Museum of Denmark.  
Photo © NMD





A slightly later and less cluttered arrangement included around ten pieces, now with the tunic as the centrepiece (fig. 3). For contextual purposes, this display also included some Pharaonic tools used in textile manufacture. In the current display, installed in 1994, the tunic forms part of a section dealing with Greek and Roman Egypt. The remaining textiles are in storage, but are available for research purposes.

Over the years, some of the textiles from the NMD have been lent for temporary exhibitions, including to the Louisiana Museum of Modern Art (1962) and the Ny Carlsberg Glyptotek (1996).

It should be noted that the textiles brought by Margrethe Hald from London, now in the Collection of Classical and Near Eastern Antiquities, were formerly a part of the "Comparative Collection" of Danish Prehistory at the National Museum (with the exception of the tunic). This group of objects, covering a number of countries and time periods, is defined as a study collection. Therefore, the majority of pieces transferred from London have not been on permanent display.

#### A note on the inventory numbers [M.M.-G., A.H.H.]

Although it seems obvious that every object in a museum has its own unique number, this is not always the case, especially with regards to older collections. Thus, objects acquired together and/or coming from the same source, could be given a collective number.

In the case of the Egyptian textiles at the National Museum of Denmark, the objects acquired from Robert Forrer

were registered under two numbers: 3670 (now 30 textiles) and 3671 (now 18 textiles). During the preparation of the present online exhibition, in order to recognize the textiles, we introduced additional numbers, which appear after the inventory number and are recorded as NMD Inv. 3670\_1, 3670\_2, etc. In the case of some objects, the numbers used by Forrer have been retained and combined with the NMD inventory number resulting in numbers such as NMD Inv. 3670\_1537.

Another issue is textiles marked "Unr", i.e., without any inventory number, which are shown in the catalogue as NMD Inv. Unr\_a, NMD Inv. Unr\_b, etc. Some of these objects were not inventoried on arrival, as they were defined as study material. Other pieces have over time become "dislocated" from their number, as most probably happened with NMD Inv. Unr\_a (see **Catalogue No. 5**), which was identified by Anne Haslund Hansen as belonging to the Forrer collection and indicated as No. 1588 in his letter of 1891 to Ludvig Müller (see **Case study 2**).

**5.** A passage from the museum entry book, in which the fabrics acquired from Theodor Graf in 1886 are recorded under the inventory numbers 3116-21. Collection of Classical and Near Eastern Antiquities at the National Museum of Denmark  
Scan: © NMD

## Reconstructing the history of a collection

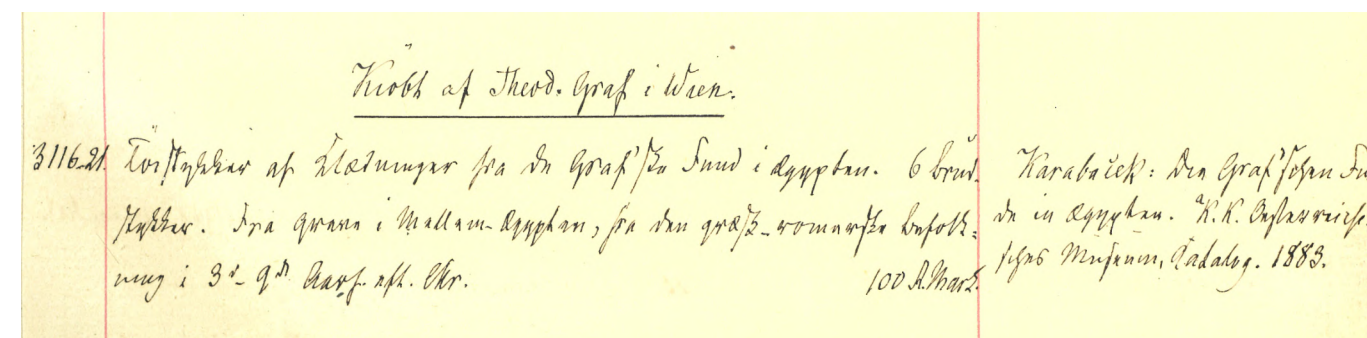
### One history or many stories? [M.M.-G.]

The history of a collection is created by those who acquire objects and those who provide them. In order to reconstruct this aspect of the history of the Egyptian fabrics collection at the NMD, we have used various sources: the National Museum's register book (fig. 5), correspondence with dealers (Theodor Graf, Robert Forrer); dealers' archives (Forrer); separate notices (Ahmed Mustafa) and even a sketch showing most likely the way to a dealer's house (Werner Jakobsen); correspondence between researchers, Margrethe Hald (NMD) with Grace M. Crowfoot (UCL), as well as with Helmut Schlunk (Kaiser-Friedrich-Museum, Berlin); information from newspapers (Peter Johansen); and finally, published research that provides a closer look at the personality and activity of a dealer (Mehdi Ben Zepletal, Tove Alm) or a scholar (Sir. Flinders Petrie, Hans Ostenfeld Lange).

The history of a collection is also a history of the individual objects. The analysis of fibres and weaving

techniques are fundamental to the investigation of textiles. Combining this data with the information provided by the archival survey can sometimes make it possible to determine provenance, or even to precisely identify archaeological context. Furthermore, comparative studies of iconographic motifs can also provide information about the origin or dating of a fabric.

A history of one collection is additionally often a part of the history of other collections. Most European museums and collections acquired their Egyptian textiles from the art market. Many textiles were divided and sent to different museums either by the collectors themselves or by museum staff. Frequently, the most legible, visually appealing part of an ornament has been cut out, leaving behind a puzzle with few clues as to the cloth's original overall appearance. The identification of fabric fragments scattered across European museums and associated with the NMD collection is essential to reconstruct the original objects that have been divided, and to create a "family tree" to which a fabric may belong, such identifications are not, however, always obvious.





**“Duplicated fabrics” and the multiple production of textiles [P.L.]**

**Cutting up textiles in the antiquities market**

Working with Early Byzantine textiles in museum collections, we observe relatively many matching fragments, corresponding in technique (material, threads, weave, finishing), shape, colour and pattern. We may assume that matching pieces originate from the same textile, which had been cut into pieces and divided in the art market, a well known practice at the end of the 19th and beginning of the 20th century. Matching pieces distributed to various, sometimes up to ten different European Museum collections is quite common, especially if famous collectors like Franz Bock or Robert Forrer were involved (Linscheid 2017, p. 10-11; 127-129). A virtual puzzle of matching fragments is great fun, and scientifically useful, because it helps to reconstruct the original shape, function and provenance of a textile.

**Duplicate textiles in *taqueté* weave**

The assumption that matching fragments belong to the same cloth is based on the premise that textiles were produced as single, individual pieces. Here we want to draw attention to the evidence for multiple production of textiles, that is, the production of two or even more textiles from the same material, using the same technique, colours and decoration, thus appearing as “duplicated” textiles.

A striking example of a duplicated textile can be found in the group of weft-faced compound tabbies, or *taquetés*, patterned with hunting

scenes in green on a red background, or, if you turn the fabric over, in red on a green background. A lion and a deer, an archer and a rider with a long spear attacking a boar can be recognised. The scenes are interrupted vertically by a violet section (fig. 6).

There are fragments of this fabric, matching in technique, material, colours and depictions, distributed over 11 different museum collections; most of them were noted by Sabine Schrenk (Schrenk 2004, p. 173-176; Linscheid 2017, p. 32-33). There is no known find spot for any of the fragments, but radiocarbon dating places this group in the period 4th to mid-6th century AD. Schrenk has convincingly reconstructed these fragments as a tunic based on the evidence of a neck slit in the fragment in the Kunstgewerbemuseum, Berlin,

**6.** Fragment of a tunic in *taqueté* weave with hunting scenes. Karlsruhe Badisches Landesmuseum (Inv. T 159).  
Photo: Thomas Goldschmidt © BLM Karlsruhe





as well as a mirroring line in the pattern of the fragment in the Západočeské Museum, Pilsen: the violet bands must be the *clavi* of the tunic. Since the fragment in Pilsen belongs to the shoulder area and is finished with a corded edge, the tunic can be interpreted as sleeveless. Schrenk noted that two more matching fragments, one in Berlin (Museum für Byzantinische Kunst), and one in Tübingen (Ägyptologisches Institut), show a different number and orientation of the figures and she therefore presumed the existence of a second, duplicate tunic (fig. 7a).

This assumption was confirmed by a recently published, large fragment of the same *taqueté* weave in Stuttgart's Württembergisches Landesmuseum (Inv. GT 3846: Nauerth 2014, no 34). This fragment preserves the complete length of a tunic side part with shoulder section. The turning of the figures marks the shoulder level of the tunic. With its intact shoulder section, the Stuttgart fragment cannot have belonged to the tunic reconstruction presented by Schrenk, because in that tunic both shoulder areas are already accounted for by respectively the Pilsen and Berlin fragments. Consequently, the fragment in Stuttgart must have belonged to another, second tunic. Both tunics are identical in technique, colours and patterning, and both tunics are sleeveless. (fig. 7b).

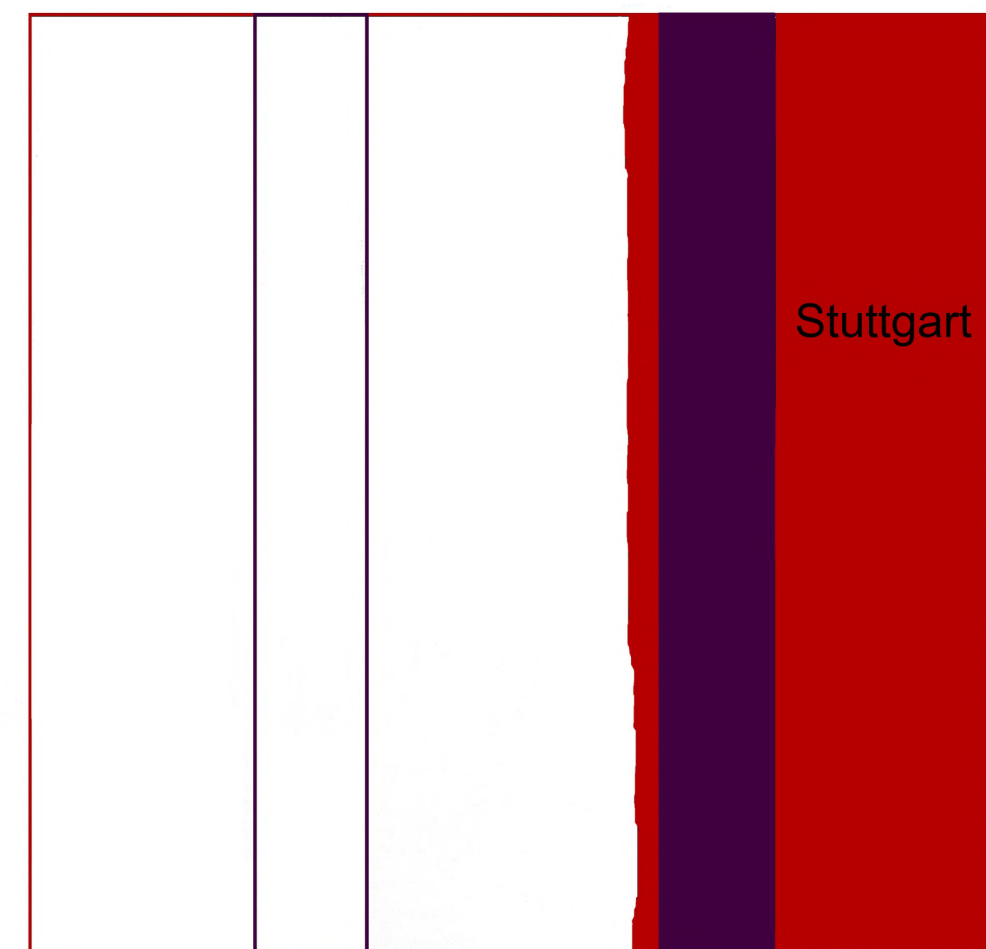
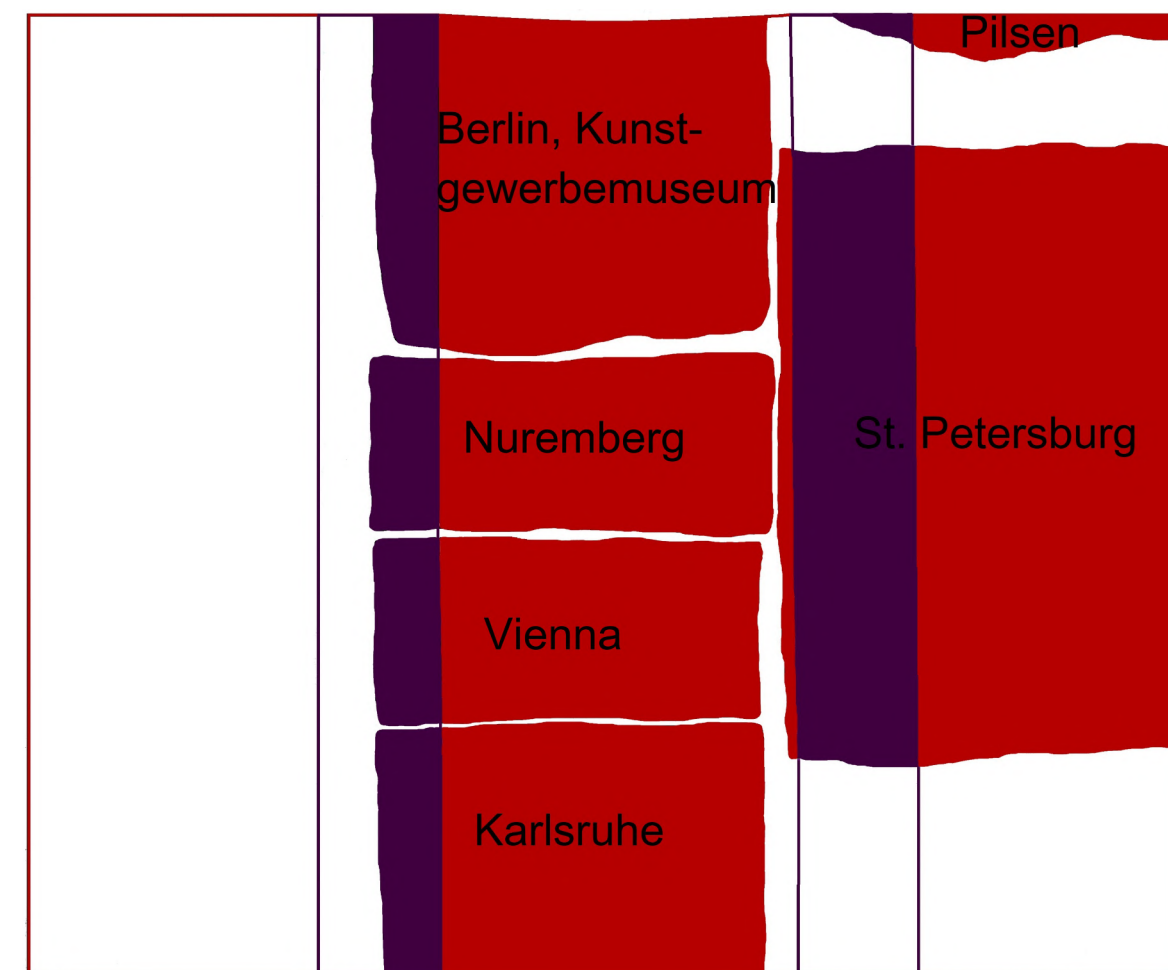
The next example of multiple production is again a weft-faced compound tabby or *taqueté*, this time with birds in octagons (see **Catalogue No. 8**). Radiocarbon analyses again point to production in the 4th-6th century; many of the fragments have been attributed to Akhmim. This *taqueté* fabric with birds in octagons appears in two complete rectangular

fabrics, called "cushion covers", in the Victoria and Albert Museum, London (Inv. 780-1893). However, more matching fragments exist and must have belonged to a tunic (Inv. 304-1891). Barbara Thomas has investigated these fragments (see **Case study 4**). Again, the same weaving and pattern template was used for more than one textile, in this case even for textiles of varying functions: a furnishing textile and a garment.

The two examples of multiple production presented so far are weft-faced compound tabbies. This complex weave requires an elaborate loom setup; therefore producing several textiles on the same loom would be reasonable. Nevertheless, it cannot be excluded, that the same textiles were woven on different looms, maybe even in different workshops, but using the same weaving instruction.

**7a.** Reconstruction of the first tunic in *taqueté* weave with hunting scenes; side A, with fragments in Karlsruhe, Vienna, Nuremberg, Berlin Kunstgewerbemuseum, Saint Petersburg, Pilsen; side B (not depicted), with fragments in Pilsen, Cleveland, Göteborg, Philadelphia, Riggisberg, Paris.  
Drawing: Petra Linscheid after Schrenk (2004), p. 175.

**7b.** Reconstruction of the second tunic in *taqueté* weave with hunting scenes; side A, with fragment in Stuttgart; side B (not depicted), with fragments in Stuttgart, Berlin Museum für Byzantinische Kunst, Tübingen.  
Drawing © Petra Linscheid







8. Tunic, multiply produced. Antwerp Katoen Natie Inv. 614 (DM133). Photo: Hugo Maertens © The Phoebus Foundation

### Duplicate textiles with tapestry

Multiple textiles not only occur with complex weaves. The Katoen Natie collection in Antwerp holds a complete child's tunic in linen (Inv. 614 [DM133]: De Moor et al. 2008, p. 200-201) radiocarbon dated to 650-780 AD (95.4%) The tunic is decorated with *clavi*, sleeve bands, and knee and shoulder panels in colourful tapestry weave. The *clavi* are decorated with a green tendril with red buds on a yellow background, separated by a red field with a light coloured plant. Antoine De Moor has noted a matching *clavus* with identical technique, pattern, colours and size, also from a linen tunic, in the

Bouvier textile collection (Inv. S 435: Stauffer 1991, p.177). Since the Antwerp tunic is complete, the Bouvier *clavus* provides evidence of another linen tunic with identical *clavus*. (fig. 8).

### Duplicate textiles with loops

Multiple productions can also be observed among monochrome textiles. In the 4th-6th century roundels with a knot ornament woven with bluish loops were quite popular. At least seven fragments with exactly the same motif have survived, belonging to at least three large linen covers, upholstered with long linen loops (Linscheid 2017, p. 63). (fig. 9).



9. Fragment of a linen loop cover with knot ornament, multiply produced. Karlsruhe Badisches Landesmuseum (Inv. T 184). Photo: Thomas Goldschmidt © BLM Karlsruhe



### Economic aspects and pattern sheets

The examples presented above show that a tunic or furnishing textile was not necessarily an individual piece, but by using the same weaving and pattern templates (fig. 10 and 11), a textile could be produced a second time, or even more often. By choosing not only an identical pattern but the same material, colours and technical details as well, weavers created duplicate products, which is evidence of the multiple or even serial production of textiles. Whether multiple products were woven in the same workshop remains an open question, because weaving templates and pattern sheets might have travelled and have been widely disseminated.

For more about pattern sheets, see the work of Annemarie Stauffer (2020).

Evidence of multiple production is of special interest because it sheds light on the Early Byzantine textile economy, which is still not very well understood. Do duplicate tunics or furnishings point to a stock production of textiles? And what about the consumers? Were identical textiles sold to different customers? Or did one customer order multiple examples of the same textile? More research in the future may yet reveal more duplicate textiles. So far, we know of just a small percentage of the textiles produced in Early Byzantine Egypt.

### Attributing matching fragments to the same textile object

When considering the possible existence of duplicate textiles, we need strict criteria to attribute matching fragments to the same original object. What, for example,

about the matching fragments from Copenhagen and some other collections (see **Catalogue Nos. 5, 6, 7 and 13**)? Are they fragments cut from the same textile? Or did they belong to multiple produced textiles?

To conclude, when deciding if matching fragments belong to the same item, or else to two duplicate objects, a close examination of all technical details is needed, including the minute counting of threads in fabric and pattern units. Weaving faults, as Sabine Schrenk and Barbara Thomas (see **Case study 4**) have demonstrated, may prove that fragments were woven on the same warp.

Furthermore, the completeness of the object should be considered, as illustrated by the examples presented above. Can all matching fragments be integrated into one single reconstruction or are there “surplus” fragments providing evidence of a second product? The direct fitting of a fragment’s cut edges may be perfect proof of their origin from the same textile.

Last but not least, the history of provenance of matching fragments has to be compared, since fragments acquired from the same source are more likely to belong together.



**10.** Fragment of a pattern sheet, papyrus (4th–5th century AD, Hermopolis). Ägyptisches Museum und Papyrussammlung (SMB Inv. P. 13275 Fr. b). The upper field shows fish, water plants and parts of a male figure. On the lower field are a fish, a bird and lotus leaves. The drawings are black with details painted over in white. This type of pattern sheet was used in weaving, but also for laying mosaics and in painting. Photo: Sandra Steiß © bpk / Ägyptisches Museum und Papyrussammlung, SMB



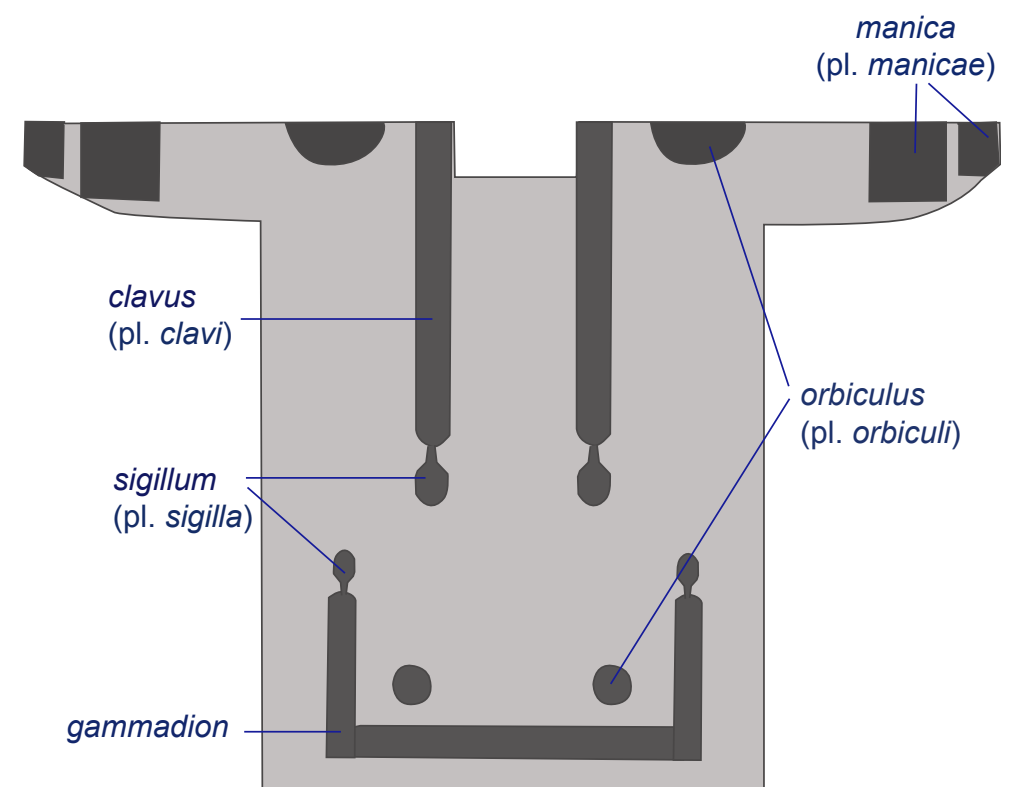
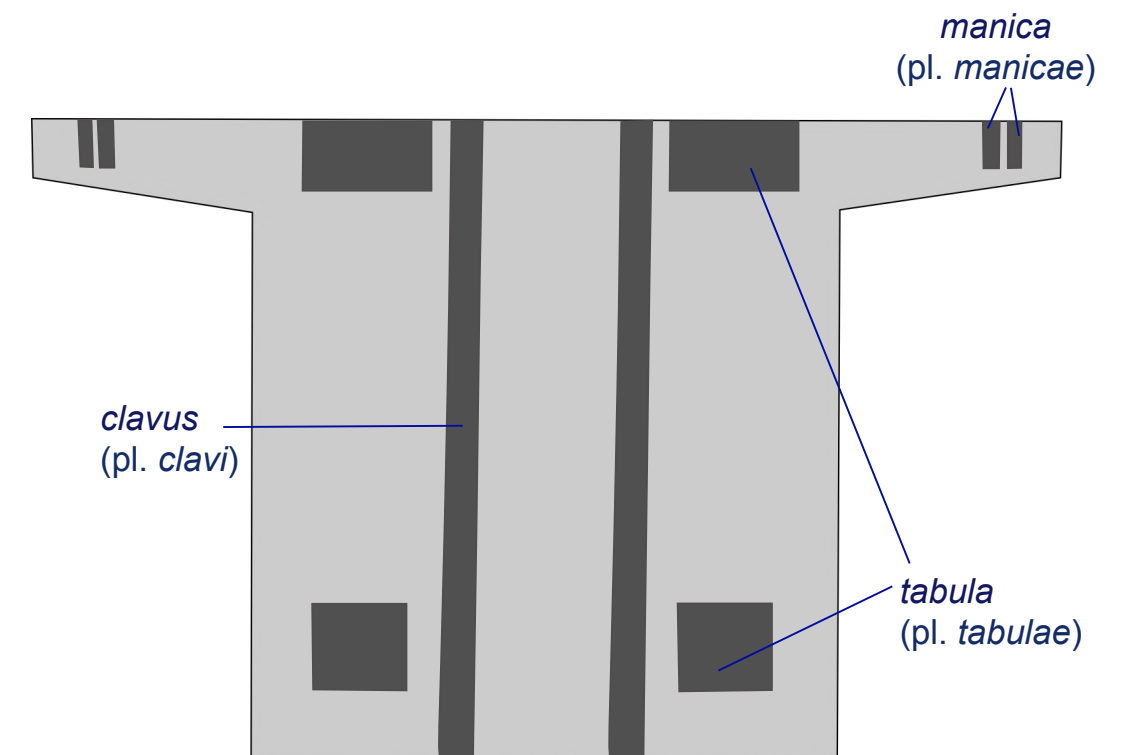
**11.** Fragment of a pattern sheet, papyrus (3rd–4th century AD, Hermopolis). Ägyptisches Museum und Papyrussammlung (Inv. SMB P. 13275 Fr. d). *Tabula* with representation of a running eras. A lion and some other four-footed animals as well as birds were depicted around the *tabula*. The dark band, most likely a *clavus*, shows a bird, perhaps a quail, and a circular shape that is difficult to define. The drawings are black with details painted over in white and grey-blue. Photo: Sandra Steiß © bpk / Ägyptisches Museum und Papyrussammlung, SMB



## What did the fabric look like? Drawing indicative fabric reconstructions [A.K.]

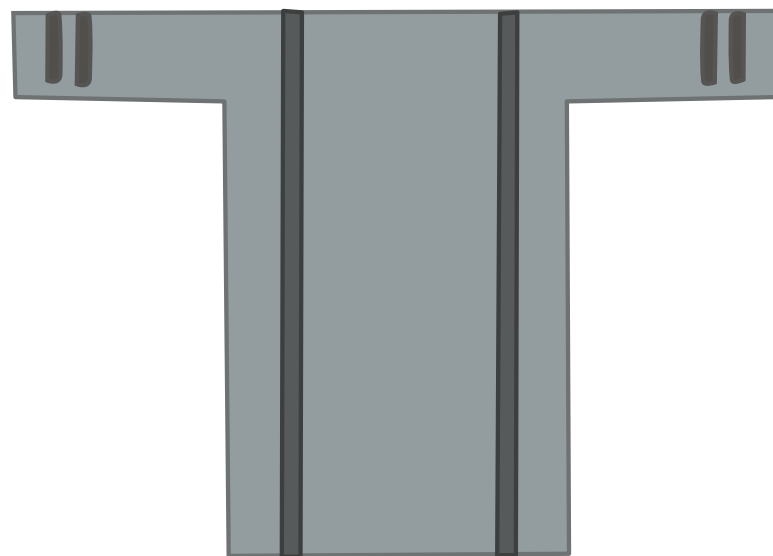
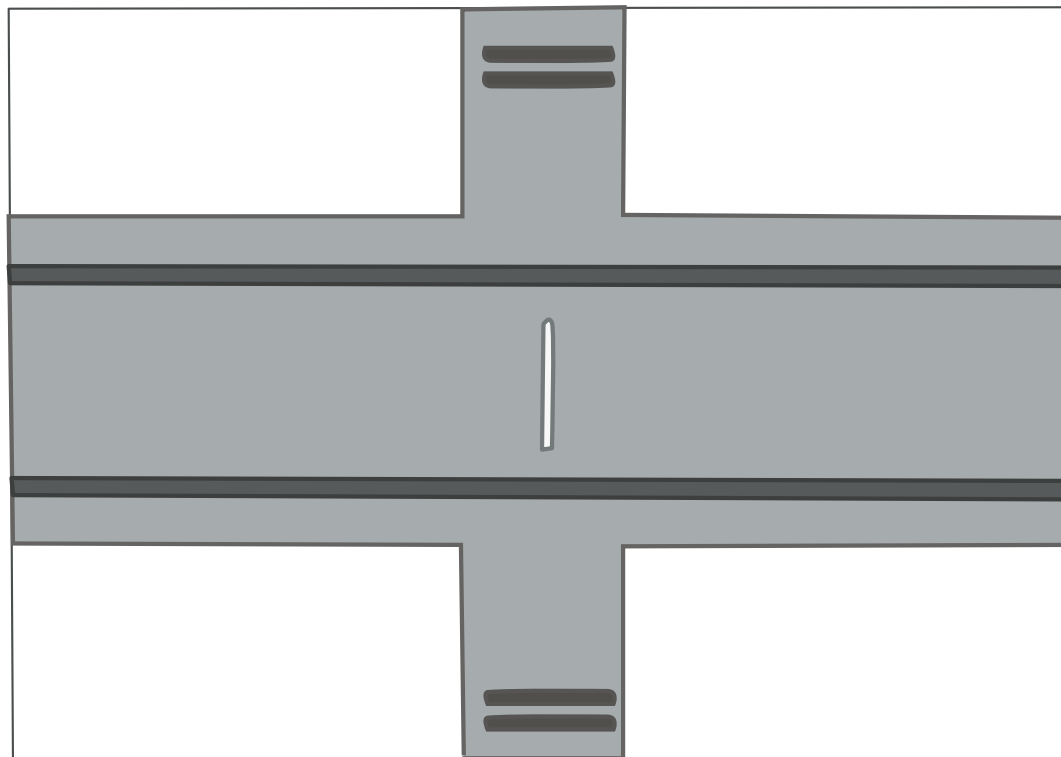
In addition to one more or less complete tunic (NMD Inv. 12141), the NMD collection consists of fragments of tunics, headgear, mantles and furnishing textiles. In order to get an idea of how these fragments were positioned in the entire textile, some indicative drawings have been made. Most of the fragments belonged to tunics from the Byzantine Period. The most common tunic worn during this period is the T-shaped model, woven in one piece or in three pieces, and embellished with vertical stripes, the so-called *clavi*, bands on the sleeves, and circular or square decorations on the shoulders and below the knees (see fig. 12).

