

Cary Karp and Anne Marie Decker

Three objects catalogued as *vantsöm* in the collections of the Museum der Kulturen in Basel, Switzerland

Abstract

The looped structure termed a slip stitch in the craft glossary of crochet can be produced both with a hook and an eyed needle. These implements are not equally amenable to working this structure into complex constructs such as the toe and heel of a sock. This article describes the examination of three objects that have been misidentified as nalbinding. Two of them are certain to have been crocheted and the third is highly likely also to instantiate that technique. The provenance of the objects is recorded as “Coptic Egyptian” on anecdotal evidence and without ascription of specific dates. If scientific dating were to establish that any of them approaches even the youngest age this might imply, the accepted date for the advent of crochet would require major revision.

Key words: Looped fabric structures, nalbinding, slip stitch crochet, provenance, museology, dating

Introduction

The collections of the Museum der Kulturen in Basel, Switzerland, include three items made from looped yarn that are recorded as being of Egyptian origin. The catalogue records (unpublished but made available to the present authors at the museum) are headed “Aegypten, Koptisch, Fostat” with no indication of a date beyond that implied by the term Coptic. This was an accepted indicator of age at the time but has since been widely deprecated. Question marks appear with these attributions in the catalogue records for two of the objects: a small pouch with the catalogue number III 16702 and a child’s sock number III 16706. There is no indication of corresponding uncertainty in the record for a second child’s sock, number III 16705.

A description published in 1955 (detailed below) does associate specific dates with material originating in Fustat, at the location of what is now Old Cairo. It places a ceiling on the date of anything manufactured there to 1168 CE. However, artefacts of indeterminate later date that can only be set in relation to the time of their recovery, and made elsewhere, have been found at the site. The authors of that report therefore question the value of reference to Fustat as an indication of either

chronological or geographic origin in the absence of corroborating technical and stylistic evidence.

In the application of the system for classifying textile techniques developed in Basel – first sketched by Fritz Iklé (1935), then worked into a rigorous format by Kristin and Alfred Bühler-Oppenheim (1948), and brought to its present form by Annemarie Seiler-Baldinger (1973) – these three objects are categorised as *Vantsöm* (“mitten stitch” in Swedish). This term is now widely taken to be a synonym for what is referred to as “nalbinding” in anglophone discourse (Ger. *Nadelbinden*; Swe. *nålbinding*; lit. “needle binding”). However, in 1964 when the three objects were formally accessioned to the museum collections, the Basel classification system treated *vantsöm* as a subcategory of nalbinding, reserving it for the compound rather than simple stitch structures in that repertoire. The various labels applied to this craft merit further study, with emphasis on their polyglot nuance and derivation. The English terms used here, both above and in the remaining text, are followed by the corresponding German terms in the museum’s records.

The examination underlying the present report was

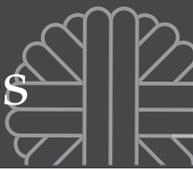


Fig. 1: Sock III 16706, displaying a range of structures commonly associated with crochet (Image: Cary Karp)

triggered by stylistic indications that *vantsöm* is not the appropriate classification for the stitch structure of any of the three items, nor is nalbinding. If so, the distinction between *vantsöm* and nalbinding would be relevant to a further review of how the terminology developed, but neither to the description of these specific objects nor the method of their production. This also highlights the need for the separate consideration of nomenclature, procedure, and structure that has become a basic principle in the systematic analysis of the often-fragmentary textile objects in museum collections.

Sock III 16706

The first object considered here is a child's sock (inventory number III 16706). Although catalogued as *vantsöm*, that attribution can be discounted on the basis of its visible details (fig. 1). The fabric includes structures that would not have been produced with a single eyed needle, which is the definitive implement used for all tool-based varieties of nalbinding, including those the Basel system recognises as *vantsöm*. The sock includes various crochet (*Häkeln*) stitches that are first attested in the craft literature in the 19th century. As implied by the name of that craft, its characteristic structures include elements that reflect the working of loops with a hook. The most complex of the structures seen in this sock is termed "double treble crochet" in the current UK glossary (*Doppelstäbchen*).

