

AMARNA'S LEATHERWORK

PART I. PRELIMINARY ANALYSIS AND CATALOGUE

TELL EL-AMARNA

ANDRÉ J. VELDMEIJER

AMARNA'S LEATHERWORK

Part I.

Preliminary Analysis and Catalogue

André J. Veldmeijer



© 2011 André J. Veldmeijer

ISBN 978-90-8890-075-4

Published by Sidestone Press, Leiden

www.sidestone.com

Sidestone registration number: SSP67280004

Illustrations: Erno Endenburg, André J. Veldmeijer & Mikko H. Kriek

Cover design: Karsten Wentink, Sidestone Press



In honour of my brother Klaas Veldmeijer (1961-2011)

In Memoriam

Annet de Ven

14 May 1954 - 27 September 2009



CONTENTS

Part I. Preliminary Analysis	9
Preface	11
Introduction	13
Excavations	13
The Research	14
The Catalogue	15
Note on the Figures	16
Illustration Credits	16
Preliminary Results	17
Quantity and Breakdown by Functional Group	17
Skin Processing (Including Colour)	18
Skin Type Identification	18
Colour	18
Manufacturing Technology (Including Decoration)	19
Stitches and Seams	19
Decoration Techniques	22
The Objects	24
Footwear	24
Decorated Leather	26
Weaponry	26
Clothing	28
Bags	29
Straps, Belts, Cordage etc.	29
Book Covers	30
Offcuts, Waste	30
Discussion	31
Notes	32
Bibliography	35
Part II. Catalogue	39
Catalogue A. German Excavations 1911-1914	39
Catalogue B. Egypt Exploration Society / Amarna Trust 1977 - present	183
Catalogue B. Egypt Exploration Society / Amarna Trust 1977 - present Continued: Kom el-Nana	231
Catalogue C. Egypt Exploration Society – Petrie (1891 - 1892) and the Excavations in the 1920s and 30s	245
Concordances	265

PART I: PRELIMINARY ANALYSIS

PREFACE

The study of Amarna's leatherwork was started in 2006 at Tell el-Amarna (from now on referred to as 'Amarna') in the beginning of that year and in the Ägyptisches Museum und Papyrussammlung, Berlin during several weeks in December. However, especially the study of the material in Berlin proved much more time consuming than anticipated (see Veldmeijer & Endenburg, 2007 for a report) and the two weeks were far from sufficient for a proper study of all finds. Consequently, the next year a longer period was reserved to complete the study of the finds in Berlin. A second short stay in Amarna, at the beginning of the same year, proved enough to finish the study of the finds from the recent excavations (from 1977 onwards).

The distribution of finds in the early years of the Egypt Exploration Society (EES) resulted in the scattering of leather artefacts around the globe. Of these, thus far only several have been traced and only those in the Petrie Museum of Egyptian Archaeology University College London (UCL) have been studied and included in the present work. The study of several other objects is scheduled for the near future, the description of which will be included in the second volume, together with additional leatherwork in the Berlin Museum that was rediscovered only recently. It is to be expected that this second volume will include the results of several chemical analyses, if funding permits, to get more insight into the curing procedures as well as into the nature of the colour and the way it was applied.

During this first phase of the study of Amarna's leatherwork, many people kindly helped in one way or another. I am grateful to Klaus Finneiser (Ägyptisches Museum und Papyrussammlung, Berlin) for his kind help and dedication to the project. Nina Loschwitz (Ägyptisches Museum und Papyrussammlung, Berlin) is thanked for her help and suggestions. I thank Barry Kemp (Amarna Trust, Cambridge University) for allowing me to study the

material from the excavations from 1977-present as well as for his help and discussions. Anna Stevens is thanked for her help with all things related to the Amarna Object Database. Stephen Quirke (Petrie Museum of Egyptian Archaeology UCL) is acknowledged for admittance to the material under his care as well as for his help with the archive. I am grateful to Erno Endenburg: without his dedication and energy, projects as these would take much more time! I thank Mikko Kriek for his beautiful impressions.

Several colleagues have been extremely helpful with various issues, who I would like to thank: Sue Giles and Amber Bruce (Bristol's Museums, Galleries & Archives City Museum & Art Gallery), Karen Exell (The Manchester Museum), Sally-Anne Coupar (Hunterian Museum, Glasgow), Krzys Grzymiski and Bill Pratt (Royal Ontario Museum, Toronto), Heather Masciandaro and Morena Stefanova (Metropolitan Museum of Art, New York), Christopher Hilton (Wellcome Library, The Wellcome Trust, London), Sandra Knudsen and Paula Reich (Toledo Museum of Art), Ivor Pridden (Petrie Museum of Egyptian Archaeology UCL), Denise Doxey (Boston Museum of Fine Arts), Tom Hardwick (Bolton Museum and Art Gallery) and Patricia Spencer and Chris Naunton (both EES).

I am grateful to Dr. Zahi Hawass and the Supreme Council of Antiquities as well as to Dr. Wafaa El Saddik for allowing access to comparative objects in the Egyptian Museum, Cairo. Ibrahim Abdel Gwad, who is the responsible conservator for New Kingdom leatherwork from Yuya and Tjuiu, Thutmosis IV, Amenhotep II and III, Maiherpri and the finds in the magazine has been tremendous helpful, for which I would like to express my gratitude.

Joanne Ballard checked, as always, the text of the catalogue on grammar. I am grateful to Sue Winterbottom for critically reading the preliminary results and correcting the English of this part of the work.

Preface

Special thanks to Jan and Gré Endenburg, who are always happy to take care of our dog, Jarod, when I am abroad.

The research has been partially paid for by the EES Centenary Award (Berlin 2006) and the Amar-

na Trust (Berlin 2007). Fieldwork in Egypt has been partially financed by the EES and Amarna Trust.

Hopefully, no mistakes, errors and areas of ignorance will be discovered, but if so, keep in mind that these are solely my own.

André J. Veldmeijer
Amsterdam, June 2010

INTRODUCTION

Excavations

Although the major expeditions to Amarna were organised in the 20th and 21st centuries, these were not the first. According to the short overview presented on the website of Digital Egypt (www.digitalegypt.ucl.ac.uk) the list of research and excavations consists of:

- 1714: French Jesuit priest Claude Sicard;
- 1798-1799: Napoleonic expedition;
- 1824, 1826: Gardner Wilkinson;
- 1843, 1845: Prussian expedition under Karl Richard Lepsius;
- 1887: A woman discovered nearly four hundred clay tablets inscribed in cuneiform script – the Amarna Letters;
- 1891-1892: Alessandro Barsanti of the Egyptian Antiquities Service;
- 1891-1892: Sir Flinders Petrie;
- 1892: Howard Carter;
- 1903-1908: Norman de Garis Davies;
- 1907-1914: The Deutsche Orient-Gesellschaft (DOG – German Oriental Society) under the direction of Ludwig Borchardt;
- 1921-1936: Excavations of the EES under the direction of several scholars (Thomas Eric Peet, Leonard Woolley, Francis Newton, Henri Frankfort, John D.S. Pendlebury);
- since 1977: Excavations directed by Barry J. Kemp for the Egypt Exploration Society and Amarna Trust.