The variety of embellishments on tunics is immense, but it is possible to deduce from the selected fragments what type of general decoration – such as short or long *clavi* – the original tunic had. The weaving direction also often provides information about the position of the tapestry fragments. Regarding the representations of tunics, it must be taken into account that the preserved fragments are too small to know with any certainty the dimensions of the tunic, so the proportions of height, width, sleeve length, positioning of the waist pleat, are purely indicative. The type of neck openings depicted is also based upon plausible assumptions. Tapestry fragments with depictions of antelopes on a green background weave most likely come from a rectangular mantle and not from a tunic (**Catalogue no 13**). All antelopes are depicted rotated 90 degrees with respect to the wearing direction of a tunic. It seems very unlikely that these animals would have been woven in this direction on the *clavi* or hem band of a tunic.

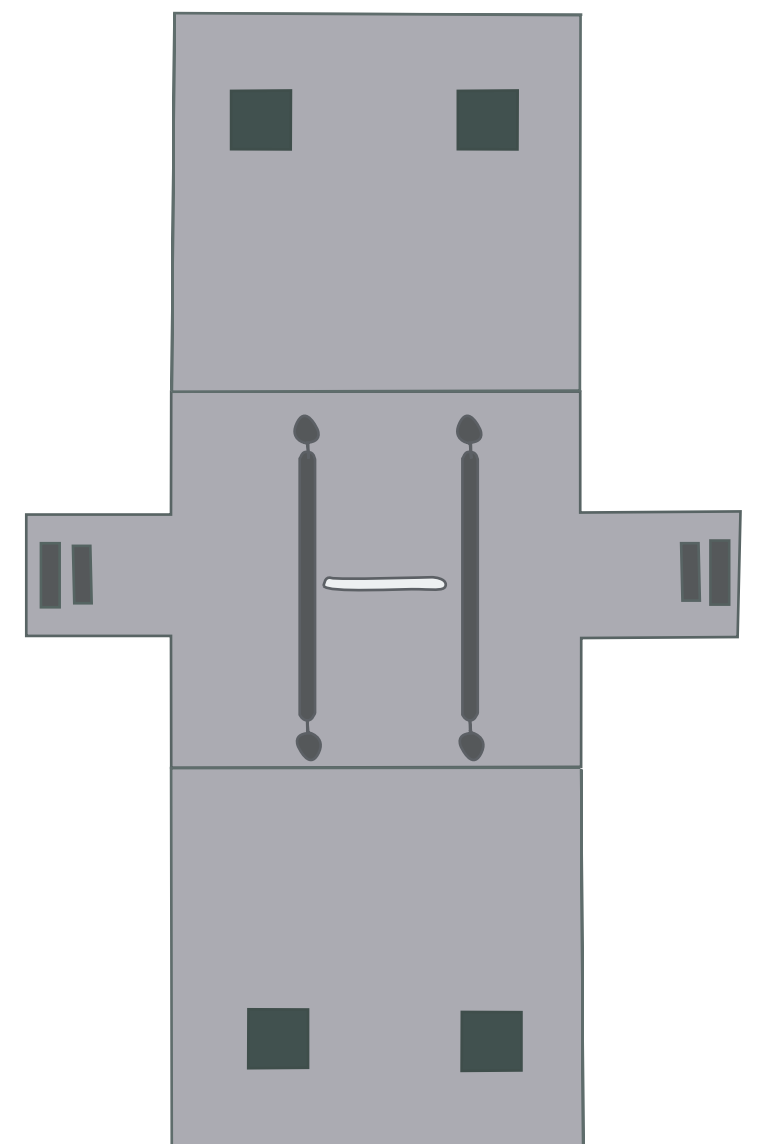
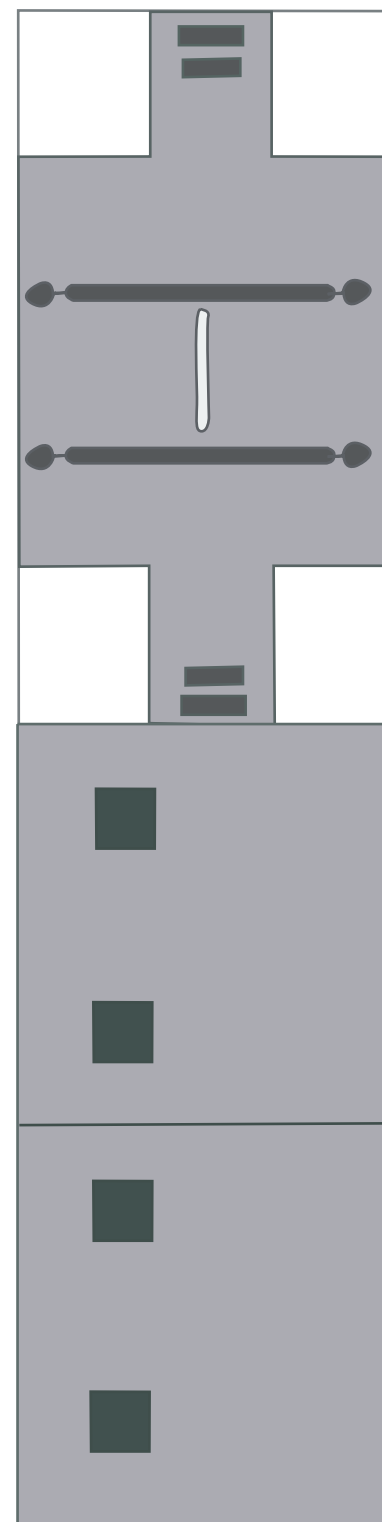


**12a, b.** Decorative elements on Byzantine tunics.  
Drawing © Maria Mossakowska-Gaubert





**12c.** Tunic woven-to-shape in one piece.  
Drawing © Maria Mossakowska-Gaubert, after D.L. Carroll, *Looms and textiles of the Copts*, 1988, fig. 12A.



**12d:** Tunic woven-to-shape in three parts.  
Drawing © Maria Mossakowska-Gaubert, after J. Lafontaine-Dosogne, D. De Jonghe, *Textiles Coptes*.  
*Musées Royaux d'Art et d'Histoire*, 1988, fig. 137 and 138.



2. udgave - 2023  
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<https://natmus.dk/museer-og-slott/nationalmuseet/udstillinger/antiksamlingen/arkaeologiske-puslespil-paa-et-museum/>

## At skabe en udstilling

Dette er resultatet af forskningsprojektet RECONTEXT - "Historien bag Nationalmuseets samling af egyptiske tekstiler fra 1. årtusinde e.Kr." Projektet er støttet af Aage og Johanne Louis-Hansens Fond og Beckett-Fonden. Leder af projektet, som løb i perioden 2021-2022, var Dr Maria Mossakowska-Gaubert. Projektet var forankret på Center for Tekstilforskning (CTR), Saxoinstituttet, Københavns Universitet og blev udført i tæt samarbejde med Nationalmuseet.





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konceptualisering

## Museer, samlinger og arkiver involverede i udstillingen

De følgende institutioner har venligt  
tilladt, at vi benytter deres materiale  
og publicerer fotografier fra deres  
samlinger som komparativt materiale i  
udstillingen.

- Ägyptisches Museum und Papyrussammlung, Berlin
- Badisches Landesmuseum, Karlsruhe
- Centrum Archeologii Śródziennomorskiej Uniwersytetu Warszawskiego [Polsk center for middelhavsarkæologi, Universitetet i Warszawa]
- Kunstsammlungen, Chemnitz
- Landesmuseum Württemberg, Stuttgart
- Musée Archéologique, Strasbourg
- Musée Art & Histoire / Museum Kunst & Geschiedenis, Brussels
- Musée des Tissus et des Arts Décoratifs, Lyon
- Muzeum Narodowe w Warszawie [National Museum of Warsaw]

## Arkivalier og ikonografisk materiale tilgængeligt i open access benyttet i udstillingen stammer fra:

- British Museum, London
- British Newspaper Archive
- Kraks Vejviser
- Mediesteam
- Metropolitan Museum of Arts, New York
- National Digital Newspaper Program's Chronicling America.
- Muzeum Narodowe w Gdańsku [Nationalmuseet i Gdańsk]
- Muzeum Uniwersytetu Jagiellońskiego [Museet på Jagiellonian University], Krakow
- Museumssenteret i Hordaland (MUHO), Bergen
- Narodni Muzej Slovenije [Sloveniens nationalmuseum], Ljubljana
- Nasjonalnuseet [National Museum], Oslo
- The Petrie Museum of Egyptian Archaeology, London
- The Phoebus Foundation, Antwerp
- Rigsarkivet, København
- Römisch-Germanisches Zentralmuseum, Mainz
- Skulpturensammlung und Museum für Byzantinische Kunst, Berlin
- Victoria and Albert Museum, London
- Princeton University Libraries Digital Maps & Geospatial Data
- Samling af Anmeldelser til Handelsregistre
- Yale University Art Gallery



## Indledning

*Oversættelse af Morten Valner S. Grymer-Hansen*

I Nationalmuseets Antiksamling findes 112 tekstilfragmenter fra det romerske og byzantinske Egypten, samt tidlig arabisk middelalder. Samlet set er der tale om den rigeste samling i Danmark. Tekstilerne har høj forskningsmæssig værdi, da de både rummer eksempler på forskellige teknikker og materialer, ligesom der findes en rig variation af genstandstyper og motiver. Derudover er samlingens historie et fremragende eksempel på, hvordan europæiske museer erhvervede tekstiler fra Egypten. Blandt de vigtigste stykker i samlingen er dele af en dragttype, der kaldes tunika.

Onlineudstillingen "Arkæologiske puslespil på et museum" giver den besøgende viden om samlingens tekstiler og deres tilblivelseshistorie. Udstillingen tilbyder også et indblik i de udfordringer som møder forskeren i arbejdet med at "rekonstruere" en sådan historie. Dette gælder ikke kun for de egyptiske tekstiler på Nationalmuseet, men for flertallet af museer med arkæologiske tekstiler verden over. Undersøgelsesmetoden kan minde om at lægge et puslespil med brikker fra forskellige kasser; hvor der er iblandet dele fra forskellige motiver – og hvor der altid mangler nogle brikker.

Takket være samarbejdet mellem forskere fra en række fagfelter, kan vi nu præsentere en række nye vinkler på samlingens historie og dens genstande, men der er ikke tale om en afsluttet historie. Yderligere forskning i samlingen vil utvivlsomt frembringe ny viden.

Dr Maria Mossakowska-Gaubert  
September 2022

## Hvordan man besøger udstillingen [M.M.-G.]

Udstillingen består af tre dele. Indledningen forklarer, hvad en samling af egyptiske tekstiler er, hvordan Nationalmuseets samling er blevet til, og hvilke metoder, der er brugt til at genskabe dens historie og de genstande, den består af. I kataloget præsenteres 30 udvalgte tekstiler, opdelt efter fire tidsperioder i samlingens historie. Denne del indeholder også detaljeret information om, hvordan og fra hvem genstandene er erhvervet. Dateringen af stykkerne er overvejende gjort på grundlag af stilistiske træk, og må regnes for omtrentlig.

For den besøgende, der ønsker at dykke længere ned i de forskellige emner, findes otte casestudies, hvor man kan se nogle af disse dokumenter (særligt breve mellem antikvitetshandlere og museet, og en antikvitethandlers notesbog). Man kan også møde en usædvanlig og meget talentfuld kvinde, som var en dansk pioner inden for studiet af oldtidstekstiler og få indsigt i en samler og antikvitetshandlers virke på det skandinaviske antikvitetsmarked i 1920'erne og 1930'erne. Casestudierne viser også, at de materialer, tekstilerne er lavet af, har betydning for at kunne afgøre hvorfra de stammer og hvornår de er fremstillet. Til slut findes en detaljeret diskussion af tre særligt interessante tekstiler.

For at lette læsningen er henvisninger begrænset til et minimum, og læseren kan i stedet finde en litteraturliste i slutningen af kataloget. Mere viden om de tekniske termer der benyttes i teksten, så som "soumak", "tabby weave", "tapestry", "taqueté", osv., kan findes i et flersprogede vokabular

udarbejdet af *Centre International d'Étude des Textiles Anciens* i Lyon (CIETA), som er tilgængeligt online [her](#).

De fleste af tekstilerne er typiske tunikaudsmykninger eller fragmenter af samme, så som *clavus*, *orbiculus*, *tabula* osv. Til hjælp findes en skematisk tegning af en tunika, som viser hvor de forskellige elementer er placeret (see fig. 12).



## At skabe en tekstilsamling

**Hvorfor er der så mange tekstiler fra Egypten på museer rundt om i verden?**

[M.M.-G.]

**Tekstilbevaring i Egypten: klima og geografi**

Det største antal oldtidstekstiler fra hele Middelhavsområdet som er bevaret til i dag, stammer fra Egypten. Dette skyldes klima og geografi. Det tørre, varme klima og ørkensand har skabt ideelle bevaringsforhold for organiske fibre: hør, bomuld, uld, silke. Disse forhold er dog ikke til stede overalt i Egypten; fra Nildelta-regionen, fugtig og med en stor flodslette, er der kun bevaret ganske få vævede genstande.

**Arkæologiske tekstiler: kronologisk diversitet**

Egyptiske tekstiler fra forskellige historiske perioder indgår i samlinger overalt i verden. De omfatter tekstiler fra den faraoniske periode (ca. 3100 f.Kr. – 332 f.Kr.), fra perioden efter Egypten blev erobret af Alexander den Store og herefter regeret af det græsk-makedonske ptolemæiske dynasti (332 f.Kr. – 30 f.Kr.), fra den tid, hvor Egypten var del af Romerriget (30 f.Kr. – 395 e.Kr.), derefter det Byzantinske Rige (395 – 641 e.Kr.), fra en kort, men for tekstilhistorien vigtig periode under persisk herredømme (619 – 628 e.Kr.), og endelig fra landet blev del af den arabisk-muslimske verden (fra 641 e.Kr.).

Der er dog stor kronologisk forskel og variation blandt de bevarede tekstiler. Dette forhold bunder naturligvis til dels i den tid, der er gået, men formentlig også til dels i, at langt størstedelen af tekstilerne stammer fra

grave. Forskellen i begravelsespraksiser påvist i de forskellige perioder i Egyptens historie – mumificering, kremering, gravlæggelse af kroppen uden videre præparering – fremgår af de fundne tekstilers udformning og mængde. Tekstiler forekommer sjældnere i andre arkæologiske kontekster såsom beboelse, kultbebyggelse eller i affaldslag.

Tekstiler fra den faraoniske og ptolemæiske periode er for hovedparten, men dog ikke kun, mumiebeviklinger. De mest omfattende fund fra den tidlige romerske periode er klude, som stammer fra affaldslag fundet ved lokaliteter som stenbrud, befæstninger, havneanlæg eller andre steder hvor mennesker har færdedes. Fund, som relaterer sig til senromersk, byzantisk og senere perioder kommer især fra grave, og består eksempelvis af klædedragt, kåber og boligtekstiler. Tekstiler fra denne periode er ofte mere velbevarede og righoldige end det man kender fra tidligere perioder.

Gravlæggelsen af den døde iført sit tøj uden øvrig behandling af legemet er knyttet til kristendommens introduktion i Nildalen, som gik særligt hurtigt i det tredje og fjerde århundrede e.Kr. for til sidst at blive den dominerende religion i Egypten. Ødelæggelsen af kultstedet Serapeum og biblioteket i Alexandria i 391 e.Kr. på biskop Theopilos' initiativ, og den officielle lukning af Isistemplet på øen Philae i 537 e.Kr., kan ses som to vigtige begivenheder, der markerede det sidste skridt i den kulturelle og religiøse forandring af det egyptiske samfund, som også faldt sammen med politiske forandringer.

## "Koptiske" tekstiler?

Betegnelserne "den koptiske periode" og "koptiske tekstiler" bruges ofte sammen, særligt i ældre faglitteratur. Selve ordet "koptisk" kommer af det græske "Aigýptios", som er et adjektiv med betydningen "egyptisk". Termen "Aigýptios" blev optaget i arabisk som "gibt". I arabisk tid blev "gibt" betegnelsen for de egyptiske kristne via det latinske *Cophytus* – *Coptus*, en term, der blev benyttet af rejsende til Egypten i det 16. og 17. århundrede. Fra og med det 17. århundrede, begyndte forskere, der beskæftigede sig med Egypten, at benytte termen til at beskrive egyptiske kristne, deres religion og alle andre aspekter af deres kultur og identitet.

Mere viden om etymologien bag ordet "Copt" kan findes i Christian Cannuyers værk (1996).

Derfor er det svært at tale om en "koptisk periode" i Egyptens historie: det er ikke tydeligt, hvornår en sådan periode skulle begynde eller slutte. Det er ligeledes upræcist at benytte adjektivet "koptisk" om kunst og materiel kultur: man kan ikke vide, hvem der fremstillede et kunstværk eller en brugsgenstand, og, med undtagelse af afbildninger med entydig kristen symbolik, blev andre motiver ikke nødvendigvis forstået som værende kristne, hverken af "producent" eller "modtager". Disse betegnelser kan derfor føre til mange misforståelser, både historiske og kulturelle, og det er derfor bedst at undgå dem til fordel for historiske periodebetegnelser, så som "byzantinsk tid" og "arabisk middelalder", og derfor tale om "egyptisk kunst fra den byzantinske tid" eller "kristen kunst fra den arabiske middelalder i Egypten" (hvis

man er sikker på betydningen).

## Egyptologi, Egyptomani og egyptiske tekstiler

Europæeres fascination af Egypten gennem århundreder var drevet af bibelens fortællinger såvel som de genstande, der blev hjembragt af rejsende, heriblandt korsfarere, pilgrimme og handlende, som udforskede området og vendte hjem deres indsamling og med beretninger om deres ekspeditioner. I 1822 formåede Jean-François Champollion (1790-1832) at tyde hieroglyfskriften bl.a. ved hjælp af den såkaldte Rosettasten, en stèle, hvorpå et dekret fra 196 f.Kr. udstedt af farao Ptolemæus V var skrevet med henholdsvis hieroglyffer, demotisk og græsk skrift. Stelen blev fundet i 1799 af den franske ekspedition til Egypten anført af Napoleon Bonaparte. Tydningen af det gamle, egyptiske skriftsprog lagde fundamentet til en ny disciplin: egyptologi. Tiden efter de store faraoner vakte dog ikke så store følelser som pyramiderne, gravene, templerne, eller hieroglyfferne skrevet på papyrusruller eller malet på deres vægge. Kun Alexandria, hovedstaden i ptolemæisk, romersk og byzantinsk Egypten, med dets store bibliotek og berømte matematikere, geografer, filosoffer, teologer og andre lærde, figurerede i den europæiske elites bevidsthed. Her var byen et symbol på det højeste stade af videnskabelig, kunstnerisk og litterær udvikling i oldtiden.

I det 19. århundrede vakte en akademisk interesse i Egyptens historie, kultur og kunst. I denne sammenhæng blev egyptiske genstande, også dem fra Egyptens senere perioder, attråværdige genstande til videnskabelige undersøgelser, ligesom de blev



samlereobjekter for såvel museer som privatpersoner. Desuden opstod der en særlig "egyptomani" i Europa og Nordamerika, der dyrkede kopier af egyptiske genstande, såvel som bygninger og kunsthåndværk inspireret af egyptisk kunst og arkitektur.

De fleste mindre genstande, herunder også tekstiler, blev udgravet *en masse* fra grave af bønder, lokale eller europæiske antikvitetshandlere, de sidstnævnte enten personligt eller med hjælp fra lokale agenter, og af udsendinge fra museer og private samlere. Gennem det 19. århundrede var såkaldte "konsulære agenter" også aktive og de stod for at forsyne de diplomatiske repræsentationer med oldsager. De havde en særstatus, som gav dem diplomatisk immunitet, selvom de ofte ikke havde nogen egentlige bånd til det land, de repræsenterede. Slutresultatet var, at antikviteter blev eksporteret fra Egypten af samlere, forhandlere, turister, diplomater osv. næsten uden nogen form for kontrol.

Fra 1850'erne indledtes de første mere eller mindre systematiske arkæologiske udgravninger i Egypten. De blev på den tid især udført af franske og engelske arkæologer og egyptologer. Dette forhindrede imidlertid ikke, at mange monumenter blev stjålet af udgravningsarbejderne og solgt på antikvitetsmarkedet. Det var også på den tid blevet skik og brug at dele fund fra udgravninger. For eksempel blev halvdelen af genstandene udgravet af Auguste Mariette (1821-1881) i Saqqara fra 1850 til 1854 sendt til Louvre, mens den anden halvdel blev i Egypten og hvor den senere indgik i det Egyptiske Museum i Kairo. Nye standarder for udgravningsteknik og avancerede metoder til at dokumentere

arkæologisk materiale, særligt keramik, blev introduceret i egyptisk arkæologi af den britiske egyptolog Sir William Matthew Flinders Petrie (1853-1942), som fra 1884 gennemførte en lang række udgravninger i Egypten og Palæstina.

Hvad angår handlen med antikviteter, så åbnede Selim Khawam den første antikvitetshandel i Egypten i 1862 i Kairo. I 1888 etablerede den Egyptiske Antikvitetsstjeneste et "salgsrum" i det Egyptiske Museum, fyldt med materiale indsamlet overalt i Egypten af lokale inspektører. I 1912 bekendtgjorde Ismail Sirry Pasha, minister for offentlige arbejder, på foranledning af den franske egyptolog og daværende direktør for den Egyptiske Antikvitetsstjeneste, Gaston Maspero (1846-1916), en lov, der regulerede salg og eksport af egyptiske antikviteter. Dette medførte, at alle forhandlere skulle have en officiel tilladelse udstedt af Antikvitetsstjenesten, og genstande eksporteret fra Egypten skulle være certificerede. Yderligere reguleringer og juridiske restriktioner for antikvitetshandlen blev indført af egyptiske myndigheder i 1951 og i 1979, men det var først i 1983, at det, med den Egyptiske Lov om Beskyttelsen af Antikviteter, kendt som Lov nr. 117, blev gjort ulovligt at udføre antikviteter fra Egypten.

For mere om egyptologi og egyptomani, såvel som handlen med antikviteter i Egypten, se Fredrik Hagen og Kim Ryholt (2016) og Donald Malcolm Reid (2019).

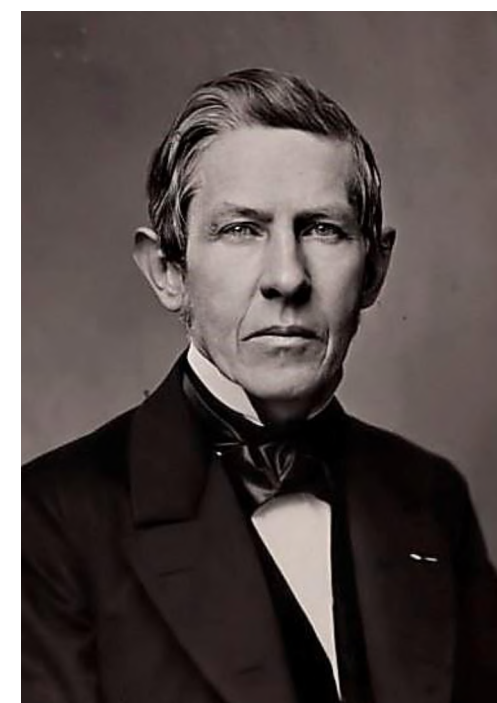
### Egyptiske oldsager på Nationalmuseet gennem tiden [A.H.H.]

Nationalmuseet fik sit nuværende navn i 1892, men dets historie og grundlæggelse strækker sig tilbage til det 17. århundrede og det Kongelige Danske Kunstkammer på Københavns Slot. Kunstkammerets samlinger var vidtfavnende og indeholdt også enkelte genstande fra oldtidens Egypten. Af betydning for Nationalmuseets tilblivelse var også Den Kongelige Commission til Oldsagers Opbevaring, der havde til formål at indsamle, registrere og bevare nationens historiske monumenter og genstande. Den blev grundlagt i 1807 og udviklede sig snart til et offentligt museum med Christian Jürgensen Thomsen (1788-1865) som den drivende kraft. Thomsen er i dag bedst kendt for treperiodesystemet, en banebrydende metode til at datere forhistoriske genstande.

I 1845 åbnede Thomsen et nyt Etnografisk Museum baseret på genstande fra det tidligere Kunstkammer: som beliggenhed valgtes Prinsens Palæ, det nuværende hovedsæde for Nationalmuseet. I 1851 fulgte Antik-Cabinetet (Antiksamlingen) trop. Endelig blev også den danske oldsagssamling flyttet hertil i 1854. Hver af disse samlinger blev omhyggeligt systematiseret og opstillet af Thomsen selv. Han mente, at disse samlinger skulle ses som en helhed, hvis man ønskede at forstå menneskets kulturelle udvikling. Eksempelvis tilskyndede Thomsen komparative studier af stenredskaber, ikke blot fra Skandinaviens forhistorie, men også fra andre kulturer, gamle som nye, overalt i verden.

I 1866, året efter Thomsens død, blev Ludvig Müller (1809-1891) ny leder af Antiksamlingen. Da var antallet af egyptiske antikviteter vokset betydeligt, primært på grund af diplomater og forretningsdrivende, som var aktive i Kairo og Alexandria. I 1851 blev samlingen betydeligt forøget med en stor samling græske og italienske vaser, der tidligere havde tilhørt Christian VIII.

I slutningen af det 19. århundrede var Antiksamlingen vokset til en rig og alsidig genstandsguppe, som kunne illustrere middelhavskulturernes materielle historie, med et genstandsmæssigt fokus på de klassiske kulturer fra Grækenland og



1. Ludvig Müller (1809-1891), en dansk numismatiker og arkæolog, var direktør for Den Kongelige Mønt- og Medaillesamling, og fra 1866 leder af Antiksamlingen. Det Kongelige Bibliotek. Foto © Det Kgl. Bibliotek



Rom. I løbet af det 19. århundredes sidste halvdel og ind i begyndelsen af det 20. århundrede kom de fleste erhvervelser fra private givere eller køb. Donationerne kom typisk fra danske diplomater, forskere, kunstnere eller arkitekter. Erhvervelserne blev i visse tilfælde gjort af museets ansatte eller fagkollegaer, som aktivt opsøgte auktioner og handlende, primært i Europa, men i andre tilfælde var det samlere eller antikvitetshandlere, der på eget initiativ tilbød deres samlinger til museet.

Tilblivelsen af samlingen af senantikke tekstiler på Nationalmuseet fulgte nøje dette mønster. Baseret på kilder som breve og andet arkivmateriale, synes der ikke at have været nogen intention om systematisk at opbygge en stor særsamling af senantikke tekstiler. Tværtimod udvidedes samlingen på "tilfældig" vis, med undtagelse af de genstande som stammer fra Margrethe Hald. Senantikke tekstiler blev højst sandsynligt anset for et materiale som på den ene side kunne belyse overgangen fra det faraoniske Egypten til den klassiske verden, og på den anden side som et værdifuldt komparativt materiale sammen med genstande fra Danmarks oldtid og de etnografiske samlinger.

#### **Indsamling af egyptiske tekstiler [M.M.-G.]**

Skabelsen af Nationalmuseets samling af egyptiske tekstiler kan inddeles i fire stadier. Dens begyndelse var forbundet til det blomstrende antikvitet marked i slutningen af det 19. århundrede (56 fragmenter). Tekstilerne blev på dette tidspunkt købt af antikvitetshandlere og samlere såsom Theodor Graf, Ahmed Mustafa og Robert Forrer. Derefter, i 1930'erne og 1940'erne blev tekstilerne erhvervet i mindre grupper fra

antikvitetshandlere (12 fragmenter), Walter Carl og Peter Johansen, såvel som gennem donation og testamentering (4 fragmenter) fra to egyptologer, Erik Iversen og Hans Ostenfeld Lange. Ligeledes i 1930'erne blev 16 eller måske 17 genstande overført til Nationalmuseet fra University College London, og sandsynligvis også nogle fra Kaiser-Friedrich-Museum i Berlin (måske 2 eller 3 fragmenter) for at blive undersøgt af tekstileksperten Margrethe Hald. De sidste erhvervelse af tekstiler (6 fragmenter) i 1950'erne og 1960'erne kom fra det egyptiske og europæiske antikvitet marked. Proviensien af 15 fragmenter på Nationalmuseet er endnu ikke blevet fastslået.

**2.** Valdemar Schmidt (1836-1925), den første professor i egyptologi ved Københavns Universitet og i Danmark. Det Kongelige Bibliotek. Foto © Det Kgl. Bibliotek





### At udstille egyptiske tekstiler [A.H.H.]

Tekstilerne fra Theodor Graf var nogle af de første senantikke tekstiler, der kom til Danmark. I marts 1887 holdt Valdemar Schmidt (1836-1925), professor i egyptologi ved Københavns Universitet, en forelæsning om tekstilerne i Det Kongelige Nordiske Oldskriftsselskab. Dette selskab, som fortsat eksisterer, blev grundlagt i 1825 med det formål at studere og fremme kundskab om nordisk historie, sprog og monumenter. Ved månedlige møder holdt fagfolk forelæsninger, også sommetider om emner der ikke havde med Skandinavien at gøre. Valdemar Schmidt var medlem af selskabet, og han fremviste fra tid til anden nye erhvervelser i Antiksamlingen.

Selskabet havde til huse i samme bygning som samlingen, og genstandene kunne derfor let tilgås (se fig. 2).

Schmidts fremvisning af tekstilerne fra Graf, omtalt som "Prøver", berørte en række emner, ifølge en beretning fra Berlingske Tidende den følgende dag, 2. marts 1887, udviklingen i begravelsesskikke, brugen af materialer og teknikker, og endelig hvordan disse beklædningsstykker kunne kaste nyt lys over de romerske "Senatorers" klædninger.

Udstillingen af tekstilerne på dette tidspunkt er ikke veldokumenteret, men det er sandsynligt, at en væsentlig del af stykkerne fra Theodor Graf og Robert Forrer blev udstillet kort efter, de ankom til museet.



**3.** Udstillingsmontre fra 1930'erne der præsenterer egyptiske tekstiler på Nationalmuseet. Foto fra 1992. Antiksamlingens arkiv. Foto © Nationalmuseet

**4.** (modsatte side) Udstillingsmontre fra 1930'erne der præsenterer egyptiske tekstiler på Nationalmuseet. Foto fra 1951. Foto © Nationalmuseet





Fotografier af udstillingsmontrerne fra 1930'erne, men taget efter 1951, viser at omtrent 25 af dem var udstillet, inklusiv den store tunika fra University College London, og nogle af de seneste tilføjelser fra Hans Ostenfeld Lange og Mehdi Ben Zapletal. Muligvis erstattede disse nogle af tekstilerne fra Forrer eller andre. Tekstilerne var en i den kronologiske del der omhandlede det græske og romerske Egypten. Tekstilerne lå tæt sammen, og lignede nærmest et puslespil (fig.4).

En lidt senere og knap så kompakt indretning med godt 10 fragmenter, havde denne gang tunikaen som midtpunkt. For den arkæologiske konteksts skyld, omfattede denne udstillingsektion også faraoniske tekstilredskaber. I den nuværende udstilling, opsat i 1994, er tunikaen en del af det græsk og romersk Egypten, mens de øvrige tekstiler er på magasin, men tilgængelige for forskere.

Gennem årene har en del af tekstilerne fra Nationalmuseet været udlånt til særudstillinger, bl.a. på Louisiana (1962) og Ny Carlsberg Glyptotek (1996). De tekstiler som Margrethe Hald medbragte fra London, er i dag en del af Antiksamlingen. Tidligere var de imidlertid en del af den komparative samling i Danmarks Oldtid (med undtagelse af tunikaen). Denne genstandssamling, der favner en række lande og tidsperioder, er defineret som en studiesamling. Derfor har størstedelen af tekstilerne fra London ikke været udstillet.

