

# DATING COPTIC FOOTWEAR: A TYPOLOGICAL AND COMPARATIVE APPROACH<sup>1</sup>

BY RUIHA SMALLEY

## **Abstract**

A study was undertaken of the Coptic footwear held at the Victoria and Albert Museum, London. Museum records give little detail on the provenance of the collection and excavation methods left no information so dating the objects is problematic. The study focuses on the potential for shoe construction, decorative techniques and comparative material to aid in developing a chronology for the footwear of the period. Typologies were developed for constructional and decorative aspects of the footwear and comparative material was examined for clues that might aid dating. Results were limited. Although dating in broad ranges is possible, more detail on the first appearance of footwear constructional elements is needed to strengthen decisions based on style. The use of a variety of decorative elements does not assist in narrowing date ranges but can offer a terminus post quem date in some cases. To improve the chronology of the period a study of comparative footwear from neighbouring countries is recommended, along with the study of well documented material from recent excavations and the application of scientific methods of dating.

## **Background**

Footwear comes in a number of forms and initially its use as protection against the natural elements would have been paramount yet it developed into a vital fashion accessory becoming an art form in the process (Fig. 1).

Anatomical evidence from archaeological finds indicate that shoes have been worn for 40,000 years (Trinkaus and Shang 2008) with the

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Fig. 1. The shoe, from the functional to the artistic (New York Times 2010; The Fashion Spot 2008).

earliest direct evidence for footwear dated to near 9,000 BP. These shoes, uncovered in the USA, were made from plant fibre (Trinkaus 2005). The oldest leather shoes were uncovered in a cave in Armenia (Fig. 1) and dated to around 5,500 BP (New York Times 2010). Materials used to make footwear, including fibres and textiles, will not generally survive in the archaeological record therefore the majority of excavated remains are of leather (Thornton 1975).

This paper is concerned with leather material uncovered in burial grounds in Egypt. Whereas European archaeological leather, preserved in bogs, is often found incomplete, Egyptian desert remains are usually intact, sometimes including sewing threads, allowing an appreciation of the development of the leatherworking industry in that region. Treatment of animal skins with different substances occurred from early times. Curing substances included salt, fat, urine, dung, oils or brain matter. Recent research on Middle Kingdom leather from Hierakonpolis suggests that vegetable tanning may have been known at this time (Veldmeijer and Endenburg 2007) and the same process was recorded by Greek authors in the fourth to third century BC. Skins were commonly of goat but cow, sheep and gazelle hides have been found. In Thebes sandals from the 19<sup>th</sup> Dynasty were found made from alumed goatskin with insoles of brown tanned hide. Leather was often dyed, with red, green, black and yellow dyes known from predynastic times. Leatherworking processes, including the making of sandals, can be seen in a number of tomb images from the Fifth Dynasty onwards (Lucas and Harris 1962; Van Driel-Murray 2000).

### The Material

For this study a collection of ancient Egyptian footwear held by the Victoria and Albert Museum (V&A), London, was examined. The collection, which had not been previously studied, consists mostly of shoes from the Coptic period, first millennium AD. The aim of the study was to focus on

the potential for shoe construction, decorative techniques and comparative material to aid in developing a chronology for the footwear of the period.

The V&A is one of the world's foremost museums of art and design. It was established in 1852 with the intention to acquire the "best examples of metalwork, furniture, textiles and all other forms of decorative art from all periods" (Victoria and Albert Museum 2011). Although a main focus for the Museum now is collecting 20<sup>th</sup> and 21<sup>st</sup> century objects (Victoria and Albert Museum 2010), in the 19<sup>th</sup> century a major concern was the preservation of ancient cultures that were being eradicated by the modern, Western world (Persson 2010). This concern is evident in correspondence held in Museum registers. Artist and collector Henry Wallis, who donated a number of Egyptian textiles to the V&A, writes passionately to the Museum in February 1888 to bring attention to the "alarming destruction of ancient monuments occurring in Egypt". Such interest led to the Museum's development of an early Egyptian textile collection that was to become one of the largest collections of its kind in the world. Along with the footwear (Fig. 2), the collection includes many fabrics typical of the Coptic style, including tapestries, looped textiles and silks (Persson 2010).

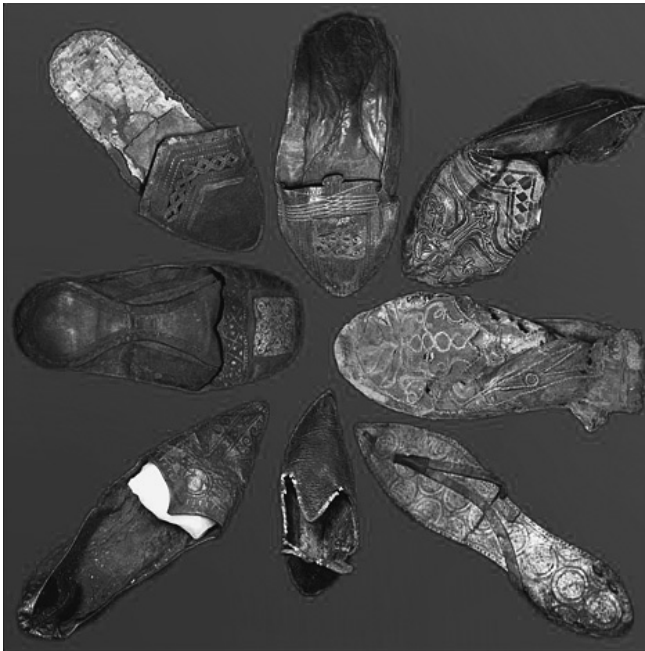


Fig. 2. A selection of Egyptian Shoes held by the V&A (not to scale).

The Egyptian footwear collection consists of 36 pairs of shoes, 18 singles and four fragments, stored in drawers since acquisition and recently re-wrapped in acid free materials. No modern conservation has been applied. Thirteen percent of the collection is in good condition, 45% in fair condition and 42% in poor condition. Registers indicate that objects were purchased for, or donated to, the Museum in the years around the turn of the 20<sup>th</sup> century (table 1).

<b>Date</b>	<b>Source</b>	<b>Footwear Acquired</b>
1887	C. Purdon Clarke	2 pairs
1887	H. Wallis Esq.	3 pairs; 5 singles
1896	Unknown	1 pair
1903	Dudley B. Myers	30 pairs; 9 singles; 1 fragment
1914	Egypt Exploration Fund (EEF)	4 singles; 3 fragments

Table 1: V&A acquisitions of Egyptian footwear.

The provenance of some items are listed as unknown, the donations from the EEF originate from Antinoe, while the rest of the shoes are noted as coming “from ancient tombs at Akhmim (Panopolis), Upper Egypt” (Fig. 3).

As with most museums of the time (Thomas 2007), the V&A has obtained their early Egyptian textile artefacts, including footwear, with virtually no information about the archaeological contexts from which they were retrieved, making dating the items to a narrower period almost impossible.

### **Terminology and methodology**

The term ‘Coptic’ is controversial, with a variety of implications. It has been used ethnically, ethno-religiously, religiously, in reference to a language, a chronological period and an artistic style. When discussing ancient textiles, including footwear, some feel the use of the term should be avoided as it, strictly speaking, relates only to material associated with the Christian population of Egypt (Persson 2010). Yet the term has become ingrained in the literature and the phrase ‘Coptic textiles’ continues to be used, defined as the products of those living in Egypt in the first centuries of the Christian era, but who were not