Of special importance for the present catalogue are the German Expeditions during the years preceding the First World War, the EES expeditions in the 1920s and 30s and the excavations since 1977.¹ The excavations at Amarna have yielded a large amount of leatherwork, the majority of recognisable artefacts being recovered by the German Oriental-Gesellschaft (part A of the catalogue). The 1920s and 30s expeditions by the EES (part C of the

catalogue) did yield some good quality finds, but the number is much less than from the German expeditions. Only some of them have been illustrated in the excavation's publications (see the introduction to the catalogue). In 1977, Barry Kemp started new scientific research of the site on behalf of the EES. The research is ongoing, currently on behalf of the Amarna Trust, but still led by Barry Kemp. The project's website, www.amarnaproject.com, offers much background as well as detailed information. Although the number of leather finds from this expedition is fairly large, most, however, are featureless and not identifiable (part B of the catalogue). Among the finds from this last expedition are those of a 5th-6th century AD Coptic monastery, which has been built over the Pharaonic layers within the walls of, probably, a sun temple south of the main city and to the east of the modern village of el-Hagg Qandil. Its current name, Kom el-Nana is the local name given to the enclosure. The excavation of the monastery yielded little recognisable leatherwork (part B, continuation of the catalogue).

Under king Akhenaten (1352-1336 BC²), who succeeded his father Amenhotep III (1390-1352 BC) a new town was built on the eastbank of the river Nile. However, after his reign, which lasted approximately 17 years, the town was largely abandoned as one of his successors moved back to Thebes. This limited time of Amarna's occupation makes the dating of the objects exceptionally precise in most cases. Moreover, the city has been scientifically excavated and well-documented from the first expeditions onwards (Petrie, 1894; Peet & Woolley, 1923; Frankfort & Pendlebury, 1933; Pendlebury, 1951; Borchardt & Rieke, 1980; Kemp, 1984; 1985; 1986; 1987; 1989³), which increases the importance of the study of its leatherwork for the development of this part of Egypt's material culture distinctly.



Figure 1. The manufacturing of leatherwork, as depicted in the tomb of Hapu (TT 66). Among the objects manufactured are chariots and accompanying equipment such as quivers, and sandals. After Davies (1963: pl. VIII).

Amarna's royal tombs were thoroughly looted, but we are lucky to have the nearly intact tomb of Tutankhamun (Carter & Mace, 1923; Carter, 1927; 1933; Veldmeijer, 2010a), which provides us with much information on leatherwork. Moreover, important objects were found in the tomb of Yuya and Tjuiu (among which footwear, see Veldmeijer, 2010a), the in-laws of Akhenaten's father Amenhotep III, as well as from the tomb of Amenhotep III. Finally, there are quite a large number of leather finds from the time preceding Akhenaten, *i.e.* especially from Thutmose IV onwards. An extremely well-preserved group, unfortunately unprovenanced but without a doubt of New Kingdom date, is housed in the Egyptian Museum in Cairo (JE 88962, currently under study, but see Forbes, 1957: 30, fig. 6).

An important source of information is depictions of objects and their manufacturing process. The private tombs at Amarna are of importance and are well-documented (especially Davies, 1903; 1905a; 1905b; 1906; 1908a; 1908b). Finally, there is a large corpus of contemporary reliefs showing skin processing (the tomb of Rekhmira is especially important, see Davies, 1943), the production of leatherwork (*Ibidem*; figure 1) as well as the use of leather objects – especially good examples are chariots such as Thutmose IV in his chariot (figure 2; Carter & Newberry, 1904: 24-30).⁴

The Research

The overall aim of the research into the Amarna leatherwork⁵ is to determine the position of leath-

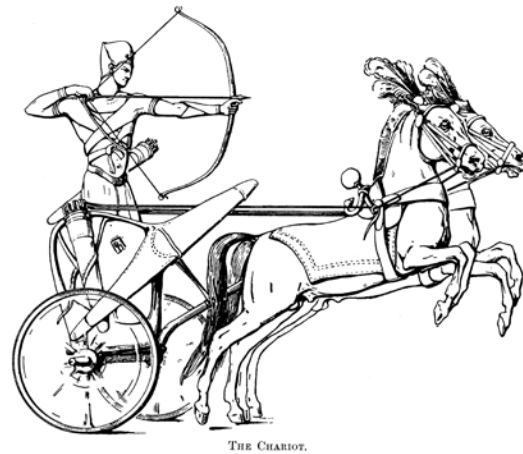


Figure 2. Carter's impression of Thutmose IV in his chariot, based on the reliefs on the body of the chariot found in his tomb. After Davis (1904: 24).

erwork in the city of Amarna, for the Egyptian civilization at large, and more specifically to determine which factors were responsible for the apparent increased importance of leatherwork in the 18th Dynasty. The main focus of the research is on the finds from Amarna, which are presented in this volume. Further emphasis will be on pre-Amarna finds, starting with Thutmose IV,⁶ as well as post-Amarna finds. The research will eventually combine the information obtained by iconographic and philological studies as well as experimental archaeology and chemical analyses, with the above-mentioned studies of the archaeological finds.

In short, the research has two components: the material culture and socio-cultural aspects. Before

being able to interpret artefacts and determine socio-cultural aspects, a thorough insight into the product and its manufacturing process is necessary (material culture). There are three focal points:

- A) What kind of skin was used and how was it turned into leather⁷?
- B) Understanding the manufacturing technology. The focus is on the objects, the study of which includes stitching, seams, cutting patterns and decoration;
- C) The leatherworkers and their workshops, including the tools.⁸ What do workshops look like and how can they be recognised in the archaeological record? If we recognise them, the information obtained from such spaces and tools needs to be combined with that from the leather artefacts themselves to elucidate production processes. This, however, will be discussed only in passing, as the present catalogue does not include tools and archaeological traces of the leather workshops.

Socio-cultural aspects is a rather broad and loosely defined term, which includes topics such as the interpretation of the objects, the value of leatherwork within the community and society at large (in both a monetary and aspirational sense) and the organisation and status of the leatherworker. Within these focal points, there are several points of interest.

How were the artefacts used and how are artefacts and their production to be interpreted? Is there any indication as to long-term use, for example to be deduced from (many) repairs, or were some artefacts handled more carefully? This might be linked to the status of (some) leatherwork, but what status did leather and the various leather products have within the community? And what does this say about their possible owners, and, in broader perspective, the community? Indeed, there are indications that certain leatherwork indicates status: what can we say concerning the relative 'wealth' of the community on the basis of leatherwork? How should we interpret the objects found in tombs: how does this relate to finds from settlements?

These questions all focus predominantly on the user, but socio-cultural aspects will deal with the manufacturing side as well. The status of the leatherworker is one of the topics that will be investigated together with the organisation of the craft.