**Nogle bemærkninger om museumsnumre [M.M.-G., A.H.H.]**

Det virker måske indlysende, at hver genstand i et museum har sit eget

unikke nummer, ligesom det ledsages af en fyldestgørende beskrivelse. Når det gælder ældre samlinger er dette dog ikke altid tilfældet. Genstande, der kom fra samme kilde fik ofte blot ét samlet nummer, og en overordnet beskrivelse.

De af Nationalmuseets egyptiske tekstiler, som blev erhvervet fra Robert Forrer, blev optegnet under to museumsnumre: 3670 (nu 30 stykker) og 3671 (nu 18 stykker). Under udarbejdelse af denne online-udstilling, og for at kunne adskille de enkelte stykker tekstil, har vi valgt at indsætte et undernummer efter museumsnummeret: NMD Inv. 3670\_1, 3670\_2, osv. I andre tilfælde, hvor der fandtes et nummer fra Forrer er dette bibeholdt og eftersat museumsnummeret, som eksempelvis NMD Inv. 3670\_1537.

Endelig findes en gruppe tekstiler, som af forskellige historiske årsager ikke bærer noget identificerbart museumsnummer. Disse er gengivet som: NMD Inv. Unr\_a, NMD Inv. Unr\_b, osv. Nogle af disse genstande fik oprindeligt intet nummer, da de blev betragtet som del af en studiesamling. Andre kan over tid have mistet deres nummer, som det er formodentlig er tilfældet med NMD Inv. Unr\_a (**Katalog nr. 5**), som blev identificeret af Anne Haslund Hansen, som hørende til gruppen fra Forrer, og beskrevet som nummer 1588 i et brev fra 1891 til Ludvig Müller (se **Case study 2**).

5. Et uddrag fra Antiksamlingens protokol, hvor de tekstiler, der blev arhvervet fra Theodor Graf i 1886, er registreret under inventarnumrene 3116-21. Nationalmuseet. Skannet af forfatteren.

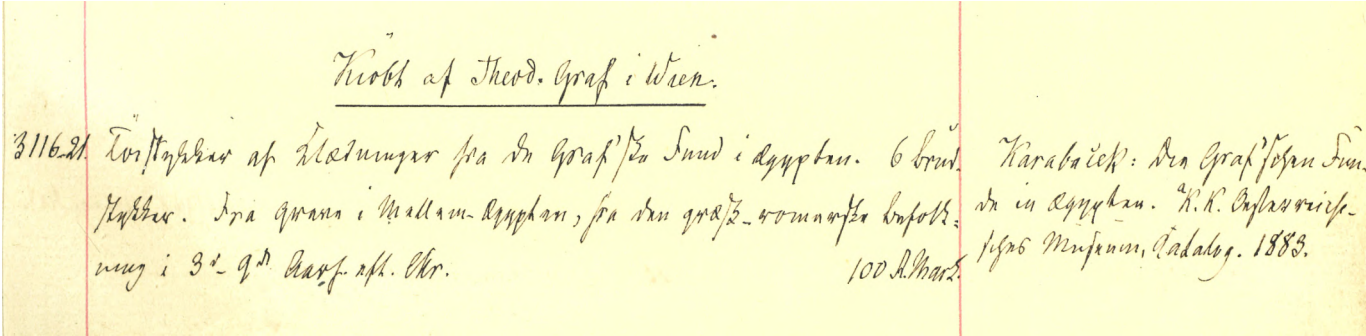
**At genskabe historien bag en samling**

**En historie eller mange historier? [M.M.-G.]**

En samlings historie består af de personer, der erhvervede genstandene og dem, der fremskaffer dem. For at genskabe denne del af historien bag samlingen af egyptiske tekstiler på Nationalmuseet, har vi benyttet en række kilder: Nationalmuseets genstandsprotokol, brevkorrespondancer mellem antikvitetshandlere (Theodor Graf, Robert Forrer); arkiver (Forrer); enkeltstående dokumenter (Ahmed Mustafa) og endog en skitse, der formentlig viser vej til en antikvitetshandlers hus (Werner Jakobsen); korrespondance mellem forskere, Margrethe Hald (Nationalmuseet ) og Grace M. Crowfoot (UCL), samt Helmut Schlunk (Kaiser-Friedrich-Museum, Berlin); oplysninger fra aviser (Peter Johansen); og endelig publiceret forskning, der giver indblik i en antikvitetshandlers personlighed og aktiviteter (Mehdi Ben Zapletal, Tove Alm) eller en forsker (Sir Flinders Petrie, Hans Ostenfeld Lange).

En samlings historie er også historien bag den enkelte genstand. Analyser af fibre og væveteknikker er grundlæggende for undersøgelsen af tekstiler. Ved at kombinere data fra analyserne med arkivstudier kan det være muligt at bestemme proveniens, eller ligefrem identificere deres arkæologiske kontekst. Derudover kan komparative studier af ikonografiske motiver også give informationer om stoffers oprindelse og datering.

En samlings historie er desuden ofte en del af andre samlings historie. De fleste europæiske museer og samlinger har erhvervet egyptiske tekstiler gennem kunst- og antikvitetsmarkedet. Mange tekstiler blev delt og sendt til forskellige museer enten af samlerne selv eller af museumsansatte. Ofte er kun den mest fængende del af et ornament klippet ud, efterladende et puslespil med få ledetråde til stoffets oprindelige udseende. Identifikationen af tekstilfragmenter på europæiske museer med relation til Nationalmuseets samling er afgørende for at kunne rekonstruere de originale genstande, der er blevet delt op, og for at kunne skabe et "slægtstræ" for tekstilerne, dog er sådanne identifikationer ikke altid entydige.





### Fremstilling af identiske tekstiler [P.L.]

#### Delingen af tekstiler på antikvitetsmarkedet

Når man arbejder med tidlige byzantinske tekstiler i museumssamlinger, ser man mange relativt ens fragmenter, der svarer til hinanden i teknik (materiale, tråde, vævning, afslutning), form, farve og mønster. Vi kan formode at matchende stykker stammer fra det samme tekstil, som er blevet klippet i flere stykker og delt på kunstmarkedet, en velkendt praksis i slutningen af 1800-tallet og begyndelsen af 1900-tallet. Matchende stykker fordelt på forskellige museer, nogle gange op til ti forskellige samlinger på europæiske museer, er ikke ualmindeligt, særligt hvis kendte samlere som Franz Bock eller Robert Forrer var involveret (Linscheid 2017, s. 10-11; 127-129). Et veritabelt puslespil af matchende fragmenter er både videnskabeligt underholdende og brugbart, da det hjælper os til at rekonstruere et tekstils oprindelige form, funktion og proveniens.

#### Fremstilling af flere tekstiler i *taquetévævning*

Formodningen om at matchende fragmenter stammer fra samme tekstil er baseret på forestillingen om, at tekstiler blev produceret som enkelte, individuelle stykker. Der er dog beviser for fremstilling af to eller flere tekstiler af det samme materiale, udført i den samme teknik, farver og dekoration, der således kan fremstå som "identiske" tekstiler.

Et tydeligt eksempel på et sådan tekstil kan ses blandt gruppen af tekstiler udført i en lærredsvævning, hvor mønstret dannes af trendtrådene,

også kaldet *taqueté*, med mønstre forestillende jagtskener i grøn på en rød baggrund, eller, hvis man vender tekstilet, i rød på en grøn baggrund. Motiverne viser en løve og en hjort, en bueskytte og en rytter med et langt spyd, der angriber et vildsvin. Disse scener afbrydes lodret af en violet sektion (fig. 6).

Fragmenter af dette tekstil, der alle matcher teknik, materiale, farver og afbildninger, findes fordelt på mere end 11 forskellige museumssamlinger; de fleste af dem er identificeret af Sabine Schrenk (Schrenk 2004, s. 173-176; Linscheid 2017, s. 32-33). Fundstedet er ukendt for samtlige fragmenter, men en kulstof 14-datering placerer denne gruppe i perioden fra det 4. århundrede til midten af det 6. århundrede e.Kr. Schrenk har på overbevisende vis rekonstrueret fragmenterne som en tunika ud fra spor efter en halsudskæring på fragmentet fra Kunstgewerbemuseum i Berlin, såvel som en som en linje, hvor mønstret spejlvendes på fragmentet fra Západočeské Museum i Pilsen: de violette bånd må være tunikaens clavi. Eftersom fragmentet i Pilsen hører til skulderdelen og er afsluttet med en snoet kant, var tunikaen formodentlig ærmeløs. Schrenk har bemærket at yderligere to tilsyneladende

6. Fragment af en tunika i *taquetévævning* med jagtskener. Karlsruhe Badisches Landesmuseum (Inv. T 159). Foto: Thomas Goldschmidt © BLM Karlsruhe





matchende fragmenter, ét i Berlin (Museum für Byzantinische Kunst) og ét i Tübingen (Ägyptologisches Institut), afviger i antal og orientering af figurerne, og hun formoder derfor, at der eksisterer en anden, duplikeret tunika. (se fig. 7a).

Denne formodning er for nylig blevet bekræftet ved publiceringen af et stort fragment af samme *taqueté*vævning fra Württembergisches Landesmuseum i Stuttgart (Inv. GT 3846: Nauerth 2014, no 34). I dette fragment er den fulde længde af en tunikaside med bevaret skulderdel. Figurernes orientering angiver skulderhøjden på tunikaen. Med sin intakte skuldersektion kan Stuttgart-fragmentet ikke have været en del af Schrenks rekonstruerede tunika, da begge skuldersektioner allerede er redegjort for med Pilsen og Berlin-fragmenterne. Som resultat deraf må Stuttgart-fragmentet have været del af en anden tunika. Begge tunikaer er identiske i teknik, farve og mønster, og begge er ærmeløse (se fig. 7b).

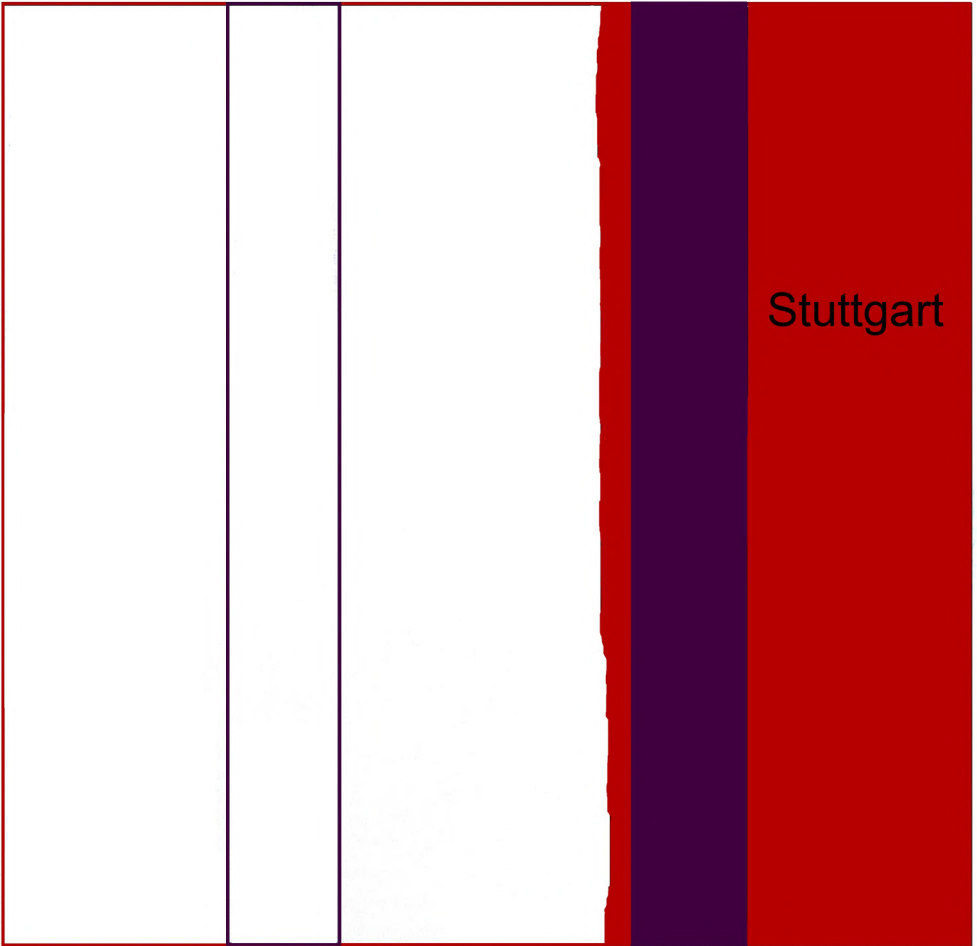
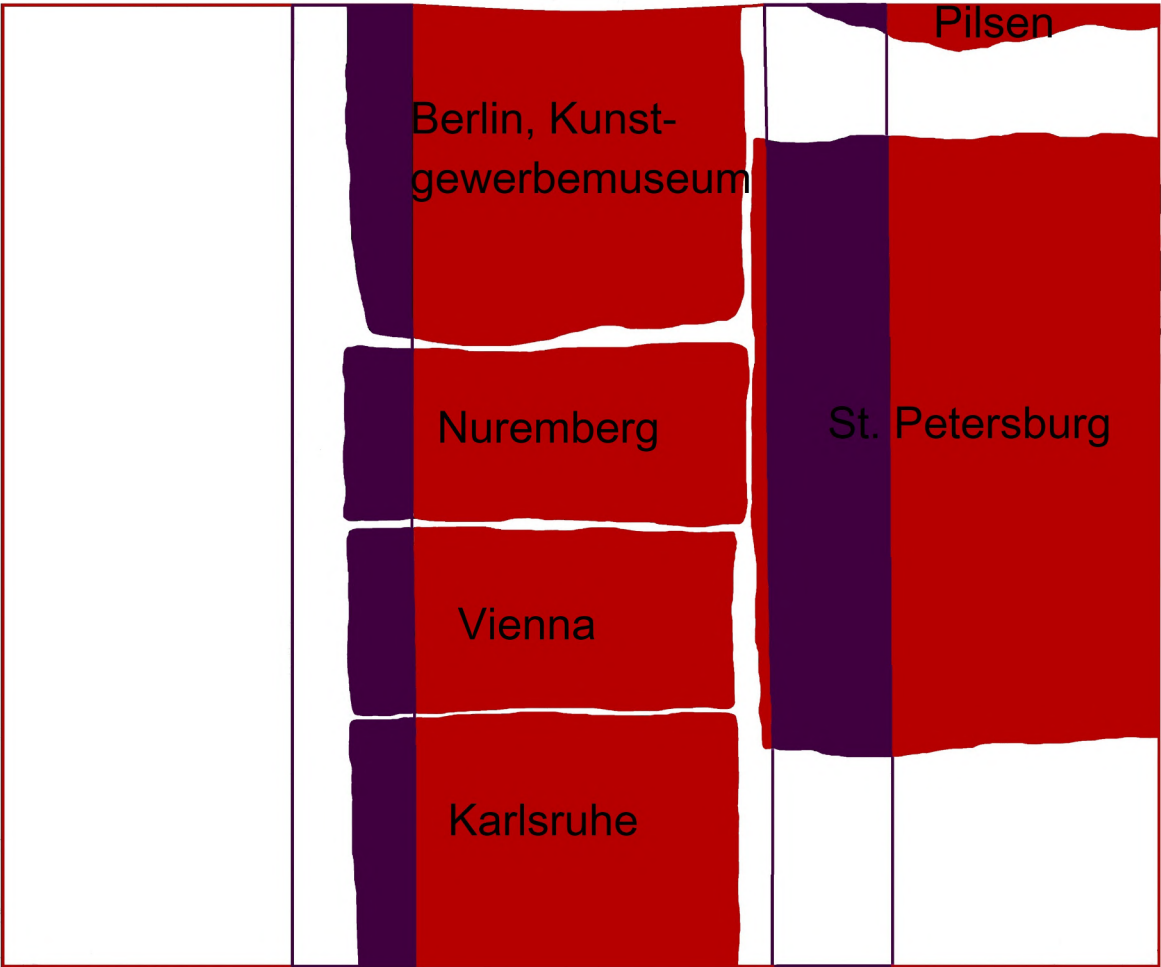
Det næste eksempel på identiske tekstiler er ligeledes udført i lærredsvævning eller *taqueté*, denne gang med fugle i oktagoner (se **Katalog nr. 8**). En kulstof 14-undersøgelse tyder på at en datering omkring det 4. århundrede til midten af det 6. århundrede e.Kr. Mange af fragmenterne er blevet tilskrevet den egyptiske lokalitet Akhmim, hvor der er gjort mange fund af senantikke tekstiler. Dette *taqueté*-stof med fugle i oktagoner forekommer i to komplette, rektangulære tekstiler, omtalt som "pudevår", og som findes på Victoria and Albert Museum i London (Inv. 780-1893). Der eksisterer imidlertid flere matchende fragmenter, som må have været del af en tunika (Inv. 304-1891). Barbara Thomas har undersøgt disse fragmenter (se **Case study 4**). Også i

dette tilfælde er den samme vævning og teknik blevet benyttet i mere end ét tekstil, og i dette tilfælde endda i tekstiler med forskellige funktioner: boligtekstil og beklædningstekstil.

De to eksempler på produktion af ens tekstiler er som nævnt udført i lærredsvævning. Denne komplekse vævning kræver en avanceret vævopsætning, og derfor forekommer det rimeligt, at man har vævet flere tekstiler på den samme væv. Det kan dog ikke udelukkes, at det samme tekstil kan være vævet på forskellige vævsteder, men ved hjælp af samme væveinstruktion.

**7a.** Rekonstruktion af den første tunika i *taqueté*vævning med jagtskener; side A, med fragmenter i Karlsruhe, Wien, Nürnberg, Berlin Kunstgewerbemuseum, Sankt Petersburg, Pilsen; side B (ikke afbildet), med fragmenter i Pilsen, Cleveland, Göteborg, Philadelphia, Riggisberg, Paris.  
Tegning: Petra Linscheid efter Schrenk (2004), s. 175.

**7b.** Rekonstruktion af den anden tunika i *taqueté*vævning med jagtskener; side A, med fragment i Stuttgart; side B (ikke afbildet), med fragmenter i Stuttgart, Berlin Museum für Byzantinische Kunst, Tübingen.  
Tegning © Petra Linscheid







8. Tunika, som er lavet i flere eksemplarer. . Antwerpen Katoen Natie Inv. 614 (DM133). Foto: Hugo Maertens © The Phoebus Foundation

### Tekstiler med billedvævning

Flere af tekstilerne er ikke blot fremstillet i komplicerede vævninger. Katoen Natie-samlingen i Antwerpen rummer en fuldstændig børnetunika i hør (Inv. 614 [DM133]: De Moor et al. 2008, p. 200-201) Kulstof 14-test daterer den til 650-780 e.Kr. (med 95,4% sandsynlighed). Tunikaen er dekoreret med *clavi*, ærmebånd, og knæ- og skulderpaneler i farverig billedvævning. *Clavierne* er dekoreret med en grøn ranke med røde blomsterknopper på en gul baggrund, delt af et rødt felt med en plante i lys farve. Tekstilforsker Antoine De Moor har bemærket, at en tilsvarende *clavus* med identiske teknikker, mønster, farve og størrelse, ligeledes fra en hørtunika,

findes i Bouvier tekstilsamlingen (Inv. S 435: Stauffer 1991, p. 177). Eftersom tunikaen i Antwerpen er komplet, vidner Bouvier-samlingens *clavus* om eksistensen af en anden, tilsvarende hørtunika med identiske *clavus* (fig. 8).

### Tekstiler med løkker

Fremstilling af ens tekstiler findes også blandt de ensfarvede tekstiler. I det 4. og 6. århundrede var medaljoner med knudeornamenter vævet med blålige løkker populære. Mindst syv fragmenter med det præcis samme motiv har overlevet til i dag. De stammer fra mindst tre store hørtæpper prydet med lange løkker i hør (Linscheid 2017, p. 63) (se fig. 9).



9. Fragment af et linnedsløjfeovertræk med knudeornament, hvor der også kendes flere eksemplarer. Karlsruhe Badisches Landesmuseum (Inv. T 184). Foto: Thomas Goldschmidt © BLM Karlsruhe



## Økonomiske aspekter og mønstertegninger

Ovenstående eksempler viser, at en tunika eller et boligtekstil ikke nødvendigvis var et unikt stykke, men ved at benytte den samme vævning og mønster kunne produktionen gentages. Ved at vælge ikke bare et identisk mønster, men også det samme materiale, farver og tekniske detaljer, fremstillede vævere ens produkter, hvilket er bevis for en slags serieproduktion af tekstiler. Om flerproduktionen foregik i det samme værksted er et åbent spørgsmål, da vævemønstre og kartoner kan have cirkuleret rundt.

Om vævekartoner, se også Annemarie Stauffers arbejde (2020).

Den mulige produktion af ens tekstiler er af særlig interesse, da det kan kaste lys på tidlig byzantinsk tekstiløkonomi, som fortsat er et underbelyst emne. Er de identiske tunikaer eller boligtekstiler udtryk for en lagerproduktion af tekstiler? Eller bestilte en kunde flere eksemplarer af samme tekstil?

Fremtidig forskning kan meget vel skabe ny viden om dupliserede tekstiler. Dog kender vi kun til en lille procentdel af de tekstiler der blev produceret i tidlig byzantinsk Egypten.

### Tilskrivningen af matchende fragmenter til det samme tekstil

Der er behov for stringente kriterier for at kunne tilskrive matchende fragmenter til den samme genstand. Hvordan for eksempel med fragmenterne fra Nationalmuseet, der matcher fragmenter i andre samlinger (se **Katalog nr. 5, 6, 7 og 13**)? Er de fragmenter skåret fra samme tekstil?

Eller er de resultatet af produktionen af ens tekstiler?

For at kunne konkludere, om matchende tekstilfragmenter stammer fra den samme genstand eller fra flere genstande, er en grundig undersøgelse af alle tekniske detaljer nødvendig, herunder en nøjagtig optælling af trådene i stoffet og mønstrene. Hvis to eller flere fragmenter passer perfekt sammen, så tyder det oplagt også på at de kommer fra et og samme stykke stof. Fejl i vævningen, som Sabine Schrenk og Barbara Thomas (se **Case study 4**) har vist, indikerer at fragmenterne kan være vævet på den samme opsætning af trenden.

Derudover bør man tage fuldstændigheden af genstandene i betragtning, som de ovenstående eksempler viser. Kan alle de mulige fragmenter integreres i én samlet rekonstruktion eller er der fragmenter "tilovers", som derfor tyder på at der findes en yderligere genstand?

Slutteligt er mere sandsynligt, at fragmenterne hører til den samme genstand, hvis de har den samme proveniens og indsamlingshistorie.



**10.** Fragment af et mønsterdesign, papyrus (4.-5. århundrede e.Kr., Hermopolis). Ägyptisches Museum und Papyrussammlung (SMB Inv. P. 13275 Fr. b).

Det øverste felt viser fisk, vandplanter og dele af en mandlig figur. I det nederste felt er der en fisk, en fugl og lotusblade. Tegningerne er sorte med detaljer malet i hvidt. Denne type design blev brugt som forlæg til vævning, men også til mosaikker og maleri. Foto: Sandra Steiß © bpk / Ägyptisches Museum und Papyrussammlung, SMB



**11.** Fragment af et mønsterdesign, papyrus (3.-4. århundrede e.Kr., Hermopolis). Ägyptisches Museum und Papyrussammlung (Inv. SMB P. 13275 Fr. d).

*Tabula* med fremstilling af en løbende eros. En løve og andre firfodede dyr samt fugle er afbildet omkring *tabula*en. Det mørke bånd, sandsynligvis en *clavus*, viser en fugl, måske en vagtel, og en cirkulær form, som er vanskelig at aflæse. Tegningerne er sorte med detaljer malet i hvid og gråblå farve. Foto: Sandra Steiß © bpk / Ägyptisches Museum und Papyrussammlung, SMB

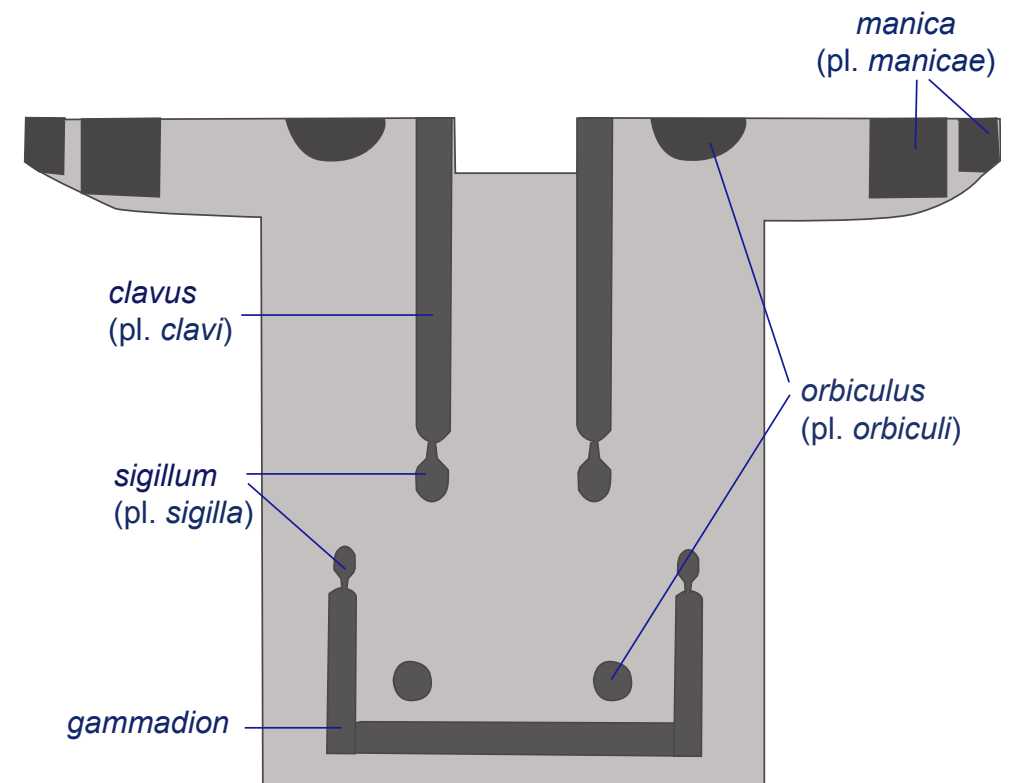
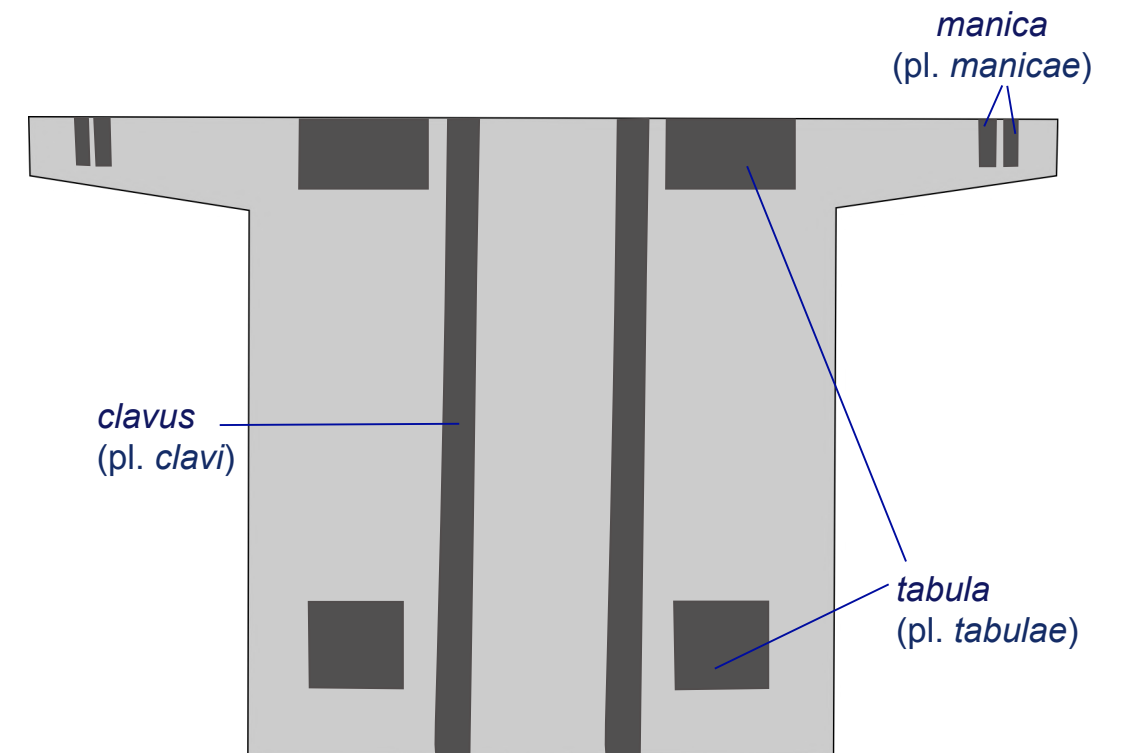


## Hvordan så tekstilet ud? At tegne tekstilrekonstruktioner [A.K.]

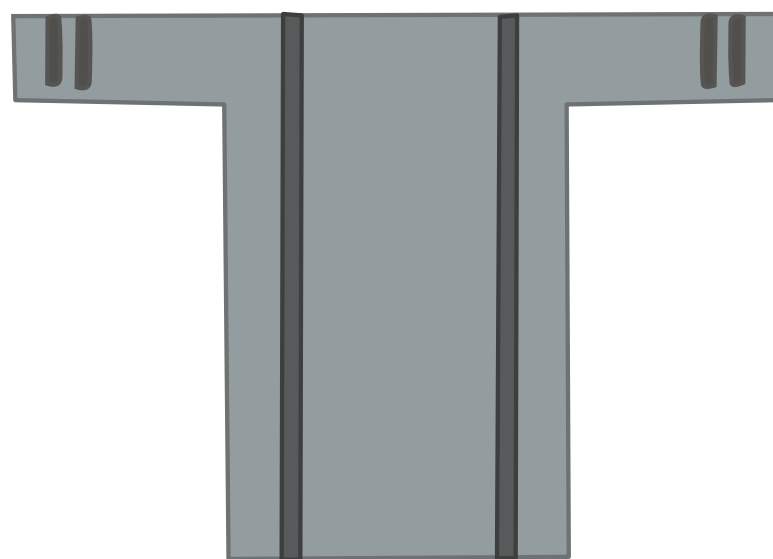
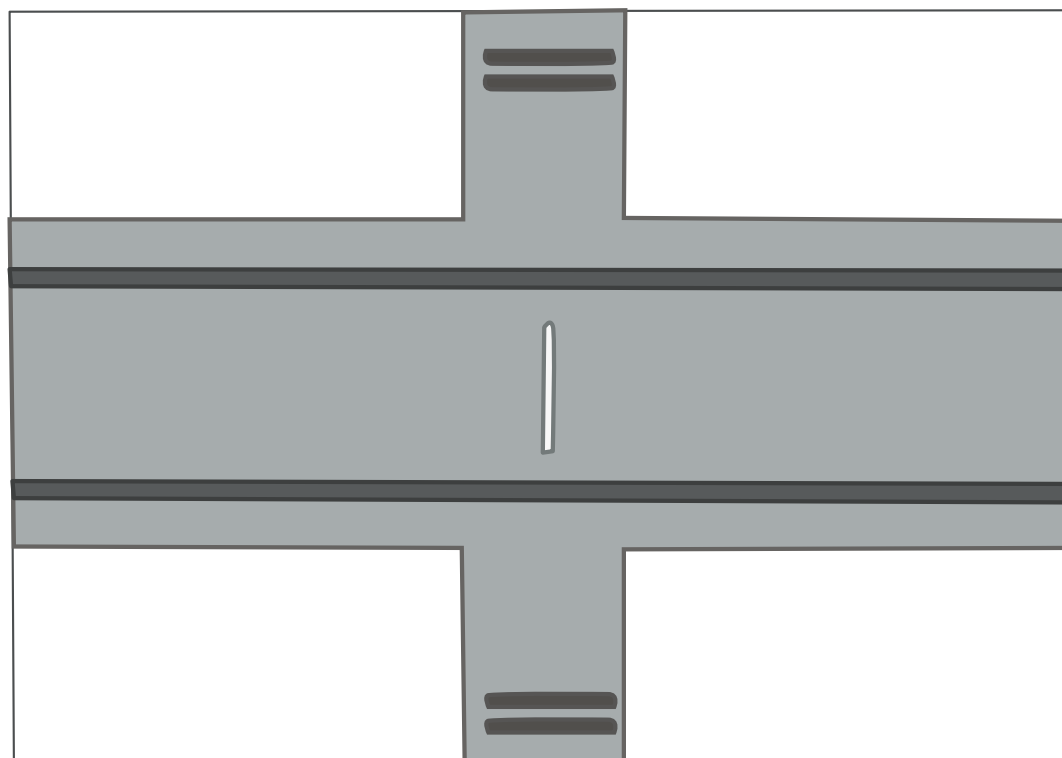
Foruden én mere eller mindre fuldstændig tunika (Inv. 12141), består samlingen på Nationalmuseet af fragmenter fra tunikaer, hovedtøj, kåber og boligtekstiler. For bedre at kunne se, hvordan fragmenterne har været placeret i det oprindelige tekstil, har vi udført nogle tegningsforslag. De fleste af fragmenterne stammer fra tunikaer fra den byzantinske periode. Den mest almindelige tunika i denne periode er den T-formede model, vævet i ét eller i tre stykker og udsmykket med lodrette striber, de såkaldte *clavi*, bånd på ærmerne, samt cirkelformede eller firkantede dekorationer på skuldrene og under knæene (se fig. 12).

