

STUDIES OF ANCIENT EGYPTIAN FOOTWEAR. TECHNOLOGICAL ASPECTS.
PART XVII. LEATHER STUBBED-TOE ANKLE SHOES

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1. *Introduction*

Leather closed shoes in ancient Egypt were comparatively rare, but they did exist. Currently, however, there are only two categories. These are the fancy Curled-Toe Ankle Shoes (Montebault, 2000: 204-205; Van Driel-Murray, 2000: 314-316; Veldmeijer, 2009b) and the more ordinary Stubbed-Toe Ankle Shoes, which are the topic of the present paper.

We distinguish two types of Stubbed-Toe Ankle Shoes. One type has an all-in-one construction, where the pre-straps and the sole are all one piece of leather. The pre-straps in this type are woven through the upper to stiffen it (Eared Type). The second type lacks the pre-strap (Plain Type). Comparable pre-straps as seen in the Eared Type are seen in leather sandals popularly known as ‘ears’ (Veldmeijer, 2011), hence the name of this type of Stubbed-Toe Ankle Shoe. Within the Eared Type, two variants can be distinguished: those with a drawstring woven through the upper (Drawstring Variant) and those without (Plain Variant).

The present work is part of the Ancient Egyptian Footwear Project’s (AEFP¹) series that focuses on manufacturing technology. Other topics are discussed in passing. Goubitz *et al.*’s (2001) terminology is followed but with modifications whenever necessary, following Veldmeijer (2010a).

2. *Description*

2.1. *General*

Stubbed-Toe Ankle Shoes comprise a small group of shoes (30 specimens which include seven pairs; figure 1-3; table 1). Although the majority are rather short and less than 150 mm in length, the longest shoes measure 280 mm in length, suggesting that Stubbed-Toe Ankle Shoes were not worn only by children.² The sole, made of fairly thick rawhide in one or several layers (including *Ägyptisches Museum und Papyrussammlung Berlin* AM 9603, which has a substantially thinner insole than treadsole), is shaped with a rounded heel, typically a slightly constricted waist and an asymmetrical, widening front part, resulting in a swayed sole.

In all cases, although the height may vary slightly, the upper (always a single layer, figure 3) extends to or above the ankle, resulting in so-called ankle shoes (Goubitz *et al.*, 2001: 24).

¹ See www.leatherandshoes.nl for more information.

² According to Grew & De Neergaard (1988: 102) this is equivalent to Adult Size 8 (UK sizes) or 42 (Continental sizes).

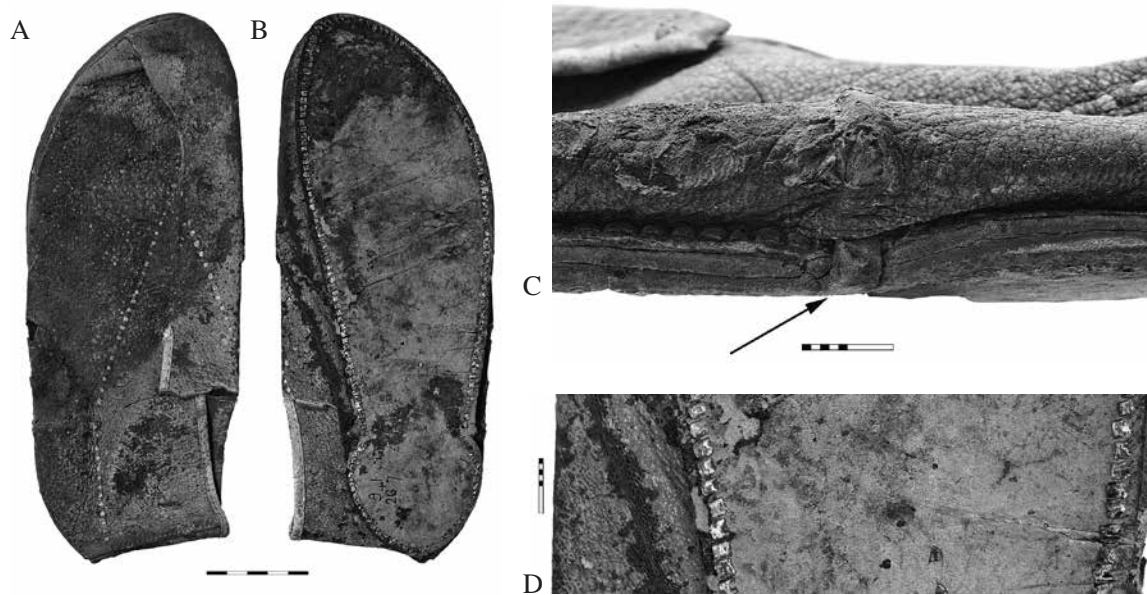


Figure 1. Egyptian Museum Cairo TR 9 1 26 7. Example of the Eared Type, Drawstring Variant. A) Dorsal view; B) Ventral view; C) Detail showing the sole/upper construction (two sole layers and upper) and the pre-strap (arrow) cut from the treadsole and woven through the upper; D) Variant of interlocking stitching (see figure 3C). Photography by A.J. Veldmeijer. Scale bar A & B is 50 mm; scale bars C & D are 10 mm. Courtesy of the Ministry of State for Antiquities/Egyptian Museum Authorities.



Figure 2. British Museum London EA 4404. Example of the Plain Type. A) Dorsal view; B) Ventral view. Note the light colour of the leather of the upper and the dark brown edge binding of the instep. Photography by A. 't Hooft Photographic Services. Scale bar is 50 mm. Courtesy of the British Museum London.