Pouch III 16702

The primary structure of the pouch (inventory number III 16702) (fig. 2) has a similarly fundamental position in the atlas of crochet stitches where it is now commonly termed a slip stitch (*Kettmasche* or *Kettenmasche*; current convention in the craft literature leaves "slip stitch" unhyphenated even when used adjectively as in "slip stitch crochet"). It is attested from the mid-18th century in Europe and remains in practice on a smaller scale in its eastern and northern regions (Karp 2020). Active traditions of unknown age are also found in northwest Africa (Ventura 2012) and central Asia (Ohrenstein 2011).

Unlike the structures in sock III 16706 that can only be labelled as crochet, a basic slip stitch can be produced using an eyed needle. Nonetheless, it has yet to be demonstrated that this implement is a practicable alternative to a crochet hook for the shaped construction details of a slip stitched sock, such as the toe and heel of sock III 16705 presented in the following section. It might be assumed that an eyed needle would be more readily applicable to the less complex pouch. However, although it is not certain how all of the stitching on its flap was produced, there are pivotal structural attributes in it that cannot have



Fig. 2: Pouch III 16702, displaying structures commonly associated with slip stitch crochet (Image: Cary Karp)

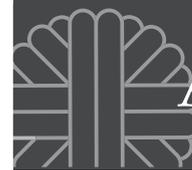


Fig. 3: Sock III 16705, again with the structures of slip stitch crochet, aggregated in cuff, toe, and heel designs that indicate the non-viability of an alternate nalbound production technique (Image: Anne Marie Decker)

been nalbound.

As will be discussed below, the two techniques work in opposite directions to produce a slip stitch structure. As it appears in the outer rows of the flap and across the opening of the pouch, the structure can easily have been crocheted beginning at the edge of the flap and worked outward. If nalbound, it would have been worked inward from the edge. This would encase the innermost loops of the border stitches in the fabric when working the flap and body. Since the orientation of a nalbound structure as it would appear in the flap is not reflected in the edge, the application of that technique is precluded. Additionally, both the pouch and the sock III 16705 display

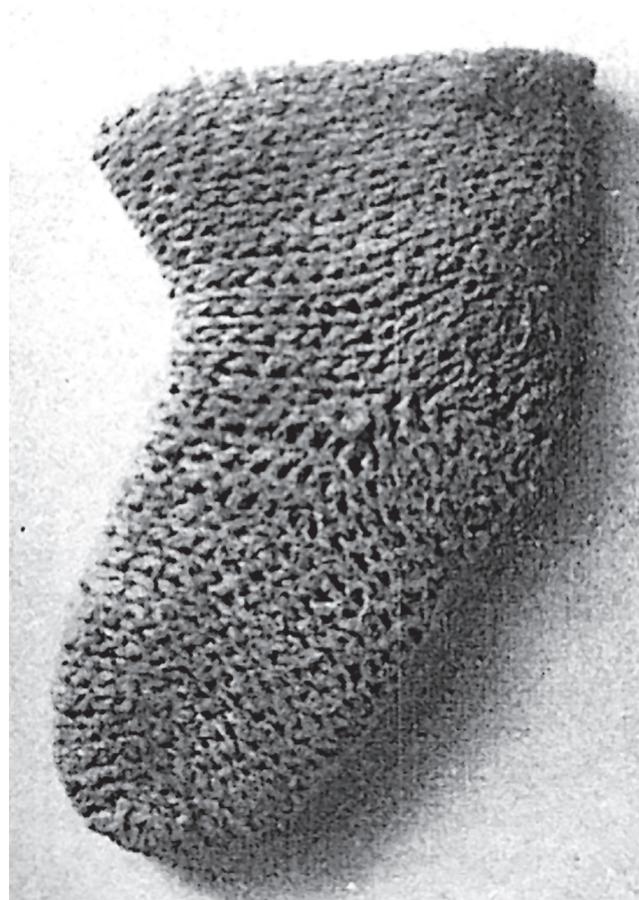
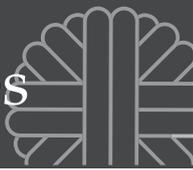