Der er stor variation i decorationen på en tunika, men ud fra fragmenterne er det muligt at udlede, hvilken slags overordnet decoration, f.eks. kort eller lang *clavi*, der har været på den oprindelige tunika. Væveretningen kan også give os en idé om, hvordan de billedvævede fragmenter har været placeret. Hvad angår rekonstruktionsforslagene, skal det siges, at fragmenterne er for små til, at man sikkerhed kan udlede tunikaens dimensioner, så højde, bredde, ærmelængde, livhøjde, er tentative. Halsudskæring er også blot den sandsynlige. Fragmenter med afbildninger af antiloper på en grøn baggrund stammer sandsynligvis fra en aflang kåbe og ikke fra en tunika (**Katalog nr. 13**). Alle antiloper ville være roteret 90 grader, hvis de havde været fra en tunika.

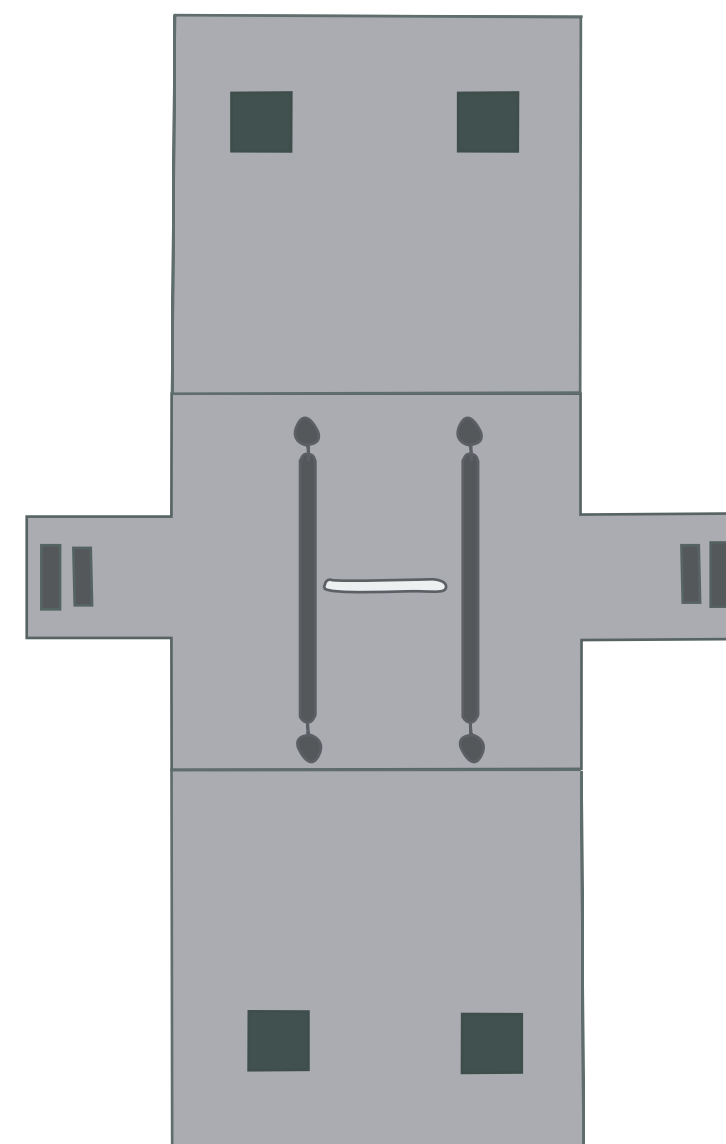
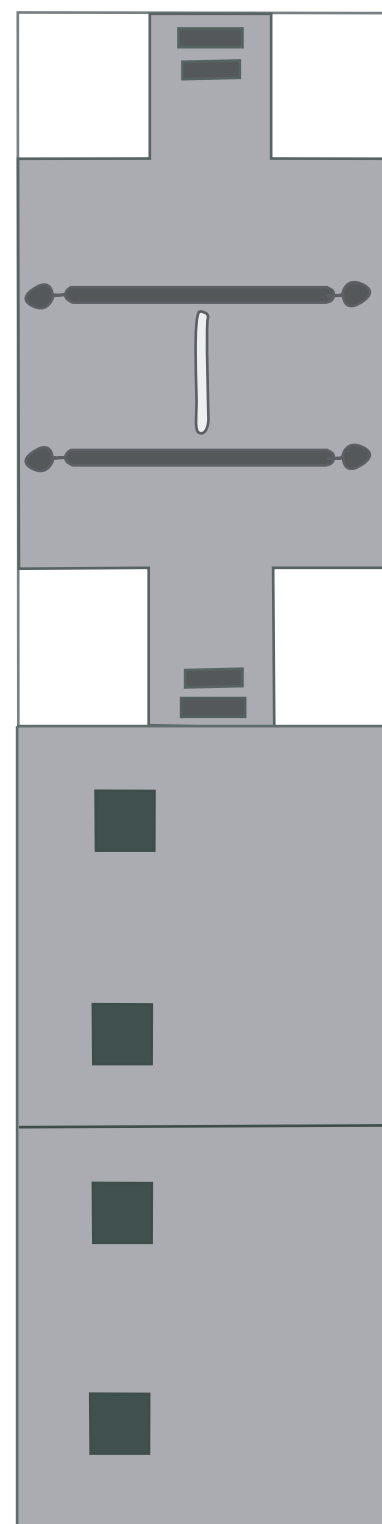
**12a, b.** Dekorative elementer på byzantinske tunikaer.  
Tegning © Maria Mossakowska-Gaubert







**12c.** Tunika formvævet i ét stykke.  
Tegning © Maria Mossakowska-  
Gaubert, efter D.L. Carroll, *Looms and  
textiles of the Copts*, 1988, fig. 12A.



**12d:** Tunika formvævet i tre stykker.  
Tegning © Maria Mossakowska-  
Gaubert, efter J. Lafontaine-Dosogne,  
D. De Jonghe, *Textiles Coptes*.  
*Musées Royaux d'Art et d'Histoire*,  
1988, fig. 137 og 138.



## 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 6<sup>th</sup> 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 13<sup>th</sup> May, but a copy of this letter has not survived.

In a second letter, dated 17<sup>th</sup> 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 21<sup>st</sup> May Müller declined to buy the collection, but offered Graf 100 marks for the five pieces already sent to Copenhagen. On 26<sup>th</sup> May 1886 Graf accepts the offer of 100 marks, and on 31<sup>st</sup> May Müller sends the money. In the last letter concerning this purchase, dated 4<sup>th</sup> June 1886, Graf confirms the receipt of 100 marks and sends an invoice *post hoc*. [A.H.H., P.L.]



THEODOR GRAF

WIEN.

An die verehrliche Direction  
des Königl. Museums  
in Kopenhagen.

Mien am 6 Mai 1886

Wenn auch gewöhnlich unbekannt,  
so gewisse ich nicht, daß Your mein Namen  
neither in irgend einer Zusammenkunft noch  
der unter dem Namen „Papyrus Eyberg“  
Nantes“ bekannt und mittheilend ist,  
noch eine große Veränderung ging, und  
keine der Papyrus jetzt, bereits bekannt  
sein wird, und daher ich mich die Freiheit  
auf solche in folgenden Angelegenheit  
an Sie zu schreiben.

Maschinen meist langer Arbeitsfactor in  
Egypten in den letzten Jahren ist es nicht  
nur in vielen Pflanzungen gelungen  
eine größere Pflanzung griechisch-ägyptischer  
Woff zu Gamandayla, und den ersten  
Safordischen ersten Pflanzung datieren,  
sind Ausgrabungen zur Tage zu fördern.

eine Sammlung, welche ganz auf alle  
 für die geistl. Fortentwicklung der Teut. Nationen  
 jenseitigen Nutzen und nützlich und nützlich  
 vor Augen steht die vordere Seite von  
 Abkündigung, Pöffer und ohne in Sachen  
 geistl. inoffensiv, nicht in Geboten, Tadeln  
 allgütigen geistigen Anwandern!  
 Pöffer, besonders für ganze, nicht-jährliche  
 Gesandte in der neuesten Sammlung,  
 jedoch mit auf in Bezug auf den Geist  
 in Abkündigung, nicht die Teut. Nationen  
 Pöffer, nicht die vordere Seite von  
 inoffensiv, nicht in Geboten, Tadeln  
 allgütigen geistigen Anwandern!  
 Pöffer, besonders für ganze, nicht-jährliche  
 Gesandte in der neuesten Sammlung,  
 jedoch mit auf in Bezug auf den Geist  
 in Abkündigung, nicht die Teut. Nationen  
 Pöffer, nicht die vordere Seite von  
 inoffensiv, nicht in Geboten, Tadeln  
 allgütigen geistigen Anwandern!

offene Glasgefäß gehalten, für Veränderungen  
in aufzufolgender Map. zu benutzen.  
Nun kann zu zeigen, in welcher Weise  
sich diese Stoffe verhalten, wenn sie  
in einem Gefäß, das mit einem Saug-  
pumpen verbunden ist, sich befinden.  
Nun ist zu zeigen, dass die Luft, die  
in dem Gefäß sich befindet, sich ver-  
ändert, wenn man sie in einem Gefäß  
hält, das mit einem Saugpumpen verbunden  
ist, und dass die Luft, die in dem Gefäß  
sich befindet, sich verändert, wenn man  
sie in einem Gefäß hält, das mit einem  
Saugpumpen verbunden ist.

Knodor Graf  
F. Schillingplatz.

Lyfvaand d. 13 Mai  
L. Müller

**13a, b, c.** Theodor Graf's letter of 6<sup>th</sup> 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 13<sup>th</sup> 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:

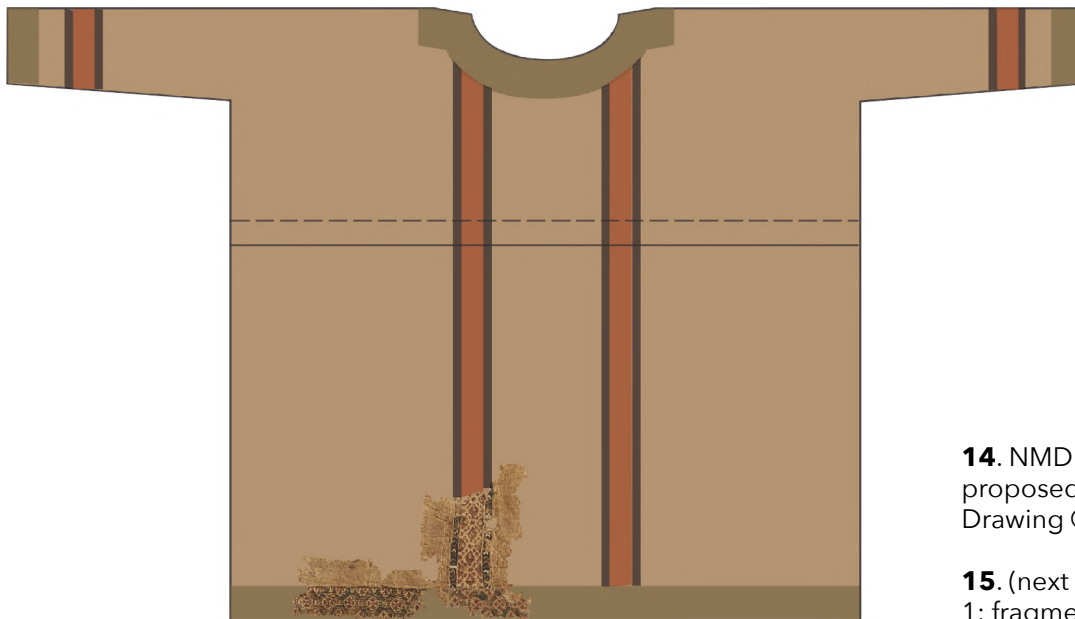
warp: S-spun, linen, 17/cm  
weft: S-spun, linen, 16/cm  
Balanced tabby

*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

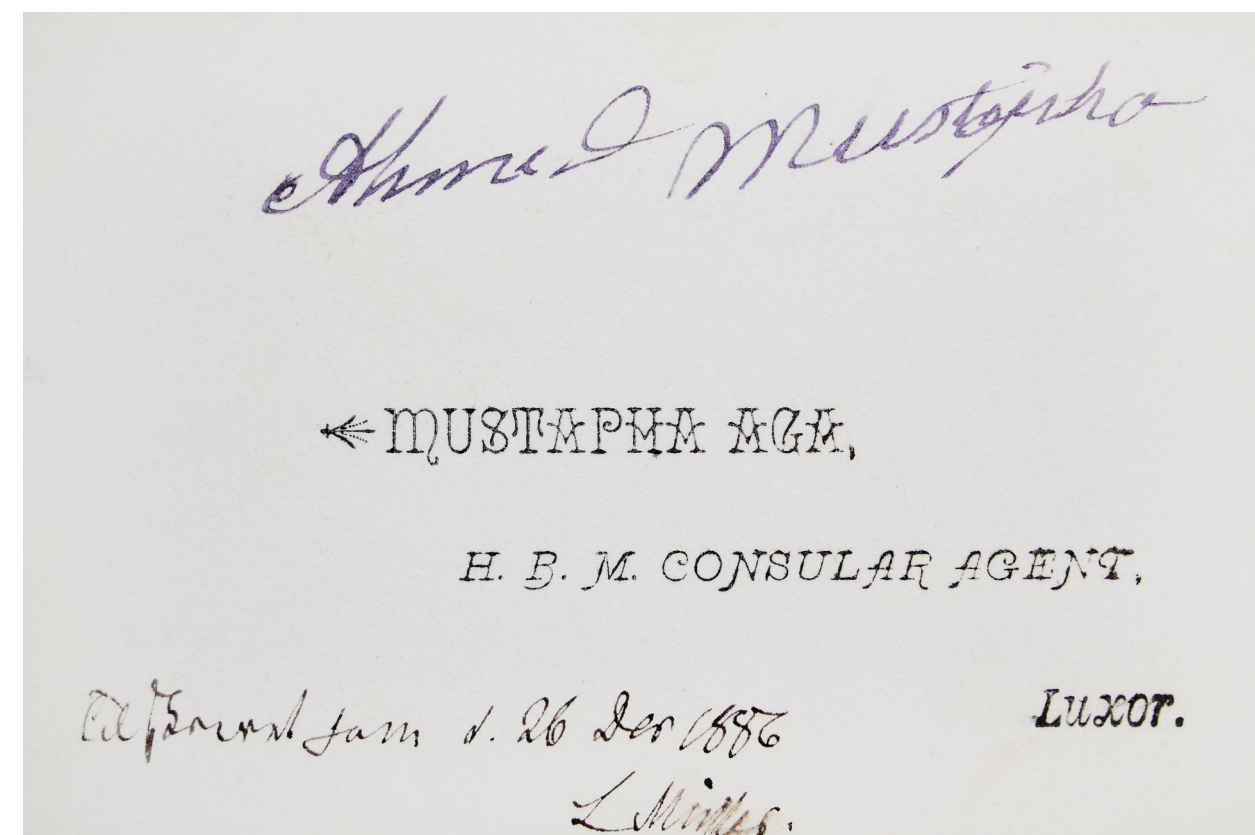


In 1886, the National Museum also received a cotton fabric with looped-warp fringes. The textile, given by **Ahmed Mustafa**, a British “consular agent” from Luxor, was transferred to Copenhagen by a certain Miss Lassen. The donated fabric was probably intended as an incentive for the director of the 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





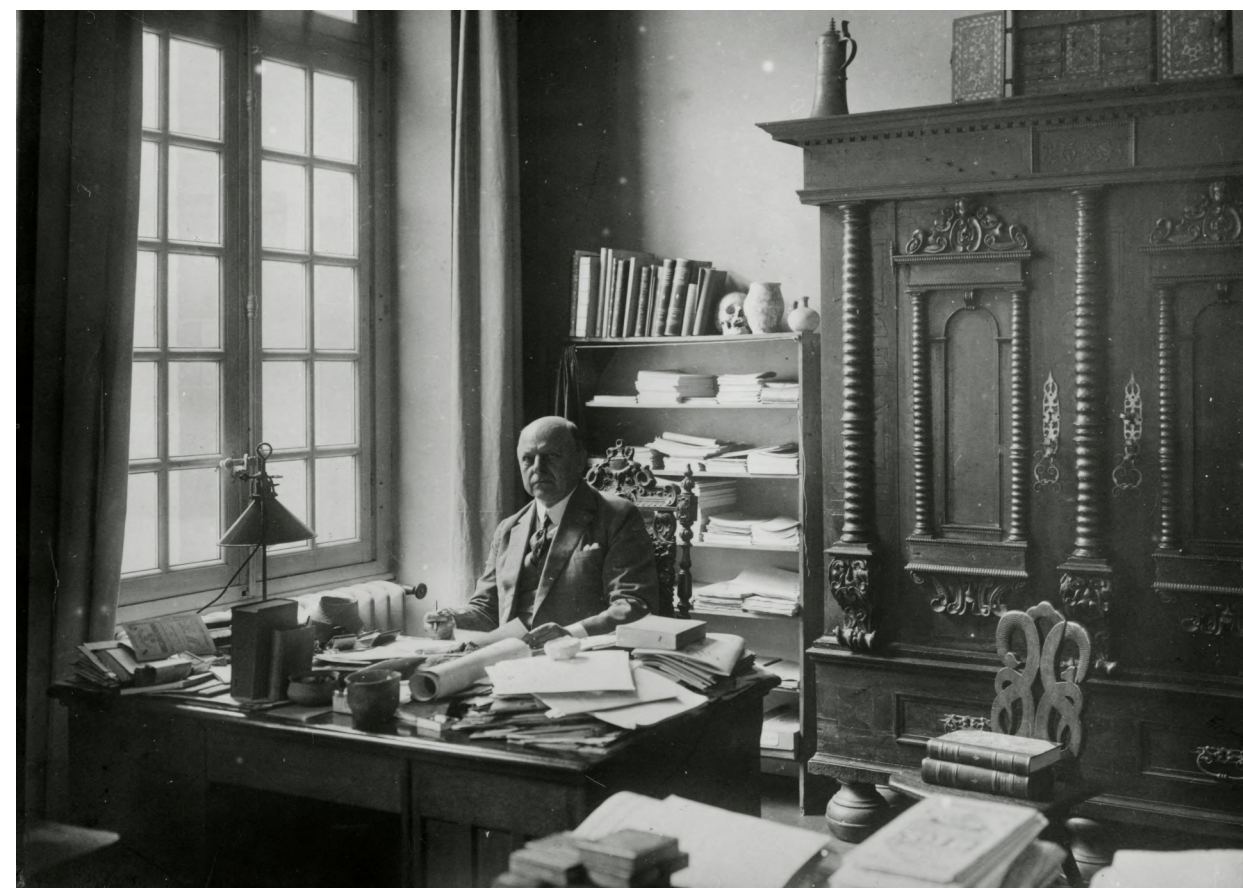
### 1891: Robert Forrer's "puzzles"

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**.

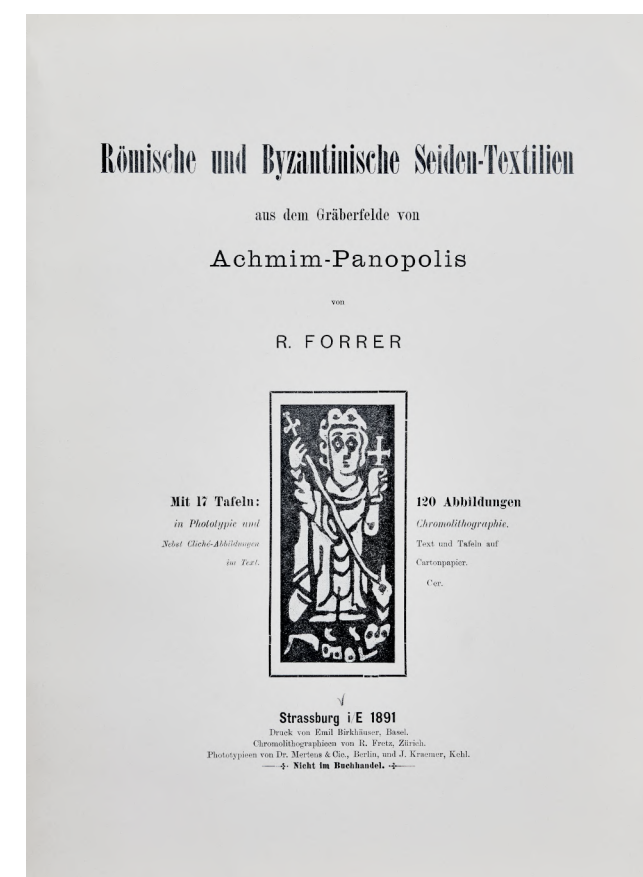
We can assume with a high degree of probability that Robert Forrer cut and separated fragments of one fabric and registered them in more than one lot. He then sold the fragmented textiles to different collections or to other dealers, and this phenomenon has created a situation where we have, for example, 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



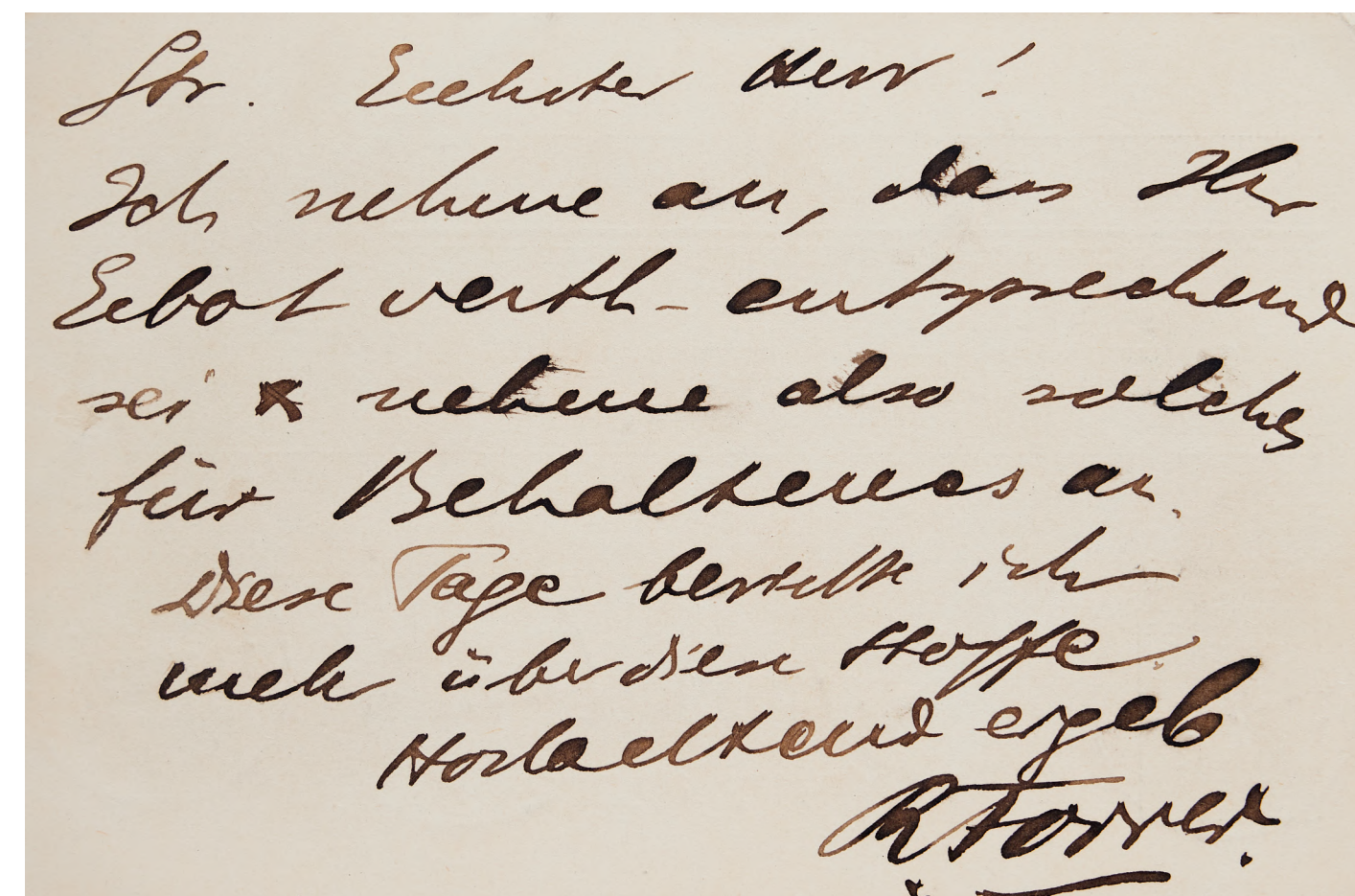


The provenance of these fabrics is given as “**Akhmim-Panopolis**”, but it is possible that some of them also come from the **Fayum** (cf. **Case study 2**). In fact, the titles of all Forrer’s books on textiles, as well as the title of his notebook, cite the name of Akhmim as the findspot of the described 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 (16<sup>th</sup> 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.]

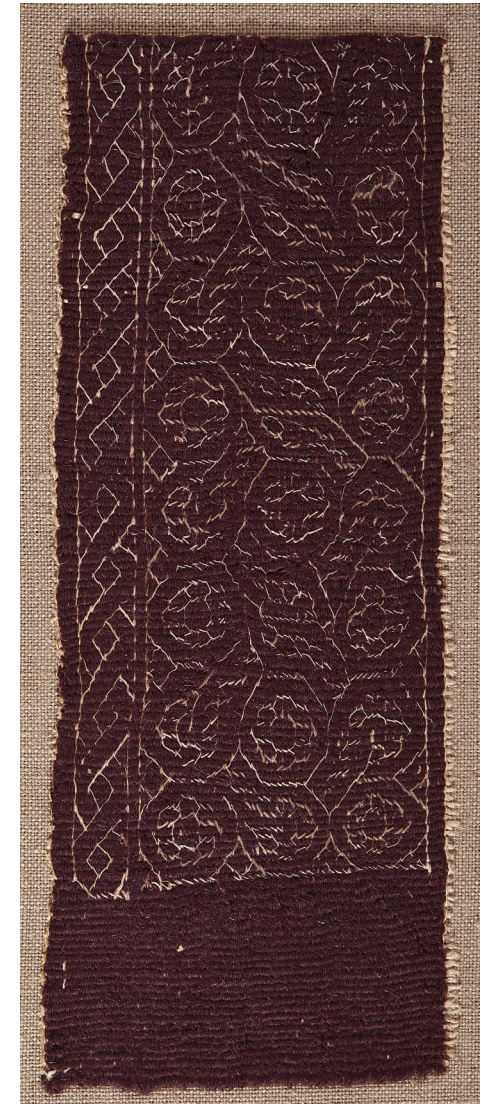
Measurements:  
warp: 7,3 cm  
weft: 16.5 cm  
Flying thread band:  
warp: alternately rearranged per 2 and 3 by crossing, 7 units/cm  
weft: wool, S-spun, 56/cm Linen, S-spun for flying thread brocading



**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





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

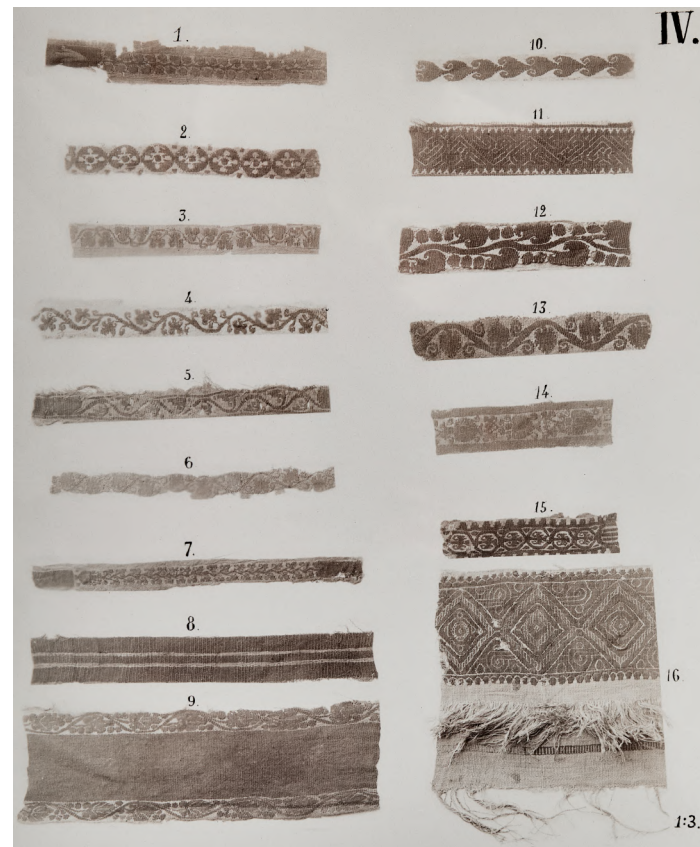
Linen fabric with a band decorated with a stylised vine scroll. The ornament is executed in blue-black wool in tapestry technique. It may be a fragment of *clavus* decorating a tunic. [A.K.]