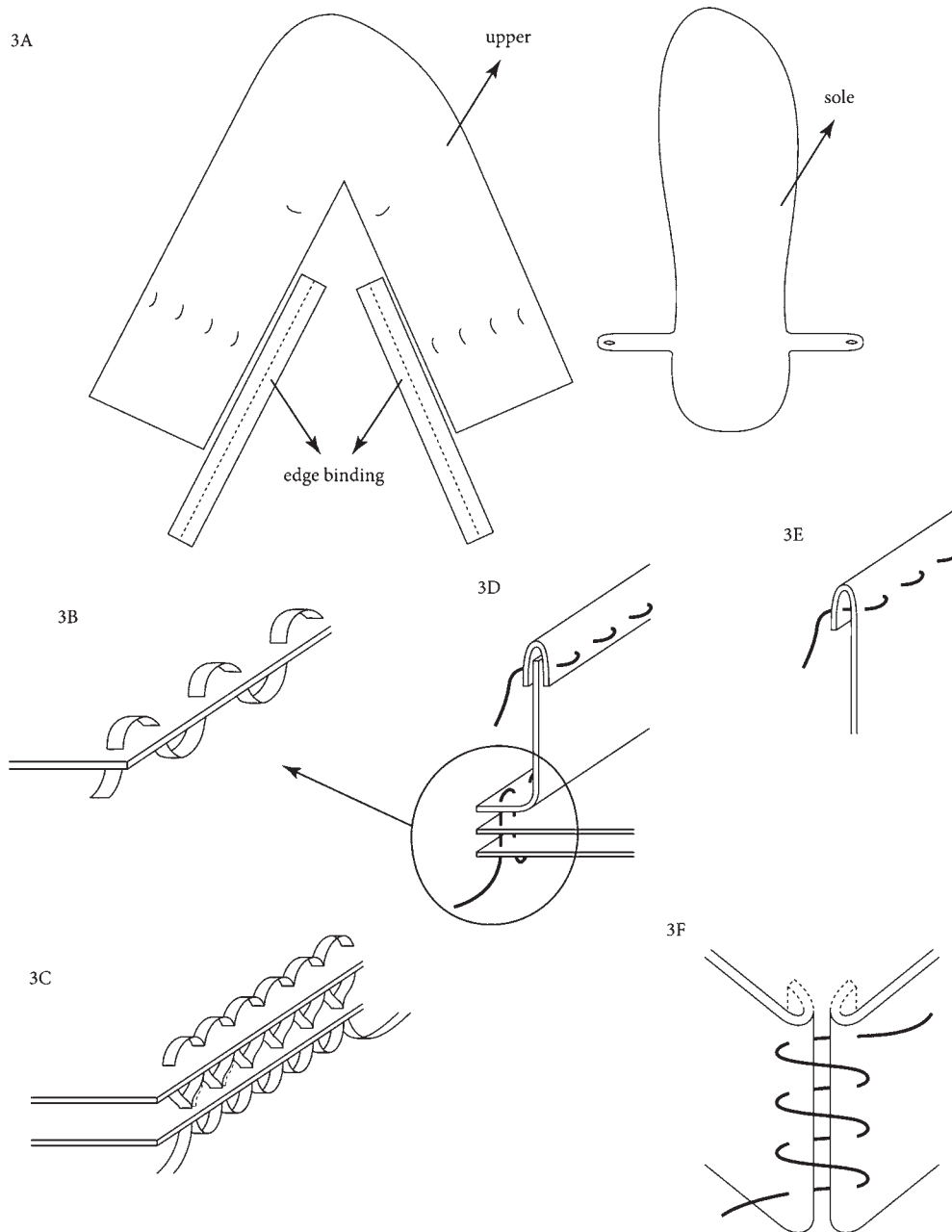


Figure 3. A) Cutting pattern of Stubbed-Toe Ankle Shoes (note that the drawstring is not shown), including B) sole/upper construction with running stitching; C) sole/upper construction with a type of interlocking running stitching; D) & E) details of edge binding and F) back seam construction. Note that it is not always certain that the edges are folded (hence the dashed line): some rather seem to be butt seams. Not to scale. Drawings by E. Endenburg/A.J. Veldmeijer.

The upper consists of one piece, with an instep that runs diagonally from back to front and is closed with a back seam, which is secured with whip stitching in all cases in which identification was possible (figure 3F). Exception are Egyptian Museum Cairo TR 9 1 26 7, which had interlocking running stitching (*cf.* figure 3C) and British Museum London EA 4414, which is secured with running stitch (*cf.* figure 3B).

Only one upper does not have a binding; in two cases the absence or presence could no longer be determined. In several cases the original colours of the shoe are preserved, indicating that aesthetics were important. This interpretation is supported by the occasional use of thong of different colour in the sole/upper construction. In Ashmolean Museum Oxford 1889.525 the red colour of the upper is obvious, but the upper in Oriental Institute Museum Chicago E351a, b might also have been red, and several others show differences in colour between the upper (brown [British Museum London EA 4402, 4403, 4411, 46604] or even beige [British Museum London EA 4404 & 4406]) and the edge binding (red or brown).

The instep is closed in both the Plain and the Eared Types, by means of a ‘lace’ — a narrow, thin strip of leather that is tied to either side of the instep and simply knotted to close the instep. These laces are preserved in British Museum London EA 4402, 4403, 46604 and 4411; *Ägyptisches Museum und Papyrussammlung Berlin* AM 9603 (figure 8), Ashmolean Museum Oxford 1889.525; and Dra Abu el-Naga FN 0399. However, Egyptian Museum Cairo TR.14.1.26.8 (figure 6) seems to be entirely without laces. In some cases — the best example of which is British Museum London EA 4404 — a small loop is visible on one side of the instep, which undoubtedly played a part in the fastening of the shoe to the foot. However, exactly how is uncertain, because none of the closure systems are completely preserved.³

The sole/upper construction is simple (figure 3B-D). The two sole layers⁴ are secured together with the upper along the outer edge with closely-spaced running stitching that is made of narrow leather or sometimes rawhide strips (figure 1C). In one, Egyptian Museum Cairo TR 9 1 26 7 (figure 1) and possibly also in *Ägyptisches Museum und Papyrussammlung Berlin* AM 9603 (figure 8), the sole/upper construction is secured with a type of interlocking stitching (figure 3C). Since leather or rawhide thong is used, it is too bulky for the thong ‘threads’ to pass each other in the stitch holes, a characteristic of interlocking running stitching with sinew of flax (see Grew & De Neergaard, 1988: 101; Veldmeijer, 2010b: 21; 2011c).⁵ Instead, the thong goes back to the stitch hole where it came from (or very close to it [dashed line]), passing it twice, before continuing to the next hole (figure 1D, 3C).

