

STUDIES OF ANCIENT EGYPTIAN FOOTWEAR. TECHNOLOGICAL ASPECTS.
PART XIX. MULES

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1. *Introduction*

Mules, footwear that has an upper that only covers the toes, are rare among Pharaonic footwear. To date, only one pair is known from the tomb of an unknown man (no. 1389) in Deir el Medineh (Bruyère, 1937: 65; Van Driel-Murray, 2000: 314; figure 1, table 1). The pair entered the Egyptian Museum in Cairo under number JE 63760. The footwear is fairly simple in technology and various features compare well with other Pharaonic footwear.

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



Figure 1. Left and right mule in dorsal/ventral and ventral/dorsal view respectively. Scale bar in cm.
Photography by A.J. Veldmeijer. Courtesy of the Ministry of State for Antiquities/
Egyptian Museum Authorities.

Left:	Right:
Length: 285.0	Length: 280.0
Width heel: 75.1	Width heel: 73.2
Width waist: 69.3	Width waist: 71.5
Width front: 113.4	Width front: 111.1
Thickness sole: 6.5	Thickness sole: 6.3
Width pre-strap: 12.8	Width pre-strap: 17.3
Length upper: 126.9	Length upper: 132.3
Maximum height upper: approximately 69	Maximum height upper: approximately 73

Table 1. Measurements (in mm).

2. Description

2.1. Sole

The sole consists of two layers that are secured by coarse, haphazard running stitches made of leather thong. A slight difference in stitching can be noticed: in the right one, the stitches are slightly larger than in the left. Note the start of the stitching: the end of the leather thong is knotted into an overhand stopper knot to prevent it from slipping through the hole in the sole (figure 2). The heel is rounded and the waist slightly constricted. Towards the front the width increases — since the lateral edge increases more distinctly, the sole can be called swayed. The front part ends in a rounded shape, with pronounced first toe area. The right mule’s dorsal surface is enhanced with an impressed line at fair distance from the sole’s edge, following the shape of the sole (figure 3); such a decoration is absent in the left one.

2.2. Upper

The upper covers about half of the foot and is of simple layout: a semi-circular piece of leather is included in the stitching that secures the sole layers. Remarkably, the uppers in both mules are different. The upper of the left one shows stitch holes along the instep edge whereas the right one has none. Instead it has, roughly in the centre of the instep edge, an attachment that had a role in the straps (figure 4; cf. Bruyère, 1937: 64). In an old photograph this is still visible, but it is entirely disconnected now. The attachment at the edge consists of two short slits behind one and another through which a leather thong is pulled that is inserted in a third slit closer to the edge. This might have been connected to the remnants sandwiched between the sole layers, but how is unclear (see below). Moreover, the instep edge is triangular whereas this edge is straight in the other one.

2.3. Strap Complex

Both soles have integrally cut pre-straps of traditional Egyptian design (figure 5); these were attached to each other by means of cladding that overlap in stair-step fashion (mostly lost; figure 5). The back straps were secured to the slit (most likely by looping), which is positioned lengthwise in the end of the pre-strap. Unfortunately, now not much is left of the rest of the strap complex, in contrast to shortly after excavation (Bruyère, 1937: 64). The right mule



Figure 2. Detail: the end of the leather thong is knotted into an overhand stopper knot. Scale bar is 10 mm. Photography by A.J. Veldmeijer. Courtesy of the Ministry of State for Antiquities/Egyptian Museum Authorities.



Figure 3. Dorsal view of the right mule, showing the impressed line decoration. Scale bar in cm. Photography by A.J. Veldmeijer. Courtesy of the Ministry of State for Antiquities/Egyptian Museum Authorities.

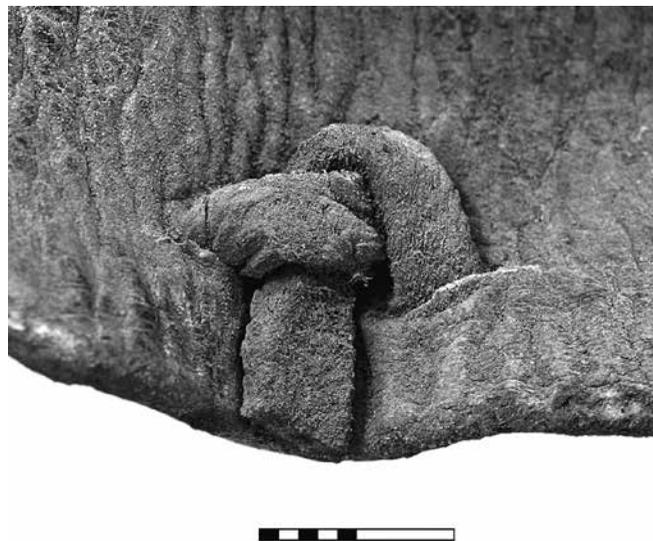


Figure 4. Detail: the attachment that, possibly, was part of the straps. Scale bar is 10 mm. Photography by A.J. Veldmeijer. Courtesy of the Ministry of State for Antiquities/Egyptian Museum Authorities.