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:

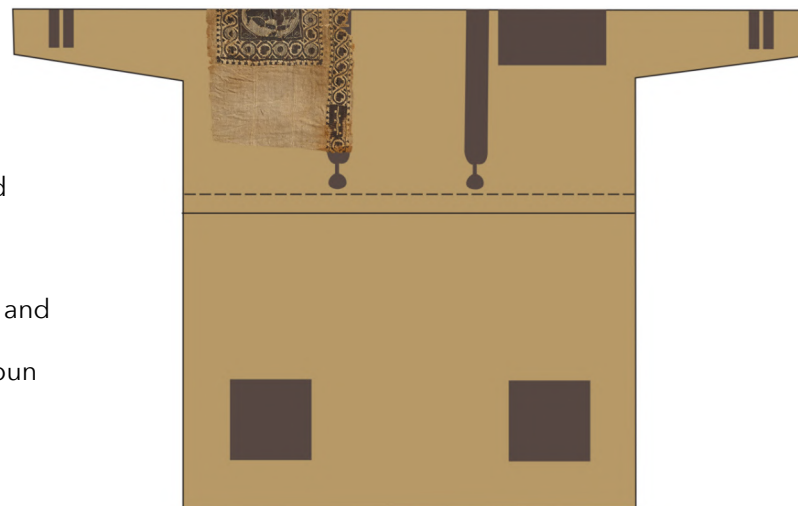
warp: S-spun, linen, 21/cm  
weft: S-spun, linen, 17/cm  
warp-faced tabby, almost balanced tabby

#### 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





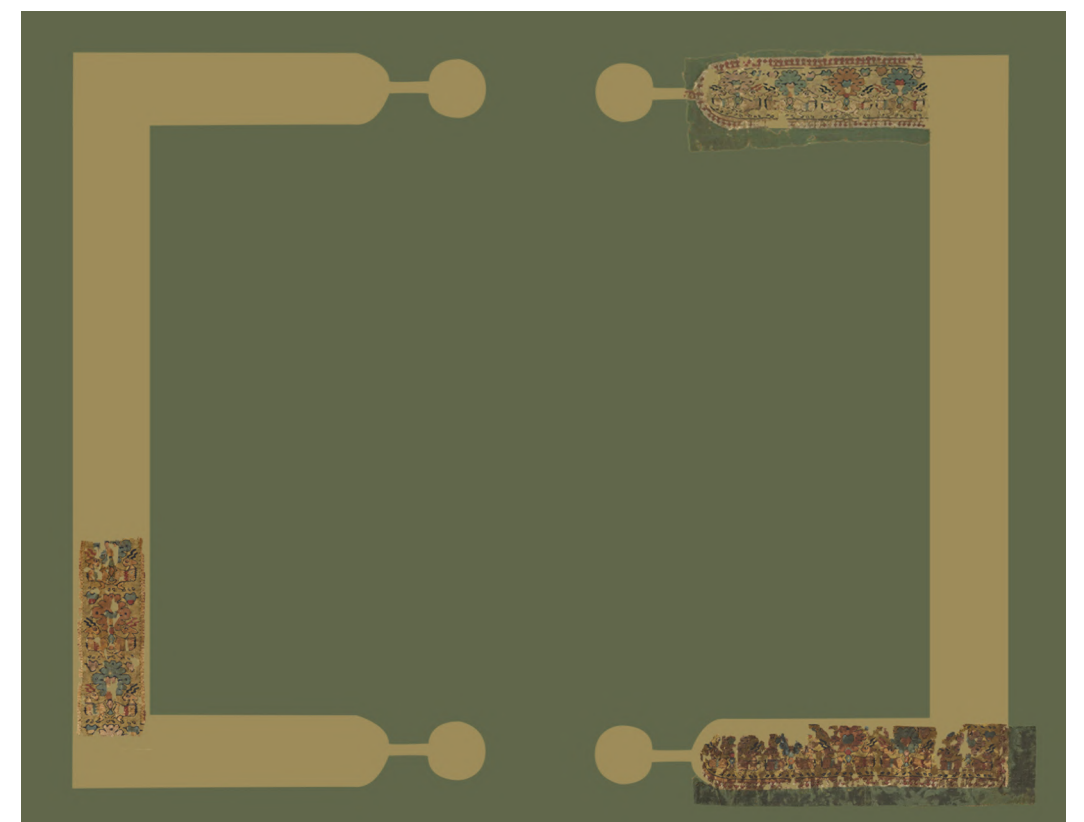


**44.a** (left) Catalogue no 13:  
fragments of a tapestry decoration  
(NMD Inv. 3671\_10).  
Photo: Søren Greve © NMD

**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

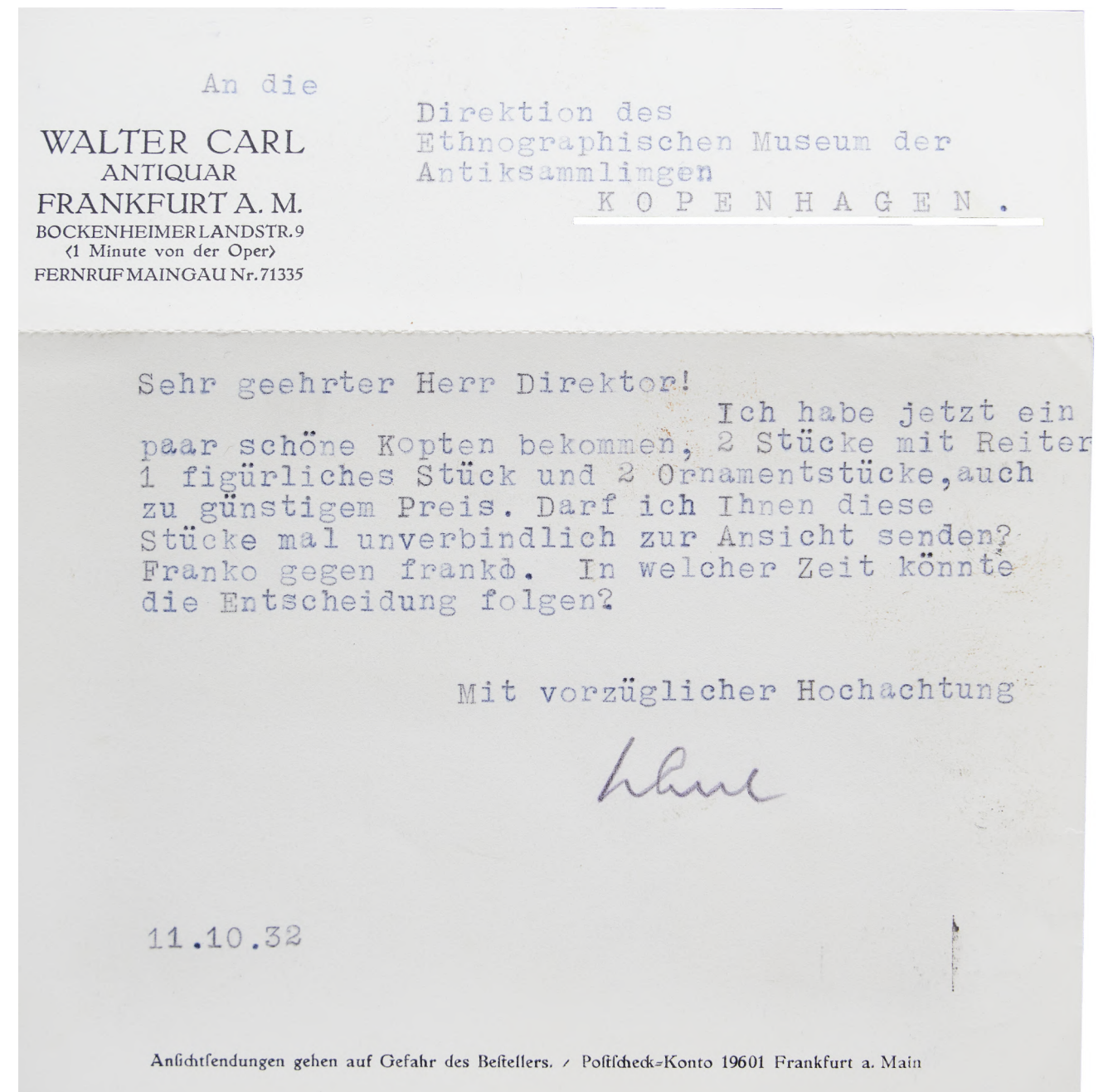
The National Museum of Denmark purchased two textile fragments from a German art dealer and collector from Frankfurt am Main, **Walter Carl** (1884-1956). Carl was in contact with the National Museum many times over the years from 1926 to 1934. Walter Carl would communicate by letters with enclosed photos 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 11<sup>th</sup> 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*:

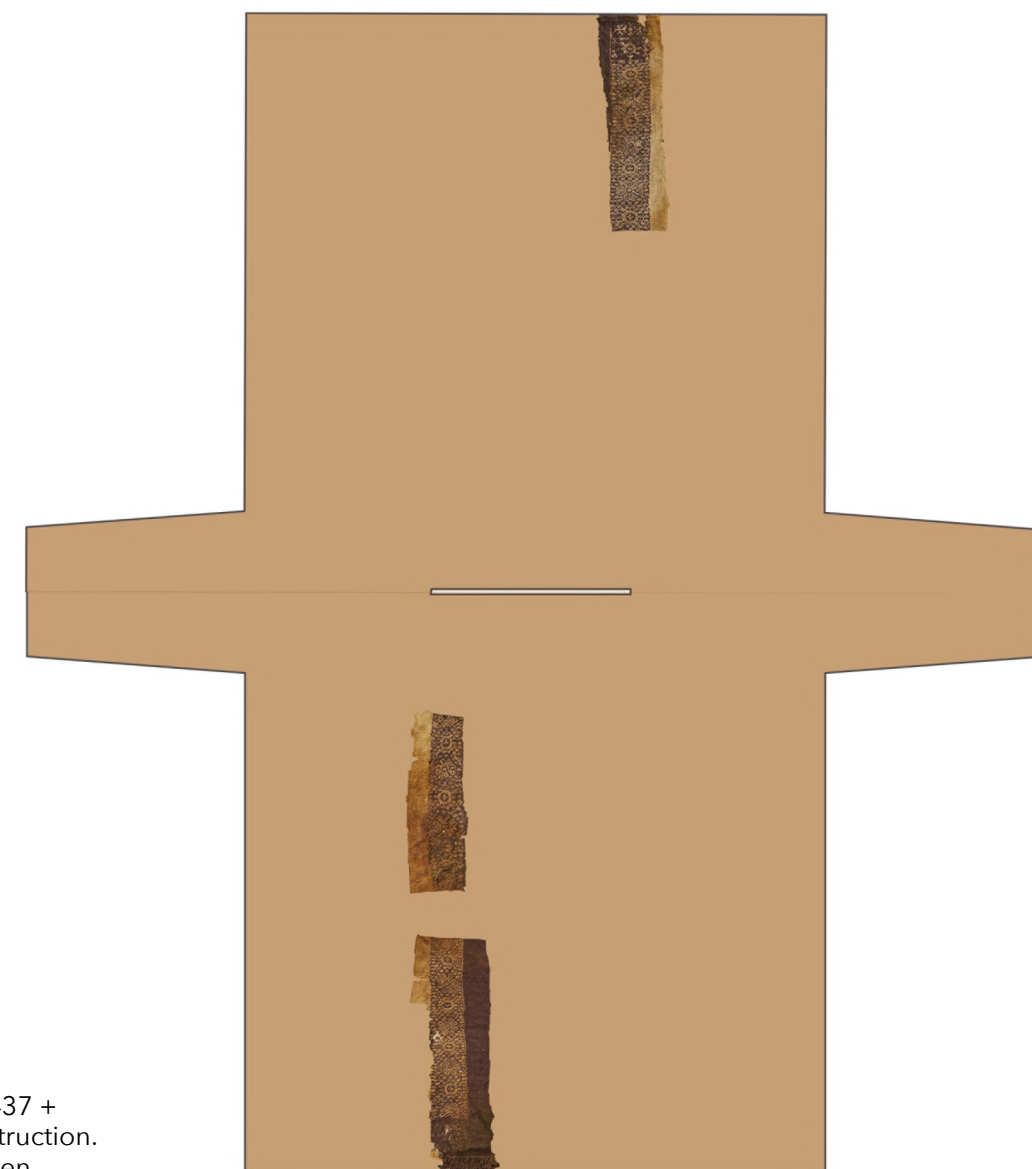
width: not complete

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

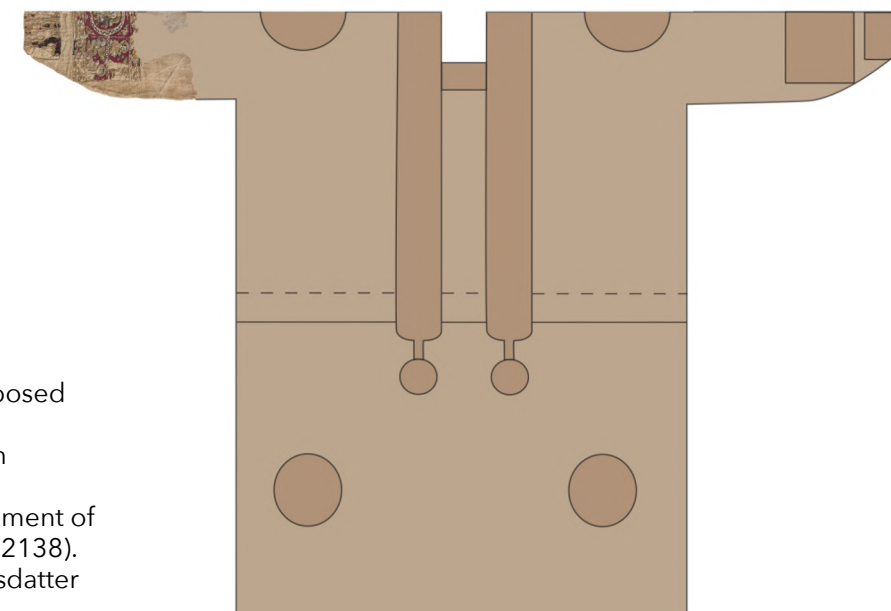
Ground weave:  
warp 12-17/cm S-spun linen  
weft 12-14/cm S-spun linen  
balanced weave  
selfbands between the two bands:  
paired weft

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:

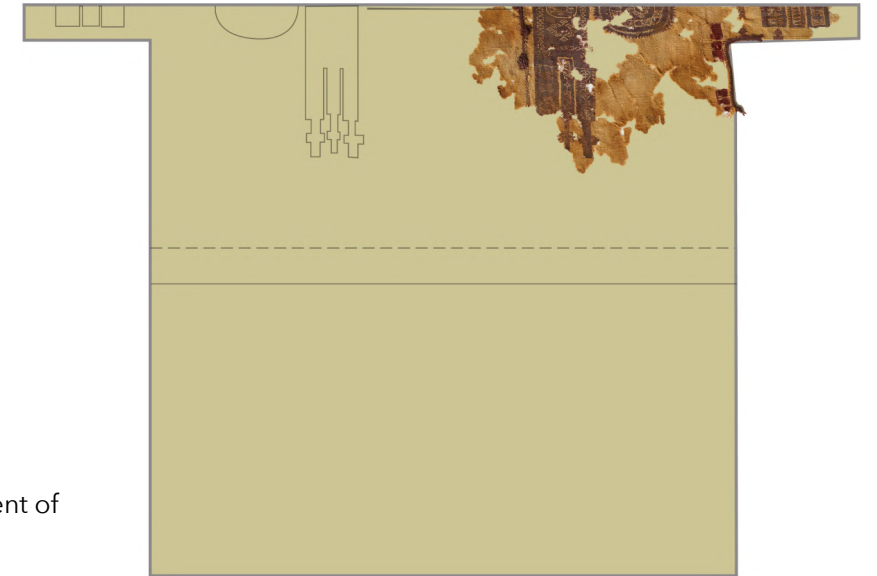
not preserved, probably woven-in neck slit; sewn on cords at neck corners

#### 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:

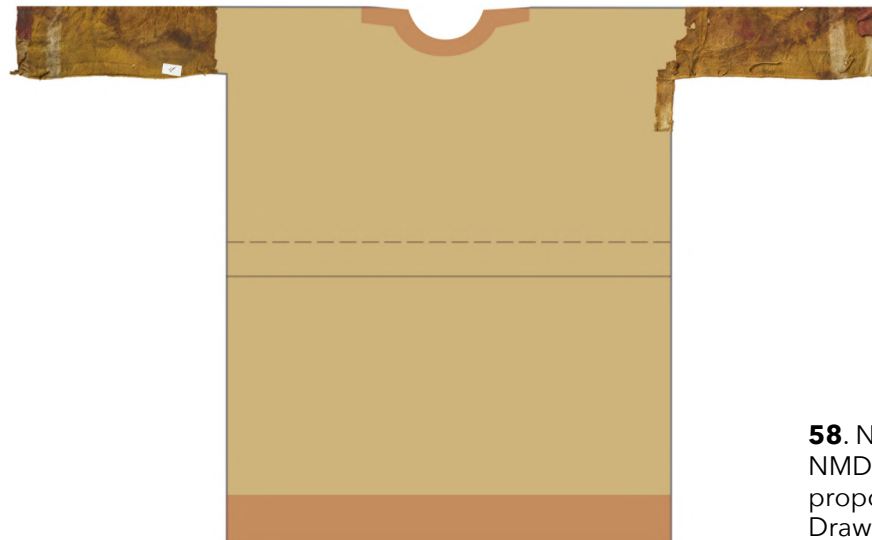
wool S3Z

##### 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

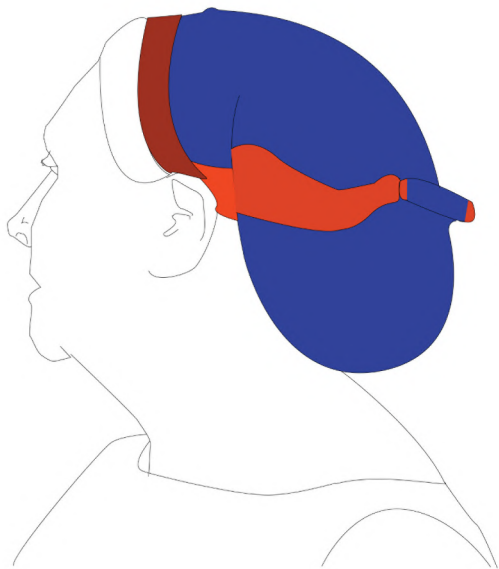


**No. 21**  
NMD Inv. 722/36 H

**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





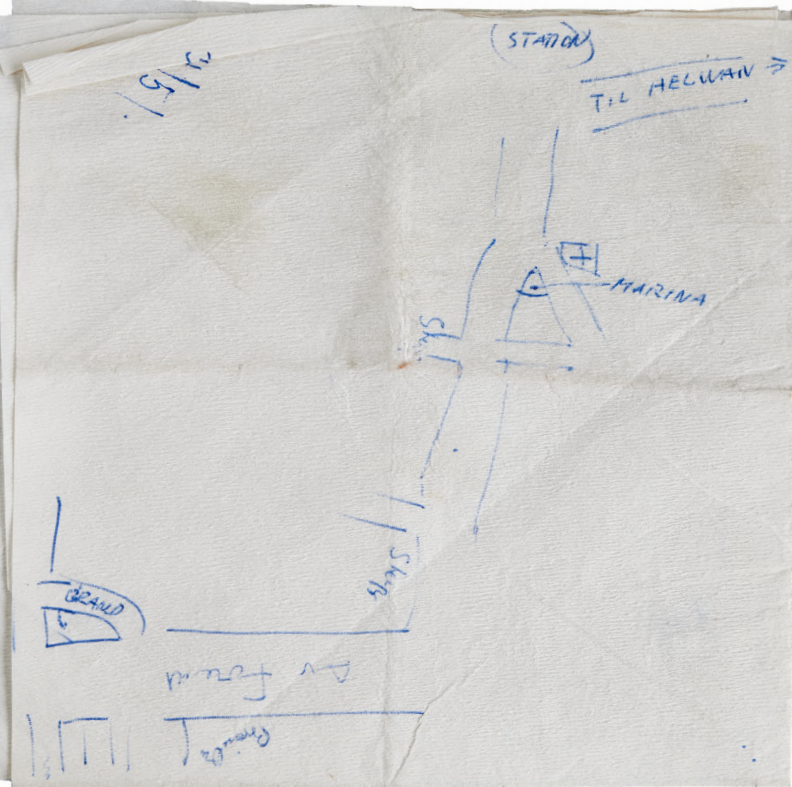
Three textiles from **Egypt** were donated in 1951 by a Danish ethnographer and archaeologist, **Werner Jacobsen** (1914-1979), a member of the second Danish Central Asian Expedition 1938-39. In the years between 1950 and 1954 Jacobsen was financed by Dansk Ekspeditionsfond for a research trip entitled "Danish Expedition in Africa and India". During this voyage he acquired a number of objects, which were sent to Denmark. Over the years, Jacobsen was closely associated with the National Museum's Ethnographic Collection, where he also acted as a curator. [A.H.H.]

A sketch made probably in the 1950s on a plain paper napkin by Jacobsen's hand survives in the NMD archives. It may be assumed that Jacobsen was explaining to someone where he bought textiles during his stay in Egypt. The sketch shows the centre of **Cairo**, the **Abdin district**, near the terminus of the train to Helwan (a

suburb in the southern part of the Cairo metropolitan area). Jacobsen has marked a place called "Marina" (café?, shop?), perhaps there was a shop or trader's house near this spot. The area between the Abdin Palace and the Ezbekiya Gardens was for decades the centre of the antiquities trade in Cairo. The "Grand Hotel" (also called "The Continental"), located opposite Ezbekiya, is marked on Jacobsen's plan. It is possible that he lived there during his stay in Cairo. In the same area there was another well-known hotel for European visitors, "Shepherd's". [M.M.-G.]

67. A sketch of central Cairo probably made in the 1950s on a plain paper napkin by Werner Jacobsen. Archives of the NMD. Photo: Line Cecilie Eskerod Hansen © NMD

68. (opposite page) A section of a 1949 map of Cairo showing the Abdin district, published by the Survey of Egypt (Maṣlaḥat al-Misāḥah). The streets and buildings that can most likely be identified on Jacobsen's sketch are marked in colours. One notes certain confusion in the directions of some streets. However, a few years after leaving Egypt this kind of confusion is explainable because of the very dense buildings and the large number of street intersections in this district of Cairo. Interpretation: Maria Mossakowska-Gaubert. adaptation: Maria Mossakowska-Gaubert & Anine Aakjær Jensen. An online version of this map in its entirety is available via the Princeton University Libraries Digital Maps & Geospatial Data website





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



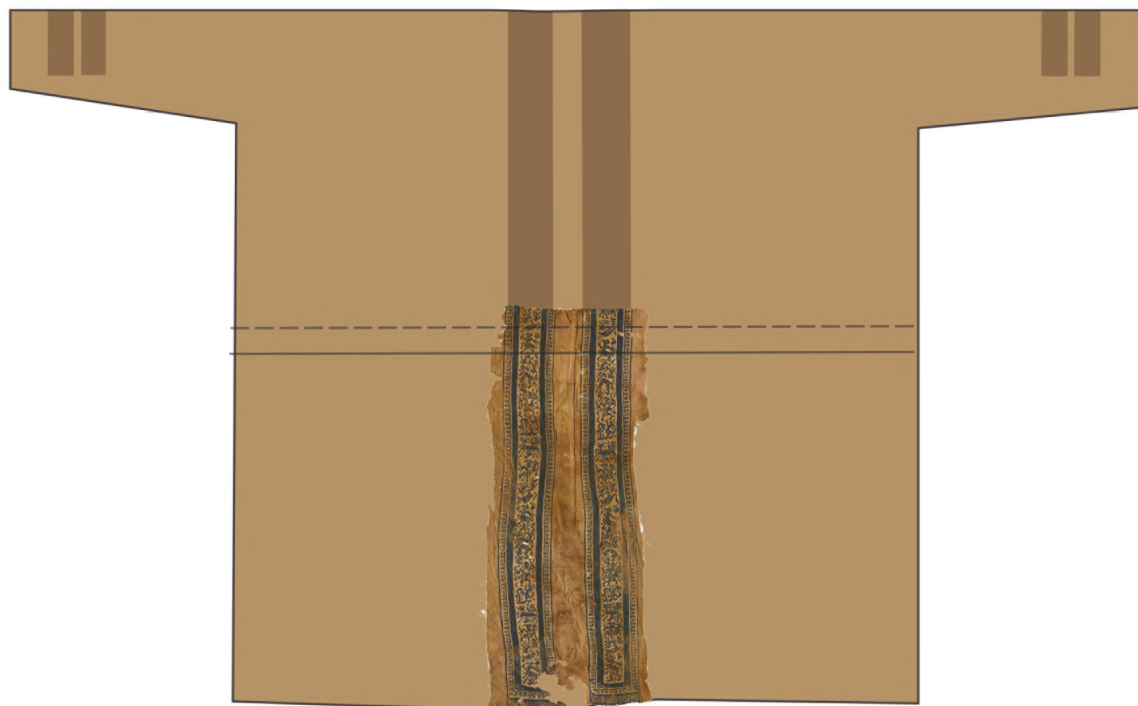


## 1962: A textile from the French art market

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.

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## Case study 1

### A variety of raw materials, technological diversity and chronological landmarks

*Maria Mossakowska-Gaubert*

The raw material used to make textiles has changed over the centuries and it is the first indicator that allows a fabric to be dated at least approximately. Moreover, the way in which the threads are prepared and spun is fundamental to distinguishing local production from fabrics made in other regions or by craftsmen from other countries.

#### Pharaonic Period

Most ancient Egyptian textiles were made from flax. Fibres from sheep's wool and goat's hair were already known in the Predynastic Period, but their use in Pharaonic Egypt seems to have been limited. Flax was widely cultivated throughout Egypt. The skill of preparing thread from the stem of this plant, although requiring a long and complicated operational process, was known in Egypt from at least the 6th millennium BC. It seems that in Egypt the technique for making linen threads was splicing and twisting with the S-twist, while in other regions of the Mediterranean the yarn was spun and the resulting twist had the Z direction. Splicing made it possible to obtain very thin threads, but it could also be used for coarse fibres.

Until the Second Intermediate Period fabrics were woven in Egypt almost exclusively on a ground loom. In such a loom the warp was mounted horizontally between two beams and held in tension by pegs in the ground. A new type of loom, the vertical two-beam loom, was introduced into Egypt during the New Kingdom. In this loom

the warp is held in tension between two beams fixed in an upright frame.

Regarding Pharaonic Egyptian textiles, more information can be found in the work of Gillian Vogelsang-Eastwood (2000).

#### Ptolemaic Period

It is considered that the large-scale introduction of wool clothing to Egypt came with the Greeks, who settled in Egypt after Alexander the Great's conquest of the country in 332 BC. Sheep's wool was widely used in Greece to produce garments, and the Greeks brought not only their clothing practices from their homeland, but also the appropriate tools to produce suitable fabrics, such as a loom with the warp fixed to the upper beam and held in tension by loom weights. They even imported sheep from Greece and other regions, presumably to obtain wool of a desirable quality. Although throughout the Ptolemaic Period linen garments seem to have predominated amongst the local population, Egyptians gradually adopted woollen clothing customs from the Greek and Macedonian settlers. In consequence, wool appears to have been fairly quickly spun in the same way as Egyptian flax, i.e. using the S-twist, and the vertical two-beam loom was adapted for weaving woollen fabrics. At that time spinning was a common technique used to make linen threads, and it seems that linen yarns produced by splicing were only used for weaving very fine fabrics, called "byssos" in Greek.

For more on fine linen threads, see William D. Cooke, Mohamed El-Gamal, Angela Brennan (1991) and Caroline Cartwright, Hero Granger-Taylor, Stephen Quirke (1998).

#### Early Roman Period

In the Roman Period, wool, linen, and linen fabrics decorated with woollen patterns were widespread in Egypt. In addition, into the 2nd century AD papyrus documents mention the production of "byssos". Goat hair textiles have also been found at many sites with material from the Roman Period and beyond, such as Karanis, Berenike and places in the Eastern Desert. It seems that goat hair was used throughout antiquity for the production of coarse fabrics, mainly for sacking and saddlebags.

On the topic of goat hair textiles in Roman Egypt, see article by Jane Batcheller (2001).

Meanwhile, in the 1st century AD, and probably as a result of contacts with the Nubian kingdom of Meroe, cotton cultivation appeared in Egypt. This spread particularly in the southern part of the country, in the region of the First Cataract and also in the oases of the Western Desert, at Kharga and Dakhla. These areas enjoy good conditions for growing cotton plants: hot, short days and a plentiful supply of water. Such climatic conditions were natural in Nubia, and it was possible to use water from the Nile through irrigation canals, whereas in the oases there had been since the 5th century BC (the first Persian occupation of Egypt) an underground irrigation system ("qanat") that collected water from springs and controlled its distribution. Cotton yarn in Egypt, like other yarns,



had the S-twist, however, cotton fabrics were probably woven in the same way as wool in the Greek tradition, i.e. on the warp-weighted loom. Some cotton textiles found in Egypt were also produced in other regions: certain fabrics found on the Red Sea coast, spun with a Z-twist, most likely come from the Indian subcontinent.

The fabric in the National Museum of Denmark (**Catalogue no. 4**) belongs to a very small group identified as cotton and held in various collections. Others are recorded, for example, in the Skulpturensammlung und Museum für Byzantinische Kunst in Berlin (Fluck, Linscheid, Merz 2000, nos. 154 and 155). That these fabrics are so rare is no doubt due to the fact that cotton never became as widespread as wool or linen in Egypt, and there were simply far fewer examples of such textiles. On the other hand, the very small number of known cotton fabrics may also be due to misidentification: it is possible that some of these fabrics were classified as linen and appear as such in the catalogues and registers of various museums and collections.

The cotton textile from NMD was woven with threads with the S-twist, which may attest to its "local" origin. Cotton textiles from the Roman Period made of S-twist threads and with loop pile similar to those on the NMD fabric, have been found in an archaeological context in, for example, Kellis, Dakhla (Livingstone 2009, p. 84-85) and at El-Deir, Kharga (Letellier-Willemin 2020, p. 42). It is not possible, however, to determine whether the textile from the National Museum was woven in one of the oases or in Nubia, and under what circumstances it was brought to Luxor. We can only assume that this textile, probably a couch or bed cover, was used as a shroud or

pillow in one of the tombs of the Theban region.

More information about cotton in Roman Egypt can be found in the works of John Peter Wild, Felicity Wild and Alan J. Clapham (2008), and Charléne Bouchaud, Elsa Yvanez, John Peter Wild (2019).

### Late Roman and Byzantine Period

The textile production of this period was dominated by linen and wool; cotton is also attested, but on a much smaller scale. Until the 5th century, silk only arrived in the Mediterranean from the Far East and was an expensive, luxury commodity. The Byzantines began to breed silkworms under Emperor Justinian (483-565), which led to a limited production of silk fabrics. However, the importation of silk continued in Egypt and other parts of the Byzantine Empire. The production site of silk fabrics found at Akhmim and other places in Egypt, dating from the 3rd to the 9th century, is still a matter of debate. For more about so-called "Akhmim silks", see **Catalogue no. 9** and **Case study 5**.