2.2. Eared Type

2.2.1. Drawstring Variant

Ten shoes — among which two pairs — have pre-straps cut from the sole’s leather that are woven through the upper (figure 1C). Among this number is one pair, *Ägyptisches Museum und Papyrussammlung Berlin* AM 6978, in which the presence of such a pre-strap is suggested by discoloration of the upper’s leather at the appropriate position, but the sole itself is

³ Note the slight similarity with the element of the closing system in a pair of leather open shoes (Veldmeijer, 2009a) of Pharaonic date.

⁴ Sometimes, it seems that the sole consists of even more layers, such as in National Museum of Antiquities Leiden 1942/12.5, but this is due to the splitting of the leather (Veldmeijer, 2011d: 323).

⁵ Veldmeijer (2010b) refers to this type of stitching as ‘straight stitching’.



Figure 4. In Eared Type (Drawstring Variant) British Museum London EA 4415, all three sole-layers have pre-straps that are woven through the upper. Another unique feature is the sole/upper construction that includes a rand. A) Dorsal view; B) Ventral view. Photography by A. 't Hooft Photographic Services. Scale bar is 50 mm. Courtesy of the British Museum London.

missing. In several cases, both sole layers have pre-straps cut out of the sole's leather and woven through the upper; a particularly good example is British Museum EA 4415 (figure 4), where all three sole layers have pre-straps woven through the upper.

The shoes in this Variant have a narrow strip of leather — two mm wide in Egyptian Museum Cairo TR 6 1 26 6 — woven through (numerous) slits in the upper in a slightly diagonal line towards the front of the instep. This 'drawstring' runs around the entire upper as well as through the slit at the end of the pre-straps. Although the AEFPP refers to this element as a drawstring, it is by no means certain that it functioned as such. In only two shoes, British Museum London EA 4402/4403 and EA 4413 (figure 5), the ends protrude from the upper, suggesting that it could be pulled to tighten the shoe better to the foot. In EA 4402/4403 it protrudes from about halfway between the front and the instep. In EA 4413, two slits are situated in front of the instep through which the drawstrings are pulled. The slits are reinforced with a circular patch, which is secured on the edge with whip stitches. From here, the leather-clad drawstrings run through slits in the upper as usual. It is the only example with decorated/reinforced holes for the drawstring. In Egyptian Museum Cairo TR 14 1

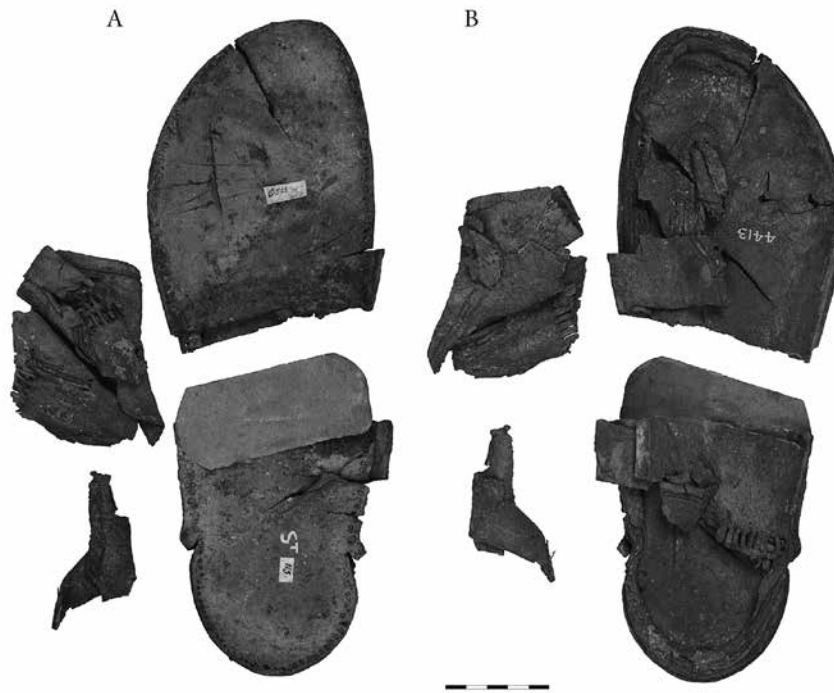


Figure 5. Only in the Eared Type (Drawstring Variant) British Museum London EA 4413 is the front opening for the drawstring reinforced. A) Ventral view; B) Dorsal view. Photography by A. 't Hooft Photographic Services. Scale bar is 50 mm. Courtesy of the British Museum London.

26 8 (figure 6), a slightly twisted strip of leather is pulled through only some of the slits, resulting in a much coarser appearance of the shoe.