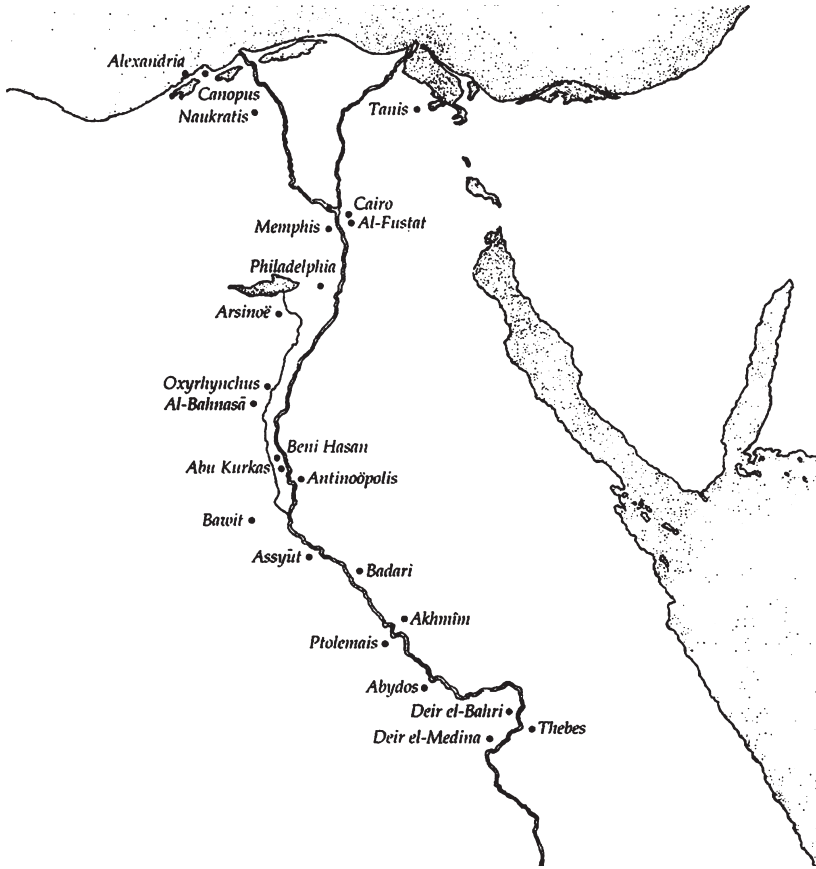


Fig. 3. Map of Egypt showing Akhmim and Antinoe (Antinoopolis) (Hoskins 2004, xiv).

necessarily Christians (Lee Carroll 1988). This is the definition this paper will adhere to.

The dates to which the period/style is ascribed also varies. Table 2 gives a range of dates presented by a number of authors. All authors include the centuries between the fourth and the seventh AD (Kenrick has his true Coptic starting in the sixth century but a transitional phase starting at the fourth), with starting dates placed at the first or fourth century and ending dates anywhere between the seventh and 12<sup>th</sup> centuries.

Taking the above into account, this paper takes the Coptic period to mean the whole of the first millennium, with a break down of this period into:

Centuries	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Source
Kendrick													Kendrick 1922
Riegl													Thomas 2007
Gayet													Kendrick 1922
Guimet													Guimet 1997
Verhecken													Verhecken 2007
Watterson													Watterson 1998
Trojanowicz													Trojanowicz 2004
Hoskins													Hoskins 2004
De Moor & Fluck													De Moor & Fluck 2007
Wild													Wild 2007
Perrson													Perrson 2010

Table 2. Date ranges, first millennium AD, given by various authors for the Coptic period.

- the Early phase, from the first to the third centuries, covering the Roman period,
- the Core phase, from the fourth to the seventh century, covering the Byzantine period and
- the Late phase, from the eighth to the tenth century, covering the Persian and early Arab periods.

Museum reference numbers were ascribed to footwear upon acquisition and include a sequential number and year of acquisition. For descriptive purposes a child/adolescent will have a sole length up to and including 200mm while an adult will be greater than 200mm (Wikipedia 2011) and for statistical purposes single items are representative of pairs.

The cemeteries of Akhmim and Antinoe, where most of the collection is said to have originated, interred successive generations from the Graeco-Roman epoch to the Arab period and were often disturbed and reused over time, leaving plots overlapping (Kendrick 1920; Pritchard 2006). Improper recording at the time of excavation has meant a great loss of information which would help issues of chronology. As archaeological and scientific methods of dating were unavailable for this study a typological approach (arranging artefacts into a sequence based on similar attributes) and an art historical approach were used to attempt to date the collection to a narrower time frame, using the Coptic phases described. The art historical approach is a relative dating approach where an object is compared on a stylistic basis to other objects. Pieces that are close in

material and local aspect are thought to be more useful as comparative items. It is important that the comparative items are themselves securely dated to avoid results based on subjectivity (De Moor and Fluck 2007; Wild 2007; Helmecke 2007).

Typologies for footwear have emerged based on form or material of construction, shape of shoe elements and fastening methods. Researchers reference each other’s work, for example with the use of terminology (Fig. 4), and use adapted versions of previously created typologies, so that a consistency of approach to the study of ancient footwear is developing. The present study hopes to build on this development.

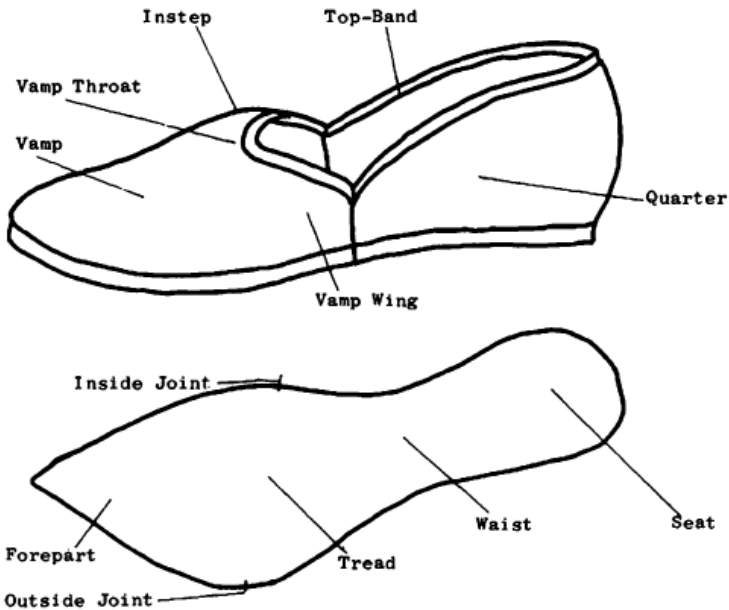


Fig. 4. Footwear terminology (Doughty 1975, 44).

Montembault’s (2000) work on Coptic footwear at the Louvre and Veldmeijer 2010 on Tutankhamun’s footwear, were referred to when developing typologies. Both authors categorise by material first with form second and this approach was considered. All footwear under study includes leather, with some containing a second constructional element such as linen or papyrus. It is possible that some of the slippers classified

as all leather include fibre padding but the good condition of some items means that the inner layers are unable to be examined visually. With this in mind it was felt that categorisation by combined material verses all leather was unreliable. Decorative techniques applied to the shoes were not considered in the resulting constructional typology but there are a number of distinctive decorative elements that can be identified and it is thought that a separate typology, based on these elements, may be useful. The same selection of footwear was examined and sorted by use of decorative techniques to create a second typology.

Footwear is often placed under the category of textiles yet textiles are mostly of a different nature. Although shoes may contain elements of a textile, such as a linen insole, a comparison of shoe construction to the process of weaving a tapestry, for example, is meaningless. Even decorative aspects are hard to compare directly. The scope for design on a tapestry, tunic etc is different to that available to a shoe maker. The physical area will dictate the possibilities and the techniques used to embellish a fabric will necessarily differ to those used for leather. Therefore it is not always helpful to use the documented corpus of Coptic textiles as comparative items. In attempting to narrow the chronological period to which the footwear might belong, this study attempted to examine items closer in material (ie: Coptic leatherwork) to the footwear than textiles alone, although textiles were considered for evidence of general similarities.

### **Results: constructional typology**

Table 3 shows the footwear typology developed when considering constructional elements.

The first step breaks the footwear into kind (form) and the category, type, class and variants are created, where appropriate, according to differences in approach to construction. Variants, which can be applied at type or class level, relate to shape of instep and depth of throat.

An essential distinction seen in the shoes is their method of construction (category). These include one piece, turned (with or without rand) and welted. The one piece shoes are formed from one leather piece moulded into shape and joined along the central line of the sole (Fig. 5).