What role did leather production play in the broader economic, administrative, and social networks? How do leather-production facilities relate to domestic, public and official spaces and how does the distribution of facilities compare with the distribution of leather artefacts? How does the leather industry relate to other industries?

The footwear, besides being analysed within the excavation's theoretical framework as explained above, will also be analysed within the framework of the Ancient Egyptian Footwear Project (AEFP).⁹

In order to make the material available, it was decided to publish the present catalogue, which includes some preliminary analyses and notes with a focus on the manufacturing technology. A full-scale, multidisciplinary scientific analysis, including a detailed comparison with 'non-Amarna' finds, is a time consuming enterprise, the more so because the lack of studies thus far also requires the hands-on study of comparative finds.

The Catalogue

The present work is the catalogue and first volume of the study on Amarna's leatherwork. It was decided to keep the material from the different expeditions separate and hence the catalogue consists of three parts. However, the material from Kom el-Nana is separated from the EES/Amarna Trust material, but still within part B of the catalogue and hence referred to as 'continued.' The reason for the tripartition is that the material has been registered differently, which would result in a mixture of different types of entries. This would seriously limit the clarity of the work. Several concordance lists, which sort the material according to different criteria, are added in the appendix.

The documentation of the catalogue will be explained in the introduction to the individual parts. In the early years, when finds were still taken out of Egypt, it was customary to distribute finds to institutes and collections all over the world and distribution lists were published in the volumes (Peet

& Woolley, 1923: 172-174; Frankfort & Pendlebury, 1933: 118-119; Pendlebury, 1951: 253-254). Tracing these proved extraordinary difficult for all sorts of reasons: changing of collections' names and movement of the objects to other collections are only two of them. Even if objects are in a specific collection, this does not guarantee their identification, as this is largely dependent on the collection's administration through the years. Consequently, in Catalogue C. Egypt Exploration Society – Petrie (1891-1892) and the Excavations in the 1920s and 30s' a table is included that shows all fragments that were distributed and not studied first hand. Note that in this table texts between square brackets are inserted by me.

Note on the Figures

The construction drawings, which are those that clarify the construction, are not to scale; the line drawings, however, are. The scale bars in the figures represent 50 mm unless stated otherwise.

Illustration Credits

The photography and artwork is by Erno Endenburg and/or André J. Veldmeijer, unless stated otherwise. The artist's impression of the chariot of Yuya and Tjuiu on the cover as well as the other impressions are by Mikko H. Kriek. The photographs of the objects with specialist numbers that are prefixed with 'ÄM AM' are courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin and those of the objects with specialist numbers that are prefixed with 'TA AM' are courtesy of the EES/Amarna Trust. The photographs of the early years of the EES-excavations are courtesy of the EES, unless stated otherwise.

PRELIMINARY RESULTS

Quantity and Breakdown by Functional Groups

The finds are discussed by functional groups, the breakdown of which resulted in nine groups: 'Footwear,' 'Decorated Leather,' 'Weaponry,' 'Clothing,' 'Bags,' 'Straps, Belts, Cordage etc.,' 'Book Covers,' 'Offcuts, Waste' and 'Unidentified.' In the present section, however, these will be presented in quantitative sequence, *i.e.* the group with the largest number of finds first, than the second largest group etc.

The breakdown into functional groups needs some explanation. The group 'Decorated Leather' is the only one without a specific function (besides, of course, 'Unidentified'). By 'Decorated Leather' is meant a specific kind of decoration, *i.e.* appliqué work, consisting of partly overlapping layers in stair-step fashion and usually in different colours (including white, green and red), which might be combined with geometrical motifs such as running spirals and/or floral motifs. Although most of the objects within this category can be assigned to chariots and related items (see section 'Decorated Leather'), it has yet to be seen whether all fragments belong to that group and hence, the category is named 'Decorated Leather' rather than 'Chariot and Related' or a similar heading. The group 'Straps, Belts, Cordage etc.' includes small, featureless fragments, which most likely were part of rawhide lashing. Alternatively, they might have been part of some sort of belt or a similar item. One can argue that this uncertainty should have led them to be classified as 'Unidentified'. However, this was decided against as the fragments are identifiable in a broader sense and not entirely unidentifiable.

Six hundred and ninety-six fragments have been given a specialist number. This quantity, however, includes the finds from the early EES excavations, which do not have a specialist number given by me; these are referred to by their find number that was

given by the excavators.¹⁰ One should keep in mind that scraps or, sometimes, featureless fragments have not been given a number. However, occasionally several fragments were given only one specialist number.

The largest category is 'Unidentified' (248 entries). Although this category includes featureless scraps of leather, those that are certain to come from an identifiable object, for example a sandal, are not included here.

The next largest category is 'Decorated Leather' (118 entries). One hundred fifty-four entries are identified as (parts of) sandals. Usually in large quantities of leatherwork, footwear makes up the largest proportion but this is not without exception. For example, the corpus of leather finds from the Coptic monastery Deir el-Bachit contains only a small proportion of footwear (Veldmeijer, 2008b; In press).

Only 20 fragments of shoes have been recognised, which is not extraordinary. Although leather shoes did occur in New Kingdom Egypt (*e.g.* Van Driel-Murray, 2000: 315-316; Veldmeijer, 2009a; 2010c), they are far less common than sandals. The shoe from Amarna, however, is of Christian date.

The category 'Clothing' contains 64 entries, which is a high quantity, considering the fact that Egyptians did not wear leather clothing, except for the loincloth.¹¹ However, only six can be classified as clothing with certainty; the great majority, being very small fragments, are tentatively referred to as fragments of clothing because of the decorative cutting.

Forty-six entries are counted within the category 'Straps, Belts, Cordage etc.', which, as explained above, includes small, featureless fragments - these are tentatively referred to as part of one of these objects.

The category 'Weaponry' consists of 25 items, which are predominantly axe/adze lashing. Surprisingly, no wrist protectors have been identified.

There might be parts of quivers among the decorated leather.

The nine fragments of bag are recognised by their knobs, which are well-known from much later examples. This, however, does not rule out the possibility that they were used in earlier times and indeed in reliefs bags are not at all uncommon.¹²

It is always nice to find offcuts or waste, which of course, might indicate manufacturing: ten pieces have been identified.

An unexpected find is a small fragment of book cover, which, as one would expect, was recovered from Kom el-Nana, the Coptic monastery.

Skin Processing (Including Colour)

Skin processing, *i.e.* slaughtering of the animal, depilating the skin, curing/tanning etc., but also including the colouring of a hide before manufacturing into an object, will not be given attention here except for the colouring. The reason for this decision is because very little of this process can be deduced from the archaeological record presented here, among others because of the bad condition. Moreover, the only way to identify the media with which the skins have been treated to a greater degree of certainty has to come from chemical analyses (Van Driel-Murray, 2000: 303-304 but see *Ibidem*: 316-317 on the problems). However, sampling is regarded destructive and hence difficult to organise. Moreover, it is expensive. Nevertheless, analyses of material in the Berlin Museum will be organised in the future.