The instep has an edge binding in all shoes (figure 3D) except one (Ashmolean Museum Oxford 1892.660), but there are two in which a binding is not certain. In one, *Ägyptisches Museum und Papyrussammlung Berlin* AM 6978, the binding is not preserved, but the stitch holes suggest that there was one originally — which type remains obscure. The three Cairo shoes have the most common binding in Stubbed-Toe Ankle Shoes, consisting of a narrow strip of leather that is folded over the instep edge and secured with running stitching (in the table referred to as Type 1). Two entries (British Museum London EA 4402/4403 and EA 4413) have a different edge binding: the edge is simply folded outwards and secured with running stitching (figure 3E). Several entries (Dra Abu el-Naga FN 0399, British Museum London EA 4410 and Oriental Institute Museum Chicago E351a, b), all Plain Variant shoes, have a comparable, folded binding, but the binding is not secured. British Museum London EA 4402/4403 and Egyptian Museum Cairo TR 6 1 26 6 have red bindings, which contrast to the plainer colour of the upper itself (edge bindings always have a dual function: reinforcement and decorative, see Veldmeijer, 2013).

A unique feature is seen in British Museum London EA 4415 (figure 4); it has a rand between the sole insole and upper (see below).

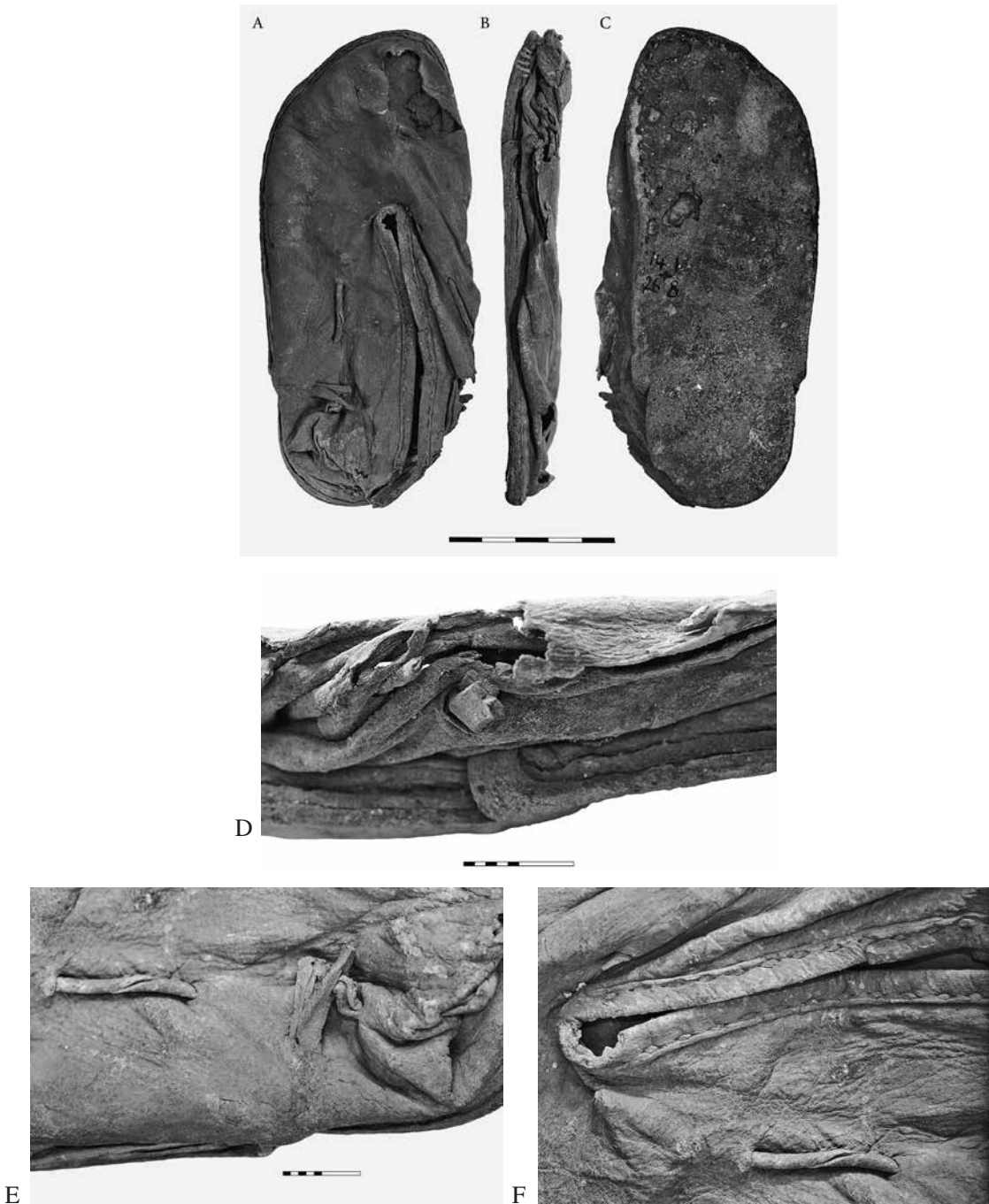


Figure 6. Egyptian Museum Cairo TR 14 1 26 8, Eared Type, Drawstring Variant. A) Dorsal view; B) Medial view; C) Ventral view; D) Detail of the pre-strap, cut out from both sole layers; E) Detail of the drawstring pulled through the pre-strap; F) Detail of the edge binding. Note the addition of another piece. Photography by A.J. Veldmeijer. Scale bars A-C are 50 mm; D, E & F is 10 mm. Courtesy of the Ministry of State for Antiquities/Egyptian Museum Authorities.

2.2.2. Plain Variant

There is one example in which the upper is reinforced with a large pre-strap woven through it, but without a drawstring woven (semi-) horizontally through the upper and the pre-strap: British Museum London EA 4414 (figure 7). The pre-strap of the treadsole and probably also the midsole, are woven through the upper. The fact that there are two pre-strap next to each other is exceptional, rejecting the suggestion that the third sole layer also had a pre-strap that was woven through the upper. This contrasts with British Museum London EA 4415 (figure 4), where all three sole layers have pre-strap that are woven through the upper next to each other.