Eighty-four percent of the shoes used the turned technique. The turned shoe (or vamp of the slipper) differs in that the sole and upper are made from separate pieces of material. The pieces are joined inside out and

Kind
Category
Type
Class
Variant (s)

**COPTIC FOOTWEAR**

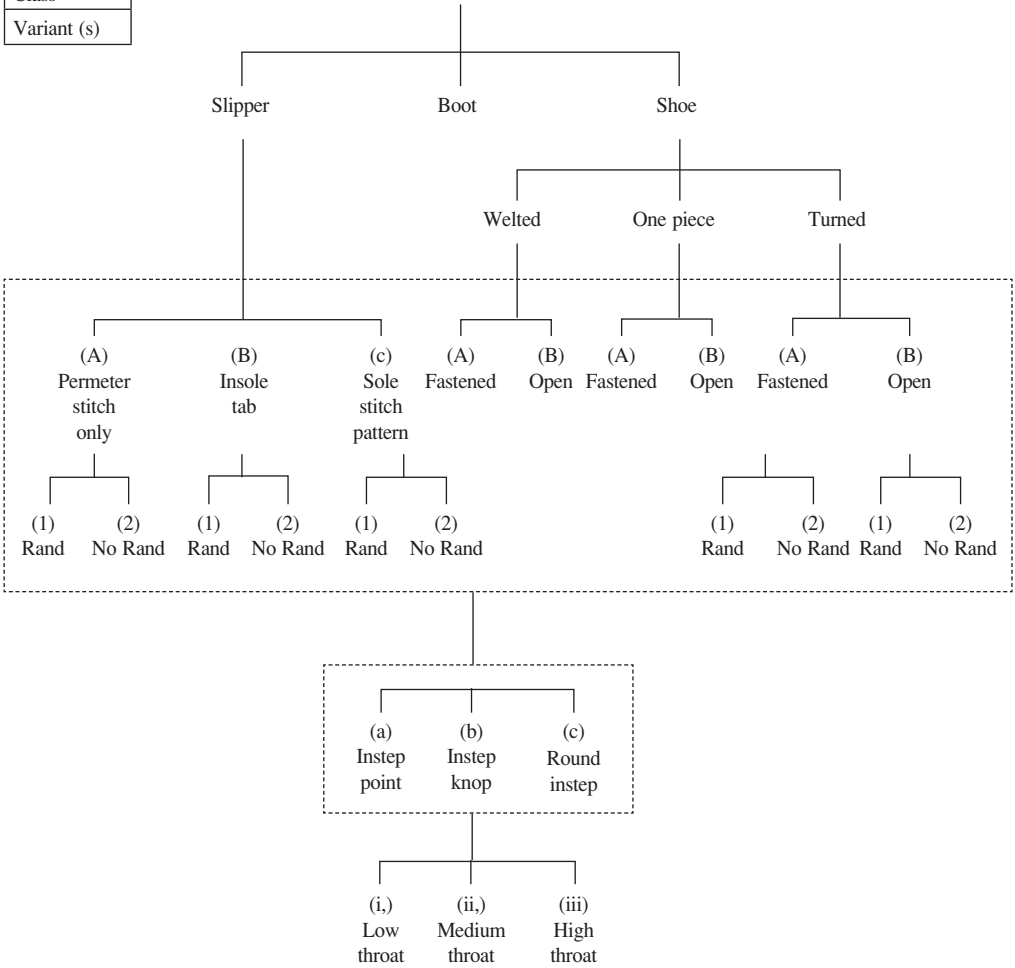


Table 3. Constructional typology.

after the seam is stitched, the shoe is turned right side out so that the seam is located on the inside of the shoe (Fig. 6). Thirty-eight percent of turned shoes incorporated a rand, a thin strip of leather inserted between the sole and upper (Fig. 7).

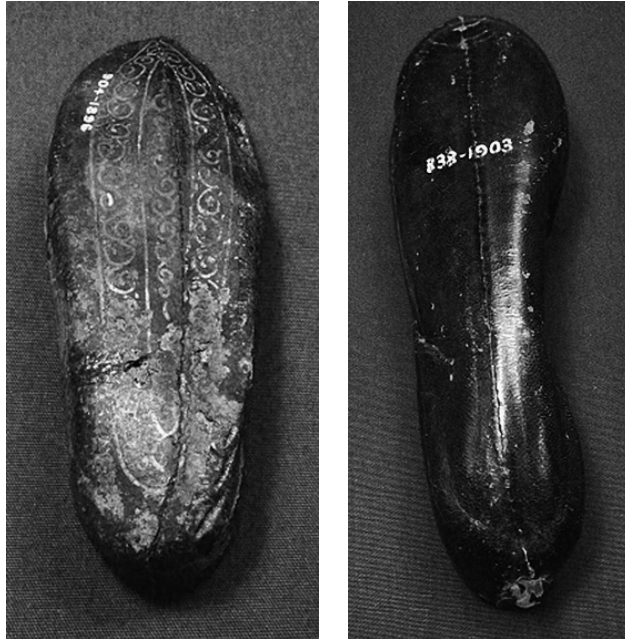


Fig. 5. One piece shoes, 904-1896 (145 mm) and 838-1903 (230 mm),  
joined at the treadsole's central line.



Fig. 6. A turned shoe, 370-1887 (210 mm).



Fig. 7. Rand inserted between the sole and upper in a turned shoe, 853(A)-1903 (235 mm).

The welted shoe is formed when a strip of leather is “sewn along the outside of the upper’s bottom edge together with the insole during inseaming, to which later the treadsole is stitched” (Goubitz 2001, 324). Stitch holes can be seen on both sides of the sole (Fig. 8).



Fig. 8. A welted shoe, 861-1903 (180 mm).

There are three examples of welted shoes in the collection and all display specific features:

- All are swayed for left or right (the only swayed footwear in the collection),
- all are for a child/adolescent,
- all are undecorated,
- all have high throats.

It is possible that the welted shoe developed after the turned shoe with rand and the implications for this, with regards to dating, are discussed below.

A note of interest concerns the shoes that have fishtail tabs at their heel (Fig. 6). All of these have a low or medium height to their throat and none have a rand.

All slippers used the turned technique and 23% incorporated a rand. A feature of the slipper is seen in the way the sole layers are sewn together. A distinction appears in terms of a pronounced sole stitch pattern (all turned with no rand) versus an insole tab (all turned, one with rand and five without). The sole stitch pattern (Fig. 9) runs down the centre of the waist and seat of the sole and can be seen on the treadsole and insole. The shape of the stitching follows a similar pattern on each, of a V shape attached to either one or two circular/teardrop forms. With this type a thick cord is used to produce the stitch pattern on a wide waisted sole.

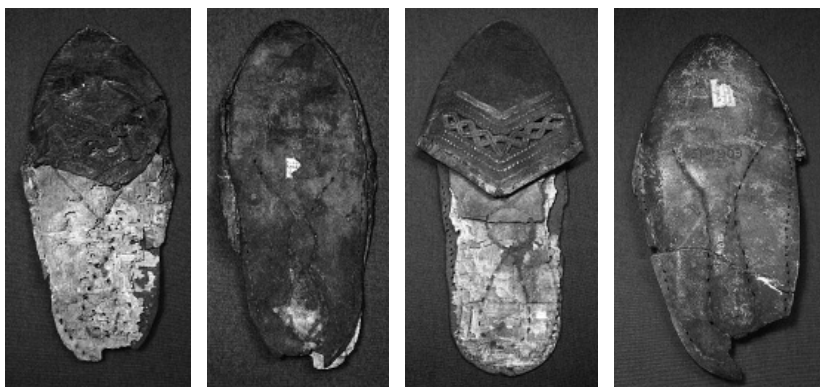


Fig. 9. Examples of a pronounced stitch pattern, 840-1903 (dorsal and ventral; 240 mm), 2-1888 (240 mm) and 851-1903 (240 mm).

The insole tab also performs the function of holding the layers together, but reduces the size of the sole to create a skinny waist. The stitching then follows the perimeter of the insole tab and can also be seen on the treadsole giving a similar stitched outline to that of the wide waisted variant. Here the waist is not wide, but can appear so through the use of the quarters, which have been cut at a sharp angle down from the vamp to the waist (Fig. 10).



Fig. 10. Examples of an insole tab, dorsal and ventral views, 836-1903 (250 mm) and 847-1903 (220 mm).

The remaining form represented is that of the boot, with only one pair in this category. It is of brown leather and turned with a rand. The heel is defined by the end of the treadsole and includes rand strips either side (Fig. 11).



Fig. 11. Heel construction of 846-1903.

**Results: decorative typology**

Table 4 shows the typology by selected decorative aspects.

