

## THE LEATHERWORK FROM DEIR EL-BACHIT: PRELIMINARY REPORT

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### INTRODUCTION

The five years of excavation of the Coptic Monastery Deir el-Bachit,<sup>1</sup> produced a large quantity of leatherwork. During the 2008 season of the Deir el-Bachit expedition, all leather finds have been registered, studied and photographed. Focus of the work was on the diagnostic pieces, concentrating on the manufacturing technology, the type of leather and skin processing. Obviously, the analysis will take some time to come, but it is nevertheless possible to present a preliminary report within these limits. The final publication will include a fully illustrated catalogue of all registered finds.

### LEATHER RESEARCH IN EGYPT

In Egyptian archaeology, interest in leatherwork is increasing, having been neglected for a long time. However, our knowledge is still limited, even for the Roman and Christian leatherwork, which are among the best studied in Egypt.<sup>2</sup> This, together with the nature of the site (a relatively closed community of limited life span, settlement versus monastery) and being the first monastery excavated systematically, emphasizes the importance of the study of Deir el-Bachit's leather. Moreover, due to the author's work at other sites,<sup>3</sup> which

<sup>1</sup> Burkard and Mackensen 2003; Burkard *et al.* 2003; Eichner 2005. See: [http://www.dainst.org/index\\_55\\_en.html](http://www.dainst.org/index_55_en.html).

<sup>2</sup> For an overview on studies, see Van Driel-Murray 2000 and, more recently, Veldmeijer 2008: esp. 7.

<sup>3</sup> The publications of which are forthcoming.

includes material from about the same age (Amarna, Kom el Nana<sup>4</sup>) as well as from shortly before (Elephantine) and after (Qasr Ibrim) the occupation of the monastery, a good comparison is possible.

## THE FINDS

Two categories of objects are most abundant and constitute the majority of the finds: fragments originating from book covers and footwear.

### *Book covers*

The book covers are mostly decorated, although undecorated, comparable leather and therefore possibly originating from book covers, has been identified as well. The decoration consists of impressed motifs, the majority of which are lines within which are applied other motifs (mainly circles, but in some cases also crosses). Fortunately, good examples of book covers exist from elsewhere, which allows a good comparison in decoration as well as manufacturing technology.

### *Footwear*

Only two more or less complete sandals have been identified; all other entries in this category are fragments, of which most show an extreme high degree of repair. This prohibits the identification of the original type of sandal. Moreover, there are numerous decorative elements, which originate from sandal's strap complexes. The footwear, besides being analysed within the excavations theoretical framework, will be analysed within the framework of the Ancient Egyptian Footwear Project (AEFP). The AEFP is a multidisciplinary research into ancient Egyptian footwear from Predynastic to Coptic times. In contrast to published footwear typologies such as Montebault's,<sup>5</sup> the typology developed by the AEFP,<sup>6</sup> includes among others date and distribution as diagnostic characters. Moreover, the AEFP is based on a larger number of objects, resulting in expansion and refinement of the typology. Finally, as explained elsewhere<sup>7</sup> recognisability is used, based on the work of Goubitz

<sup>4</sup> Veldmeijer (in press 2009a).

<sup>5</sup> Montebault 2000.

<sup>6</sup> Based partially on Montebault's and Goubitz *et al.*'s work.

<sup>7</sup> Veldmeijer (in press 2009b).

*et al.*<sup>8</sup> Leguilloux<sup>9</sup> has established a typology on the basis of the objects from Didymoi but because this is based on the finds from only one site and of limited time period, it is not used here. A concordance, however, is provided for. Note that Leguilloux's reconstructions (and hence typology?) are partially based on assumptions of the layout of the strap complex: no sandals with intact straps have been depicted and hence we can assume they were not preserved.<sup>10</sup> Neither of both typologies uses the shape of the sole as character, although Leguilloux<sup>11</sup> recognises the distribution of shapes in time.

Since a typology using also date and distribution can only be established on the basis of a large sample of varying date and from various sites, Montembault's typology will be used here for the time being.

The majority of the recognisable sandals fall in Montembault's category 'Class I, Type B, Variant 2' (Leguilloux 2b). Sandals I, B, 2 are characterised by the strap complex, and in particular the construction of the back strap. A pre-strap, rectangular, is pulled through two slits (one at each side of the sandal) in the insole. The ends of the pre-strap has (a) slit(s), usually two or three, to which the back/heel straps are hitched. The front strap is pulled through two slits in the insole, which are positioned transversely one behind the other, and is thus sandwiched between the insole and treadsole; it does not show at the ventral surface of the treadsole.

DB 0879 (figure 1) is the most complete example and consists of an insole and treadsole, the latter of which protrudes from under the insole at all sides. The sandal has a rounded heel and distinctly constricted waist. From here, the width increases rapidly; the lateral edge curves rather abruptly towards the big toe whereas the curvature of the medial edge is more gentle. Consequently, the sole is swayed and meant for the right foot. The soles layers are sewn along the perimeter with leather thong running stitches, which are widely but evenly spaced. Three additional longitudinal rows of leather thong running stitches (showing short at both sides of the soles) are placed inside the perimeter stitching. The dorsal surface of the insole shows impressed decoration of geometrical motifs. A repair is visible between the two slits for the front strap. An incomplete sandal, DB 3389, is of comparable construction.