2.3. Plain Type

The difference between the Plain Type and the Eared Type is the absence of the pre-strap. Moreover, a drawstring lack, which suggests that this element was linked to the pre-strap.

3. Wear and Repair

Clearly the most vulnerable part of the shoe is the upper in front of the instep, which is often (partially) torn (*Ägyptisches Museum und Papyrussammlung Berlin* AM 9603 [figure 8]; British Museum London EA 4402/4403; EA 4404 [figure 2]; EA 4405[?]; EA 4410; EA

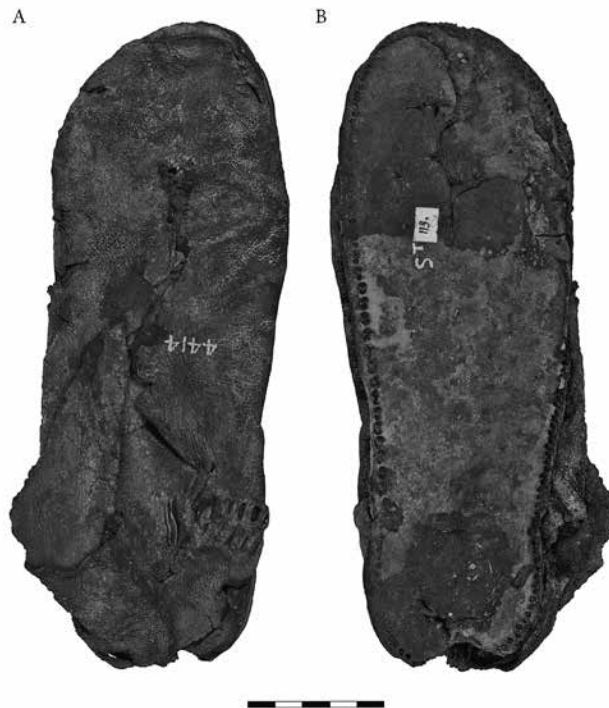


Figure 7. British Museum London EA 4414, Eared Type, Plain Variant. A) Dorsal view; B) Ventral view. Photography by A. 't Hooft Photographic Services. Scale bar is 50 mm. Courtesy of the British Museum London.

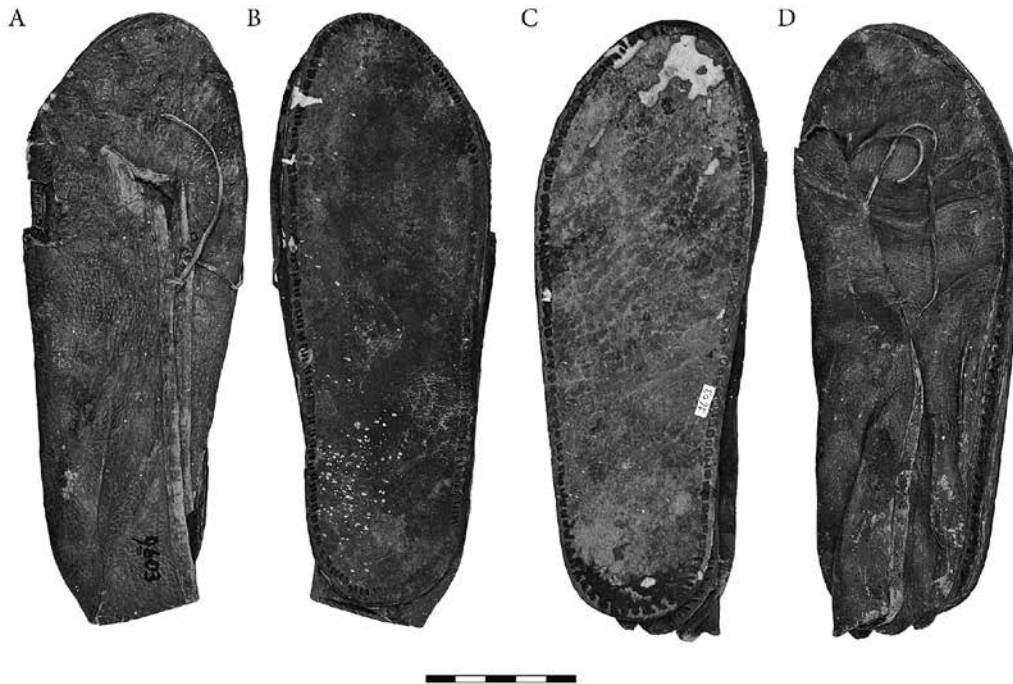


Figure 8. *Ägyptisches Museum und Papyrussammlung Berlin* AM 9603, Plain Type. There is no drawstring woven through the upper but a thin leather strip is attached to the front of the instep to close it. Left in dorsal and ventral view, right in ventral and dorsal view respectively. Photography by A.J. Veldmeijer/E. Endenburg. Scale bar is 50 mm. Courtesy of the *Ägyptisches Museum und Papyrussammlung Berlin*.

4412; Egyptian Museum Cairo TR 9 1 26 7 [figure 1]; only slightly in Ashmolean Museum Oxford 1892.660) and sometimes even repaired with sailor stitching (British Museum London EA 4407 [figure 9]). In most cases, the back seam is partially or entirely loosened and edge bindings are damaged. Broken stitches on the ventral surface of the treadsole are often seen as well. Other wear due to, for example, scuffing the heel on the floor, is less often seen. British Museum London EA 4415 has a repair patch on the front of the upper. British Museum London EA 4414 shows the most extensive wear of all shoes: part of the treadsole is worn through and the midsole shows flax repairs.