Fig. 4: Sock III 16705, photographed prior to 1955 (Image: unidentified photographer)

structural details that have not been observed in any other comparable nalbound objects regardless of their dating or provenance. The pouch is a non-noteworthy example of slip stitch crochet.

Sock III 16705

The slip stitch structure of pouch III 16702 is also seen in the other child's sock (inventory number III 16705), albeit with the faces of the fabric reversed (fig. 3). The exposed side of the sock corresponds to the inside of the pouch, which is visible on its open flap. It is possible to produce fabric of this basic structure with either face toward the worker. Additionally, there is nothing unusual about an object made with this structure being turned inside out subsequent to its manufacture. The first printed instructions for slip stitch crochet, published in France in 1785 (cited fully below), prescribe that method for fashioning a glove. In either case, the inside of sock III 16705 shows clear signs of wear and there is little doubt that the fabric was turned toward its present orientation before the



sock was last taken into use.

It is the one of the three objects that is unequivocally catalogued as “Coptic” *vantsöm* and has also been discussed most extensively in published texts. Although the basic fabric structure is correctly illustrated where it appears in the documents considered here, as with pouch III 16702, the reported production method is questionable. Similar uncertainty attaches to the unmodified term Coptic as used in the cited texts to designate an historical period. However, determining the precise date ranges intended by the respective authors is without bearing on the actual age of the objects. Specific (but unverified) dates are also indicated in documents cited below.

The first published report

Sock III 16705 was described and illustrated prior to its accession, in the May 1955 instalment of a ten-part article titled *Nichtgewebte Textilien vor 1400* (Non-Woven Textiles Before 1400) by Regina Flury-von Bülzingslöwen and Edgar Lehmann (Flury-von Bülzingslöwen and Lehmann 1955). This included a photograph which can be compared directly with the preceding one (fig. 4).

The sock was acquired in Cairo by Alfred Bühler, the director of what was then the Museum für Völkerkunde in Basel, with six other pieces of ostensibly comparable footwear. They were all intended for donation to the museum but had not been formally transferred at the date of publication. The Flury-von Bülzingslöwen and Lehmann article explicitly gives a first preview description of those objects.

The information about their provenance would have originated with Bühler: “According to the statements of the dealers in Cairo, these pieces are supposed to be from Fustat” (Flury-von Bülzingslöwen and Lehmann 1955, 40). It is unclear who wrote the immediately following comments about that site:

“Fustat, in the southwest of modern Cairo, emerged from an Arabic encampment in 641 [CE]. The Egyptians themselves burned it fully to the ground in 1168 to prevent it from being seized by invading Crusaders. Archaeologists now regard it as the great ‘trash heap’ of Cairo, that is, the site where finds of all kinds of daily necessities from the Islamic centuries can be excavated from the earth” (Flury-von Bülzingslöwen and Lehmann 1955, 40).

This commentary ends with an exhortation to the textile industry to revisit Fustat physically and do as much as possible to rectify the stratigraphic record in preparation for further controlled digging. However, “the retrospective ordering of previous random finds has to follow technical and stylistic evidence”

(Flury-von Bülzingslöwen and Lehmann 1955, 40). (All translations in this article were done by the first-named author.) In the absence of such evidence, objects found there can only be dated by extrapolation from the time of their recovery. On the basis of the technical detail noted during the examination of the objects of present concern, they could have been retrieved from the “trash heap” at any time from the early-19th century until shortly before their sale to Bühler.