Kind
Category
Type
Class
Variant (s)

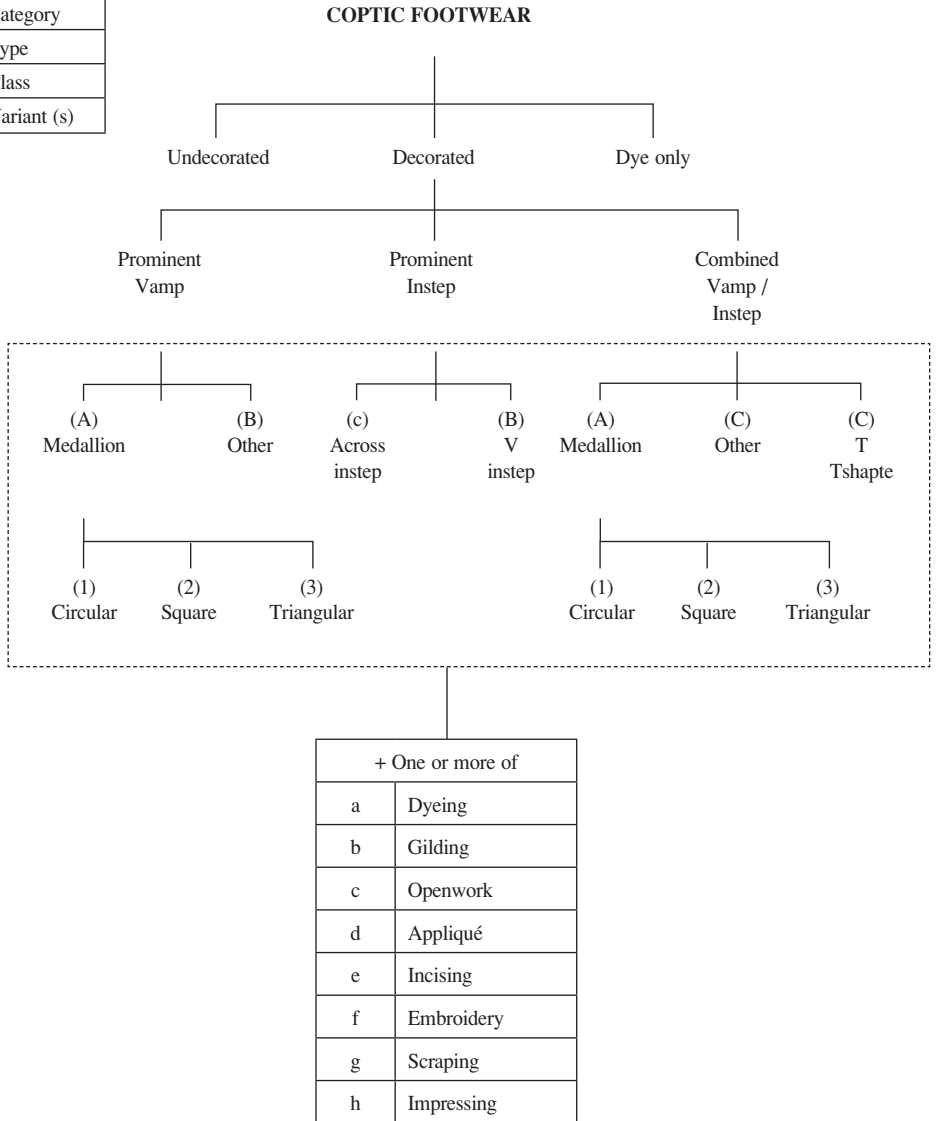


Table 4. Decorative typology.

The first step separates the undecorated from those that are decorated (with or without dye) and those that use dye only. The common decorative space for the shoe and slipper is the vamp so this area was considered for the category breakdown. The type is an extension of this idea indicating the form of decoration that takes place in that decorative space. Only medallions are further described by a class. The variants, which can be applied at type or class level, are inclusive of each other, allowing more than one to be applied to any given object.

The ‘Undecorated’ and ‘Dye only’ footwear include the boot, all welted shoes and all children’s fastened shoes. Seventy-one percent of the ‘Decorated’ footwear uses a dye, with 88% of these displaying a red/maroon colour. Other colours seen include black, white and brown. All ‘Dye only’ footwear incorporates red dye. The most popular techniques for decoration (table 5) include dyeing, gilding, openwork and appliqué and 86% of ‘Decorated’ footwear uses more than one technique at a time (table 6).

**Results: comparative material**

Comparative material was examined in a printed catalogue of the Louvre’s collection of Egyptian footwear and the online catalogue of the Petrie

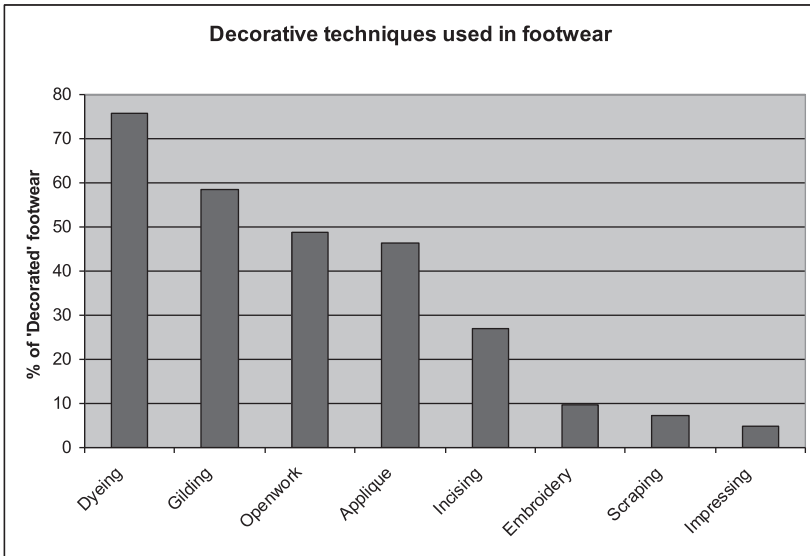


Table 5. Decorative techniques used in Coptic footwear.

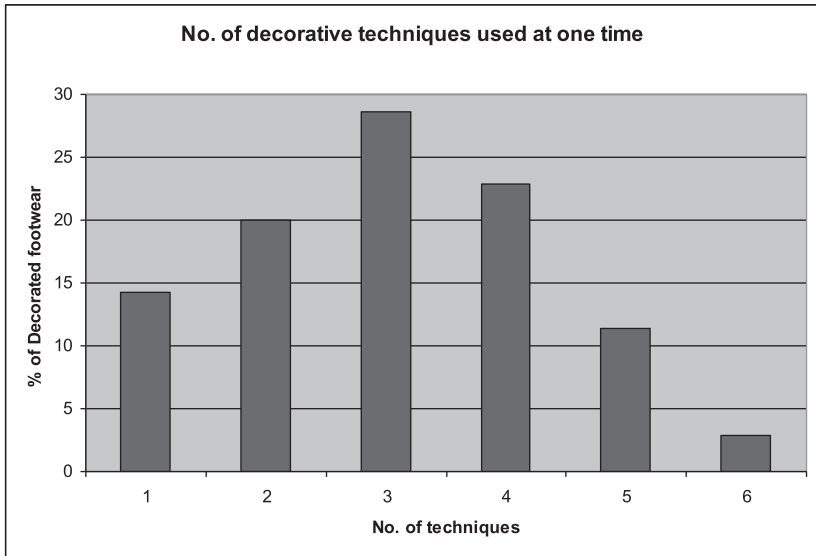


Table 6. Number of decorative techniques used at one time.

Museum, London. Although stylistic similarities exist, a lack of secure dating for these items does not aid dating of the V&A material. Albert Gayet, who dug at Antinoe, created albums from his textiles finds (Fig. 12). They contain collages of textiles and include footwear. One

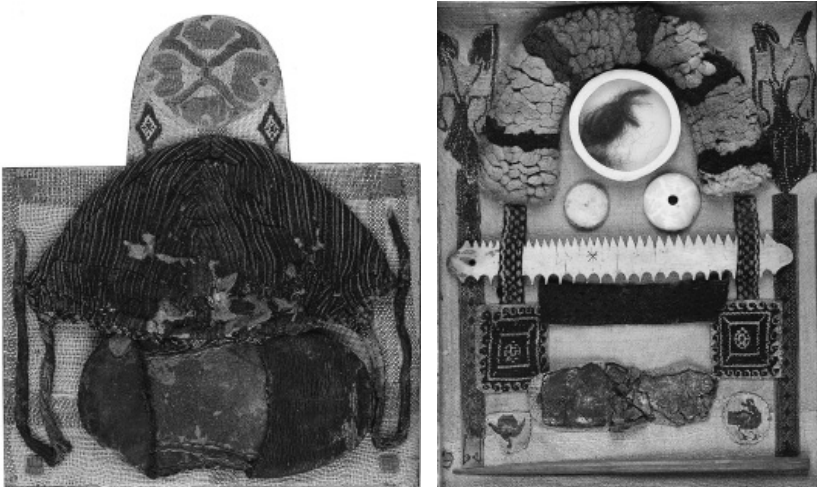


Fig. 12. Two collages from Albert Gayet's Coptic albums (Hoskins 2004, pl. 42-43).

shows a sandal's sole and what could be a sandal strap from the Roman period (similar to one in the V&A collection) but no dates accompany these items.