The study of depictions gives a general idea of the process (see for example Van Driel-Murray, 2000: 302-304; Schwarz, 2000: 39-70; Veldmeijer, 2008a: 3; Veldmeijer & Laidler, 2008: 1216), but these suffer from biases: for example, messy parts of the process have not been illustrated (Van Driel-Murray, 2000: 303). Although Schwarz (2000: 58-62, 122-123) is fairly sure about the contents of the pots depicted in skin processing scenes (*i.e.* oil) as well as the horns used, the type of oil is less certain and to the best of my knowledge, no residue analyses have been done.¹³

Current scholarly opinion holds that vegetable tanning, resulting in true leather,¹⁴ was introduced well after the Pharaonic era, most likely by

the Greco-Romans (Van Driel-Murray, 2000: 299, 305). However, it has been suggested (Veldmeijer & Endenburg, 2007: 36; Friedman, 2007: 60) that tanning might have been used by Nubian groups on the basis of a field test of remnants of loincloth from Hierakonpolis. These results need to be verified by proper chemical analyses (Veldmeijer, 2007b: 24; 2008a: 3). The predominant skin processing technique in Pharaonic Egypt is oil curing. The use of alum and minerals in making skins durable is ambiguous (Van Driel-Murray, 2000: 303-304).

Skin Type Identification

Skin can be recognised by its distinctive structure (Reed, 1972; Haines, 2006) 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. Most of Amarna's material is too badly preserved to allow for the identification on the basis of the skin's structure. Chemical analysis, using the fat content, has been done but was only partially successful (Trommer, 2005: 141-144). Despite these limitations, identification, especially on a lower level of natural science's systematics (*i.e.* cow, gazelle rather than the exact species) can be deduced to certain extent due to different properties of skins.

In general, ordinary leather footwear is made of cow's leather (see also Van Driel-Murray, 2000: 302) and the thickness of the leather leaves no doubt that this is the case here as well. Less ordinary footwear was also made of goatskin (Van Driel-Murray, 2002; Veldmeijer, 2009a) and gazelle skin has been reported but the identification is uncertain (Schwarz, 2000: catalogue c, entry 16).¹⁵ These skins, however, do not seem to have been among the finds studied from Amarna, unless the possible loincloth (ÄM AM 041a-e, Cat. No. 62) was made of gazelle. Analogy to other material might give an indication as to the origin of the leather.

Colour

Colour is still preserved in the decorated leatherwork, even though the appliqué work is 'melted'¹⁶ in almost all cases, albeit in different degree, and thus seriously hinder the identification.¹⁷ ÄM AM

075 (Cat. No. 44), however, contains a small area that is much better preserved than the rest of the object (figure 3). Clearly recognisable in some cases are green and red (a particular good example is ÄM AM 013c, Cat. No. 31);¹⁸ some fragments show a white colour. It is interesting to note that the green colour lies as an isolated layer on top of the leather, which manifests itself by flaking off (for example ÄM AM 026a, Cat. No. 32); the red, however, is absorbed by the leather and hence does not flake. The green colour is applied, as was customary in Pharaonic times, to the grain surface (see also Van Driel-Murray, 2000: 306) and compares well with the leather of some curled-toe ankle shoes: these are usually made of goatskin as noted before. Needless to say that this only leads to assumptions and chemical analyses, combined with experiments within a theoretical framework, is needed to provide a more secure basis.

Fragments of appliqué leatherwork from, for example, the tomb of Amenhotep III, now in the Egyptian Museum, Cairo and in the Metropolitan Museum of Arts, New York, are in excellent condition and predominantly show the use of red and green. The largely complete chariot casing and horse harness in the Egyptian Museum, Cairo (partially shown by Forbes, 1957: 30, fig. 6) is in pristine condition and has the colour preserved largely intact as well as the manufacturing techniques, which will greatly enhance our knowledge of, especially, leatherwork related to chariots and horses.

Manufacturing Technology (Including Decoration)¹⁹

A small number of offcuts and waste has been recorded. This suggests that at least some manufacturing of leather objects was done at Amarna. However, it does not necessarily mean that the skin processing was done at the site too. Note, however, that, archaeologically, skin processing is difficult to prove. The so-called tannery at Gebelein of Predynastic date supposedly is an example, but as explained by Van Driel-Murray (2000: 305-306), this interpretation is highly unlikely. There are recent reports of tanneries (Hanasaka, 2004), but these date to the Roman period. It is nevertheless helpful in recognising workshops. Helpful too is recent anthropological research (Skinner, 2007).

*Stitches and Seams*²⁰

We are lucky that, in many cases, sewing thread is preserved. In sandals, leather thong stitches are often used; non-footwear objects, however, especially the fragments classified as 'Decorated Leather' are predominantly made with sinew. Flax is registered in only a few cases.²¹ Thread is not the only evidence of stitching and stitch holes are as important. In leather studies of Mediaeval and later footwear, Goubitz *et al.* (2001: 322-323) make distinction between 'stitching' and 'sewing.' In stitching the awl and thread passes through the entire thickness of



Figure 3. Colour interpretation of ÄM AM 075 (Cat. No. 44), based partially on preserved colours and in analogy with other finds. The figure is a mirrored composition of the line drawing in the catalogue.

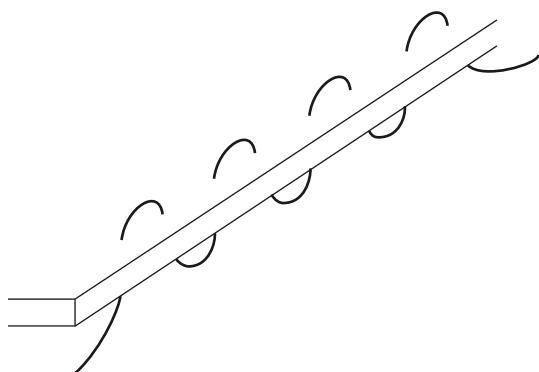


Figure 4. The running stitch is the most commonly registered stitch type, although they appear in different shapes.

the leather whereas in sewing the awl and thread passes only through part of the thickness. It is questionable whether such a distinction in terminology is useful but in Pharaonic leatherwork, sewing, except for the extremely rare tunnel stitching, does not occur: it has yet to be established when it was introduced.