<sup>8</sup> Goubitz *et al.* 2001.

<sup>9</sup> Leguilloux 2006.

<sup>10</sup> More on the lack of straps: Van Driel-Murray 2002: 3-4.

<sup>11</sup> Leguilloux 2006: 98-101.

DB 1236 (figure 2) is the back three quarters of a small sandal. The heel is rounded and the waist is slightly constricted. Towards the front the width increases slightly but seemingly at both sides; unfortunately, the incomplete condition prohibits the exact course. Clear is, however, that the shape differs distinctly from DB 0879. Originally there was at least one additional sole layer, but whether it was an entire sole or only at the heel is uncertain. It would have sandwiched the pre-strap running underneath the preserved sole. This pre-strap has rounded ends and has three longitudinal slits for the attachment of the back/heel strap, which are now lost. The dorsal surface of the sole is without decoration. Usually, the pre-straps are relatively narrow. In DB 2031, however, which is a heel part and comparable in shape to DB 1236, the pre-strap is relatively wide. The dorsal surface of this insole (stitches along the perimeter suggests there was at least one other sole layer) is decorated with impressed and painted(?) geometrical motifs.

Yet another shape within this group of sandals is DB 1261 (figure 3). The heel is rounded, and the waist is not constricted: towards the front, the width increases distinctly and continuously. The front itself is square. The slits for the pre-strap are situated about halfway the length of the sandal, which is different from the usual construction, in which the slits are situated at the heel part. The stitches along the perimeter as well as the one row longitudinally down the centre suggests at least one other sole layer. The strange shape of the sandal, together with the two cuts in the front edge and the forward position of the slits for the pre-straps suggests that the sandal is a re-use and possibly cut from a larger sandal.

The identification of coiled decorative elements of straps as well as isolated (fragments of) straps, suggests at least two other 'classes' of sandals. One substantial piece of a shoe's upper (DB 3708) has been registered. Unfortunately, the fragment is folded several times due to which the study is severely hindered; future work will focus on the identification of this find.

#### SKIN IDENTIFICATION/PROCESSING, MANUFACTURING OF OBJECTS

Skin can be recognised by its distinctive structure<sup>12</sup> although this is seriously hindered by the fact that the fibrous skin structure differs within species. Moreover, there is a variation in structure within the skin. In archaeological finds, the identification is further hindered by the wear due to use as well as the preservational conditions. Identification by means of chemical analysis such

<sup>12</sup> For example Haines 2006.

as the fat content has been done with the far older material from Amarna, and proved only partially successful.<sup>13</sup> Despite these limitations, identification, especially on a higher level of natural science's systematics, can be deduced due to different properties of skins.

In general, ordinary leather footwear is made of cow's leather<sup>14</sup> and the thickness of the leather leaves without a doubt that this is the case here as well. Less ordinary footwear was also made of goat or even gazelle, but these materials do not seem to have been used in footwear after the Pharaonic period. Other objects, as far as the analyses have been conducted, are made of cow's leather too.

#### NON-DIAGNOSTIC FINDS

The non-diagnostic material has been inventoried, registering the context, quantity and kind of non-diagnostics (mainly offcut's and waste, and far less numerous, 'other,' such as unidentifiable fragments). The large numbers of offcut's and waste clearly suggests that at least the manufacturing of leather objects was (partially) done in the monastery. However, this does not necessarily mean that the skin processing (i.e. slaughtering of the animal, depilating the skin, curing/tanning, etc.) was done at the monastery too.

#### DISCUSSION

As shown, a refinement of the typology on the basis of the shape of the sole, the number of soles layers and their attachment to each other, the presence/absence of decoration and the construction of the pre-strap is needed (a suggestion which is strengthened by material from other sites such as Qasr Ibrim), besides the above-mentioned addition of date and distribution as character. The Deir el-Bachit finds is important for the overall typology, due to the fact that the finds originate from a stratified context and is limited in time and space. It fills a gap between the earlier finds from Elephantine and has overlap with finds from Qasr Ibrim. We are fortunate that there are many finds from Christian layers in Egypt; although most have not been published, the author has studied the footwear in several collections, which enable us to compare it with the Deir el-Bachit material.

<sup>13</sup> Trommer 2005: 141-144.

<sup>14</sup> See also van Driel-Murray 2000: 302.

The study of wear teaches us about the use of a leather object, but also on the relative wealth of a society, for which the degree of repair is one indication, the presence/absence of more expensive shoes is another. The high degree of repair and the absence of shoes both points to a relatively poor population.

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**Figure 1. Sandal DB 0879.**

Photography by E. Endenburg. Courtesy of Projekt Deir el-Bachit, Institut für Ägyptologie an der Ludwig-Maximilians-Universität München. Scale bar is 5 cm.



**Figure 2. Sandal DB 1236.**

Photography by E. Endenburg. Courtesy of Projekt Deir el-Bachit, Institut für Ägyptologie an der Ludwig-Maximilians-Universität München. Scale bar is 5 cm.





**Figure 3. Sandal DB 1261.**

Photography by E. Enderburg. Courtesy of Projekt Deir el-Bachit, Institut für Ägyptologie an der Ludwig-Maximilians-Universität München. Scale bar is 5 cm.