This renders reference to Fustat in itself useless as an indicator of origin in either geographic or chronological regards. That point is made in the Flury-von Bülzingslöwen and Lehmann article while discussing sock III 16705, which is the only one of the three objects investigated here that it also considers. The “Coptic” and Fustat chronological and provenance attributions were carried into the museum’s documentation system without indicating how they might have been weighed against other technical and stylistic evidence. The further analysis of sock III 16705 therefore requires the determination and assessment of such evidence before the ascribed nexus can be taken as anything other than anecdotal or, as also needed, its categorisation as *vantsöm* is confirmed or rejected.

The sock was accessioned to the museum’s collections during the last year of Bühler’s directorship (in 1964 as noted above) and recorded as a “Child’s sock, Egypt, Coptic, Fustat” (*Kindersöckchen, Aegypten, Koptisch, Fostat*). It is not clear how pouch III 16702 and sock III 16706 were acquired and came into the same registration sequence, although it is plausible that some degree of similarity had been noted as the accession queue was formed. Their dating is only presumed and their labelling as *vantsöm* has to be treated as a legacy annotation pending substantive corroboration. As has already been noted, the incorrectness of that attribution for sock III 16706 is obvious, and pouch III 16702 includes detail that cannot have been nalbound. This increases the care with which sock III 16705 needs to be scrutinised.

Later documentation

The physical description of sock III 16705 in the article is: “Baby’s sock, 10 x 5 cm. The thread is left-twisted undyed plant fibre and is knotted at a few points. Loose binding in a variant of the otherwise usual *vantsöm*. Very well preserved” (Flury-von Bülzingslöwen and Lehmann 1955, 38–39). The length indicated on the museum’s catalogue card is 4 cm longer.

The measurements taken during the current examination match the dimensions recorded by the museum. However, the shape of the sock in the latter

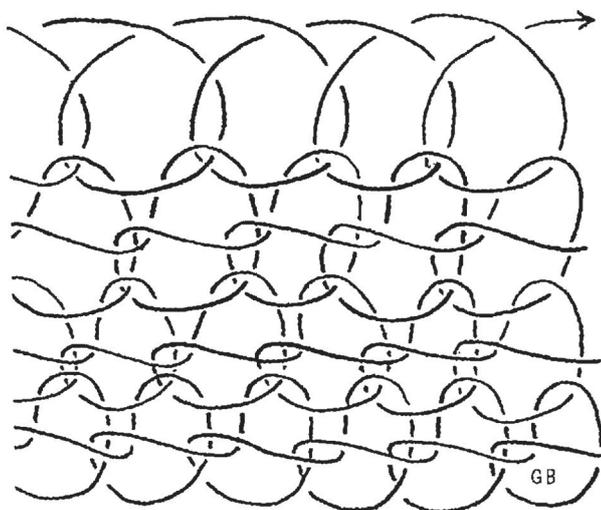
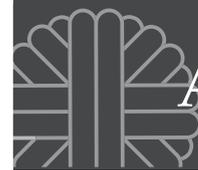


Fig. 5: The primary structure of sock III 16705, properly labelled a slip stitch regardless of the technique employed in its production, with the face of the fabric in figs. 3 and 4 oriented to match the face of the photographs (Image: Gudrun Böttcher)

photograph (fig. 3) differs somewhat from that seen in the earlier one (fig. 4). This is an effect of the sock having been opened during its examination. When flattened again afterwards it appeared as it does both in the earlier photograph and more recent ones taken by the museum, presumably after 1964. The differences in its recorded length are assumed to reflect a similar effect during previous handling.