### Camel wool: an open issue

The presence of dromedaries and their use in transport is well documented in Egypt from the 5th century BC, but with the exception of Nubia, there is no evidence for the production or use of camel wool textiles. This situation, however, may be due to the very limited research to date on camel wool in Egypt and, perhaps, to the high probability that this raw material has been confused with sheep's wool and goat's hair.

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## Case study 2 The Robert Forrer and Ludvig Müller correspondence

Anne Haslund Hansen

At the very end of 1890, Robert Forrer first made himself known to staff at what would later become the National Museum of Denmark (official name from 1892 onwards). His first letter, written in German and dated Strasburg, 23<sup>rd</sup> December [18]90, was put in the hands of Ludvig Müller, who was Director of the Collection of Coins and the Collection of Antiquities.

Ultimately, this contact resulted in the purchase of 49 textile fragments, which are currently held in the Collection of Classical and Near Eastern Antiquities. Two of these textiles were placed on the same "leaf", a cardboard sheet, and so, in Forrer's notebook and all correspondence with the museum, it is counted as one fabric, making the total batch 48 textiles. Six letters from Forrer and three notes or drafts of letters from Müller are preserved in the NMD archives.

Alongside the first letter from Forrer was a parcel of 34 "leaves" of textiles. Based on Forrer's wording and Müller's reply, this parcel was sent without prior agreement. It seems that the practice of sending actual items to various institutions was an integral part of Forrer's business. Forrer's sending of textiles on a piece of paper or carton, often with a handwritten comment and number, is confirmed in other collections: cartons with textiles and Forrer's annotations went to a museum in Königsberg (now in the Museum für Vor- und Frühgeschichte in Berlin), and cartons combined into a "book," but without annotations, were sent to the Jagiellonian University

**1a, b.** A letter from Robert Forrer to Ludvig Müller dated 23<sup>rd</sup> December [18]89? The year 1890 was added later in pencil. At the top of the first page one can also see a note from Müller (in Danish) made on 2<sup>nd</sup> January 1891, confirming the sending of 200 marks to Forrer. In his letter, Forrer proposes to supply Müller with "ancient and early medieval" fabrics from the 1st to 7th century AD originating "von Akmim, Prov. Fayum". Forrer wishes to obtain Vimose "doublets" in return. Archives of the National Museum of Denmark. Photo: Line Cecilie Eskerod Hansen © NMD

Strasbourg d. 23. 12. 1890  
Ludvig Müller  
2. Jan. 1891  
L. Müller

Hiermit erlaube ich mir Ihnen eine Collection antiker & frühmittelalterlicher Gewebe des I-VII. Jalut. u. Ch. (von Akmim, Prov. Fayum) zu übersenden & Sie erheben sich auszufragen, ob Sie mir evtl. dagegen Vimose-funddoublets zu tauschen geben würden. Es füllen diese Stoffe in unseren archäol. garten Inventar eine

Zurück aus, welche unser europäischen Verhältnisse niemals zu erklären gestatten. Die Illustration der Textilkunst der römischen Zeit einerseits & der byzantinischen & Völkerwanderungszeit andererseits. Besonders für Letztere mit ihrer Färbungsmotivik und in Verbindung mit der Verwandtschaft mit der nordischen Ornamentik der Völkerwanderungszeit. Ich habe den auch ganz derselben Schmuckstempel aus den Akmimgräbern gefunden, wie sie in unsere nordischen Reihengräber der Völkerwanderungszeit ergeben haben. Schulische Lerne von solchen Stoffen habe ich an zahlr. reiche Alterthumsvereine abgegeben (s. B. auch an St. Timotheus in Tausch u. s. w.). Dankbar wäre ich Ihnen, falls Sie mir gegen vorliegende Sammlung Doublets von Vimose & ähnl. Moor-funden in Tausch geben, s. B. in einer Linie Spore, in vorzüglicher mehreren Exemplaren, sodann Lappen & allfällige desirirte Stoffreste, sofern Sie davon noch haben haben.

Mit Interesse Ihre gef. Antikensichtes gewürdigt. Rosalinde Forrer

Mittl. 34. Bl.  
(Bei Mithras & im Falle der Sammlung doch zu erwerben können, so wird der Preis verhandelt. 200.)



Museum in Cracow.

In the letter, Forrer explained that he had already facilitated the acquisition of textiles to "numerous museums of antiquities", citing contact with [Otto] Tischler in Königsberg. Forrer gives no details as to the provenance of the Egyptian textiles, save for the mention of "Akmim, Prov[ince] of Fayum", which creates ambiguity as to the origin, since Akhmim is in Upper Egypt and not in the Fayum Oasis.

In the same letter, Robert Forrer proposed exchanging the textiles for artefacts from Vimose, a sacrificial bog on the Island of Funen dating to the Scandinavian Iron Age. This site had, especially through the excavations of Conradus Engelhardt, yielded a great quantity of military equipment and other items. The results of the excavations were presented in Danish and French in 1867, and more extensively in 1869 (Danish only). Forrer argued for a kinship between the "antique and early medieval" textiles and personal ornaments which were found in Egypt and contemporary objects and motifs from northern Europe. He stated a particular interest in obtaining spurs, weapons and any duplicates of textile remains, preferably from Vimose, but also from other bogs. Finally, Forrer suggested a sum of 200 marks for the 34 textiles in case the exchange for Danish antiquities was not feasible.

There is no evidence that Müller addressed the question of exchanging the textiles with objects from Vimose. While Robert Forrer was most likely presenting his business proposal in a scholarly guise, he was, in fact, already involved in both. Besides his contributions on late antique textiles from 1889, he was also engaged in the study of prehistoric objects. In 1891,

Forrer wrote a volume on horse-riding spurs from an historical perspective, entitled *Der Sporn in seiner Form-Entwicklung*, co-authored with Richard Zschille.

On 5<sup>th</sup> January 1891 Forrer sent the museum a second batch. This time he offered 30 pieces for 200 marks, including a piece with "gladiators fighting animals", which he called one of the finest, and of which he possessed a "Pendant" in his own collection. This second piece is today in the National Museum of Art, Architecture and Design in Oslo (see **Catalogue, No. 5**). Forrer also drew attention to other fabrics on offer, such as some made of silk and an embroidered piece.

In a draft letter from Müller to Forrer, dated 22<sup>nd</sup> January 1891, Müller wished to know more about the provenance of the textiles - "when and by whom have they been excavated?" - and he directly addressed the contradictory information regarding the provenance given by Forrer in his letter of December 1890. Furthermore, Müller expressed an interest in obtaining Forrer's scholarly works.

Forrer's reply, and a third batch, came only a few days later, on 25<sup>th</sup> January 1891. Here he stated that the textiles were from Akhmim and delivered to him by his "Egyptian agents" (see **"Egyptology, Egyptomania, and Egyptian textiles"** in the **Introduction**). The confusion might be a simple error on Forrer's side, but it still indicates that he was not particularly well informed of the burial sites and geography of Egypt. In his reply, dated 4<sup>th</sup> February 1891, Müller selected only a few pieces from the third batch, and specifically asked Forrer not to send anymore.

Stambury 1. 90.

Tit!

Ehrlichend empfangen,  
die Quittung über die  
gesandte M. 200. für  
meine an das Museum  
f. und die Altkleider  
gemachte Sendung  
antiker Gewebe.

Eleichzeitig lasse ich noch  
eine zweite Sendung  
solcher Stoffe an Sie  
abgehen. 30 Stück,  
Preis netto M. 200.  
Es sind <sup>schöne</sup> Stücke, wie sie  
hier zum ersten Male  
aufgekauft. Ich verweise  
3. B. auf No 1595 (Colort.!),  
auf No 1681 (Technik. Werk,

**2a, b.** A letter from Forrer to Müller seemingly 18[90], but should be 91. This letter accompanied the shipment of a second batch to the museum, including a piece with "gladiators fighting animals". Archives of the National Museum of Denmark. Photo: Line Cecilie Eskerod Hansen © NMD

interessant), No 1688 (Modell  
u. s. w.). No 1598 mit der  
Thierbekämpfung, Glasatzen  
gehört zum feinsten, was  
bisher zu Tage gekommen ist.  
(Ich besitze davon das  
Pendant in meiner Privat-  
sammlung). Besonders wurde  
ich bei auch auf No 1681  
enthaltener Seidengewebe  
No 1631 & 1632 aufmerksam.  
Sicher besitze ich  
keine Exemplare meiner  
"Classification der antiken  
Stoffe" mehr, doch findet  
diese sich auch in Antiqua-  
abgedruckt & dürfte das  
nordische Museum diese  
Zeichnung ohne Zweifel  
besitzen. Demnächst werde  
öffentlich ich eine  
größere Arbeit über

Die Stoffe.  
Nachschand  
ergebeut  
R. Forrer

30 Gewebe M. 200.



Forrer wrote Müller again on the 7<sup>th</sup> February 1891, forwarding a fourth batch, this time containing what he calls "Antiken". In the same letter Forrer proposed sending some "very rare" silks for Müller to choose from. A note by Müller on the letter states, "Nothing bought. Future batches denied".

A final letter from Forrer of 6<sup>th</sup> March 1891 was sent in an attempt to sell the museum some Roman and Frankish glass objects. Despite Forrer claiming these to be "very rare pieces" at a good price, it seems that Müller did not respond at all. Overall, Müller seems increasingly unresponsive to Forrer's advances.

Of the four batches, also recorded in the sales notebook, Forrer sold the entire first batch to the museum, while Müller selected ten out of 30 pieces from the second. The number of pieces sent in the third batch is not known, but here Müller only selected four pieces. The final batch was returned in its entirety.

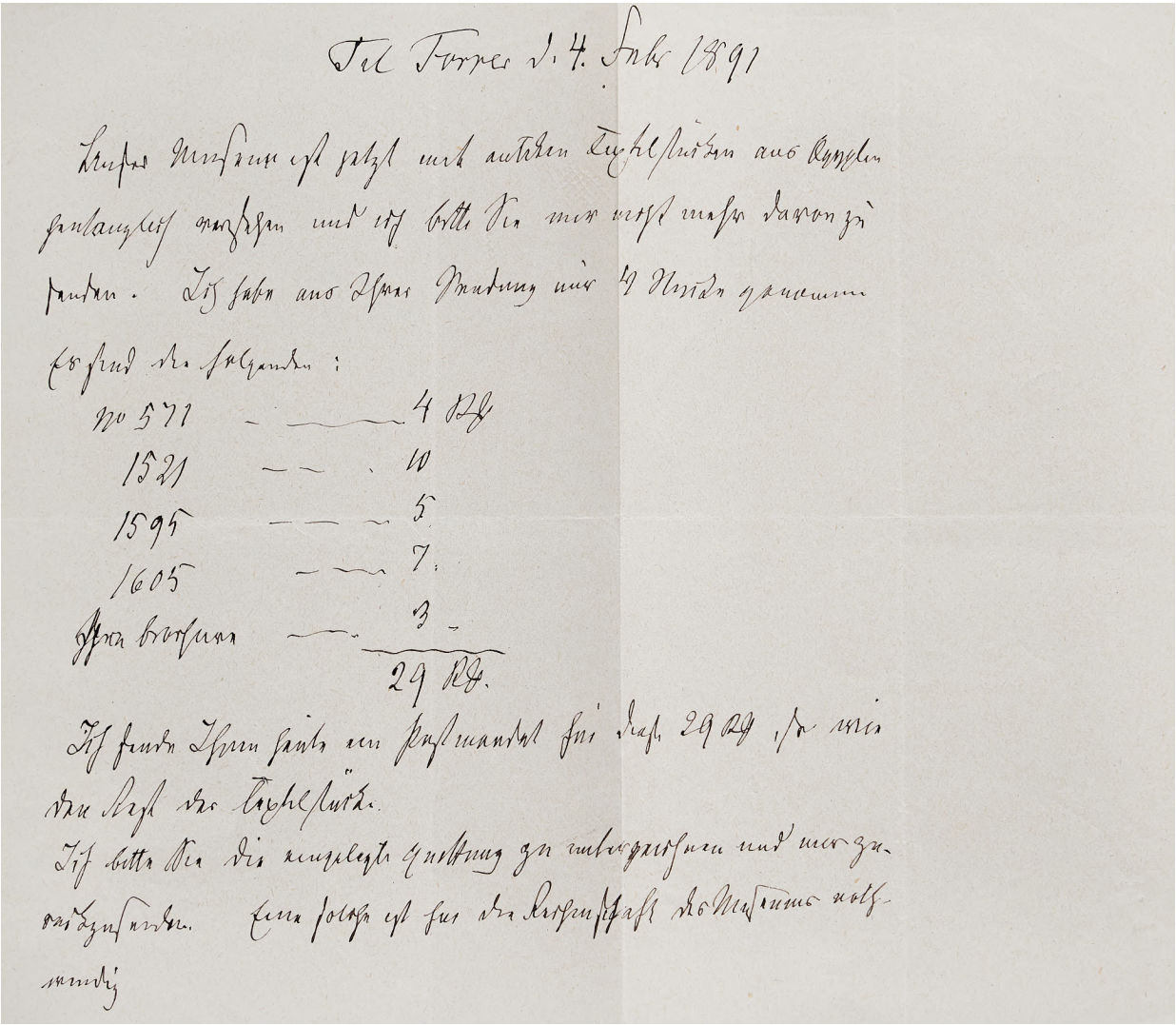
The first batch of 34 pieces is not described by Forrer, but was later registered under NMD Inv. 3760. In the very brief description in the museum registry book it is noted that this batch consisted of two striped pieces, ten "border", 12 "bræmmer", possibly meaning respectively "outer edges" and "narrow strips" in Danish, while ten were "middle" pieces. However, in 1928, only 30 pieces were noted to belong to this inventory number.

According to Forrer the second batch consisted of an embroidered piece (No. 548 in Forrer's classification indicated on the cards), two silks (Nos. 1631 and 1632), a piece with gladiators (No. 1588), and Nos. 1595 and 1687. Forrer's number 1537 (see **Catalogue, No. 8**) was seemingly also

a part of this group. The museum registry states 18 textiles under NMD Inv. 3761, but only mentions the piece with the gladiators and some pieces with animals or human figures. This corresponds to some of the pieces now assigned under NMD Inv. 3761, however, what might be the embroidered piece (labelled "Broderie" but with the number 6651/1462 on the card) and number 1537 are under NMD Inv. 3760. It seems like more work is needed in order to better understand these numbering systems, but unfortunately most of the textiles are, however, no longer attached to their original cards.

The third batch is simply described by Forrer as "a larger collection of duplicates". Here Müller selected numbers 571, 1521, 1595 and 1605. These cannot be identified, but are most likely also included in the group under NMD Inv. 3761. It is not possible to establish the total number of textiles sent to the National Museum in the four batches. Forrer clearly tried to curate different batches for the museum to choose from, as Batch 1 and 2 have noticeable differences. The result, partly also curated by Müller's selecting of the pieces, is telling as to both the variety and quality available to Forrer.

The correspondence between Forrer and Müller never developed into a dialogue between kindred spirits, despite Forrer's attempt to establish himself as knowledgeable on Danish prehistory. His attempt may have failed simply because Müller was not responsible for these collections. Furthermore, Müller's own academic works were primarily on Classical subjects.



**3.** Draft of a letter from Müller to Forrer dated 4<sup>th</sup> February 1891. Müller states that the museum is now sufficiently supplied with Egyptian textiles and he asks Forrer not to send any more. Archives of the National Museum of Denmark.  
Photo: Line Cecilie Eskerod Hansen © NMD

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### Case study 3

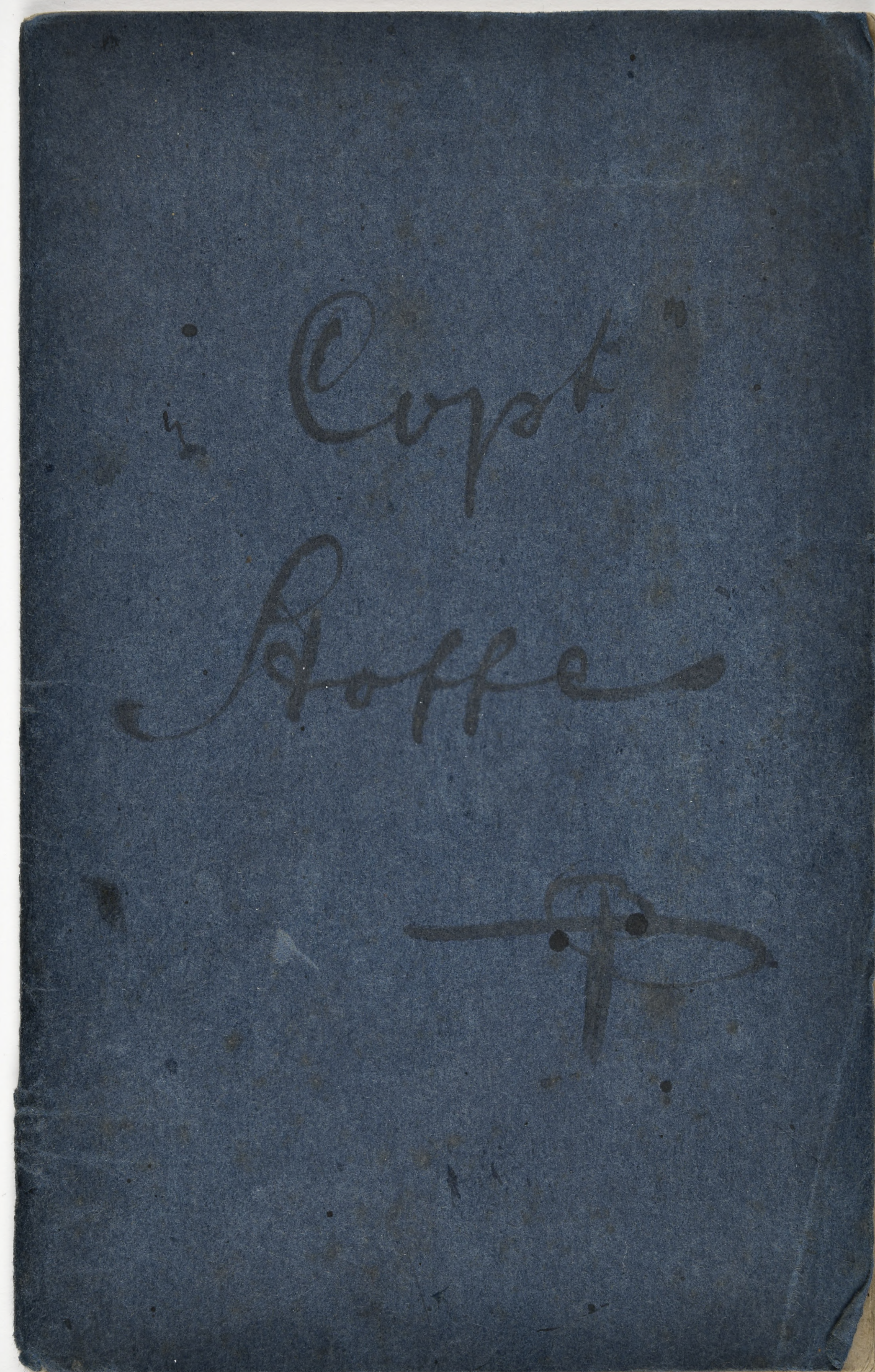
#### Robert Forrer's notebook and the National Museum of Denmark collection

Anna Głowa

A priceless source of information on Forrer's activities as a collector and dealer of "Coptic" textiles is his notebook, preserved in the archives of the Archaeological Museum in Strasbourg. It is entitled *Verkaufs und Einkaufs und Notizbuch über Koptische Stoffe - Geschäft Achmim* and contains data on the transactions made by Forrer between 1889 and 1903.

Forrer divided the textiles he acquired and sold into several lots. In the *Einkäufe* part of the notebook, there are eight lots. The information noted by Forrer includes the dates of acquisition, sometimes the name of the dealer from whom the textiles were bought, in some cases also the kind of textile, and the price paid for them. The first lot was bought by Forrer in 1889 from "Kallenberg": Carl Kallenberg (1825-1900), antiquities collector and dealer from Lindau; and "Tano": Marius Panayiotis Tano (?-1906), owner of a prosperous antiquities shop in Cairo. The second lot derived entirely from Tano and was bought in 1890. There is no information on the source of

1. Cover of Robert Forrer's notebook containing information on his dealings in Egyptian textiles. Archives of the Archaeological Museum of Strasbourg. Photo: M. Bertola © Musées de la ville de Strasbourg





acquisition of the third lot in April 1891, nor on most of the textiles from the fourth lot, bought in May the same year. Only some of the textiles in this lot are annotated as coming from Tano and "Merkens": Franz Merkens (1823-1905), an antiquarian from Cologne. The fifth (December 1891) and sixth (March 1892) lots lack information on the dealer. The seventh lot (during 1892) came mostly from Tano and in several cases from "Baron": Stanislas Baron (?-1910), an art dealer based in Paris. Finally, the eighth lot was acquired entirely from Tano in 1893.

The *Verkäufe* part of the notebook is organised according to the same eight lots, but besides them, there are two additional ones - the ninth and the tenth lot. The dates of sales usually correspond to the dates of acquisitions, so it seems that Forrer sold on the textiles he had bought the very same year or the following one. However, one cannot be sure if the given (e.g. second) lot in the sales list contained precisely the same pieces as the corresponding lot in the purchases list. It is not clear where the ninth and tenth lots came from, as they are not included in the purchases list. The tenth lot, recorded under a remark "Verkäufe bis zu meiner Aegyptenreise" summing up all the previous sales, might have contained the textiles attained by Forrer not by purchase but in the course of excavations conducted personally by him in Akhmim in 1894, although this cannot be stated with absolute certainty. On Forrer's excavations see his letters (Forrer 1895) as well as the work of Bernadette Schnitzler (Schnitzler 1999, p. 51-53).

In addition to the date of transaction and the sum of the money earned, the list of the sales contains the name of the buyer, the number of textiles sold,

and sometimes an indication of the type of the textiles ("Seide", "Wolle", or abbreviations "S", "W"). Among the purchasers, there are the names of individuals and institutions, written in abbreviations (e.g. "Mus. Breslau", "Gew. Mus. Danzig", "Kgw. Mus. Berlin") and shortcuts (e.g. "Breslau", "Krakow").

Sales to Copenhagen are recorded three times, all of them belonging to the second lot and bearing the same date: January 1891. The first Copenhagen "entry" reads "K. Mus. Kopenhagen I" with the number of textiles sold by Forrer, 34, and the sum earned by him, 200 marks; in the "Kopenhagen II" transaction there are ten textiles sold for 100 marks; in the "Kopenhagen III", four textiles for 25 marks. Altogether Forrer records 48 textiles sold to the Copenhagen Museum for 325 marks.

It is worth mentioning that among the institutions that acquired the textiles from the same lot, there are museums in Oslo, Mainz, Nürnberg, Stuttgart,

2. Page no 1 of Forrer's notebook with information on the acquisition of fabrics recorded as belonging to Lot II, from "Tano" (Marius Panayiotis Tano, ?-1906). Archives of the Archaeological Museum of Strasbourg.  
Photo: M. Bertola © Musées de la ville de Strasbourg

3. Page no 10 of Forrer's notebook with information on three shipments of fabric to the Copenhagen museum. Archives of the Archaeological Museum of Strasbourg.  
Photo: M. Bertola © Musées de la ville de Strasbourg

Einkäufe			
Erstes Lot	M.	M.	Mk.
von Kallenberg I	100.		
" " II	100		
" " III	20.	220.	
von Tano (Heltan) I	120		
" " II	320.		
Speisen III	50		
" " IV	23	523	
von Tano nachher			
4 Rab. & 1 Tsch	270.	270.	1013.
Zweites Lot			
Tano I	200.		
I Seiden f. 250 I	200.		
II (Hollen) f. 250 II	600.		
Hollportrait d. III	480.		
Hola etc. IV	800.	2100.	
Speisen 20			
Total			3113.

Neu: (Lot)	Dat.	Zahl	Verk.	Total-Verk.
over		696.	1 Lot	3764.
München. S. H.	1891. Seide	2	80.	
Stuttgart	1891.	4	80.	
K. Mus. Kopenhagen	1891.	34	200.	
Copenhagen I	1891.	34	200.	
Kopenhagen II	1891.	10.	100.	
" " III	1891.	4	25.	
Breslau.	1891.	3.	33.	
Mrs. Mainz	14. 91.	25.	160.	
Christiana	1891.	20.	226.	
Frankfurt.	"	11	108.	
Mainz.	15. 91.	10.	50.	
S. Müller.	"	10	50.	
" " "	"	25	160.	
S. Soose.	16. 91.	9	120.	
over		897.	1592.	5764.



Frankfurt and Wrocław (then Breslau). It seems no coincidence that numerous parallels for Copenhagen pieces can be found in those collections, suggesting that Forrer either got the duplicates from his suppliers or “created” the duplicates himself by cutting the textiles. At this stage of research it is impossible to state if the parallel fabrics belonged to the same garment/furnishing textile or to another piece from the same workshop, although in some cases profound technical analysis can confirm this. (See the section **“Duplicated fabrics” and multiple production of textiles** in the **Introduction** as well as **Case studies 4 and 5**).

Apart from museums, individuals are also recorded in the notebook as buyers of the textiles from this lot. They are: August Schricker (1838-1912), director of the Städtisches Kunstgewerbemuseum in Strasbourg; Christian Mehlis (1850-1933), a historian from Neustadt in Rhineland-Palatinate; Hippolyte-Jean Gosse (1834-1901), an archaeologist and director of the Musée archéologique and the Musée épigraphique in Geneva; David Reiling (1833-1889), an antiquarian based in Mainz; and a “Dr Müller”, whose identity is difficult to establish since Forrer knew several Dr Müllers, including Gustav Müller (1866-1928), co-editor (with Forrer) of the *Antiquitäten-Zeitschrift*; Albert Müller (1846-1912), director of the Kunstgewerbemuseum in Zürich; and finally Ludvig Müller (1809-1891). Ludvig Müller was director of the Numismatic Collections from 1865, and then, from 1866 until his death, also of the Collection of Antiquities at the national collections in Copenhagen (the name “Nationalmuseet”, National Museum of Denmark, was not officially in use

before 1892). It would be tempting to identify “Dr Müller” with the latter, especially since he was responsible for obtaining “Forrer’s” textiles for the museum. Nevertheless, there are no documents testifying that he acquired any fabrics for his private collection, as the research conducted by Anne Haslund Hansen proves (see also **Case study 2**).

Forrer would also sell to his textile customers copies of his own publications on the textiles they were buying: *Die Gräber- und Textilfunde von Achmim-Panopolis* (Forrer 1891b) and *Die römischen und byzantinischen Seidentextilien aus dem Gräberfelde von Achmim-Panopolis* (Forrer 1891a). He recorded the sales of these books in a separate notebook, in which, under a date 10.V.1891, we can find “L. Müller, Kopenhagen”, this time leaving no doubt of which Müller we are dealing with. Like many other of Forrer’s customers, the Copenhagen Museum stocked up on “Forrer’s” textiles together with his publications. Both of Forrer’s books are in the library of the Collection of Classical and Near Eastern Antiquities [Antiksamlingen], but they are not signed by Forrer. Thus, we have no direct evidence that they are from him, but it cannot be excluded.

## Acknowledgement

I would like to express my gratitude to Bernadette Schnitzler from the Musée Archéologique in Strasbourg for her assistance in researching Forrer’s archives.

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#### Case study 4 Reassembling a weft-faced compound tabby with birds in octagons

Barbara Thomas

In 1890-1891 the National Museum of Denmark made an acquisition of a piece of wool fabric from Robert Forrer that has an overall pattern of birds in octagons (Fig. 1: NMD Inv. 3670\_1537, see also **Catalogue No. 8**). A detailed analysis of technique and a comparison with pieces in other collections have helped to set the piece in its Late Roman context. With a very close look it is even possible to reassemble the original textile and to see what it was used for.

#### A special patterning technique: *taqueté*

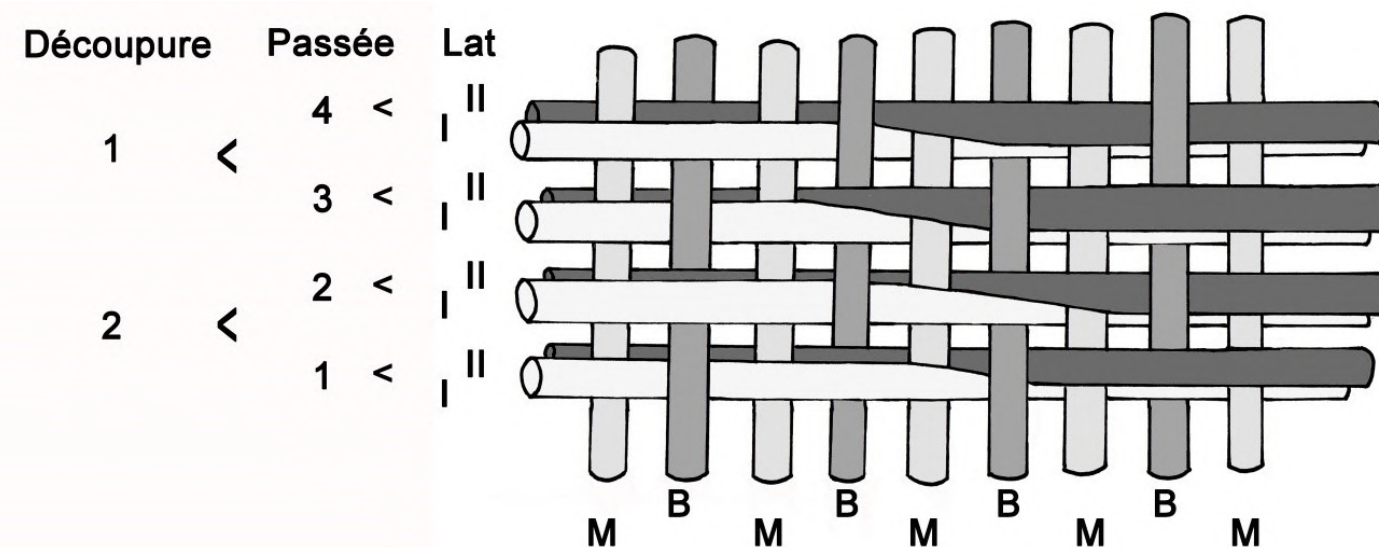
The pattern of the fragment is bichrome in cream and dark brown, depicting small birds in octagons surrounded by tendrils that are enclosed by a larger octagon. A small rosette sits between the octagons. A monochrome blue stripe is woven into the textile on one edge.

This fabric is special, as it is produced in a technique that allows a mechanical repeat of the pattern all over the width of the cloth. It is woven in weft-faced compound tabby, also called *taqueté*. The weft dominates the look of the textile. The binding of the fabric is in tabby and two wefts in contrasting colours are inserted in every binding shed. An additional set of warp threads (main warp) is manipulated to push the one or the other colour of weft to the surface of the fabric (Fig. 2). In a bichrome *taqueté* the rear side of the fabric shows the same pattern, but is inversed in colours.



