

Case Study 7

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

**ARCHAEOLOGICAL PUZZLES
IN A MUSEUM**

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



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 28th 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

11
June 28.

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
& see some more textiles together
Yours sincerely
Grace M. Crowfoot

1a, b, c. A letter from Grace M. Crowfoot to Margrethe Hald dated 28th 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 hier 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 Achmimá 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

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 25th 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

2a, b. A letter from Helmut Schlunk to Margrethe Hald dated 25th 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



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.

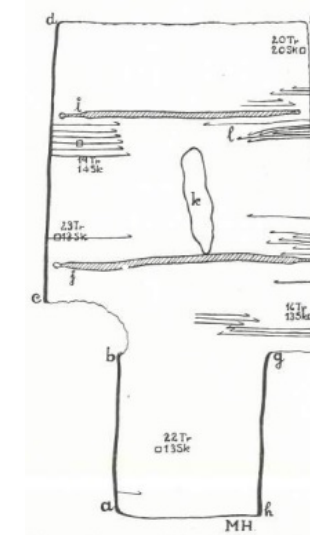
Margrethe left marks!

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 Kwaspens 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 (26th 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.

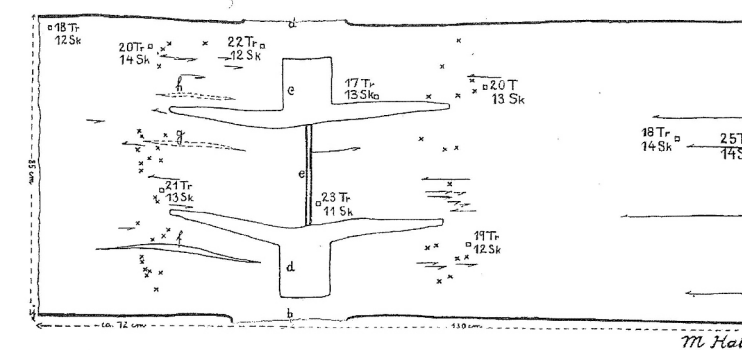
Copenhagen-Berlin connections: 85 years later

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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