The museum of the Katoen Natie Group, headquARTers, has published radiocarbon dates for selected items of Egyptian footwear. One leather shoe compares to those under study and is dated between AD 420-600 (De Moor 2008). Veldmeijer and Endenburg (2008) describe stratified finds from the site of Qasr Ibrim, including footwear. Along with associated finds, one shoe is dated to the Ottoman period and is similar to one pair in the V&A collection.

Although textiles do not provide a direct basis for comparison to leather footwear some general decorative aspects are noted as similar. They include (Fig.s 13-17):

- Hellenistic influences,
- use of the specific motifs such as scrolling waves, interlaced waves/ twisted ropes often with central dots/voids (guilloche) and spade shaped plants,
- medallions,
- zoomorphic shapes and
- the cross motif.

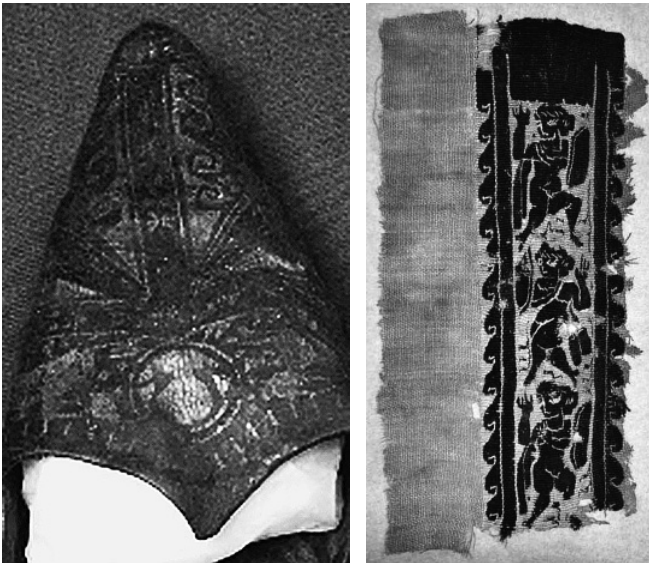


Fig. 13. Scrolling waves on 862-1903 and on a Coptic textile (V&A ref. T.266-1977).

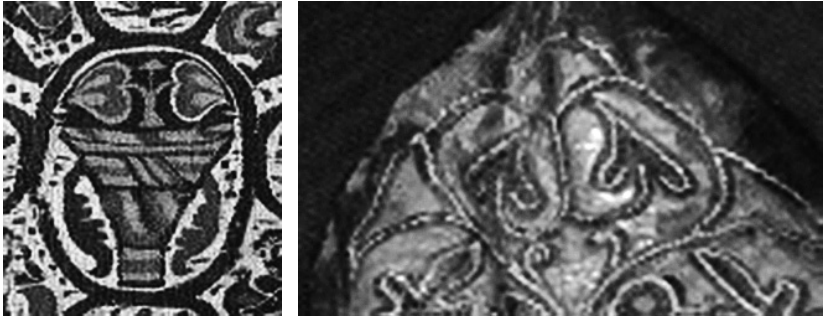


Fig. 14. Spade shaped leaf motifs on a Coptic textile and 369(A)-1887  
(British Museum ref. BM17172).

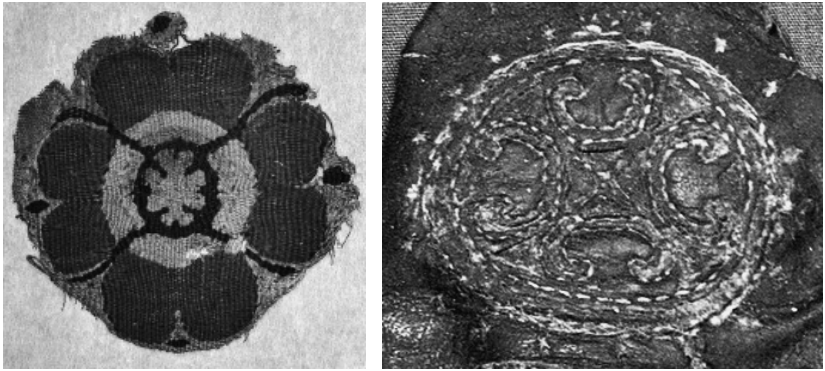


Fig. 15. Medallions on a Coptic textile and T.160-1914  
(V&A ref. 773-1886).



Fig. 16. Bird motif on a Coptic textile and 369(A)-1887  
(V&A ref. 2148-1900).

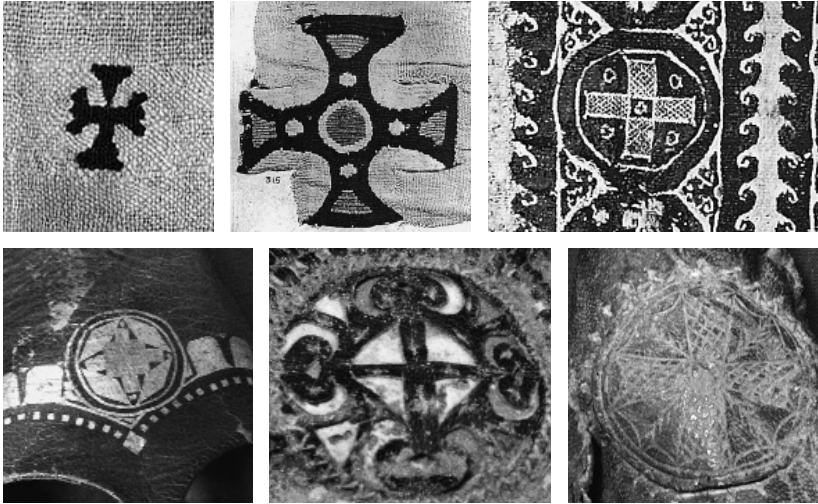


Fig. 17. Cross motifs on Coptic textiles and 4-1888, 849-1903 and 853(A)-1903 (Pritchard 2006, 34; Kendrick 1921, pl. III; Kendrick 1921, pl. II).

Helmecke (2007) recommends the comparison of pieces closer in material to the items under study so other forms of leatherwork of the Coptic period were examined. Those identified in the archaeological record, although in limited number, include burial cushions and book-bindings. Schieck (2009, 117) writes of cushions found in the graves at Akhmim. She notes how elaborate cushions, uncovered by Forrer and Strzygowski, came from rich graves at Akhmim and were used to hold the heads of the deceased (Fig. 18):

“They are of crescent shape and made of leather, nicely decorated with cuttings and embroidered golden ornaments of a similar kind as the leather sandals and shoes.”

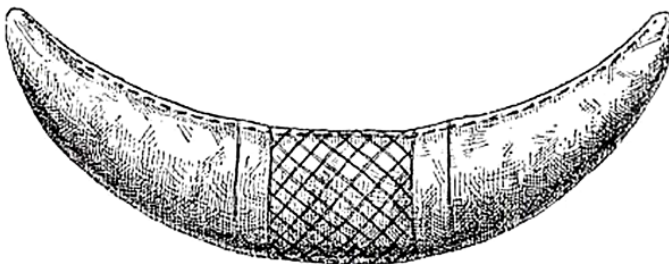


Fig. 18: Drawing of a leather cushion (Schieck 2009, 117).

The V&A has three objects (and one fragment) fitting this description stored along with the footwear. It is possible that these are fillets/head dresses and not cushions but either way they show similar decorative forms to footwear. These items (Fig. 19) are created from packed hair wrapped in linen then wrapped in decorated leather, sewn with a whip stitch at the rear seam. Similarities to footwear can be seen in the use of openwork, gilding and cross motifs, flowers and guilloche.