1. *Taqueté* fabric NMD Inv. 3670\_1537. The warp is horizontal in the picture. Photo: Søren Greve © NMD

2. Structure of the *Taqueté* fabric NMD Inv. 3670\_1537. M = Main warp thread, B = Binding warp thread, Lat = individual weft thread, *Passée* = pass, consisting of two threads in contrasting colour, *Découpure* (trame) = weft step, consisting of several passes © Barbara Thomas





### Details of the Copenhagen *taqueté*

In NMD Inv. 3670\_1537 the binding warp threads and main warp threads are alternating in a proportion of 1:1. There are 14-16 warp threads (7-8 binding warp, 7-8 main warp) per centimetre. All warp threads are single yarns in white wool, spun in s-direction. In the *taqueté* section brown and white single wool threads, also spun with an s-twist, are used as wefts. The weft count is quite dense: up to 44 passes (= 44 white plus 44 brown threads) are woven in 1 centimetre. There are always several passes of the same pattern selection per weft step, forming small blocks in the pattern. The count of passes per weft step is usually six, but in some steps it can be just five or even up to eight passes, leaving a slightly thinner or noticeable thicker "block" or line visible in the fabric (Fig. 3).

One bird in an octagon is one pattern repeat. Each pattern repeat is 35 main warp threads wide. The pattern step is one main warp thread, meaning that the 35 main warp threads per pattern repeat can be selected individually. The selection of main warp threads for a pattern shed repeats mechanically in the width of the fabric. This is done by a special loom setup that enabled weavers to produce overall-patterned fabrics in this technique in an economic way. Irregularities in the selection of the pattern shed, of course, also repeat weft-wise.

When the pattern repeat in warp direction is studied, we see that Repeat 1 and Repeat 2 are not exactly alike. Small irregularities among the pattern repeats in warp direction show that the pattern was not stored by any device, but selected anew for the next repeat, causing small but visible alterations (Fig. 4). Just to point out

one example, we can see that the birds in the first pattern repeat above the blue stripe have upward-pointing tail feathers, while the birds in the second repeat show straight tail feathers (cf. Fig. 1).

At the lower end of the fragment, the weaver decided to interrupt the pattern of birds for a densely woven monochrome blue stripe. Here the warp threads are paired, and a single blue s-twisted wool yarn is woven in with 80 threads per centimetre to form a unicoloured stripe in extended tabby.

### Connected examples in other museum collections

The example in the National Museum of Denmark does not stand alone. Currently we know of 38 other fragments with this special pattern, having the same features in technique and material. They are dispersed across 29 collections all over the world. Many of them were purchased in the late 19th century, like the Copenhagen piece. Some of them were acquired directly via Robert Forrer, others, for example, via Stanislas Baron or Reverend Greville John Chester.

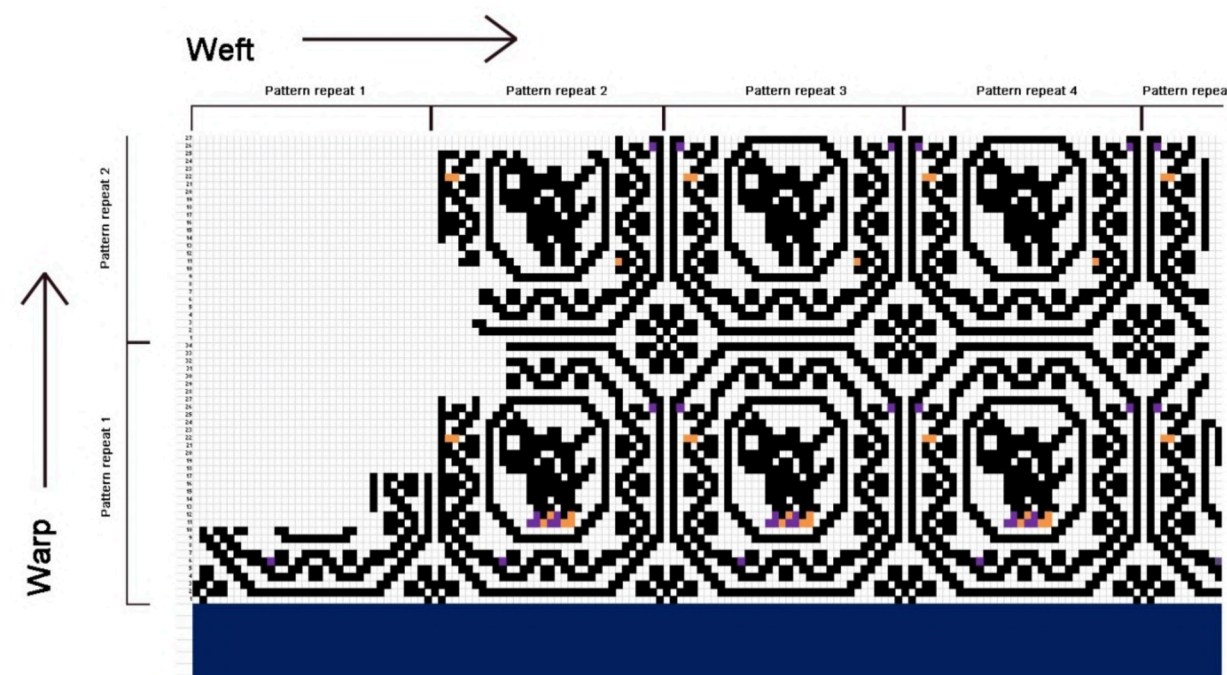
The provenance of some of these fragments is given as Akhmim-Panopolis. Robert Forrer also depicted one piece in his 1891 volume on textiles from Akhmim. Chris Verhecken-Lammens suggests that due to the technical features these *taquetés* were possibly manufactured in Egypt.

Two of the fragments with birds in octagons have been 14C dated to the early 4th-early 6th century AD (Phoebus Foundation Antwerp, KN Inv. 654-02, and Abegg-Stiftung



3. Detail of one pattern repeat of the *taqueté* NMD Inv. 3670\_1537. Warp is vertical. Photo: Søren Greve © NMD

4. Drawing of the patterning of NMD Inv. 3670\_1537. The blocks are always one warp step wide (= one main warp thread) and one weft step high (six passes). Orange and violet blocks show irregularities in the pattern that are repeated in weft direction due to the mechanical pattern repeat  
© Barbara Thomas





Riggsberg, AS Inv. 906).

But how are the pieces connected? When we look closely at the parallels we can observe individual features in the pattern selection of the *taqueté* and the general design of the fabric. One example: the “standard bird” has straight tail feathers, while the NMD fragment shows the birds next to the blue stripe with upward-pointing tail feathers. This feature is also found in a small piece from Berlin (Fig. 5, Berlin MBK Inv. 11527), indicating that the two pieces have a strong connection. Also other “markers”, such as the count of passes per weft step, match between the two fragments. We can thus conclude that these two pieces were woven at the same time in the same cloth, aligned in weft direction. As in the case of the NMD and the Berlin (MBK) fragments, more of the pieces in the collections can be matched in warp and weft direction, giving us insights into the overall design of this special piece of Late Roman compound fabric.

### Clues as to the original use of the fabric

Two fragments of this bird-patterned *taqueté* are preserved as complete objects and they have so far been identified as cushion covers (London, Victoria and Albert Museum, Inv. 243-1890 and Inv. 780-1893). While early scholars like Otto von Falke thought that the other fragments in this technique and pattern were also used as household textiles for upholstery, Sabine Schrenk did not exclude their interpretation as fragments of garments with *clavi*.

A key piece for the identification of the use of fragment NMD Inv. 3670\_1537 is a fragment now in London (Fig. 6, Victoria and Albert Museum, Inv. 304-

1891). This object features a blue unicolour stripe next to the patterned area just as in the Copenhagen and Berlin examples. Two thin decorations in weft twining with red thread have been added parallel to the blue stripe (Fig. 7). At the left side of the fabric, a selvedge is visible, formed by several warp threads that were bundled together. On top of this selvedge sits a narrow band in red and green wool. It follows the outline of the selvedge and then turns around 90 degrees. The red weft of the band is stitched into the tunic to fix the decoration to the fabric. Another portion of this band runs parallel to the blue stripe. The selvedge is typical of a woven-in neck slit of a tunic, identifying the blue stripe indeed as the *clavus* of a tunic. The red weft twining parallel to the *clavus* is also a usual decoration scheme for the chest and upper back of a tunic. The red and green band supports this identification, as it is the decoration of the neck slit. It also tells us that the side where the birds are seen as dark on a light background is the original outer side of the fabric, as the ends of such decorations were usually draped around the neck slit on the outer side.

When we look closely at the birds in the first pattern repeat next to the blue *clavus* in V&A Inv. 304-1891 (Fig. 6), we can again observe the same pattern irregularity as in the Copenhagen and Berlin pieces with the tail feathers of the birds pointing upwards. Other irregularities and the count of passes per weft step also match perfectly, proving that the three pieces once belonged to the same cloth.

### The reassembled garment

The tunic in *taqueté* technique was woven in one piece with a woven-in neck slit. This is a common feature of



5. Fragment with remnants of the blue stripe and birds with upward-pointing tail feathers in the pattern repeat next to it. The piece is shown from the reverse, hence the colour scheme is inversed. In the lower right corner a second layer of textile (later addition) hides the original pattern (Berlin, Museum für Byzantinische Kunst Inv. 11527). Warp is vertical. Photo: Antje Voigt © MBK.



6. Fragment of a tunic with blue *clavus*, red stripes in weft twining, woven-in selvedge for the neck slit and decoration of the neck slit with a green and red band in tabby (London, V&A Inv. 304-1891). Warp is vertical. Photo: Barbara Thomas © taken courtesy of the Victoria and Albert Museum London.



7. Detail of the neck slit-selvedge and decoration of the tunic with blue *clavi* (London, V&A Inv. 304-1891). Warp is vertical. Photo: Barbara Thomas © taken courtesy of the Victoria and Albert Museum London.



Late Roman tunics. From the weaving to the wearing the fabric was turned 90°, so when worn, the birds would be in a perfect upright position. At the shoulder of the tunic the pattern is mirrored, so when folded for wearing, the birds are still in upright position on the back of the tunic. The sides of this sleeveless garment would then have been stitched, leaving openings for the arms at the top. The lower hem of the tunic features fringes in brown and white.

A first reconstruction attempt of a possible tunic in this pattern was sketched by Petra Linscheid in 2016, but thanks to technical analysis and the matching of irregularities it is now possible to say that the many fragments in the museums belong to at least two tunics. We even can place many of the pieces back in their original position in the cloth.

The original tunic with blue *clavi* was in total *circa* 120 cm wide (warp direction). We can so far reconstruct the length (weft direction) to *circa* 200 cm, which finds a parallel in size in a fully preserved wool damask tunic in Riggisberg (Abegg-Stiftung Riggisberg, AS Inv. 4219).

Regarding the bird-patterned *taqueté* tunic with blue stripes, there are currently nine, maybe ten pieces that can be allocated to this garment (Fig. 8). Most interestingly, at least four other pieces of this tunic came to the collections in the years 1890 (Stuttgart, LMW, GT Inv. 4728) and 1891 (Oxford, Ashmolean Museum Inv. 1891.287; London, V&A Inv. 304-1891; Oslo, Nasjonalmuseet Inv. OK 03598).

A further 11 fragments can be assigned to a second tunic which features purple coloured *clavi*. Surely a detailed study of the remaining

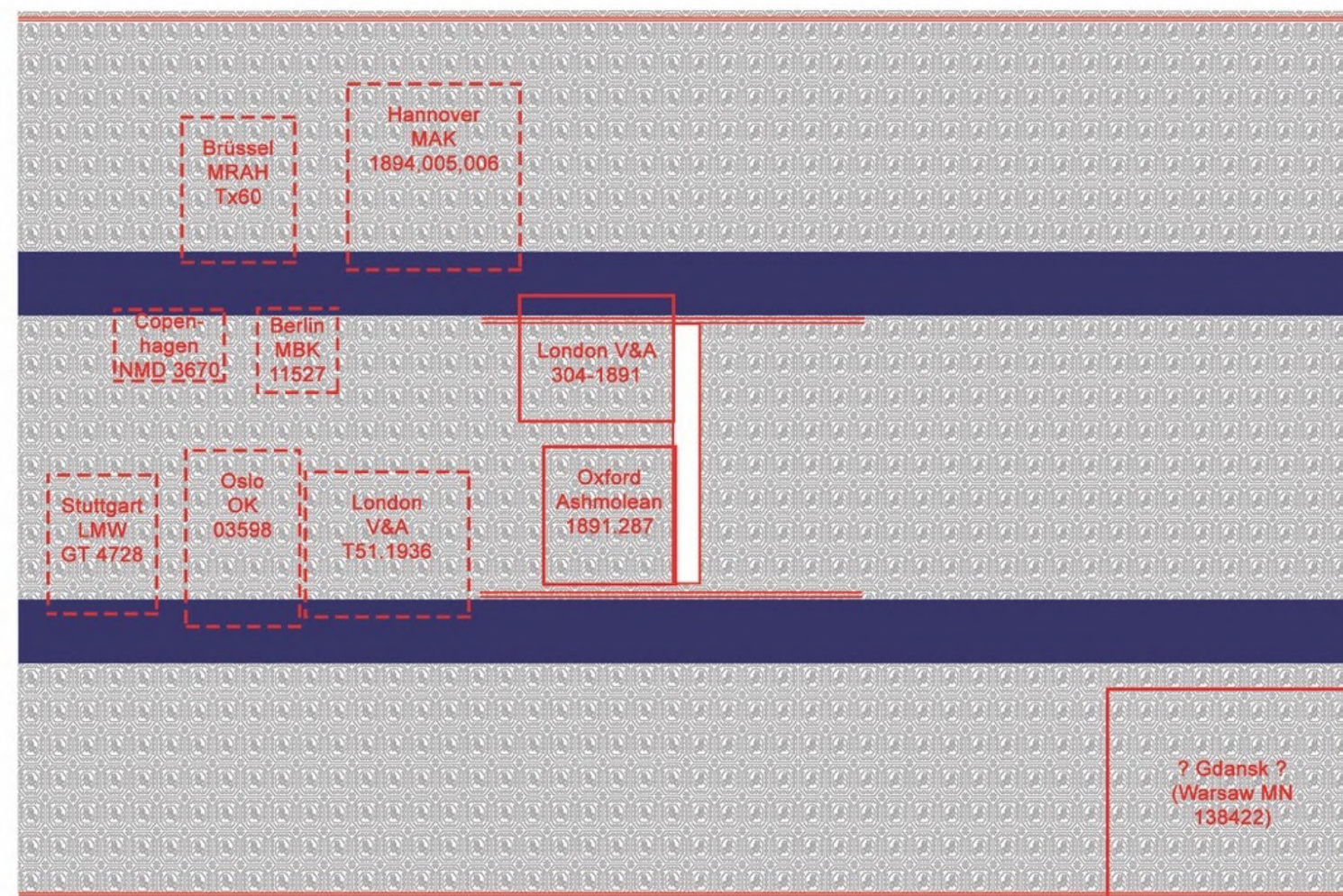
fragments will help to find more matches.

### Conclusion

The detailed study of technique and pattern of the fragment NMD Inv. 3670\_1537 not only led to similar objects, it also helped to identify adjacent pieces from the same cloth and to put them back in their original position in the cloth. Thanks to key fragments, it is possible to reconstruct the original use of the fabric as a tunic with an all-over pattern with birds in octagons, featuring broad blue *clavi*. This garment must truly have been magnificent when worn.

For more on identification of scattered fragments from the same fabric or from similar textiles, see a section about **“Dublicated fabrics” and multiple production of textiles** in the **Introduction**.

**8.** Reconstruction of the *taqueté* tunic with birds in octagons and blue *clavi* as woven in the loom (warp vertical in the picture). Continuous lines: exact position in cloth is known. Dotted lines: position may differ in weft direction  
© Barbara Thomas





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## Case study 5

### Potentially connected silk textiles from Egypt in two European collections, the National Museum of Denmark and the Art and History Museum in Brussels

Barbara Thomas, Alexandra Van Puyvelde

The National Museum of Denmark (NMD) and the Art & History Museum in Brussels each hold a fragment of silk fabric (figs. 1 and 2) which seem to have connections with regard to their provenance, function, iconography and weaving technology.

Both textiles are samite weaves and have a cream coloured decoration on a purple-brown background. They belong to a large group of so-called "Akhmim silks", which were often registered in museum collections as coming from Akhmim. They are usually bicoloured, with a light pattern on a dark background. Radiocarbon dating conducted on ten "Akhmim silks" with a floral motif has revealed that they could be dated between 650 and 948 AD (95% probability), with an emphasis on the period of 687-828 A.D.

The fragment Inv. 3670\_10 in the National Museum of Denmark (**Catalogue No. 9**) depicts a lion looking backwards. He has a large round eye. Above his back and next to his head, a plant motif is partially preserved. Beneath the lion is a horizontal line. The fragment has a border of heart-shaped petals on both sides.

The fabric Inv. ACO.Tx.3 in the Art & History Museum in Brussels is an *orbiculus* (roundel) depicting two



**1.** Silk fragment with lion, NMD, Inv. 3670\_10  
Photo: Søren Greve © NMD

**2.** Silk fragment with two crowned figures, Art & History Museum, Brussels, Inv. ACO.Tx.3  
© Royal Museums of Art & History, Brussels





crowned figures in mirror image, with large round eyes, mid-length hair, and wearing long tunics. At the hem of the tunic is a border with diamond-shaped motifs. A mantle cloth is draped over the chest and shoulders. They seem to wear earrings and a necklace with three pendants, the middle one being larger. They are holding branches, maybe palm fronds. Above them is an inscription, which is no longer legible due to damage. The border of the roundel consists of hearts, the pointed end of which always terminates in twin curved twigs with little leaves. There is also a small leaf inside each heart. There is a cross at the four cardinal points of the border.

#### A connection with regard to provenance?

Both silk textiles have a provenance going back to the archaeologist-collector-dealer Robert Forrer. The fragment in the National Museum of Denmark was bought from him in 1891 and is registered as coming from Akhmim-Panopolis.

The roundel in the Brussels Art & History Museum is one of the 202 "Coptic" textiles donated in 1900 or 1901 by Isabella Errera and was registered as coming from Akhmim. In her catalogue *Collection d'anciennes étoffes égyptiennes* of 1916 (Cat. 189), she indicates that the roundel was bought by her from Stanislas Baron in Paris. In total, she describes 164 Egyptian textiles as being bought by her from Baron and twice she mentions 1896 as a date of purchase. Quite a lot of these textiles seem to come from the collection of Robert Forrer, as 33 identical or very similar textiles are published in his *Römische und byzantinische Seiden-Textilien aus dem Gräberfelde von Akhmim-Panopolis* of 1891, and 12 identical or

very similar textiles are published in his *Die Gräber und Textilfunde von Akhmim-Panopolis*, also of 1891. Furthermore, the fact that Stanislas Baron bought textiles from Robert Forrer is confirmed in Forrer's Notizbuch, which is kept in the archives of the Archaeological Museum of Strasbourg. In this notebook, Stanislas Baron is mentioned four times as a buyer of textiles, three times in 1892 for a total of 370 woollen and 100 silk fragments, and once in 1895 for one silk textile. (More about Forrer's Notizbuch, see **Case study 3**).

As Robert Forrer excavated in Egypt from March 1894 until January 1895, the textiles bought by Baron in 1892 must come from the "lots" that Forrer acquired before his journey to Egypt. In the introduction of his publication *Die Gräber- und Textilfunde von Akhmim-Panopolis* (1891b), Forrer writes that the textiles he purchased were bought from antiquities dealers in Cairo who themselves were supplied by agents who collected and purchased the fabrics from local sources in Akhmim. It was probably the dealers who provided him with the information about the provenance of the fabrics in Akhmim, information about which we should remain cautious. (For more on the question of the provenance of "Forrer's textiles", see **Case studies 3 and 4**).

#### A connection with regard to function(?)

Medallions such as the Brussels ACO. Tx.3 were part of tunic decorations and were sewn on at the level of the shoulders and/or at the level of the knees. A completely preserved linen tunic with sewn-on silk decoration is held in the Victoria & Albert Museum in London (Inv. 820-1903, fig. 3). As is

visible in the picture, *orbiculi* (roundels) formed "sets" of decoration, together with *clavi* (shoulder bands) and *manicae* (sleeve bands). In the case of the tunic from the V&A, the differently shaped decorations on the tunic have an identical border design and feature similar motifs in the central fields.

Are there any indications that the Brussels roundel and the Copenhagen "lion fragment" were also part of such a set of tunic decorations?

In the first decades of the 20th century some scholars had already made a

connection between the Brussels roundel Inv. ACO.Tx.3, which was published in Forrer's *Römische und Byzantinische Seiden-Textilien* (1891a, pl. III.3), and *clavi* with *sigilla* (small pendant roundels) kept in other collections.

According to Otto von Falke (1913, p. 46, fig. 63), for instance, the Brussels roundel belonged to two *clavi* which were then "in der Stoffsammlung Krefeld" (now Deutsches Textilmuseum Krefeld), but which are now in the Metropolitan Museum of Art in New York (Fletcher Fund, 1946, Inv. 46.156.18 b & c, fig. 4).



**3.** Complete linen tunic with silk decorations, Victoria & Albert Museum, Inv. 820-1903 © V&A, Open access data.

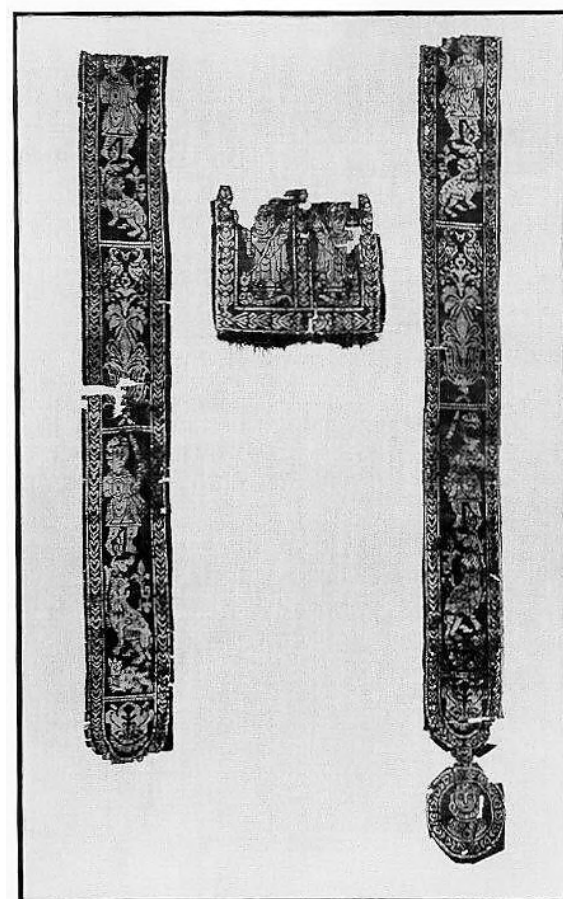


In particular, the crowned bust on the *sigillum* of one of the *clavi* looks very similar to the upper body of the two figures on the roundel. The *clavi* have a narrow border with a sequence of heart-shaped petal forms similar to the "lion fragment" in the NMD, and present three scenes separated by double stripes. The depictions are from bottom to top:

- youth (hunter or warrior) holding a sword and a shield, and beneath him is a lion overwhelming a cheetah or a hare (?);
- conventional "tree" or plant motif with two birds face-to-face on top holding an object between them in their beaks;
- youth (hunter or warrior) holding a sword and shield and with a lion below. The lion is the same as the one on the NMD fragment (Inv. 3670\_10).

Since the same lion and same kind of border occur on the "lion fragment" in the NMD and on the *clavi* kept in the Metropolitan Museum of Art, we can assume that the fragment in Copenhagen was part of such a *clavus* with *sigillum* (examples are held in other museums). Although the borders with heart-shaped petals are not entirely the same on the Brussels *orbiculus* and the fragments of *clavi*, the crowned bust in the *sigillum* is very reminiscent of the two figures represented in the roundel. Thus, it could be possible that these kinds of *orbiculi* (of which similar examples also exist in other museum collections) and *clavi* with *sigillum* once formed sets of tunic decorations.

Under the same inventory number, 46.156.18 a, another textile fragment with the same kind of border



4. Fragments of two *clavi* and a sleeve band, Metropolitan Museum of Art, New York, Inv. 46.156.18 a, b, c © Metropolitan Museum of Art, Open access data

decoration with heart-shaped petals is registered in the collection of the Metropolitan Museum (fig. 4, in the middle). It is a fragment of a sleeve decoration that, together with both *clavi*, was very probably part of a tunic decoration set. A complete sleeve band of the same kind is held in the Musée historique des Tissus of Lyon (Inv. 910.III.1 (29.254), fig. 5).

This sleeve band is decorated with eight rectangular fields arranged around a vertical and a horizontal mirror axis. The four fields at the extremities are decorated with a figure with, (once again, big round eyes, dressed in a long tunic and a mantle

cloth, holding a cross and piercing a fabulous snake-like animal with legs (maybe a basilisk?). In the four inner rectangles, a hare is taken by a bird of prey.

Particularly the same kind of border, and also similarities in the rendering of the eyes and mantle cloth of the figures could indicate that this kind of sleeve band was also part of tunic decoration sets, along with *orbiculi* with two crowned figures holding branches, the *clavi* presenting, among other things, armed youths and lions, and with *sigilla* representing crowned busts.



5. *Manica* (sleeve band), Le musée des Tissus et des Arts décoratifs, Lyon, Inv. 910.III.1 (29.254) Photo: Pierre Verrier © Musée des Tissus

### A connection with regard to iconography(?)

The two crowned figures depicted in the roundel have been considered as Imperial Byzantine figures due to their rich (imperial?) garments and insignia (Forrer 1891a, Lechitskaya 2007, Osharina 2020). The palm branches may symbolise triumph: triumph in war or perhaps also the triumph of Christianity (Lechitskaya 2007).

The figure piercing a fabulous animal on the sleeve band recalls images of Christ trampling the asp or basilisk, referring to Psalm 91, 13, and symbolising the triumph of Christ and Good over Evil. These Christian images in their turn inspired imperial iconography with the emperor trampling the defeated enemy or piercing a snake (Martiniani-Reber 1986).

The iconographic elements in all these tunic decorations seem to have a common theme: crowned, maybe imperial figures holding palm (?) branches on the roundels, a hunter with a lion attacking a hare or a cheetah on the *clavi*, the figure with the cross piercing a fabulous animal, and the bird of prey who takes the hare on the sleeve bands. They all seem to point to the theme of triumph or victory; victory in war, victory of Good over Evil and/or victory of Christianity over paganism. However, further iconographic research remains necessary. For instance, we could question whether the crowned figures might not also be personifications of power or fortune, and whether the figure piercing a fabulous animal might not also be inspired by a mythological figure, such as Heracles, who conquered different kinds of beasts.



## A connection with regard to material and technical features(?)

Both the NMD silk with the lion and the Brussels silk medallion with mirrored figures are worked in weft-faced compound twill, also called samite.

For the warp threads both pieces employ cream coloured, z-twisted silk yarn, while the weft threads are cream coloured and purple-brown coloured silk threads without visible torsion. So far no analysis of dyestuffs has been carried out on the two examples. The warp and weft count of both pieces is similar, with 36 warp threads (18 sets of warp threads) and 76-80 weft

threads (36-40 passes) per cm. Nevertheless, these features can be easily reproduced and therefore cannot stand as proof of connection. It is necessary to go deeper into the structure of these textiles to see their possible connection.

With the technique of weft-faced compound twill it is possible to weave fabrics in two or more colours with a pattern that is mechanically repeated over the full width of the fabric (Fig. 6). The binding is in twill, and in every binding shed two wefts in contrasting colours are inserted. An additional set of warp threads (main warp) is manipulated to push the one or the

other colour to the upper surface of the fabric. Due to this technique the rear side shows the same pattern, but in inversed colours.

The set of main warp threads has a finite width, determined by the setup of the loom. This single pattern is repeated several times in the width of the fabric mechanically. This is clearly visible in the Brussels medallion with two crowned figures (Art & History Museum Brussels, Inv. ACO.Tx.3). The *orbiculus* has a vertical mirror axis; the two figures are facing each other. All features of the pattern from the first half are mirrored exactly in the second half. Thus, we can conclude that the individual set of main warp threads is repeated in a mirrored way. The *clavus* at the NMD, however, has no mirror axis. So how can they be technically connected? It is, therefore, once again necessary to look at parallels. The two *clavi* at the MET (Fig. 4, Metropolitan Museum of Art, New York, Inv. 46.156.18 b, c) give a first clue: the pattern of the two pieces is indeed mirrored along a vertical axis; the warriors and lions on the left *clavus* are facing right, while the warriors and lions on the right *clavus* are facing left. As the seam allowance of these pieces has been stretched out in the current mounting, one can even observe that the vertical cutting lines in between the two pieces matches exactly. So, these *clavi* have most certainly been cut from one piece of fabric that also had a vertical mirror axis.

With this information it is possible to compare the width of our two pieces: the Brussels medallion – featuring two mirrored pattern repeats – is 12 cm wide, while the Copenhagen *clavus* piece – featuring only one pattern repeat – is 6.3 cm wide. Even if not exactly, these measurements match quite well. As both pieces have seam

allowances and were moved and stretched during their use and handling after excavation, the count of main warp threads may give a more detailed hint, but this has yet to be carried out.

## Conclusions

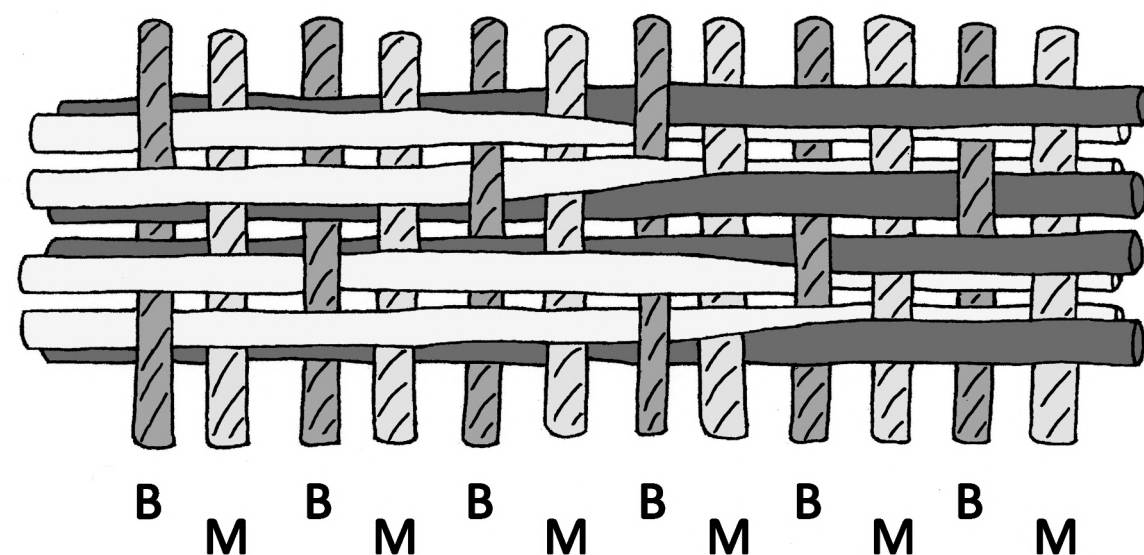
The similarities between the part of a *clavus* at the NMD and the medallion from Brussels with regard to provenance, function, iconography and technique are striking.

Technological analyses of comparable roundels, *clavi* and sleeve bands held in different collections could give more data, helping to determine whether or not they could have been part of sets of tunic decorations. An identical width of pattern repeat would be proof of the pieces being woven in an identical loom setup.

When this comes together with the similarities in material and in pattern design shown above, we might conclude that the differently shaped pieces may have been designed and woven in the same workshop context and possibly in the same batch, indicating the potential use as a set of decorations.

As for the iconography on these silk decorations, a more profound comparative study with images on other textiles and other media, such as coins and mosaics, and with contemporary texts is required to set the pieces in their historical context.