4. Discussion

The well-preserved shoe N 1310 in the Louvre (Montembault, 2000: 192-193) is, unfortunately, unprovenanced and undated. It is closely equivalent to the shoes of the Eared Type discussed in the present work but with one exception: the edge of the instep has no binding but instead, a second drawstring (also a narrow strip of leather) is woven just below the edge proper. The other shoe in this collection, E 14032 (*Ibidem*: 194) is of the Plain type and is very similar to shoes such as British Museum London EA 4404 (figure 2). Unfortunately, the dating of these shoes is also uncertain — they were found near the tombs of Qaha and

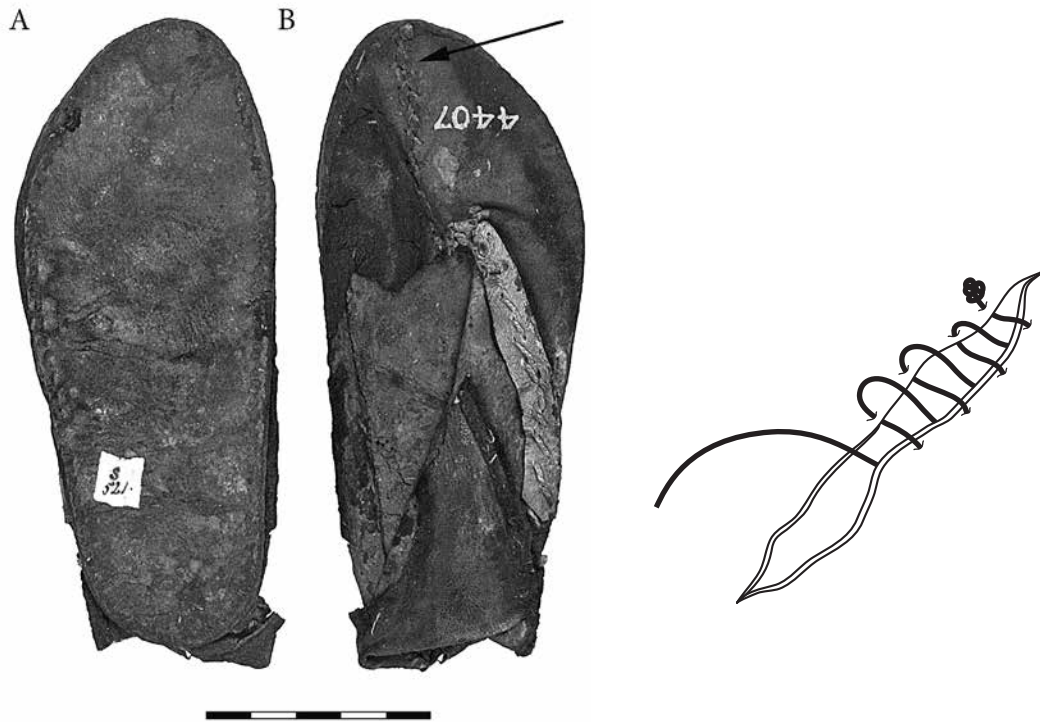


Figure 9. British Museum London EA 4407, Plain Type. The crack in front of the instep, seen often in this type of shoe, is repaired with sailor stitches (arrow, see inset). Photography by A. 't Hooft Photographic Services. Scale bar is 50 mm. Courtesy of the British Museum London.

Anherkhaoui (Bruyère, 1933: 32) who were the architects of Ramesses III. Montembault notes (2000: 194): “*Cependant, comme elles ont été découvertes dans les déblais d’une sépulture, leur datation est incertaine.*”

According to the archives of several collections (table 1), these shoes date to the Ptolemaic, Roman or even Byzantine period. However, these dates are not based on context; in all cases the provenance is uncertain. According to Montembault (2000: 193) one shoe, Egyptian Museum Cairo TR 9 1 26 7, originates from a clear and dated context: the cachette of the Amun priests in Deir el-Bahari dated to the 21st Dynasty. A find from Akhmim (Frauberger, 1896: pl. XIII), similar to the Plain Type, suggests a much later date. Van Driel-Murray (2000: 316) suggests a Ptolemaic date for some of the Eared Type shoes that are housed in the British Museum London, but this date cannot be taken for granted because the provenance of these shoes is also unknown.

So, dating is problematic, but are there technological traits that might elucidate the dating? Are there parallels to finds that are firmly dated? The use of leather thong for securing the sole/upper construction in shoes in Pharaonic times is rare and all relevant examples thus far studied by the AEFPP and Ancient Egyptian Leatherwork Project (AELP) is made with sinew or flax (Veldmeijer, 2011a: 16). One example of a shoe in which the upper and sole are secured with leather thong that dates to the Ptolemaic period was found, together with several

others, in an amphora between the walls of the temple of Amenhotep II in Luxor. The seam, however, is a repair as originally the shoe had a turnshoe construction (Veldmeijer, 2011d). Another trait that is helpful in suggesting a date is that interlocking stitching is rare in Pharaonic leatherwork but is seen more often from Roman times onwards (Veldmeijer, 2010b: 21).

Recently, a pair of shoes was found in Dra Abu el-Naga FN 0399, which suggests an earlier date. According to Daniel Polz, “the two sandals [sic] were found in a disturbed context within the area of a large Saff-tomb of late 11th/early 12th Dynasty date in [...] area G [...]. However, this tomb (K95.1) was later occupied by two smaller shaft tombs to the right and the left of the Saff-tomb’s main corridor of early-middle 18th Dynasty date.” Polz is convinced that, although thoroughly disturbed, the shoes come from these tombs.