Gudrun Böttcher, a prolific contributor to the procedural and structural documentation of nalbinding, describes the sock in an article published in 2004 (Böttcher 2004a, 177–179). This includes a number of drawings of looped fabric structures of which one is explicitly labelled “Häkeln: Kettenmaschen” (crochet: slip stitches). That drawing shows one of the four variant forms of the slip stitch most commonly seen in earlier crochet, with textbook accuracy. Irene Emery includes a photograph of the same variant, described as “plain crochet”, in *The Primary Structures of Fabric* (Emery 1966, 43). Annemarie Seiler-Baldinger presents a less common variant “Kettenmasche” in the 1991 edition of her *Systematik der Textilen Techniken* (Seiler-Baldinger 1991, 32) which Böttcher lists as a source in all of her articles noted here.

Böttcher cites the Flury-von Bültzingslöwen and Lehmann article as having called her attention to the material in Basel and says that sock III 16705 represents a form of nalbinding that she had only seen in one other object. This is a 19th century cap found in the

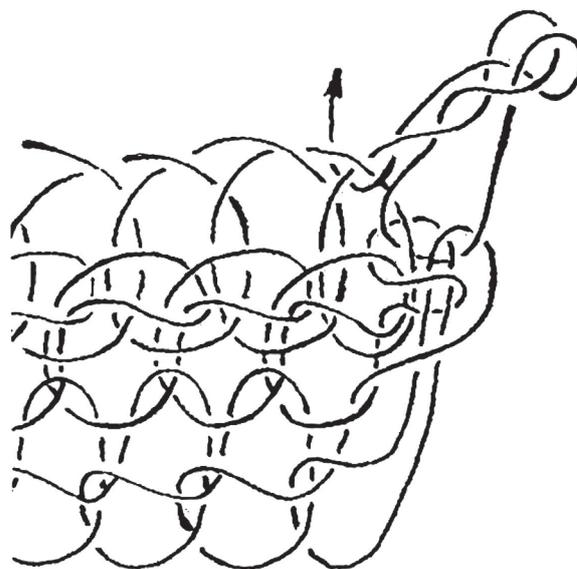


Fig. 6: The selvedge of the ear flap on a 19th-century Iranian slip stitch cap, with the yarn path drawn as required for nalbinding but consistently showing loops pulled through loops and no single strand drawn through a closed loop (Image: Gudrun Böttcher)

Netherlands that she records as closely resembling slip stitch crochet (Böttcher 1999, 125–136) – which for the reasons discussed here, it actually is – but concludes nonetheless that “since in my opinion techniques such as weaving, sprang, knitting, or crochet could immediately be excluded, I looked toward nalbinding” (*da meiner Ansicht nach Techniken wie Weben, Sprang, Stricken, oder Häkeln sofort auszuschließen waren, forschte ich in Richtung Nadelbindung*). She clarifies the difference with drawings of the same primary structure as produced by the two working techniques. The sock is not mentioned in the article from 1999, suggesting that Böttcher had not yet seen it when preparing that text. She later discusses both the sock and cap (Böttcher 2004b, 3–7) and includes two drawings of the primary fabric structure of the sock, seen from both sides (one shown in fig. 5). Except for the arrow, this is again a textbook illustration of the slip stitch structure. The same variant also appears in the description of the cap despite the *a priori* assertion of it being impossible to produce as crochet.

The form correctly presented as a crocheted slip stitch (Böttcher 2004a, 175) is also found in pouch III 16702 and sock III 16705. One plausible factor in the inconsistency of the analyses may be a lack of familiarity with the techniques of slip stitch crochet beyond the formation of its basic stitch. In consequence, evidence of procedures such as the slip stitch crocheting of a selvedge may easily have

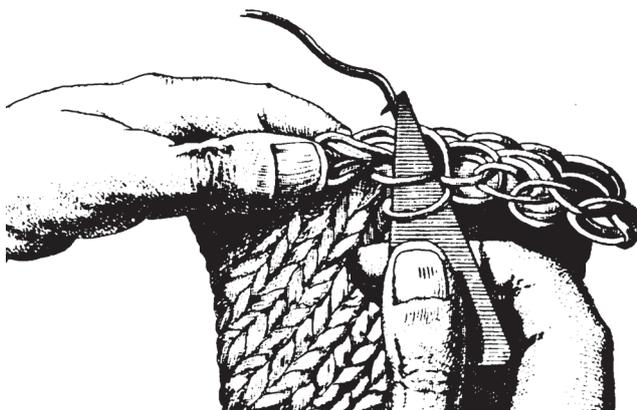
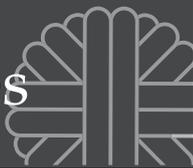