The tiny, yet splendid example of Late Roman to Early Byzantine silk weaving at the NMD, has connections in many collections worldwide, and it is definitively worth a second look.



6: Structure of the samite NMD Inv. 3670\_10. B = binding warp thread, M = main warp thread; 1,2 = weft threads of different colour  
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### Case study 6

#### Florence and Peter Johansen: the National Museum of Denmark and the art market in the 1920s and 1930s

Morten Valner S. Grymer-Hansen

Peter Johansen was born in 1881 in Sommersted, Danish Schleswig, but his family relocated to the Copenhagen area when he was still a child. As a young man, Johansen joined the Danish army and, by 1902, he had obtained the rank of second lieutenant. Around the same time he travelled to Thailand to serve in the gendarmerie, where he spent the following 11-12 years and rose to the rank of captain.

In 1914, Peter Johansen returned to Denmark with 54 cases of artefacts that he had collected during his time abroad. He rented a couple of rooms from a widow named Petra Busch, who lived with her relative Alma Jensine Jæger. Johansen and Jæger decided to go into business together as dealers of antiques under the name *Johansen & Jæger* based out of Petra Busch's property on Vesterbrogade 70. Johansen's main income probably hailed from his other firm, *Eastern Commercial Co.*, which exported rice and other goods from Thailand, and therefore he is often listed as a wholesaler or director, rather than an antiques dealer. In 1929, Jæger left *Johansen & Jæger* but Johansen continued to trade under the same name and it was also around this time, that he bought the property on Vesterbrogade 70 previously owned by Petra Busch. His shop at this address was called *Kinagaarden* ("The China Yard") and it became a fixture in the Copenhagen antiques and art dealer community, and was especially

famed for having its own buyers in Thailand and China, who provided the *Kinagaarden* with antiques.

Peter Johansen married at least three times and moved several times during his life both inside and outside of Denmark. He died onboard his sailing boat *Misse* in the summer of 1948 off the coast of Zealand.

It was not, however, Peter Johansen, who sold the textile fragments to the National Museum of Denmark, but his second wife, Florence. Born Maren Hansine Frederikke Petersen in Copenhagen in 1885 to a coachman, who later became a farmer, she left Copenhagen around 1911, and presumably Denmark altogether. She reappears in 1916 in the United States as the opera singer Florence Bodinoff. She seems to have taken on a completely new persona and posed as the daughter of a Russian diplomat, who had served in Denmark at the time of her birth. She does not seem to have engaged actively in singing after 1921, and perhaps it was around this time that she returned to Denmark, where she married Johansen in 1924. Bodinoff was actively engaged in her husband's dealings and hosted her own gallery and boutique in *Kinagaarden*, where several Danish and Nordic avant-garde artists exhibited in the late 1920s and early 1930s. In 1931, she moved her gallery out of *Kinagaarden* and named it *Labyrinten*. *Labyrinten* seems to have been short-lived, probably closing when the Johansen family left for London in 1932/1933. Florence Johansen is mentioned as working for the exhibition *Samlerens Kunstudstilling* in 1934 and as a seller of antiquities to the National Museum of Denmark in the late 1930s. In 1936 Florence and Peter Johansen divorced and her life after 1940 is not known.

The Johansen family relocated to London because of the so-called "Valutalov", a law passed in January 1932 with the intention of curbing inflation of the Danish krone, for example by demanding that foreign currency made through export had to be changed into kroner. Peter Johansen himself described his decision to move to London as a choice between exile or inactivity.

The London arts and antiquities market was booming despite the general economic depression of the 1930s, and large quantities of "Coptic" textiles are mentioned as having been traded through auction houses such as Sotheby's, which received a large collection of "Coptic" textiles from Cairo in 1931 and is mentioned as a seller of "Coptic" textiles throughout the 1930s. Johansen, however, preferred to frequent smaller antique shops and auction houses with a smaller clientele, the identities of which he was careful not to reveal when asked.

During his time abroad Johansen travelled extensively in Northern Europe, especially Scandinavia, where he held temporary exhibitions of antiques in luxury hotels such as the Grand Hotel in Stockholm and Hotel Cosmopolite in Copenhagen. Among his buyers were museums as well as private collectors. He is also mentioned as a "middleman", where donors provided the National Museum of Denmark with money to buy artefacts from his exhibitions; anonymous donors are also mentioned as having donated this way.

The textile fragments sold by Florence Johansen to the National Museum of Denmark in 1933 are stated as having been bought at auction in London. The



year suggests that the textiles may have been sold as the Johansen family was relocating to London; perhaps they came from *Labyrinten* when Florence Johansen closed it down. The statement that they were bought in London might also suggest that they were purchased after the Johansens relocated there and then sold to the National Museum during a visit to Denmark. If this is the case, they must have been bought at an auction held in either 1932 or 1933 in London.

Johansen remained in contact with MND over the following years and made a large donation to the museum just months before his death in 1948. In a memoir about Johansen published after his death, it was mentioned that the museum had lost "an ever loyal friend".

## Sources

The above text is based mainly on information from Danish, British, and American newspapers accessed through online databases: The Danish Royal Library's digital media collection *Mediestream*, the British Newspaper Archive, and the National Digital Newspaper Program's Chronicling America.

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### Case study 7

#### Margrethe Hald: a Danish pioneer of textile research and Egyptian textiles from the National Museum of Denmark

*Cäcilia Fluck, Morten Valner S. Grymer-Hansen*

Margrethe Hald was born in 1897 in Neder Vrigsted, Eastern Jutland, to farmers Rasmus Ole Pedersen and Johanne Marie Lauesen. Her father died just three years later, and Hald and her three siblings were raised by their mother. Hald was trained in textile crafts from a young age and went on to study weaving with a local weaver as well as in folk high schools. Around the time of the First World War Hald attended Tegne- og Kunstindustriskolen for Kvinder (Arts and Crafts School for Women) in Copenhagen. One of her teachers was Elna Mygdal, who would become curator at the Danish Folk Museum in 1919, which became a collection of the National Museum of Denmark in 1920. Mygdal encouraged Hald, who already showed a keen interest in historical textile production, to study the prehistoric textiles in the National Museum.

In 1930, Margrethe Hald published her first journal article on tablet weaving in archaeological textiles, and in 1932 she published a popular book describing and teaching this technique to the broader public. In 1933-1934, she was hired to reproduce the Egtved Girl's dress from the Bronze Age, and she assisted Bronze Age specialist Hans Christian Broholm in his studies of the Bronze Age textiles. Together Broholm and Hald edited and contributed to two large publications on Bronze Age dress based on the surviving textiles in

the National Museum of Denmark that were published in 1935 and 1939. The latter year was also the year that Hald was employed in a permanent position as an assistant at the museum. In 1947, she was promoted to curator, and in 1950 she became the first woman in Denmark to obtain a doctorate in archaeology, with a treatise on Iron Age textiles. She retired from the museum in 1967 but remained active in the academic community until her death in 1982.

#### Study trips: Margrethe in London

In 1935, Margrethe Hald applied for and received funding from the Carlsberg Foundation to travel to England, Germany, and Austria with the purpose of completing a comparative study of ancient textile techniques "between braiding and weaving" (e.g. sprang).

The following year Hald travelled to London where she became acquainted with textile scholar Grace M. Crowfoot (1879-1957), who was associated with University College London. The Danish National Archives hold several letters from Crowfoot to Hald, written in May and June of 1936, coinciding with Hald's visit to London.

We learn from this correspondence that Crowfoot assisted Hald in her studies and contacted, on her behalf, Professor Stephen R.K. Glanville (1900-1956), then Edwards Professor of Egyptology at UCL: "I will explain to him about your special kinds of plaiting and knotting. Then later, when he is arranging his collection, if he has duplicates, I hope he will allow your museum to acquire them". According to a letter dated 28<sup>th</sup> June 1936 (fig. 1), ostensibly after Hald had returned to Denmark, it seems that Crowfoot was successful in her endeavor and Hald

received a number of "duplicates", that is to say, cut-off tissue fragments or rather similar fabrics as well as "fragments of knotted works", most likely sprang, for further study at the National Museum of Denmark. Furthermore, the fragment numbers were shared so that the results of Hald's analysis can be used to understand the fabric fragments left at the UCL.

These textiles entered the Collection of Danish Prehistory and received the filing number 722/36, except for a large tunic fragment (Inv. 12141), which was sent to Vera Stilling, a weaver associated with Thordis Eilertsen's workshop in Frederiksberg. Stilling carried out a complex conservation and three-dimensional reconstruction of this tunic, and finally in 1943 this garment was included in the Collection of Classical and Near Eastern Antiquities. In her letter from June 1936, Crowfoot also mentions that she had found more examples of the "knitting" that Hald was interested in. It has been suggested by Anne Marie Decker that Crowfoot may refer to a sock made using nalbinding technique that may also have entered the National Museum of Denmark's collection through University College London (see **Case study 8**). All these textiles most likely belong to the antiquities sold in 1913 to the UCL by a British archaeologist and Egyptologist, Flinders Petrie (1853-1942).

#### Study trips: Margrethe in Berlin

In 1937, Margrethe Hald travelled to Vienna and Berlin. No information on her studies in Vienna has been found until now, but she states in a letter from Berlin that she had been there prior to arriving in Germany. Hald primarily studied textiles from the



June 28.

11

The Old House  
Geldeston  
Beccles.

Dear Miss Hald

Prof. Glanville's address

is :

Professor S. R. K. Glanville  
Department of Egyptology  
University College  
Gower St  
London.

I am so glad that you  
were given some pieces of  
the textiles. Miss Mackenzie  
says that they were

duplicates of pieces that she  
has kept. I told her she  
ought to have numbered  
those pieces, so that, when  
you have made your study  
of the pieces you have,  
we shall understand better  
the technique of ours.

In any case, this is  
what I will ask you to  
do. When you have studied  
the fragments of knotted  
work, and you publish  
them, to let me know  
which are the pieces from  
University College.

Then by the drawings of the  
knotted design, I hope to  
recognise which pieces of ours  
resemble them.

I was working again  
at the College on Thursday  
Friday and Saturday, and  
found some more good pieces  
of the "Knitting"; and also  
extremely fine linen pieces,  
but no more of your special  
fabric —.

I hope you had a  
good voyage home, and  
I hope we shall meet again  
to see some more textiles together.  
Yours sincerely  
Grace M. Crowfoot

**1a, b, c.** A letter from Grace M. Crowfoot to Margrethe Hald dated 28<sup>th</sup> June 1936, regarding the handing over of some "duplicate" fabrics from UCL to Hald for analysis. Danish National Archives. Photo: Morten Valner S. Grymer-Hansen



Staatliche Museen in Berlin  
**Kaiser-Friedrich-Museum**  
 Berlin C 2, den 25.9.37.

Sehr geehrtes Fräulein Hald,  
 Haben Sie herzlichen Dank für Ihre so freundliche wie umfangreiche Sendung, die ich vor zwei Tagen erhielt. Ihre Artikel sind ja sehr anschaulich illustriert, und ich habe das meiste bereits gut verstehen können. Mit ihrer Arbeit über die dänische Bronzezeit habe ich mich allerdings noch nicht abgeben können, werde es aber bald tun. Heute gehen nun ihre Photographieen an Sie ab. Ich hoffe, dass sie gut genug sind, und Sie damit arbeiten können. Gleichzeitig schicke ich Ihnen die eine Aufzeichnung auf Karton, die Sie háer vergessen haben. Zu den Photographieen habe ich noch zu bemerken, dass die Mütze (?), die bisher keine Nummer gehabt hat, jetzt unter Nummer 10949 inventarisiert ist. Sie wurde 1889 von Dr. Franz Bock gekauft und stammt aus Achmim/ Panopolis.

Haben Sie nochmals herzlichen Dank, und Seien Sie nur so freundlich, in Zukunft bei Drucksachen nicht mehr als 5 Worte dazuzuschreiben. So sehr ich mich über Ihre freundlichen Worte gefreut habe, so hatte die Post dafür weniger Verständnis, und wollte die Sendung als Brief behandeln, und über 9 Mark Nachporto einfordern. Erst nach langen Verhandlungen haben Sie sie dann doch so durchgehen lassen. Jedenfalls bin ich sehr froh darüber, und ich würde mich nur freuen, wenn wir weiter Kontakt behalten. Soweit es in meinen Kräften steht, will ich Ihnen hier mit unserem Material helfen, so gut ich kann. Mit den herzlichsten Grüßen  
 Ihr sehr ergebener  
*H. Schlunk*

**2a, b.** A letter from Helmut Schlunk to Margrethe Hald dated 25<sup>th</sup> September 1937. The letter suggests that Hald's particular interest during her stay in Berlin was in fabrics made using the sprang technique. National Museum of Denmark's Collection of Danish Prehistory. Photo: Morten Valner S. Grymer-Hansen

**3.** (opposite page) Hairnet in sprang technique purchased by Franz Bock and presumably originating from Akhmim. Museum für Byzantinische Kunst (MBK Inv. 10949). Photo: Antje Voigt © MBK

Frühchristlich-Byzantinische Sammlung in the Kaiser-Friedrich-Museum (now Museum für Byzantinische Kunst in the Bode-Museum [MBK]) to compare them with Danish textile finds from the Bronze Age, and some of her findings were published in an article in 1946 (Hald 1946). The stay must have lasted until shortly before 25<sup>th</sup> September 1937, which is the date of a letter written by the then director of the Frühchristlich-Byzantinische Sammlung, Dr Helmut Schlunk, addressed to Margrethe Hald, in which he refers to her stay there (Fig. 2a,b).

Schlunk mentions some notices on cardboards which she had forgotten in Berlin and which he was going to send to her together with some photos of textile objects from the Berlin collection. Among these was a hairnet in sprang technique purchased by

Franz Bock and presumably from Akhmim (MBK Inv. 10949, Fig. 3), and also a tunic (MBK Inv. 9692), which was presented in the above mentioned article she published a few years later (Hald 1946). The letter is preserved now in the archives of the National Museum of Denmark's Collection of Danish Prehistory. Unfortunately, no documents related to Hald's stay in Berlin are preserved in the Zentralarchiv of the Staatliche Museen zu Berlin.

It seems that Hald's interest in the so-called "knitting" techniques had somewhat dwindled when she arrived in Berlin in the late summer of 1937, and it was rather weaving and loom types she focused on (Mokdad & Grymer-Hansen 2021). In a letter to her mother from September 1937, Hald wrote, "Yesterday was the highlight of the trip with regard to academic





benefit. I found the same cross and wedge weavings in some Egyptian tabby fabrics as the one we have in Danish Bronze Age clothes – I found it to be one of the most interesting finds in the examinations and it is very amusing that I am now able to detect the same features in the Egyptian fabric.”

Margrethe Hald’s article from 1946 includes the results of her investigation of all in all six garments of the former Frühchristlich-Byzantinische Sammlung (MBK Inv. 9104, 9692, 9918, 9922, 9935 and 9985) and also of a few fabrics from the Ägyptische Abteilung (now Ägyptisches Museum und Papyrussammlung [ÄMP]) in the Neues Museum that she also examined during her Berlin trip. Four of the

garments were included in the catalogue of Late Antique fabrics from Egypt from 1926 compiled by Oskar Wulff and Wolfgang Fritz Volbach (Wulff & Volbach 1926), and two in the catalogue raisonné of the so-far unpublished textiles in the Museum für Byzantinische Kunst from 2000 (Fluck, Linscheid & Merz 2000). The latter is a cut-to-shape child’s tunic with gores at the sides, trimmings in tablet weaving at the neck opening and at the cuffs, and remnants of a vertical silk band in the middle front (Fig. 4), which Hald saw in its original condition before conservation treatment. She only briefly described this tunic and MBK Inv. 9922 of the same style, apparently to point out the difference to the woven-to-shape tunics whose technological characteristic seem to have interested her more.



**4.** Cut-to-shape child’s tunic.  
Museum für Byzantinische Kunst  
(MBK Inv. 9935).  
Photo: Antje Voigt © MBK

**5.** Photo of a child’s tunic,  
published by Margrethe Hald  
(1946, p. 73, fig. 21). Former  
Kaiser- Friedrich-Museum, Berlin  
(MBK Inv. 9692). Archives of the  
MBK.  
Photo © MBK







Two of the tunics Hald analysed during her stay in Berlin have been missing since the Second World War. Her technical observations and drawings are thus all the more valuable to us today. MBK Inv. 9692 is a child's tunic of which at least an archive photo is preserved (Fig. 5). The only visual impressions from the fragmentary tunic MBK Inv. 9985 that still exist are a detail photo and a drawing made by Margrethe Hald (1946, p. 75-76, fig. 23 and 24). The photo shows a part of the tunic's decoration - a simple narrow stripe (*clavus*) with a tiny natural coloured ornament on a red ground according to the description (Fig. 6a). Hald's drawing depicts the upper part of the tunic with oval neck opening and one of the sleeves (Fig. 6b). She mentions selvages along the long sides of the sleeves and parallel to that at one edge of the front or back meaning that another piece of cloth must have been sewn here to achieve the length. Thus, this tunic belongs to the type of woven-to-shape tunics in three pieces - a quite common method in Late Antique Egypt.

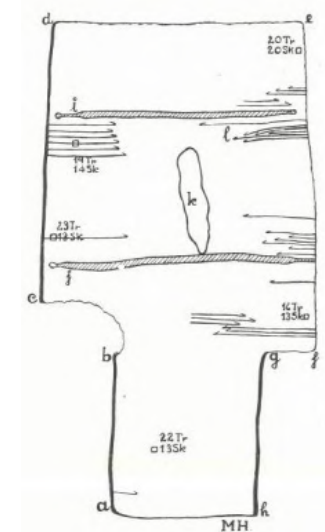
#### Margrethe left marks!

Margrethe Hald left a trace on the partly preserved back of one of the tunics she studied in Berlin, MBK Inv. 9918, purchased from Robert Forrer

**6a.** (opposite page) Photo of a fragment of a tunic published by Margrethe Hald (1946, p. 76, fig. 24). Former Kaiser-Friedrich-Museum, Berlin (MBK Inv. 9985). Archives of the MBK.  
Photo © MBK

**6b.** Drawing of the upper part of a tunic, published by Margrethe Hald (1946, p. 75, fig. 23). Former Kaiser-Friedrich-Museum, Berlin (MBK Inv. 9985).  
The original drawing is not preserved.

and originating from Akhmim (Fig. 7a, b). This damaged side was hidden for decades as the tunic was sewn onto a supporting fabric, from which it was not removed until 2020 in order to prepare it for an exhibition. Once turned it revealed colourful markings inserted from synthetically dyed yarns that were puzzling and for which we could not find an explanation (Fig. 7c). However, a fragment of a cotton blanket now in the NMD with similar features (**Catalogue No. 4**) presented by Anne Kwaspen during the workshop *Reconstructing textiles and their history. Egyptian fabrics from the 1st millennium AD at the National Museum of Denmark* held at the university of Copenhagen (26<sup>th</sup> March 2022) put us on the trail (Fig. 8). We remembered that the tunic in question was one of the objects Hald studied and that the coloured yarns could only be her addition. Similar colourful threads have been found on textiles from Danish prehistory that were studied by Hald, such as the finds from Corselitze. She used them to mark what she called "double wedges" - additional wefts that do not run from selvedge to selvedge but pass back and forth somewhere in the width of







**7a.** Tunic woven-to-shape: side  
A. Museum für Byzantinische  
Kunst (MBK Inv. 9918).  
Photo: Antje Voigt © MBK



**7b.** Tunic woven-to-shape: side  
B. Museum für Byzantinische  
Kunst (MBK Inv. 9918).  
Photo: Antje Voigt © MBK

the weave. These wedges were necessary to prevent the fabric from warping. They are not only found in linen tunics, but also in wool tunics from Late Antique Egypt as well as wool cloth from Scandinavia.

Hald concluded from the existence of these wedges or double wedges the use of a special loom type - the two beam loom, also misleadingly called tubular loom, which was suitable to produce wide cloth, and on which two or three weavers could work together simultaneously. For tunic MBK Inv. 9918, Hald reconstructed a width of about 260 cm and observed meeting weft threads in the tabby weave mainly at the same level as the tapestry decoration ended on both sides (Fig. 7d). She suggested that three weavers worked on it together, each "responsible" for a *circa* 85-90 cm weft shoot. The neck slit of the tunic was created during the weaving process. Here the weft turned and formed a selvedge. The decoration consisting of *clavi*, rectangular shoulder trimmings and double stripes on the preserved sleeve were torn off and reused from an older garment and sewn onto this "new" plain linen tunic.

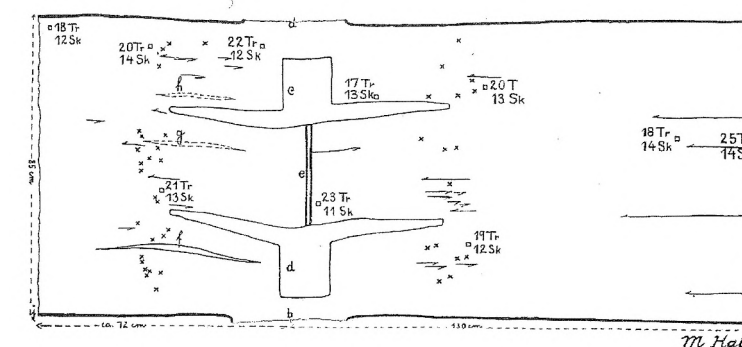
## Copenhagen-Berlin connections: 85 years later

Connections between Copenhagen and Berlin were renewed in autumn 2020 with the preparation of the RECONTEXT project initiated by Maria Mossakowska-Gaubert at Centre for



**7c.** (top) Tunic woven-to-shape: colourful markings inserted from synthetically dyed yarns. Museum für Byzantinische Kunst (MBK Inv. 9918).  
Photo: Antje Voigt © MBK

**7d.** (bottom) Drawing of a tunic woven-to-shape, published by Margrethe Hald (1946, p. 72, fig. 19). Museum für Byzantinische Kunst (MBK Inv. 9918). The original drawing is not preserved.







Textile Research, UCPH, and based on the Late Antique textiles in the NMD. Since then, regular exchanges have been taking place.

Among the textiles in the NMD collection are 17 fabrics of undetermined provenance. As we know that Margrethe Hald transferred textiles from London to Copenhagen in the 1930s, we wondered if she could have brought these 17 fabrics to the NMD from other collections. There was a small hope that they might belong to the losses the Berlin collection suffered since the Second World War. At the time it was quite customary to sort out doublets, and it happened sometimes that this was not documented or that the documentation got lost. Often the pieces that were given away were not inventoried beforehand. An attempt to compare the 17 fabrics from Copenhagen with the Berlin list of losses failed. From a part of the losses if at all only a brief description exists, but no images. This makes identification almost impossible. However, among the NMD textiles of unknown provenance are two fragments - NMD Inv. Unr\_d (**Catalogue No. 23**) and Unr\_i (**Catalogue No. 24**) of which counterparts exist in the MBK collection. Fragment Inv. Unr\_d, a wool cloth with a fringed finishing border, a narrow red stripe next to it and a broad red stripe between black lines in the weave corresponds to

fragments MBK Inv. 10033 and 1/2017 (Fig. 8). Fragment NMD Inv. Unr\_i, again a wool cloth, here with a starting border of twined yellow and red wool threads, a narrow red stripe next to it, and a 7 cm-wide stripe of alternating thick and thin, differently coloured bands seems to match the MBK fragments Inv. 2/2016, 93/2016 and 96/2016 (Fig. 10) as well as two fragments in the Museum für Kunst und Gewerbe in Hamburg (Germer & Körbelin 2012). The fragments in Hamburg and Berlin were previously in the possession of Georg Schweinfurth, who found them in 1886 in Arsinoë/Krokodilopolis, the ancient capital of the Fayum Oasis. At first glance, the fragments appear to be from one and the same fabric, but the thread counts and the proportions of the stripes differ slightly. The striking similarity of technological features, colours and patterns in all cases allows us to

**8.** (Opposite page) Wool cloth. Museum für Byzantinische Kunst (MBK Inv. 10033). Photo: Antje Voigt © MBK

**9.** Fragment of cotton cloth: colourful markings inserted from synthetically dyed yarns, NMD (Inv. 3212). Photo: Søren Greve © NMD





assume that they come from the same workshop in Arsinoë, although not from the same fabric.

Even if the accession of the fragments to the NMD is still unclear, the parallels in Berlin and Hamburg at least allow

conclusions to be drawn about the place of discovery. Another fabric with coloured stripes, NMD Inv. Unr\_e, might also belong to this group as well, although it has no direct counterpart in the collections of Berlin and Hamburg.



**10.** Wool cloth. Museum für Byzantinische Kunst (MBK Inv. 96/2016).  
Photo: Antje Voigt © MBK

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2<sup>nd</sup> edition - 2023

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<https://en.natmus.dk/museums-and-palaces/the-national-museum-of-denmark/exhibitions/classical-and-near-eastern-antiquities/archaeological-puzzles-in-a-museum/>



## Case study 8 Fringed brown sock

Anne Marie Decker

While socks from early first millennium Egypt have been found to be made in many techniques, including felt, or cut and sewn woven cloth, nalbound socks, due to their distinctive structure, are most recognisable even in fragmentary form. Currently, we know of around 110 examples of nalbound socks. Of these, two-thirds were made using the cross-knit looping variant of nalbinding seen in this example. The remaining third are of various different compound variants of nalbinding. Only ten per cent of the known corpus of nalbound socks from Egypt made using the cross-knit looping variant have a fringe.

The sock from the National Museum of Denmark (**Catalogue No. 22**) was examined by the author in August 2019. Initial results of that examination were included in the “Fringed and patterned: decorative elements in Romano-Coptic nalbound socks” presentation at the *Textiles from the Nile Valley* study group conference on 27<sup>th</sup> October 2019. “A Fringe Study in Footwear: lessons learned from a sock in a box” focused on this specific artefact and was presented on 26<sup>th</sup> March 2022 at the *Reconstructing Textiles and Their History: Egyptian Fabrics from the 1st Millennium AD* online workshop.

The sock has a split toe for wearing with thong sandals and is for the right foot. It is in rather good condition and is still relatively flexible. The sock is mostly whole with some minor damage in the form of holes in the big toe and along the inside of the instep. There is also a large continuous cut that starts at the upper instep, runs down between the toes, continues along the arch towards the inside of the sock, and finally slices about 1 cm above the edge of the heel flap around to the outer side of the heel cup. This cut implies the potential position of the sock when it was damaged. It appears to have been slightly folded and not containing a fully fleshed foot when cut. While the sock has not had any significant conservation efforts applied to it, the cut has been roughly stabilised with a fine brown thread loosely lashing the

edges together. The date of the repair is unknown, but the thread used matches the weight, ply, and sheen of the thread used to apply the label. The sock’s form at the time of examination was maintained by some lightly crushed tissue paper.

The sock measures about 21 cm (or 8¼ inches) long and 8.6 cm (or about 33/8 inches) high, which makes it sized for an adolescent or small adult. These dimensions match a youth/small adult EU 34/35, UK 1.5/2.5, and US youth 2.5/women’s 4 shoe size.

The yarn used in the sock is a three strand Z-spun, S-ply wool. The sock is constructed using the S-crossed cross-knit looping variant of nalbinding. The gauge is worked at four stitches to the centimetre by five rows to the centimetre (approximately 9.4 stitches



1. Sock: general view  
(NMD Inv. Unr\_y).  
Photo: Søren Greve © NMD



to the inch by 12 rows to the inch). There is some variability in gauge throughout the sock by portions of a stitch here and there. Some of the variation is likely caused by wear and some is variability in the worker's tension.

The sock shows evidence of wear. There are shadows of sandal straps from between the toes across the instep. Abrasions and debris can be found inside the toes and on the heel. There are potential cotton fibres caught on the outside of the big toe. Additionally, a strand of finer two-ply wool is found lying on the arch. Whether this strand is from the original find or from storage conditions is unknown.

The sock is currently a lovely shade of rich brown. Close examination of the fibres in the yarn reveals varying shades of brown with some very pale, possibly white strands and a few black or bluish fibres. No dye analysis has yet been performed on the sock.

The construction details of the sock all fall within the known parameters of the cross-knit looping variant of nalbound socks from Egypt. It is worked from the toes up to the cuff. The number of stitches in the initial toe rings fall within the range found in those socks for which we have toes remaining. The gauge falls within the common stitch counts. The paired increasing strategy for accommodating the smaller toes has one pair more than the average, but still falls within parameters. The heel flap reversals, style of pickups along the heel flap, and connection of the heel cup to the body of the sock, decorative welt across the instep, and open ankle slit with roped edge reversals also find comparisons in the known corpus.

The closure area of this type of sock is often damaged, however, the ankle of this sock is in unusually good condition. A potential button-and-loop type closure can be seen on close examination. The apparent button closure is similar to the much more damaged yellow pair from Gebel Abou Fedah (Inv. 562.864) excavated in the early 1800s by Frédéric Cailliaud (1787-1869) and housed in the Musée Dobrée in Nantes, France. Other types of closures are also found in the corpus. Ties or no slit at all being the most common types, while lacing loops and tongue have been found in limited instances. Further examination of this area is warranted.

While fringing is a rare cuff treatment, the specific method of attaching the fringe with its decorative braided edge can also be seen in the blue pair, also from Gebel Abou Fedah (Inv. 56.2863), in the Musée Dobrée, and the reddish-brown fragment (Inv. T.1988.41) now in the Whitworth Art Gallery, University of Manchester.

Like several others of its type, the provenance of the nalbound sock now held in the National Museum of Denmark has been lost and its interesting history is only now being pieced back together. The manner of its arrival to the NMD has left it without an inventory number, having not been formally registered. Socks, being generally singular finds amongst a volume of woven textiles, have often

**2.** Sock (NMD Inv. Unr\_y):  
a. view from the left side;  
b. bottom view;  
c. view from the he right side;  
d. top view.  
Photo: Søren Greve © NMD



Fig. 2a



Fig. 2b



Fig. 2c



Fig. 2d



been left unexamined after excavation and distribution, only later to be found in unopened boxes and drawers. Each such rediscovery adds to our understanding of the often-unexplored area of non-woven looped textiles.

Examination of the NMD sock found a label that has been sewn to the inside of the heel with a fine green thread. The shape, cut, handwriting, and stitching of the label itself are consistent with labels found on samples that were brought to the National Museum of Denmark by Margrethe Hald from University College London in 1936 (for Hald's study trip to London, see **Case study 7**). The original 16 samples she received have all been accounted for by the RECONTEXT project. Nonetheless, the similarity of the labels does imply an arrival to the museum of approximately the same vintage. Additional research needs to be conducted, but there are other hints in inventories and correspondence of the time that lead to a tentative connection to the UCL Petrie Museum collection.

The UCL Petrie Museum currently holds three brown nalbound socks found by Flinders Petrie (1853-1942) during his excavations of Hawara (Inv. UC16766 and UC16767). Petrie dates the Roman-era tomb, in which one of the (unspecified number of) brown wool socks was found, to the 4th century (Petrie 1889). Recent carbon dating of the pair of brown wool nalbound socks (Inv. UC16766) in the Petrie Museum dates them to between 130-390 AD (De Moor et al. 2015).

There are more details to be determined through examination and experimentation, but those revealed so far definitely indicate that this sock

of currently unknown provenance falls entirely within the parameters of Roman/Byzantine-era socks of this type from Egypt with no deviations. It is a stunning example of its kind.

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Campus Print - University of Copenhagen  
Copenhagen 2023