Fig. 19. Fillets/burial cushion (ref. 8-1888) held at the V&A.

The Coptic period in Egypt produced fine leather bindings, well preserved in the Egyptian climate (Shore 1971) with the use of leather to cover manuscript panels documented back to the fourth century (Petersen 1954). Without direct reference to footwear Petersen acknowledges similarities to footwear when he refers to plates in Frauberger's 1896 volume when discussing the earliest methods of decorating leather bookbindings:

“Decorating with inked and painted ornament and with cut-out openwork backed with pieces of painted or gilded parchment may also have been tried very early, since these techniques of ornamenting were known in Egypt long before books were bound in codex form.” (Petersen 1954, 55)

An example of threaded openwork (where slits have been cut into the leather and threaded through with separate strips of leather, often coloured) is seen in the binding of the Leyden manuscript (Fig. 20).

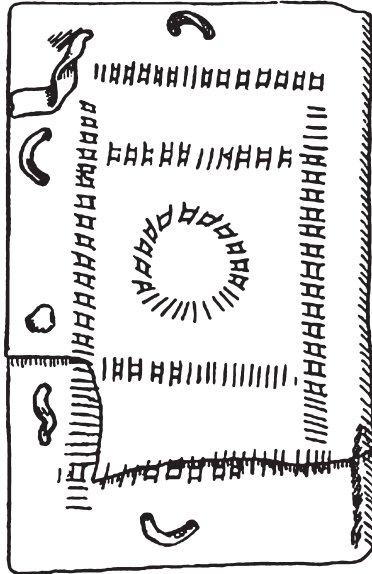


Fig. 20. Binding of MS. Leyden, Anastasy 9, Prayers and Exorcism. Fifth century. (Petersen 1954, 61).

This technique is also present in some V&A artefacts (Fig. 21).

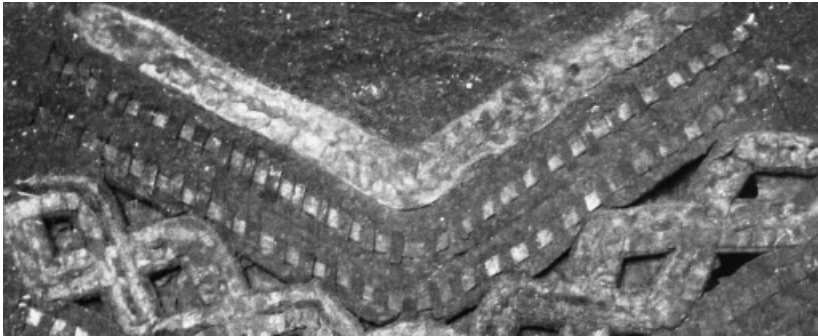


Fig. 21. Threaded openwork example on 2-1888.

Another binding using the same technique is held in the Morgan Library and Museum, New York (Fig. 22). This illuminated manuscript originates from the Monastery of Holy Mary Mother of God in the Fayum, Egypt.



Fig. 22. Manuscript MS M 569  
(Morgan Library and Museum 2006).

Similarities in the ornamentation of this binding and footwear include:

- threaded openwork bordering guilloche,
- floral spade shape, the short cross and the simple flower motif,
- use of a central medallion and
- gilding.

The features noted above indicate that common techniques were used across the leather industry, regardless of the products being made.

### **Dating with the shoe form**

The form of a shoe's construction holds dating implications. One-piece shoes existed in pre-Roman and Roman societies (Van Driel-Murray 2001) so would not be a new form in Coptic Egypt. It is more difficult to establish when the welt began. Doughty (1975) describes the welt

as a development from the use of a rand in the existing turned shoe. Van Driel-Murray’s range of selected Roman footwear styles from the first - fourth centuries AD lacks welted varieties; the Louvre’s collection of Coptic footwear does not appear to include any welted examples; and Swann (R. Shawcross, Northampton Museums and Art Gallery, pers. comm., 2011) notes the first recorded mention of welted construction in 1425. A consideration of these developments leads to a possible relative progression of the shoe as seen in Fig. 23.

- one-piece shoes might be placed in the Early Coptic phase,
- the turned (without rand) in all phases,
- the turned (with rand) from the Core phase onwards and
- the welted variant in the Late phase or even into the second millennium AD.

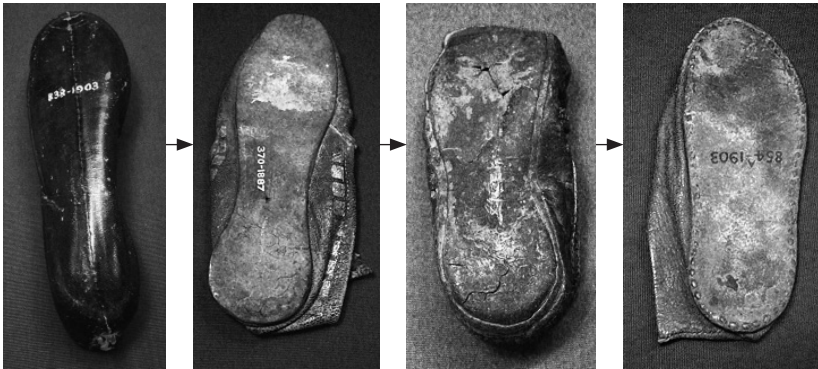


Fig. 23. General development of the shoe: from one-piece, to turned, turned with rand then welted.

Veldmeijer’s work with Tutankhamen’s footwear (2010) indicates that both the shoe and slipper forms were present in the New Kingdom, although the rand was not. This suggests that at some point between the New Kingdom and the end of the Coptic period the rand made its appearance, while shoes without a rand may have continued to be made even after the rand became common. A combination of the rand (or lack of) and other consistent features might help to roughly date a style. None of the fishtail tabbed shoes include a rand and many of them have sole scoring (discussed below). These factors combined may suggest that the fishtail tab belongs to an earlier style of shoe but without further information placing them into a specific period becomes difficult.

One pair of shoes differs from the others in its heel construction (Fig. 24). 835(A)-1903 includes an extra rand at the heel, between the main rand and upper, through the insertion of a padded strip of leather. If the rand can be said to be a development from the turned shoe then this extra padding could be a step further, perhaps placing it in the Late Coptic phase or even later. This shoe shows other differences including:

- the use of fabric (possibly linen) as a mid-sole layer,
- the pronounced/moulded shape of the heel: this may be influenced by the linen or it may have resulted from post-depositional factors,
- the pointed end of the toe has been squared off and
- the decorative motif around the topband looks more modern: these look distinctly like buttons with five sewing holes. The button is said to have arrived in Europe in the 13<sup>th</sup> century with the return of the Crusaders from the Middle East (Whittemore 1992). If the button was present in the Middle East prior to this time it could have crossed into Egypt, influencing fashion after the Muslims arrived. This theory requires further research but as a starting point might be used to back up placement of the pair in the Late phase. 836(A)-1903 (Fig. 25) also use the same gilded triangular medallion; decorates the instep with gilded shapes and the topband with gilded markings. The decorative aspects of these items are too similar to ignore and suggest that if not made around the same time, one has influenced the other. Yet 836(A)-1903 does not include a rand or heel support perhaps placing it earlier than 835(A)-1903).



Fig. 24. Heel view 835-1903.

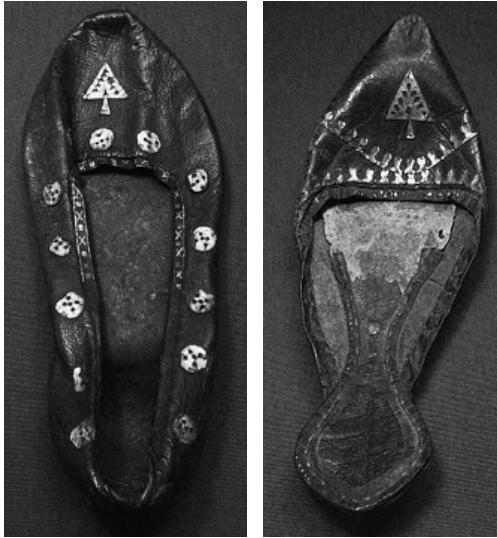


Fig. 25. 835-1903 (250 mm) and 836-1903 (250 mm).