Fig. 7: Slip stitch crochet as illustrated by Roland de la Platière in the *Encyclopédie Méthodique* (1785)

gone unrecognised. Slip stitch crochet is no longer a common mode of fabric production and the basic slip stitch is normally used only to move the position of the hook in the fabric as invisibly as possible.

Many of Böttcher's subsequent drawings illustrate complex ways of using nalbinding to produce structures that can be crocheted with ease. A description of a 19th century cap from Iran with a classic slip stitch structure is provided with a demonstration of how it can be nalbound, adding interpretive detail to the drawings without indicating its extent (Böttcher 2006, 23–31). Crochet is again not considered as an alternative despite the depiction of construction details that are readily made as crochet but are otherwise alien to nalbinding. The intricate path taken by the needle emulates what would be a simple turning of the work when using a hook (fig. 6).

The slip stitch

The oldest drawing of a slip stitch that has yet come to light was published in 1785 in what are also the earliest known illustrated instructions for any form of yarncraft (de la Platière 1785, 40). It is one of the two basic forms of that stitch applied to the production of a glove (fig. 7). The loop in a new stitch is worked through the front side of the corresponding stitch in the preceding round using a characteristic flat hook. The present-day glossary terms this form of the slip stitch “front loop only”, abbreviated to FLO. Since there is only one loop, the instruction is more correctly read as “front of the loop only”, or better still, replaced by an instruction to insert the hook into the loop from below. The instructions also note that the back of the loop (BLO; inserting the hook into the middle of the loop) can be used for a different effect, which is the form Böttcher illustrates as specific to crochet. Finally,



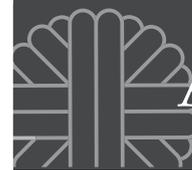
Fig. 8: Slip stitch crochet being worked by Othman Ribatallah, Morocco, 2012 (Image: Carol Ventura)

also as mentioned above, the face of the fabric shown in the working position is turned toward the inside of the finished glove. The only accurately drawn detail of the fabric is the stitch actively being worked.

The flat hook is a distinctive attribute of many regional schools of slip stitch crochet. A similar image appears in an explanatory text about its present-day practice in Morocco, noting that it includes both the FLO and BLO variants (Ventura 2012) (fig. 8). The form shown is the primary one found in sock III 16705. It is not known how far back this regional manifestation can be traced. Without suggesting an actual sequence of events, the technique can credibly have been brought to northwest Africa from the east with the Ottoman imperial forces or from the west with the French colonial forces. However, it can with equal credibility have been carried in the opposite directions.

It may not be purely coincidental that this path coincides with the one that knitting is believed to have followed as it was transmitted from its putative point of origin in or near the Nile Valley to both western and eastern Europe. Sorting this out is complicated further by an attested slip stitch tradition of unknown age using a stylised flat hook, in the Pamir Mountains, which are crossed by the Silk Road (Ohrenstein 2011). It similarly remains to be determined whether the Iranian cap noted above can be seen as further evidence of an eastward bridge.

It might be possible to regard the slip stitch as a universal construct, that is, something that can reasonably be developed by a community at any time and any place without external influence. Nothing precludes such a thing from being transmitted from one community to another. However, if parallel independent development is plausible, it is usually pointless to posit a transmission path unless there is



robust additional evidence of it.