Besides the indications of a Pharaonic date provided by the Dra Abu el-Naga example, one trait of these shoes offers an important argument to date the shoes to Pharaonic times or shortly thereafter (i.e. early Ptolemaic): the use of a pre-strap, comparable to the ‘ears’ in the traditional Egyptian Eared Sandals (Veldmeijer, 2011b). Leather Eared Sandals are firmly dated to Pharaonic times and sandals with comparable pre-straps do not occur after this period.⁶ In certain open shoes (Veldmeijer, 2009a), the integrally-cut pre-straps (pre-straps and sole leather are all one piece), play a part in the drawstring that is woven through the upper’s leather. However, the pre-strap itself is not woven through the upper but rises next to it. From such examples, it is only a small step to pull it through slits in the upper for support. Drawstrings, sometimes referred to as ‘laces,’ that are woven through the upper have no parallels in post-Pharaonic Egypt (although it is common in Medieval European footwear, e.g. Goubitz, 2001: 135-144; Grew & De Neergaard, 1988). However, they are registered in shoes that are dated to the New Kingdom (Veldmeijer, 2009a; 2009b). Other intriguing examples of shoes with a drawstring come from late 26th-27th Dynasty layers in Elephantine (Kuckertz, 2006). These drawstrings, however, are decorative rather than functional. The shoes have no parallel with Egyptian footwear, and an origin outside Egypt (i.e. Syria-Palestine or Persian) is plausible (Kuckertz, 2006: a.o. 153; Own Observation).

British Museum London EA 4415 has a sole construction that includes a rand. The first identified occurrence of a rand in footwear found in Egypt is in the Ptolemaic shoes from the temple of Amenhotep II: before these, rands had not been used.⁷

Another indication, but admittedly less indicative, might be that the shoes are of simple construction and do not really compare to the multitude of (advanced technology of) leather shoes from Roman times and later, including turnshoes and the use of rands (e.g. Leguilloux, 2006; cf. the discussion in Veldmeijer, 2013) and the complete absence of pre-straps and drawstrings pulled through uppers. Admittedly, shoes in which the upper consists of one piece or even shoes which have the upper and sole made of one piece, are known from these post-Pharaonic periods as well, but the simple sole seam suggests a (much) earlier date.

Thus, despite the rarity of sewing with leather thong in Pharaonic times, the fairly simple overall construction, combined with the presence of a drawstring (absent in later footwear) and the close relationship of the eared soles with well-dated leather Eared Sandals and other

⁶ One sandal seems to be dated to the Roman period (Veldmeijer, 2011b: table 1) but since the provenance is unknown, this dating is unreliable. Note that other types of Eared sandals continued to be in use.

⁷ But note that a separate element might be the predecessor of the rand (Veldmeijer 2009c).

types of sandals and open shoes with integrally-cut pre-straps, suggest a date in the (later?) Pharaonic period. Further suggestions, albeit not from clear-cut dateable contexts, come from the few provenanced examples, viz. Egyptian Museum Cairo TR 9 1 27 7, the pair of shoes from the Louvre E 14032 and the Dra Abu el-Naga find FN 0399.

5. Acknowledgement

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Collection/ Identification	Provenance	Date	Orienta- tion	Measurements	Type	Variant	Sole
							No. Layers
AM 9603	Medinet Habu?	Late Roman/ Christian	Pair	(Right one). Sole: W heel: 50.8; W front: 72.7. L: 200. T: 5.6. Upper: H at heel: appr. 60	Plain	-	Two
ASH 1889.525	?	?	Pair	(Left one). Sole: W heel: 40; W front: appr. 55 (recon- structed). L: 150	Plain	-	One
ASH 1892.660	?	?	Right	Sole: W heel: 35; W front: 45. L: 107	Plain	-	Two
BM EA 4404	?	Roman?	Left	Sole: W heel: 40.7; W front: 53.3. L: 158. T: app. 2.7. Upper: H at heel: about 47.5	Plain	-	One?
BM EA 4405	?	Roman?	Right	Upper: L: 155	Plain	-	-
BM EA 4406	?	Roman	Right	Sole: W heel: 40.8; W front: 52.3. L: 130. T: app. 4.9 (incl. upper). Upper: H at heel: appr. 35	Plain	-	Two
BM EA 4407	?	?	Right	Sole: W heel: 42.8; W front: 57.6. L: 140. T: 2.4. Upper: H at heel: appr. 50	Plain	-	Two
BM EA 4410	?	?	Right	Sole: W heel: 40; W front: 51.5. L: 143. T: 5.5 (including upper). Upper: H at heel: at least 45	Plain	-	Two
BM EA 4411	?	?	Right	Sole: W heel: 47; W front: 63.4. L: 160. T: 4.4. Upper: H at heel: appr. 40	Plain	-	Two
BM EA 4412	?	?	Left	Sole: W heel: 39.5; W front: 53. L: 128. T: 3.4 (including upper). Upper: H at heel: 40	Plain	-	Two
BM EA 46604	Asyut	?	Pair	(Left one). Sole: W heel: 45.2; W front: 57.1. L: 140. T: 3.7 (entire sole seam). Upper: H at heel: appr. 55	Plain	-	Two
NAM 1942/12.5	?	?	Right	Sole: W heel: 55.8; W front: 74.6. L: 185. T: about 7. Upper: H at heel: not measurable	Plain	-	Two
NAM 1942/12.9	?	?	Right	Sole: W heel: 34; W front: 41.3. L: 100. T: appr. 2.4	Plain	-	One
OIC E351a, b	Akhmim?	Byzantine?	Pair	(Right one). Sole: W heel: 42.5; W front: 58.7. L: 140. T: 4.5. Upper: H at heel: appr. 24	Plain	-	Right: three; Left: two