In general one can say that stitching has to be finer the thinner the leather is: “a poorly made seam or the wrong leather may result in a “perforation line” along which the material will easily tear.” (Goubitz *et al.*, 2001: 35). Although the type of stitch

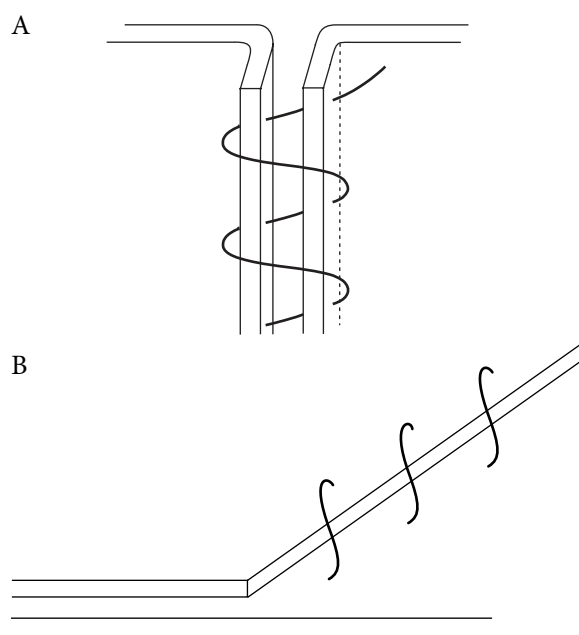


Figure 5. The whip stitch can be used to stitch edges (A) or to attach one layer on top of the other (B).

and seam indicates the desired strength in more recent leatherwork, in Pharaonic Egypt this seems of lesser importance: the range of stitches and seams is fairly limited. To enhance strength, the solution was found in multiple rows of stitching, more closely-spaced stitching, thicker thread or thread made of a stronger material (sinew as opposed to flax), rather than different types of stitching or a different type of seam.²²

The most commonly used stitch is the running stitch (figure 4) – a thread that follows a serpentine course in and out of the leather. This type of stitch is very old and among the first types of stitches ever used by men. In Amarna’s leatherwork, these are usually remarkably evenly-spaced and especially in the decorated leather, of surprisingly small dimensions. The zigzag appliqué decoration is secured at the corners with a stitch on the visible surface (for example ÄM AM 075, Cat. No. 44; see also Van Driel-Murray, 2000: 307, fig. 12.4); it then runs along the back to the next corner (figure 11). The result is running stitches which appear short on the decorated surface but long at the back.

The whip stitch is known from early times as well, but exactly when it was used first is uncertain. Examples from Predynastic Hierakonpolis show functional whip stitching, made with closely-spaced, narrow strips of leather²³ (personal observation 2007) but they had a decorative function too. Whip stitches are often used to join the edges of two pieces of leather (figure 5A), but can also be used to secure one piece of leather onto another (figure 5B). In the Amarna leatherwork, they are not as common as running stitches and have a fairly limited use. For example, it has not been used in the decorated leatherwork, although several isolated whip stitches seem to have been used to attach decorated leather in ÄM AM 034 (Cat. No. 36). It is therefore interesting to note the preference of this stitch as constructional stitch in the C-Group leatherwork from Hierakonpolis (Veldmeijer, 2007b: 24). Moreover, the stitch is used as the constructional stitch in loincloths²⁴ (personal observation Hierakonpolis 2006, 2007).²⁵ In footwear, especially in curled-toe ankle shoes, the whip stitch is an important stitch type too (Veldmeijer, 2009a).

Far less common in Pharaonic leatherwork is the sailor stitch (figure 6). This stitch is much more

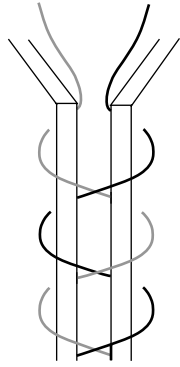


Figure 6. Although sailor stitches are often used to repair tears, the Boston loincloth (Maiherpri) for example, is exclusively sewn with sailor stitches.

common in later leatherwork and especially used to repair cuts (for example Qasr Ibrim; Veldmeijer, In preparation; Veldmeijer & Van Driel-Murray, In preparation). The only recorded example of a sailor stitch from Amarna is a repair of a torn seam (which was made with whip stitches originally).

Straight stitching consists, basically, of running stitches made with two threads, which are stitched in opposite direction (figure 7). However, the closely-spaced running stitching can also make use of one stitch hole twice (figure 8) but the thread makes a distinct turn from coming back. In fragmentary material the two can often not be distinguished from each other (for a good example see ÄM AM 020h, Cat. No. 8), as the difference is in the manufacturing rather than the traces they leave. However, some examples, like a sandal from the 12th Dynasty,²⁶

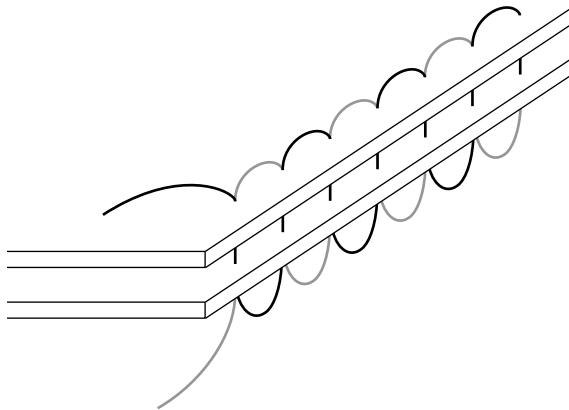


Figure 7. Straight stitching is done with two threads in opposite direction, leading both through the same stitch holes.

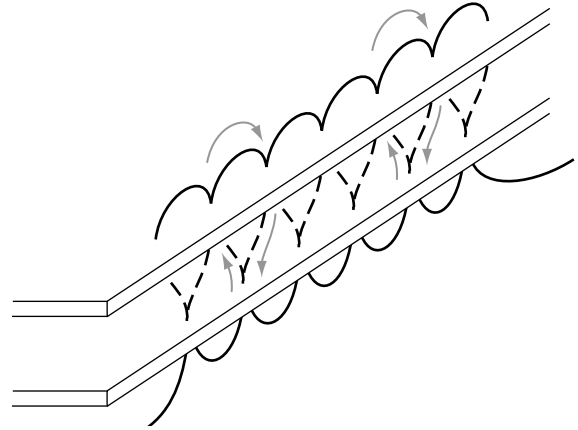


Figure 8. The difference between straight stitching (two threads in opposite direction) and closely-spaced running stitches (one thread) can often not be identified. In both, the stitch holes are passed by thread twice. Note that the thread might pass through the holes twice in only one of the layers.

shows that, although the holes at the dorsal surface of the insole have been used twice, at the ventral surface, distance between the stitch holes indicate closely-spaced running stitches. Straight stitching does not seem to be common in Pharaonic leatherwork, however, but is often seen from Roman times onwards. In order to distinguish ‘closely-spaced running stitching’ or ‘straight stitching’ from the more common ‘running stitching,’ seams with two threads in the same stitch hole are in the present work referred to as ‘straight stitching.’