The slip stitch has not been found to the same ubiquitous extent as have other looped structures that are widely regarded as universal. Further uncertainty is added by the possibility of two communities that developed slip stitch techniques entirely on their own subsequently coming into contact with each other, with sparse material evidence making it difficult to distinguish between transmission and coincidence. Tools such as hooks and eyed needles are certainly universal, as is the production of looped fabric (which includes knitting, nalbinding, and crochet). It is less clear that hooks with a flat broadly tapered shape appearing concurrently with the slip stitch at the various locations where they are used in tandem to make fabric, are a random phenomenon.

General discussion and observations

The FLO and BLO forms of the slip stitch both have additional structural variants. If the legs of the loop do not cross over each other the stitch is “open”. When they do cross over each other the stitch is “closed”. In the procedural vocabulary of crochet, corresponding reference is made to the direction in which the yarn is wrapped around the hook. There is no equivalent terminology in the nalbinding glossary since the slip stitch is not part of the repertoire of that craft. Böttcher is virtually alone in having published descriptions of how slip stitched objects can be produced with an eyed needle. The one noteworthy exception is an analysis by Audrey Henshall of a pair of small child’s booties made in Scotland circa 1790 (Henshall

1952, 27–28) that have since also been demonstrated to be slip stitch crochet (Karp 2020). Both Böttcher and Henshall support their conclusions in graphic rather than narrative form and do not provide a seed terminology for discussing either structural detail or technical procedure.

All variants of the slip stitch can be produced with equal ease and fluid transition from one to the other if worked with a crochet hook. When using an eyed needle, the free end of the working thread and its entire length, are pulled through each new loop. The thread thus crosses over itself and forms stitches that are intrinsically closed. This difference between loop-led and end-led production methods makes, for example, open-stitch knitting easy with knitting needles but effectively impossible as nalbinding. The same does not apply to closed-stitch knit structures, which can be produced with either technique. Further comparison of nalbinding and knitting digresses from the primary topic of this article but is justified by a pervasive need for differentiating nalbound and knitted structures. The next segment of the discussion of loop-led techniques will therefore be instantiated by knitting.

Distinguishing between fabric produced as cross-knit nalbinding and as closed-stitch (also termed twisted or crossed-stitch) knitting requires the consideration of secondary details that can only be produced by one of the two methods. For example, a single end-led thread can be drawn fully through a closed loop, but a loop-led thread cannot, except when a sequence of loop-led stitches is deliberately ended by pulling the entire remaining working thread through the final

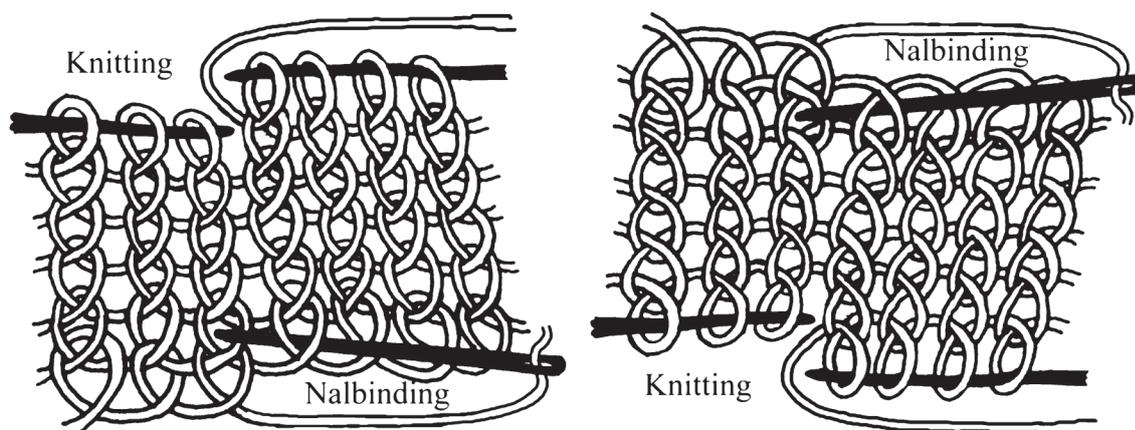
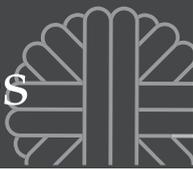


Fig. 9: The opposite directions in which knitting and nalbinding are worked shown in both orientations. The second loop of the top row on the right is a pierced loop in a medial position (Image: Anne Marie Decker)



loop. This means that if a pierced loop is found in a medial position in fabric that otherwise has a strictly cross-knit structure, the fabric can have been nalbound but not knitted (fig. 9).