**Dating with the slipper form**

Van Driel-Murray (1999) discusses nailing patterns on Roman soles. Nailing was employed as a “fashion accessory” (1999, 132) enabling the wearer to be visible through an identifiable footprint (Fig. 26).

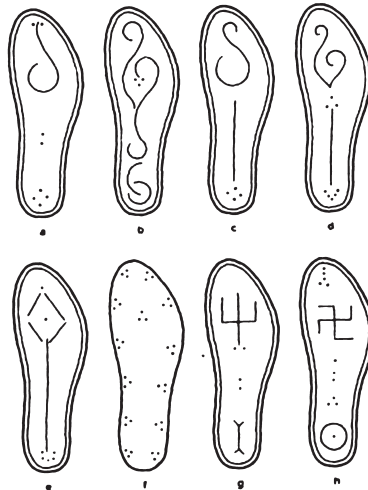


Fig. 26. Third and fourth century AD nailing patterns from various Roman sites (Van Driel-Murray 1999, 133).

I postulate that the sole stitch pattern on Coptic slippers (Fig. 27) mimics the Roman nailed sole using a constructional element, placing this variant in the Early phase or start of the Core phase. None of these variants display a rand, giving another reason to place them earlier in the progression.

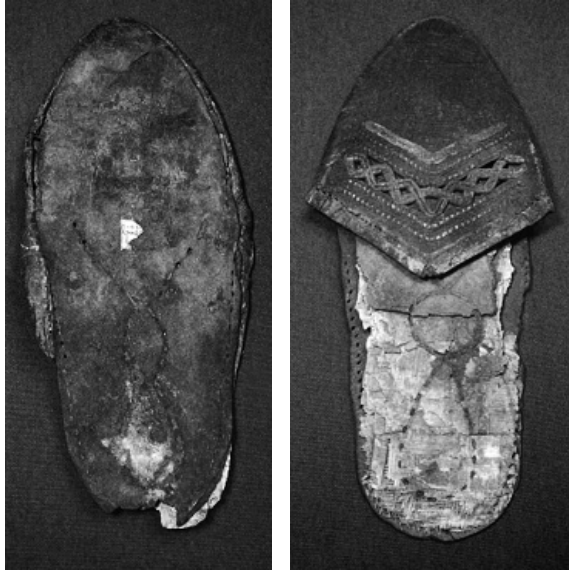


Fig. 27. Sole stitch patterns on Coptic slippers, 840-1903 (240 mm) and 2-1888 (240 mm).

Other variants may have developed from this style. The move to a skinny waist that still retains the general shape of the previous sole stitching pattern is one possibility. The stitching held the layers together centrally while still displaying its pattern, similar in outline to its predecessor, on treadsole and insole. This variant used less leather and padding in the construction of the sole but more leather in the upper where partial quarters were added to the vamp, maintaining the effect of a wide waist. Another variant maintained the wide waist, keeping the layers attached through perimeter stitching, and recreated the insole through decorative means. Fig. 28 illustrates a possible development of the slipper form.

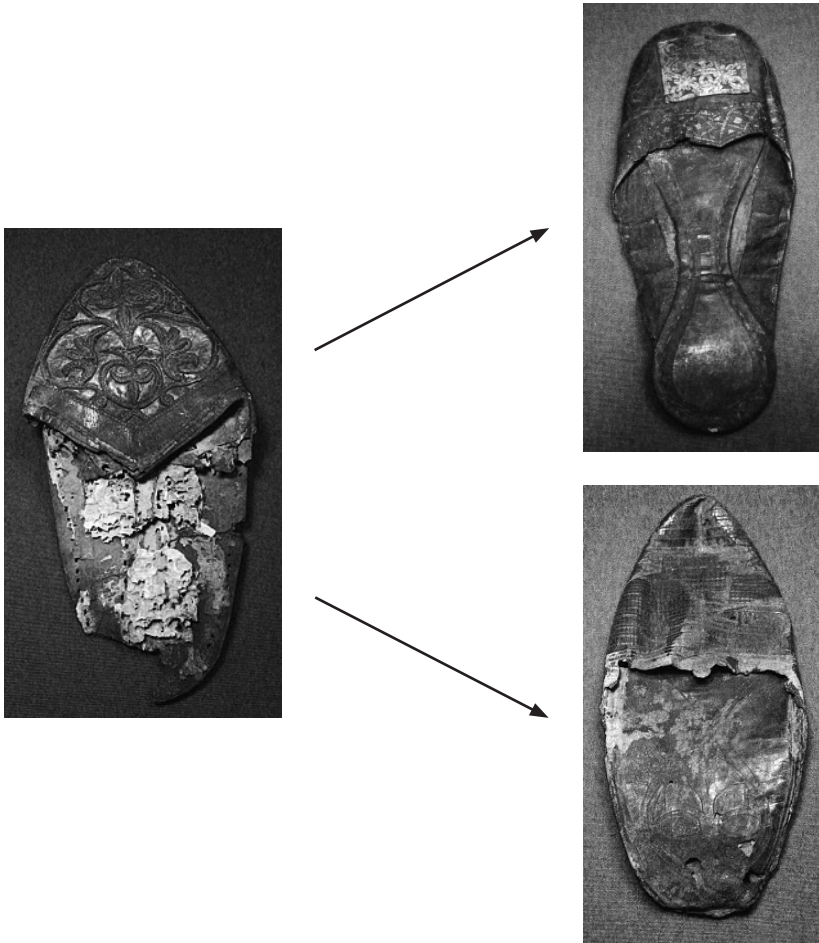


Fig. 28. Possible development of the slipper form.

### Dating with decorative aspects

Dating using specific decorative techniques is problematic as in most cases dating can only be terminus post quem of the introduction of techniques. The use of particular dyes will indicate dates from which an object could have been made. Verhecken (2007) produced data showing periods from which common dyes were used during the first millennium AD (table 7). If dyes are to help date the V&A collection then scientific analysis is required to identify the dyes present on the objects.

Dye	C dating	Conventional dating
brazilwood	later than 610	later than 600
'bixin'	(not found)	until 500 AD
kermes	430-610	0-1000
root cochineal	390-655	later than 270
lac	later than 615	later than 500
mollusc purple	430-540 AD <sup>31</sup>	until 500 AD

Table 7. Egypt, first millennium AD. Periods when dyestuffs were in use (Verheeken 2007, 212).

Embroidery can be similarly applied to leather or fabric. Evidence of embroidered textiles in ancient Egypt is rare. Many fabrics recorded originally as embroidery have turned out to be woven. An exception is a tunic from the tomb of Tutankhamun which includes wide embroidered, square bands across the base. It is argued that the iconography of this piece is Syrian and, like embroidery, not typical of Egyptian workmanship (Barber 1991). Embroidery is similarly not common in Coptic footwear but does appear. Two pairs use embroidery to compliment other techniques and two others use it exclusively. The imagery created with embroidered thread, possibly silk, appears limited to flowers, stars and diamonds. 370(A)-1887 (Fig. 29) could be seen to use embroidery to mimic the leather work techniques of threaded openwork that surrounds a central motive/medallion.

Decorative techniques seen on Coptic footwear were all in use in Egypt prior to the first millennium AD so their presence alone cannot be used to narrow dates. Yet the way in which the techniques were used might, to a limited degree. Van Driel-Murray (1999) notes that the scrolling 's' was a popular design in the Roman era. A pair of baby shoes, 904(A)-1896, display this design on the upper and treadsole (Fig. 30). This could enable the shoe to be dated to the Early phase, and its construction from one-piece would back up this suggestion.

Sole scoring (where the treadsole has a line incised around the perimeter and/or down the centre) is another decorative application which might aid dating (Fig. 31). Although not an obvious embellishment the scoring is not functional, as is sole stitching on slippers which holds layers together, so is considered decorative. Five pairs and one single shoe in the collection have this aspect. When new the scoring may have left a



Fig. 29. Embroidery mimicking threaded openwork, 370-1887.



Fig. 30. Scrolling 's' designs on a baby's shoe, 904(A)-1896 (145 mm).



Fig. 31. Sole scoring on a shoe's treadsole, 4-1888 (230 mm).

pattern on the ground. Perhaps this acted as another extension to the Roman practice of nailing patterns discussed previously, and if so might help date these shoes to the Early phase.