Another rare stitch in Pharaonic leatherwork is the tunnel stitch (figure 9). Tunnel stitching is a “sewing technique in which the thread is passed in a serpentine pattern through ‘tunnels’: it passes for a short distance

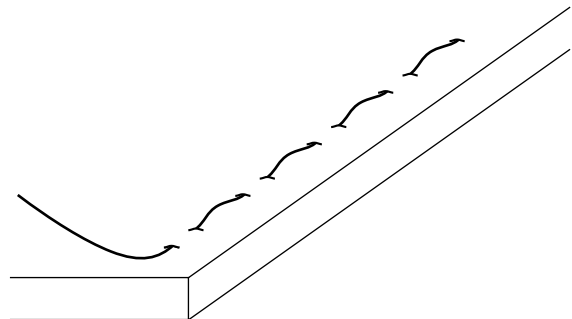


Figure 9. Tunnel stitching is rare in Pharaonic Egypt. Rather than going through the entire thickness, as with the other stitches mentioned, it only penetrates part of the leather's thickness.

into the thickness of the leather before reappearing on the same side and then passing to the adjoining piece of the leather in the same manner, making a stitch that cannot be seen from the outside of the seam” (Goubitz *et al.*, 2001: 324). The stitch occurs in both footwear and non-footwear, but is more often seen in the former. Sometimes, the remaining stitch holes betray that they were meant to be a tunnel stitch, due to the fact that the holes inserts into the leather at an angle, but it goes through the entire thickness nevertheless (examples are ÄM AM 046a, Cat. No. 17 and ÄM AM 071b, Cat. No. 29). This might be a mistake; more likely, however, is that the layer beneath it needed to be tunnel stitched. In order to be able to do this, the awl was inserted at an angle already in the top layer.

Several objects, grouped in the category ‘Straps, Belts, Cordage etc.’ or ‘Unidentified’,²⁷ have ends that are secured to each other without stitching or sewing (figure 10). Slits are cut into each end through which material remaining between the slits of the other part is pulled. Thus a ‘tunnel’ is created through which a strip passes preventing the two parts from disconnecting. All objects in which this technique is used are made of rawhide. The technique has been in use for a long period of time, as it is often seen with the leatherwork from Qasr Ibrim, which date up to the Ottoman period. An example from Pharaonic times is the red tire of the wheels of the chariot of Yuya and Tjuiu (personal observation 2008).

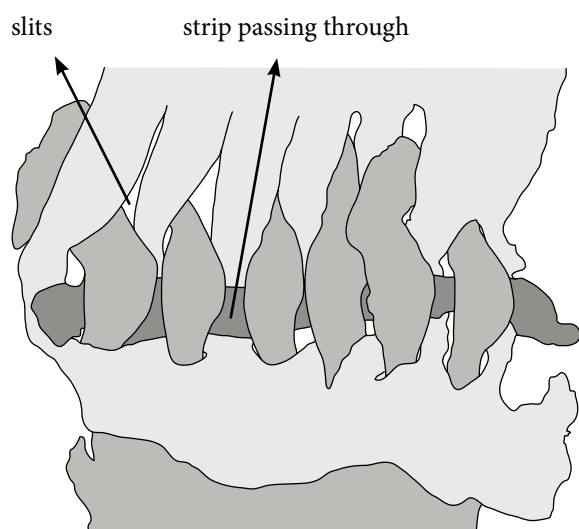


Figure 10. ÄM AM 16b (Cat. No. 68), showing the system of attachment of two ends by means of slits and a strip passing through the interlocking system.

Decoration Techniques²⁸

Several decoration techniques have been recorded: sewn on overlapping coloured strips,²⁹ high relief applied decoration (both referred to as appliqué work), openwork decoration, carved relief decoration, slits woven with (coloured) strips, surface incisions, impressed lines. These can occur isolated or in combination.

Decoration techniques of Pharaonic footwear include the use of strips of leather of different colour and incision on the dorsal surface of the insole.³⁰ Impressed line decoration is seen in the remnants of a shoe (among which ÄM AM 048f, Cat. No. 30) but the context is as yet uncertain. However, the technology suggests Christian or later rather than Pharaonic; the known examples of Pharaonic shoes do not show stamped decoration (Montebault, 2000: 204-205; Veldmeijer, 2009a; b).³¹ Openwork and appliqué work, which does occur in leather footwear (*Ibidem*), has not been recorded within the footwear corpus from Amarna, except for the decorative (and functional) strips of leather that are included in the stitching at the dorsal surface of the insole (a good example is 22/119, Cat. No. 273) – note that it is assumed that the strip is of a different colour, because this was the usual design, but the sandal has not been traced yet and hence the statement should be taken with care).

The most common decoration technique, and according to Van Driel-Murray (2000: 307), favoured in the later 18th Dynasty, are sets of narrow, in stair-step fashion overlapping leather strips of different colour. One such set is stitched over another set, again in overlap. Thus, leatherwork is created with different coloured strips of leather. In contrast to Van Driel-Murray’s (*Ibidem*) statement that the strips were secured individually to the foundation, the strips that form a set are usually stitched together to the foundation. The variation within this technique is large and it is impossible to present a basic rule. However, often a separate, single strip of leather is folded around the edge of the foundation, after which the sets are applied.

In certain types of decorated leatherwork, several sets at each side of a central set in the middle and on top of them, are orientated in the opposite direction, i.e. facing away from the topmost, central

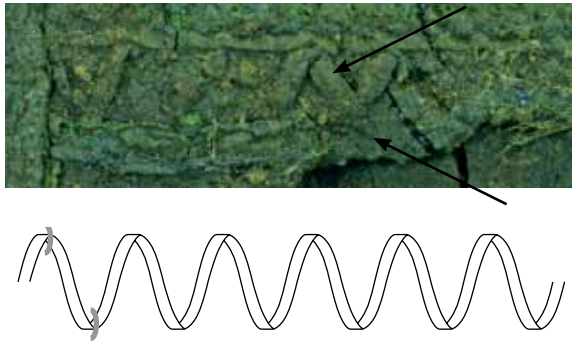


Figure 11. The zigzag appliqué is a narrow strip that is folded at the corners (arrow) and stitched. In the drawing, the stitching is left out partially because of clarity. The photograph is a detail of ÄM AM 076r (Cat. No. 45).

set (for example ÄM AM 076d, Cat. No. 45). Although sets usually consist of two strips of leather, sometimes a third one is added. Examples in which a set of three strips of leather is part of the overlap system is rare (an example is UC 35939a, Cat. No. 275); more often a set of three strips forms a top-most, final part of the superimposed appliqué decoration (for example ÄM AM 076h, Cat. No. 45). The strips are often not regular in width and nor is the width of overlap, which is not surprising giving the fact that all of it is handwork. However, one should realise that the preservation of the leather is not very good, due to which the leather is deformed as well. Better preserved finds may give an insight into the regularity of the technique.