Figure 5. Detail: near-complete pre-strap *in situ*.
 The inset shows several fragments of the straps, including the clad pre-strap fragment.
 Scale bar is 50 mm. Photography by A.J. Veldmeijer.
 Courtesy of the Ministry of State for Antiquities/Egyptian Museum Authorities.



Figure 5. Inset.



Figure 6. Only the right mule has remains of possibly a strap sandwiched between the two sole layers. Scale bar is 50 mm. Photography by A.J. Veldmeijer. Courtesy of the Ministry of State for Antiquities/Egyptian Museum Authorities.

shows, at the instep edge of the upper, the remains of possibly a strap sandwiched between the two sole layers (figure 6), but it is not clear what the construction looked like. Both sole layers have a hole in the front for the reception of the front strap, which is lost in both.

3. *Comparison and Discussion*

The macroscopic identification of the type of leather proved difficult and further investigation will be organised. The thickness, however, prohibits identification as goat or gazelle/antelope and suggests a bovine origin.

Many types of footwear from Pharaonic Egypt have the same kind of soles as described for these mules, the most characteristic feature of which are the pre-straps ('ears') being cut out of the same sheet of leather as the sole itself. These have given name to a category of leather sandals, which consists of two sub-categories (Egyptian and Nubian Eared Sandals) and various types (Veldmeijer, 2011). Note that there are more categories of sandals in which the back straps are integrally cut from the sole's leather, but the shape of these straps is completely different, such as the Classic Nubian Sandals; moreover, they are situated at the posterior edge of the heel (see for an example Veldmeijer, 2010a).

Other footwear has comparable sole-shapes as well, which include the leather composite sandals (Veldmeijer, 2009a; for a more detailed discussion see therein pp. 2-3) and a pair of open shoes (Veldmeijer, 2009b). Even the extraordinary pair of sandals from Middle Kingdom Meir (Veldmeijer, 2012/2013 [this volume]), for which a foreign influence seems clear, has soles with pre-straps that are cut out of the sole's leather. Several closed shoes, which are tentatively dated to the Ptolemaic Period, still has pre-straps cut from the same leather as the soles (Van Driel-Murray, 2000: 316; own observation). In all but the last examples, pre-straps are sometimes clad in the same way as seen in the mules, but the unclad state is much more common. Cladding occurs with the more expensive footwear only. The sheer quantity of these types as well as the variety within the categories leave no doubt as to the Egyptian origin and Pharaonic date of the pair of mules, despite the fact that these are the only mules known from pre-Christian times. True, pre-straps that are integrally cut from the sole's leather did occur far beyond the age of the Pharaohs (until today, actually) but these are different in shape and position (the aforementioned Classic Nubian Sandals), such as the large triangular protruding parts at the heel or of the entire heel. Also large, rectangular straps with slits in the (almost) entire length and which are situated at the heel's edge were not uncommon. The pre-strap, rectangular in shape with a rounded terminal end and with a slit for the attachment of

the back (and heel strap if present) as described here, was used until the Roman Period (Van Driel-Murray, 2000: 314), although the only evidence for this technique in Ptolemaic times is the previously-mentioned closed shoes of which the date is very uncertain.

The differences in the uppers of the two mules are remarkable, as usually pairs are comparable to a high degree. Still, there are several examples of pairs of sandals (or: supposedly pairs) that are very different too (Veldmeijer, 2009a: 2-5). An explanation for the differences is not as easy as one perhaps would think: the conclusion that the two might not have been a pair originally seems plausible, but that would mean that there were two pairs of such unique types of footwear that, even more extraordinary, were put together after one of each had been discarded. Perhaps more likely is that the uppers are made of two different, re-used pieces of leather, explaining the minor details of the two. This might point to a sudden idea of adding the uppers to functioning sandals and thus not an original design. However, the absence of decoration on one insole suggests that at least the sandals originally belonged to different pairs and were put together later. The differences in sole construction (i.e. the stitching) are minor and would not have had any significance, but might now be seen as a support of the suggestion that the two sandals were not a pair originally. The fact that these mules are, to date, the only ones we have from this period suggests that they never became very popular.

4. *Acknowledgement*

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