The presence of the cross motif can cautiously date an item to post AD 300 but Christianity continued after the introduction of Islam, so that a date terminus ante quem is not available.

### **Dating with comparative material**

The Katoen Natie shoe, C14 dated to AD 420-600 (Fig. 32), includes incising across the vamp as seen in a couple of V&A slippers, although these items differ in that they use another form of banded decoration across the instep.

Closer similarities can be seen with 848(A)-1903 and 864(A)-1903 (Fig. 33). All three have rounded, red topbands that surrounds a fishtail heel tab at one end and an instep at the other. Differences include:



Fig. 32. Katoen Natie leather shoe dated to AD 420-600 (De Moor 2008, 155).

- The Katoen Natie heel tab appears to be formed from the topband as opposed to using the leather from the back of the quarters,
- the form of the insteps and
- the red of pair 864(A)-1903 is brighter.

Although the similarities are not specific it is perhaps enough to use the Katoen Natie shoe to date the others to the same Core phase.



Fig. 33. 848(A)-1903 and 864(A)-1903.

The shape of the Katoen Natie heel tab brings in a third form of tab and can be used to develop a simple typology for fishtail heel tabs (Fig. 34). Of the ten available examples, seven use the flat-top form with



Fig. 34. Different types of fishtail heel tabs of the Coptic period, 370-1887, 848-1903 and Katoen Natie shoe.

leather from the quarters, two use leather from the quarters and incorporate the topband around a rounded fin and one is pointed and appears to use the topband to create the fins.

The British Museum has one slipper (dated AD 200-400) of the insole tabbed variant (Fig. 35). Its instep decoration is somewhat similar to 869(A)-1903 and the simplicity of the vamp and insole tab resemble 868-1903. If the insole tab is a development from the stitched sole slipper this dating would back placement of the stitched soles in the Early phase. Veldmeijer (pers. comm., 2011) believes that the knop formed from the topband is not seen before Christian times. This helps to place objects using this form into the Core or Late phases.



Fig. 35. British Museum leather shoe dated to the third or fourth centuries AD (British Museum registration number 1914,0902.3).

The shoe described by Veldmeijer and Endenburg (2008) is similar to cat. no. 856(A)-1903 (Fig. 36). These are children's shoes of undecorated leather and are made from two pieces with the quarters sewn to the vamp, at the waist, with a decorative knop either side. A thin cord of leather



Fig. 36. 856(A)-1903 and detail.

runs under the instep from one knop to the other. The Qasr Ibrim shoe is dated to the Ottoman occupation (the 16<sup>th</sup> to 19<sup>th</sup> centuries AD) which places this pair out of the Coptic period by a considerable degree.

Comparing textile decoration to that on footwear to establish dating is questionable as some design elements will stay in popular culture for centuries (Lee Carroll 1988). For example, the guilloche motif was used in Classical Greece and Rome and was still in use on bookbindings of the 13<sup>th</sup> century (Petersen 1954). Unless the textiles themselves have been securely dated they offer no strong basis for dating comparative objects although general statements may be possible for specific elements. For example, Hellenistic influences, more prominent in earlier textiles (Kendrick 1922; Watterson 1988), can be seen in 862(A)-1903 (Fig. 37). The vamp is decorated with lines, stars and scrolling waves with a band of decoration across the instep. This band centres on a gilded circular icon with zoomorphic figures either side. The large figures are bulls while the smaller figures, lying beneath the front of the bulls, are unidentified. The imagery of bulls and waves is reminiscent of Mediterranean motifs. This could place this pair in the Early Coptic phase which is backed by the pair also having scored soles.

There are no registered details for the objects described as fillets so their usefulness for comparative dating is limited. Scientific testing of the hairs used to stuff the objects would be helpful.

Described as the “finest surviving Coptic bookbinding” (Morgan Library and Museum 2006) the Fayum manuscript is dated up to the ninth century. The coverings may be seventh to eighth century, having been removed from an earlier binding. The catalogue of Coptic manuscripts in



Fig. 37. Hellenistic influences on decoration on 862-1903.

the Pierpont Morgan Library (Morgan 1919) notes that the inner margin of the lower cover is embroidered with the name of the convent ‘Parchangelos Micha’, suggesting the earlier date. Techniques used to embellish bindings were copied from older patterns of “established Hellenistic tradition” (Petersen 1954, 52) so cannot help to identify the introduction of techniques used on footwear. Yet, along with the fillets/cushions, these objects give a more rounded view of the leather industry during the period. Dyes, openwork, gilding, geometric and floral motifs were used across all leather products.

Dating considerations to emerge from the above discussion are listed in table 8.

Aspect	Influence
Cross	Suggests post AD 300
Fishtail heel	Suggests Early / Core transitional phases 200-500
Inner heel support	Maybe Core / Late phases
No rand	Suggests Early / Core transitional phase 200-500
One piece	Suggests Early phase

Aspect	Influence
Outer heel support	Suggests Late phase or 2nd Mill.
Rand	Need to know when introduced
Scrolling 's'	Suggests Early phase
Turned	Need to know when introduced
Welted	Suggests Late phase or 2nd Mill.
Zoomorphic	Suggests ending at transitional Core / Late phases AD800

Table 8. Aspects that may influence dating of Coptic footwear.

### Limitations

It is certain that the collection under study is not fully representative of the footwear from the period. Plates in Frauberger’s (1896) volume and images in the Louvre’s catalogue indicate the existence of decorative forms not present in the V&A collection (Fig. 38). It is most likely that the artefacts under study were recovered from burial contexts therefore we are again looking at a selective sub-set of overall items.

The restrictive nature of the source material must be acknowledged and that the typologies developed from its study are preliminary. Further study of all available archaeological material, or records of such material, are needed to develop a greater sample base and more reliable typology. It is unlikely that the full range of footwear from the period will ever be known yet this should not stop the establishment of a typology for the form as known.

Typologies are made by specific individuals and subjectivity is therefore “inherent and inevitable” (Adams and Adams 1991). Examples from this study include the choice not to use constructional material as a criterion as other authors have done and the choice of decorative elements



Fig. 38. Decorative styles not present in the V&A collection. (Frauberger 1896, pl. XIII; Montembault 2000, 25).

used in the typology. Although not necessarily a problem, subjectivity should be acknowledged.

Coptic phases defined as Early / Core / Late are constructs which may not relate directly to the introduction or fading out of fashion styles. These boundaries sit near social / political events in Egyptian history. Christianity was officially recognised in AD 313 (change over from Early to Core phase) and in AD 641 Arab domination began (change from the Core to Late phase). New social situations bring fashion changes but will not necessarily mean the end of all old styles. As noted, the guilloche motif survived past the Roman era. The use of time frames can be confining, as some styles, such as the combination of sole stitched patterns on slippers with the lack of rand, may need to be placed in-between, say from AD 200-500. The introduction of transitional phases (to borrow Kendrick's terminology) is appropriate, with the phases being used as a broad framework with which to approach dating.

### Conclusion

The use of typologies and comparative material to narrow the dates for the V&A's Coptic footwear collection has had limited results. Certain aspects have been identified as being of possible assistance in dating an item but to retain certainty date ranges should remain broad, for example AD 300-700.

Dating through a combination of methods is preferable and may help to strengthen accuracy. For example, dating footwear using an art-historical method should employ both constructional and decorative elements. Avenues for future research that may help clarify terminus post quem dates include identifying the introduction of the turned shoe / rand / heel support / welt into the shoemaker's repertoire and the study of comparative first millennium footwear from countries neighbouring Egypt. To bring certainty to the chronology for this period, and to narrow date ranges for specific objects, the study of well documented, recent Coptic excavations and the use of scientific dating methods, such as C14 dating or dye analysis, are recommended.

Typological results may have limited value for dating purposes yet they have allowed a reliable statement to be made with which to describe Coptic footwear:

Coptic footwear was primarily made with leather, often using the turned technique, to produce a slipper or shoe with a straight sole. Slippers often

included a rand at the vamp and a fibre padded sole sewn together with prominent stitching or insole tab. They show variation in the form and height of the instep. Shoes were generally slip-ons and also show variation in the form and height of the instep. Footwear was highly decorated in geometric and floral designs. Often a variety of techniques were used in combination, with the most popular being dyeing, gilding, openwork and appliqué.

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Ruiha Smalley  
ruihawebster@gmail.com