The technique of superimposed strips is sometimes the only decoration technique used. However, often it is combined, but still in stair-step overlap, with rows showing other decoration techniques. Fragments show arches in high relief, created by scraping away the surrounding surface (ÄM AM 076g, Cat. No. 45), and others show, also by scraping away the surrounding surface, the running spiral motif (for example ÄM AM 076k, Cat. No. 45). The zigzag motif is seen quite often; it is not, as with the running spiral and arch motifs, in high relief but consists of a narrow strip of leather, which is secured at the corners with a single stitch (for example ÄM AM 075, Cat. No. 44, see figure 11, see also Van Driel-Murray, 2000: 307). Extremely delicate is the one example with tiny, green leather lilies stitched onto it (ÄM AM 013c, Cat. No. 31). Although not

much is preserved, a small remnant of a second lily next to the almost completely preserved one, suggests that it was a band of lilies and part of a more elaborate decoration scheme.

A band of vertical slits might be part of the decoration too and is among Amarna's leatherwork a relatively common example of openwork (e.g. ÄM AM 076r, Cat. No. 45). Note that each edge of this band touches the edge of the next part of the decoration, the 'seam' of which is usually covered with a single strip and stitched. There is no indication that a differently coloured strip of leather was woven through the openwork slits. Although the technique of closely-spaced slits through which a narrow leather thong (in different colour) or gold metal strip is woven is a common decoration technique in Tutankhamun's footwear (Veldmeijer, 2010a), it is only represented by one example in the Amarna leatherwork (ÄM AM 048l, Cat. No. 30). The date, however, might very well be late (*i.e.* post-Pharaonic), considering the fact that it has the same excavation numbers as the possible Christian shoe. This might explain the difference in composition with, for example, the Tutankhamun specimens.

In ÄM AM 048l (Cat. No. 30), the two rows of diagonal slits are not closely-spaced, but rather widely-spaced, through which passes a coarse flax string. Below this decoration, the thickness of the leather is reduced and the edge turned into 'tunnels.' Another leather part is inserted, having tunnels at its edge as well, which fit in the open spaces of the first, thus closing the row. It is secured with flax thread.

Other openwork decoration is cut in the edge of an overlapping strip: the lower part is cut into circular motifs, which is still attached to the strip itself (ÄM AM 032, Cat. No. 35). The circular motifs are stitched at the top with an isolated stitch.

A wad of thin, much crumpled leather shows extraordinary openwork decoration (ÄM AM 041, Cat. No. 62), consisting of pairs of slits and cuts that are orientated lengthwise.³² Numerous, small fragments of fairly thin leather have been recovered from Grid 12 (Ranefer's house and adjacent small houses; Veldmeijer, 2010b) that have small slits in seemingly decorative pattern (TA AM 008, Cat. No. 130).

Another remarkable decoration technique is seen in several fragments, which all may be part

of one single object: floral motifs, secured at both edges, are in the middle stuffed with string (e.g. ÄM AM 078a, Cat. No. 47). Thus a highly decorative, high relief appliqué decoration is created.³³

The Objects³⁴

Footwear

The footwear, besides being analysed within the project's theoretical framework, will be analysed within the framework of the AEF (see 'Preface'). Due to the preliminary character of the present work, however, I choose to refrain from actually indicating Category, Type and Variants.

A large variety of sandals is registered from Amarna. Most remarkable are the sandals with a longitudinal curvature in medial direction, combined with a swayed shape (ÄM AM 006a, Cat. No. 2; ÄM AM 030a, Cat. No. 13; ÄM AM 046c, Cat. No. 17; ÄM AM 054a, Cat. No. 18; ÄM AM 068a, Cat. No. 27). This curvature seems intended, not due to preservation, and requires a classification separate from all other known sandals thus far. Another reason for doing so is that this longitudinal curvature is extremely rare anywhere else: it seems to be a feature that is specific to Amarna.³⁵ All of these 'curved' sandals consist of two or more sole layers that are secured along the perimeter with one row of stitches (ÄM AM 006a, Cat. No. 2; ÄM AM 046c, Cat. No. 17), or with two, of which the innermost row occurs at the front part only (ÄM AM 030a, Cat. No. 13). In all but ÄM AM 030a (Cat. No. 13), which has straight stitching with leather thong, the sole layers are secured with running stitches that are made of narrow leather thong rather than sinew. This construction is common in leather sandals with multiple sole layers (Veldmeijer, 2009b).

A second row of stitch holes to attach one or more sole layers is also seen in sandals without the longitudinal curvature. TA AM 004 (Cat. No. 110) and TA AM 159a (Cat. No. 127) show this as well and also 22/120 (Cat. No. 272). A sandal that is made of at least five thick sole layers that are secured with coarse leather thong running stitches, shows a second, albeit short, row of stitches at the front. This sandal, however, has an additional row of stitches

lengthwise down the centre. A short row of stitches, also lengthwise down the centre and starting from the front edge, is seen in ÄM AM 054c & d (Cat. No. 18). However, it only extends as far as the slit for the reception of the front strap. This sandal is extraordinary because of the multiple, thin sole layers as well as the preserved, red colour of the insole.

In ÄM AM 056a (Cat. No. 19) the second row of perimeter stitching extends at least as far as the heel, but possibly along the entire perimeter. Unfortunately, the heel is 'melted' and the stitching cannot be observed. ÄM AM 056a (Cat. No. 19) has two rows of stitching along the perimeter. In some cases, a decorative strip of leather is included in the perimeter stitching, as can be seen in the child's sandal 22/119 (Cat. No. 274). Although it is clear that the strip is decorative, it certainly had a function as well and helped preventing the tearing of the stitch holes by the sinew threads (note that this is the only example of footwear stitched with sinew; in all in which 'thread' is preserved, it consists of narrow leather thong).

Comparable sandals have been described (Veldmeijer, 2009b; an example without padding from Deir el-Medinah has been published by Montembault, 2000: 106³⁶) and are referred to as 'leather composite sandals'. Sandal 22/119 falls within Type A, but no variant designation was given to it, because the presence or absence of padding could not be observed with certainty (the sandal has not been studied first hand). Possibly, a decorative strip along the perimeter was present in ÄM AM 017d (Cat. No. 7) as well, which is seen as a darker coloured strip and also small remnants of TA AM 007 (Cat. No. 110) suggest a decorative perimeter strip.

The outermost row of perimeter stitching is sometimes combined with a distinctly raised edge (possibly TA AM 159a, Cat. No. 127, but especially clear in ÄM AM 056a, Cat. No. 19). Although it is tempting to suggest that the extreme tightness of the stitching caused this feature, a find from Elephantine³⁷ shows a raised edge as well, although stitching seems absent. This suggests that the edge is cut rather than that it is a result of tight stitching.

Decoration of leather sandals is, besides the discussed use of strips, relatively rare and if it exists, it is usually rather simple. The incised(?) decoration seen in ÄM AM 056a (Cat. No. 19) is an example.

This pattern, however, is one of the most frequently used on sandals from Pharaonic context (e.g. Veldmeijer, 2009b, but also many other types of leather sandals). Incised lines along the perimeter, as for example seen in the afore-mentioned sandal from Elephantine or a comparable find from Qasr Ibrim (Veldmeijer & Endenburg, 2008: 18)³⁸ and examples discussed by Montembault (2000: 99) have not been recorded from Amarna.