Increases and decreases are also commonly used as differentiating criteria but they are composites of basic stitch structures and more properly regarded as construction details. In that context, it is essential to note that the loops produced by end-led techniques and loop-led techniques are orientated in opposite directions. The two drawings of identically structured fabric in fig. 9 are correctly positioned for knitting on the left, and for nalbinding on the right. The tool is held at the top of the fabric in both cases but if the knitted loops are seen as pointing upward, the nalbound loops point downward. This means that an increase in the one technique is a decrease in the other. It also means that, say, a sock knitted starting at the toe and ending at the cuff, would correspond to one that is nalbound starting at the cuff and ending at the toe.

The same conditions attach to fabric with a slip stitch structure. Returning to the main topic by substituting “crocheted” for “knitted” in the preceding paragraph, the discussion can proceed directly to a detailed consideration of the manner in which sock III 16705 was constructed. The same basic considerations apply to pouch III 16702 as will also be discussed further. Sock III 16706 can only be described as crochet. If sock III 16705 is seen as “toe up” slip stitch crochet there is nothing the least bit noteworthy about it. Had it initially been catalogued as such, the only thing that might have triggered subsequent comment is the reference to Coptic in its alleged dating. In any ensuing discussion, that would not have been taken to demonstrate the existence of crochet over a millennium before it can otherwise be attested, but rather that the attribution of its dating was incorrect.

If presented as nalbinding there is a substantial body of other socks of commensurate age with which it can be compared. However, neither the cuff-down working direction, the spiral afterthought heel, nor the slip stitch are seen in any other object in that corpus. That absence can be explained in part by the extreme complexity of shifting between the crossed FLO and open BLO variants of the slip stitch when leading the end of the working element with an eyed needle, and the ease with which that transition can be effectuated by leading one loop into another with a hook. This all suggests a need for particular caution before accepting that sock III 16705 was nalbound, to say nothing of it being taken as “Coptic” on the say-so of a dealer in Cairo who claimed that it came from Fustat.

Conclusion

The radiocarbon dating of sock III 16705 can potentially inform efforts at clarifying the trajectory along which the production of slip stitch fabric may have been transmitted among the regions noted above. It can similarly provide a basis for recalibrating the chronology of that process, if it is determined actually to have occurred. There is further potential for demonstrating the craft of crochet to be older than has thus far been determined, even if (as is prudent to expect) it proves not to date from the late-first or early-second millennium CE, which is the youngest an object manufactured in Fustat could be. More importantly, it could establish northern Africa as a significant locus in the early development of crochet.

The categorisation of all three objects discussed here as *vantsöm* conceals them from the notice of researchers into the history of crochet and muddles the basis for the similar study of nalbinding. The Coptic association also confuses the otherwise attested chronology of the emergence of construction details such as spiral afterthought heels. Without prejudice to the determination of the method by which they were produced or the dating of their manufacture, both pouch III 16702 and sock III 16705 can and should be reclassified as having a slip stitch structure. There can be no similar discussion about sock III 16706. This is both structurally and technically crochet in its contemporary form, for which there is otherwise no evidence prior to the 19th century. There is no basis for maintaining that the other two objects were produced by any technique other than crochet but determining the date of their origin and archaeological provenance is of potentially pivotal historiographic significance.

Acknowledgements

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Authors:
cary@karp.org,
anne.marie.decker@nalbound.com