Upper		Closure System			Signs of Use	Remarks
Sole seam	Back seam	Edge binding	Drawstring?	Lace?		
Interlocking running stitch?	Whip stitch	Type 1	No	Yes	Torn	Museum archive: Angeblich aus einem "romischen" grabe bei Medinet Habu. In Deir el-Medina gekauft, EV642. Aktennummer 894/86.
Running stitch	Whip stitch	Folded, not secured	No	Yes	Pressed stitches ventral surface treadsole	Note the red colour of the upper.
Running stitch	Whip stitch	No	No	Yes	Torn instep. Worn treadsole. Worn stitches ventral surface treadsole.	-
Running stitch?	Whip stitch	Type 1	No	Yes?	Torn instep. Damaged edge binding. Sole probably worn due to deterioration.	Darker coloured edge binding. Probably pair with BM 4406. Date according to archive, but no indication why.
Running stitch?	Whip stitch	Type 1	No	Yes	Torn instep.	Date according to archive, but no indication why.
Running stitch	Whip stitch	Type 1	No	Yes?	Torn. Damaged edge binding.	Darker coloured edge binding. Probably pair with BM 4404. Date according to archive, but no indication why.
Running stitch	Whip stitch	Type 1	No	Yes	Torn instep.	Part of the edge binding is repaired (with whip stitching).
Running stitch	Whip stitch	Folded, not secured	No	?	Torn instep. Worn stitches ventral surface treadsole.	-
Running stitch	?	Type 1	No	Yes	-	-
Running stitch	Whip stitch	?	No?	No	Torn instep.	Row of stitches lengthwise down the centre of the treadsole.
Running stitch	Whip stitch	Type 1	No	Yes	Torn instep.	-
Running stitch	Whip stitch?	Type 1?	No	Yes	?	Splitting of sole's leather. Note stitch holes(?) at centre of sole.
Running stitch	?	?	?	?	?	Upper largely incomplete.
Running stitch	Whip stitch	Folded, not secured	Yes, only at start instep	Yes	No?	Right third sole layer repair?

Collection/ Identification	Provenance	Date	Orienta- tion	Measurements	Type	Variant	Sole No. Layers
FN 0399	Dra Abu el-Naga, tomb K95.1	18th Dynasty	Pair	(Right one). Sole: W heel: 44.1; W front: 53.4. L: 136.5. T: 3.7. Upper: H at heel: appr. 51.5	Plain	-	Two
BM EA 4402/4403	Thebes?	Ptolemaic?	Pair	(Left one = 4402). Sole: W heel: 45; W front: 68.3. L: 185. T: 3.1. Upper: H at heel: appr. 56.5. W edge binding: 4.8	Eared	Draw- string	One
EgMus TR 14 1 26 8	?	?	Left	Sole: W heel: 45.5; W front: 57.4. L: 147.2. T: 5.7. Upper: H at heel: appr. 60. W edge binding: appr. 4.2	Eared	Draw- string	Two
EgMus TR 6 1 26 6	?	?	Left	Sole: W heel: 38.4; W front: 51.8. L: 133.1. T: 3.1. Upper: H at heel: appr. 50. W edge binding: appr. 5	Eared	Draw- string	Two
EgMus TR 9 1 26 7	Thebes, cachette of the Amun priests in Deir el-Bahari	21st Dynasty	Left	Sole: W heel: 69.5; W front: 95.6. L: 280. T: 5.6 (include upper). Upper: W at heel: appr. 10	Eared	Draw- string	Two
AM 6978	Thebes?	Late Roman/ Christian?	Pair	(Right one). L: 205. Upper: H at heel: 75 (including the sole's edge)	Eared?	Draw- string	Not preserved
EA 4413	?	Ptolemaic?, 2000: 316)	Right	Sole: W heel: 79.8; W front: 109.1. L: 275. T: 7.1. Upper: H at heel: 70	Eared	Draw- string	Two
EA 4414	?	Ptolemaic? (Van Driel-Murray, 2000: 316)	Left	Sole: W heel: 65; W front: 86.5 (reconstructed). L: 250 (reconstructed). T: appr. 5.3. Upper: H at heel: 60	Eared	Plain	Three
EA 4415	?	Ptolemaic? (Van Driel-Murray, 2000: 316)	Left	Sole: W heel: 77; W front: 103.7. L: 280. T: 13 (including upper). Upper: H at heel: appr. 10.7 (from back to front)	Eared	Draw- string	Three

Table 1. Summary of the most important features and measurements of Stubbed-Toe Ankle shoes, showing collection and identification (first column), provenance (second column), date (third column), orientation (fourth column), measurements (fifth column), typology (sixth and seventh columns), technological details of sole (eighth and ninth columns) and upper (tenth to thirteenth columns), signs of use (fourteenth column) and finally remarks. Measurements marked with ‘#’ are from photograph.

L = length; H = height, T = thickness; W = width

Upper			Closure System		Signs of Use	Remarks
Sole seam	Back seam	Edge binding	Drawstring?	Lace?		
Running stitch	Whip stitch	Folded, not secured	No	Yes	Worn through stitches at ventral surface treadsole?	Disturbed context but according to Daniel Polz (pers.com. 2012) the shoe comes from intrusive early-middle 18th Dynasty burials.
Running stitch	Whip stitch	Folded and sewn with running stitches	Yes	Yes	Torn instep. Worn treadsole of right.	Cloth not part of the shoe originally.
Running stitch	Whip stitch?	Type 1	Yes	No	-	-
Running stitch	Whip stitch	Type 1	Yes	Yes?	-	-
Interlocking running stitch	Interlocking running stitch	Type 1	Yes; diagonal and along the instep	?	Torn instep. Worn treadsole.	-
Running stitch	Whip stitch	Yes: not preserved, only stitch holes	Yes	Yes	-	Museum archive: Sammlung Passalarqua. Inv. IV. F. 480
Running stitch	?	Folded and sewn with running stitches	Yes	No?	Worn through stitches at ventral surface treadsole.	Pre-straps of both sole layers through upper. Note the large slits in the treadsole due to knife(?)
Running stitch	Running stitch	No?	No	Yes	Worn treadsole.	Two pre-straps woven through the upper, next to each other.
Running stitch	Whip stitch	Type 1	Yes	Yes	Repair patch at front.	High upper. Sole/upper construction includes a rand.

