

Case Study 8

Fringed brown sock

ARCHAEOLOGICAL PUZZLES
IN A MUSEUM

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



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 27th October 2019. “A Fringe Study in Footwear: lessons learned from a sock in a box” focused on this specific artefact and was presented on 26th March 2022 at the *Reconstructing Textiles and Their History: Egyptian Fabrics from the 1st Millennium AD* online workshop.

1. Sock: general view
(NMD Inv. Unr_y).
Photo: Søren Greve © NMD

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



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.

Bibliography

De Moor et al. 2015:

A. De Moor, C. Fluck, M. Van Strydonk, M. Boudin, "Radiocarbon dating of Late Roman woollen socks from Egypt", in A. De Moor, C. Fluck, P. Linscheid (eds.), *Textiles, tools and techniques of the 1st millennium AD from Egypt and neighbouring countries*. Proceedings of the 8th conference of the research group *Textiles from the Nile Valley*, Antwerp, 4-6 October 2013, Tiel, 2015, p. 131-136.

Petrie 1889:

W.M.F Petrie, *Hawara, Biahmu and Arsinoe*, London, 1889.
https://digi.ub.uni-heidelberg.de/diglitData/tmp/pdf/petrie1889__z4.pdf

2nd edition - 2023

This document was downloaded from the website of the National Museum of Denmark, for the full exhibition or other documents also a part of this exhibition, see:
<https://en.natmus.dk/museums-and-palaces/the-national-museum-of-denmark/exhibitions/classical-and-near-eastern-antiquities/archaeological-puzzles-in-a-museum/>