Two types of strap complexes, which are common in Egypt, are seen most among the Amarna finds. Although the general layout is comparable there are differences in detail. The pre-straps are cut from (one of the) sole layers and have a slit at the terminal end for the reception of the back (and heel?) strap. A comparable type of straps is usually depicted in scenes that show the manufacturing of sandals (figure 1; see also Schwarz, 2000) but these usually show one-layer sandals. The front strap passes through a slit in the front of the sole, remnants of which are present in ÄM AM 054a (Cat. No. 18). The evidence of securing the front strap is often lost in the Amarna finds, but usually it is secured by means of an enlarged end of the strap, thus preventing it from slipping through the slit (for good examples see Leguilloux, 2006: 189, pl. 22; Veldmeijer, 2009b).

The other type of strap complex, of which ÄM AM 054d (Cat. No. 18) and ÄM AM 056a (Cat. No. 19) are good examples, differs in layout of the back strap. At the heel in the former and at the waist in the latter, cuts are made in which the pre-straps were inserted. This, too, is an often-encountered way of strap attachment, and has been recorded, for example, from Qasr Ibrim. Although Montembault (2000: 102) published an unprovenanced and undated example from the Louvre collection, this type of strap is post-Pharaonic in date.

Different from the two described types, however, is seen in ÄM AM 054a (Cat. No. 18). Here, the pre-strap probably consists of one rectangular piece of leather that runs from the lateral to the medial edge, being sandwiched between two sole layers. The terminal end has three lengthwise-orientated slits for the reception of the back (and possibly heel) strap. This type of construction is not seen with sandals from Pharaonic context, but it is very common from Roman times onwards (Montembault, 2000;

Winterbottom, 2001; Leguilloux, 2006; Veldmeijer, In preparation; Veldmeijer & Van Driel-Murray, In preparation), suggesting that it was introduced by the Romans. The above-mentioned construction with a pre-strap being pulled through slits seems to be a local solution to the Roman construction, a hypothesis which needs further attention (discussed in more detail by Veldmeijer, In press b).

Seen only once is the sandal with a notched front edge (ÄM AM 056c, Cat. No. 19). This feature is not uncommon in leather (and fibre) sandals, however, and examples from Roman Didymoi have been published by Leguilloux (2006); examples from Roman and Christian Qasr Ibrim have been registered as well (Veldmeijer & Van Driel-Murray, In preparation).³⁹

TA AM 128 (Cat. No. 125) is clearly part of a strap complex, which many parallels in several collections suggest, and of Christian date (Veldmeijer & Van Driel-Murray, In preparation). Kueny & Yoyotte (1979: 170) report a pair of sandals with comparable parts from Antinopolis that is dated to the 3rd century AD.⁴⁰ The coiled leather strip, which function to keep the individual parts together, is also seen in con-



Figure 12. Ventral view of the heel part of incomplete shoe with highly constricted waist. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.

temporary fibre footwear (Veldmeijer, In press a). Note that comparable coils are used to decorate leather shoes as well; in these cases, however, they are not pierced with braids.⁴¹ Another clear example of late footwear is sandal TA AM 131a (Cat. No. 233), which consists of three sole layers that are secured along the perimeter as well as with six rows lengthwise down the centre. At this stage of the research it is not clear when this type of sandal appeared first, but it might have been introduced in early Roman times as suggested by finds from Antinoé (Montembault, 2000: 96, 97). In contrast, sandals with multiple rows of stitching are not reported from the Roman *praesidium* at Didymoi (Leguilloux, 2006) nor from Mons Claudianus (Winterbottom, 2001). Comparable finds from Elephantine date to the 5th and 5th-6th century AD (personal observation).⁴²

Only one entry has been identified as a shoe (ÄM AM 048, Cat. No.30). It is not entirely clear whether the fragments should be interpreted as part of a shoe or as part of *this* shoe. Admittedly, if one would find a fragment with such a highly constricted waist, one would not think of it as the sole of a shoe notwithstanding the part of the heel with back seam (ÄM AM 048h). Fortunately a much more complete, but still fragmentary, shoe, which is also housed in the Ägyptisches Museum und Papyrussammlung, Berlin (figure 12),⁴³ has the same shape of sole.⁴⁴ If we accept the decorated fragments of ÄM AM 048 to be parts of the upper, then this differs from the other Berlin specimen as the latter upper seems to be without decoration. On the other hand, it has a cloth lining, seemingly lacking in the Amarna specimen.

Decorated Leather

There can be little doubt that the decorated leather (figure 3) originates from chariots, horse trappings and/or from related objects, such as quivers and bow cases.⁴⁵ Possibly, most are ready-made elements of bigger objects.

Borchardt (1911: 26) and Borchardt & Ricke (1980: 292, 330) reports the leather finds in association with remains of chariots and harnesses. Several examples of this type of decorated leather have been reported as coming from the tomb of Amenhotep III (Carter's report, see Littauer & Crouwel, 1985: 68).

Decorated leather, found in association with chariots and described as trappings, are known from the tomb of Thutmose IV (Carter & Newberry, 1904: 34-38). Some, however, differ from the material from Amarna and Amenhotep III in the fact that some of the objects have a painted design rather than appliqué work although parts of the design are comparable. In other respects, however, the design of the material from Thutmose IV differs from the other finds.

Additional support for the use of leather described in the present work comes from the chariot that was found in the tomb of Yuya and Tjuiu (figure 13): the nearly intact chariot, a gift of son-in-law Amenhotep III, shows the familiar zigzag pattern and lines of different colour seen in the decorated leather from Amarna. This decoration not only adorns the back of the body but also the nave and spokes (Newberry, 1907: 35-36, pl. XXXII; Littauer & Crouwel, 1985: pl. LXX). At least part of the decoration is painted rather than appliqué leatherwork (personal observation 2008).⁴⁶

The quivers from the tomb of Maiherpri, among the best-preserved examples we know, have been decorated in raised relief (possibly block stamped, Van Driel-Murray, 2000: 311). One, however, shows appliqué work as well but the motifs (as with the stamped decoration), though floral, are different from the Amarna material. The quiver and harness shown by Forbes (1957: 30, fig. 6) shows partly comparable floral design. Without a doubt it will be possible to label the various objects more precisely in time after the study of this comparable and better preserved/more complete material.

Weaponry

The great majority of the category 'Weaponry' consists of coarse axe (*cf.* Petrie, 1917: 8-9, pl. II [91, 93], pl. V [133]; Davies, 1987) and adze lashing, such as those from Tutankhamun (Carter No. 100c and 44p; see also Kühnert-Eggebrecht, 1969⁴⁷) made of strips of rawhide that are plaited 'over 1/under 1.' However, two examples (ÄM AM 004a, b; Cat. No. 51) are made of much narrower and thinner strips in an 'over 2/under 2/shift 1' pattern. Moreover, the lashing is much longer than the more common, coarser variant. It is tempting to suggest

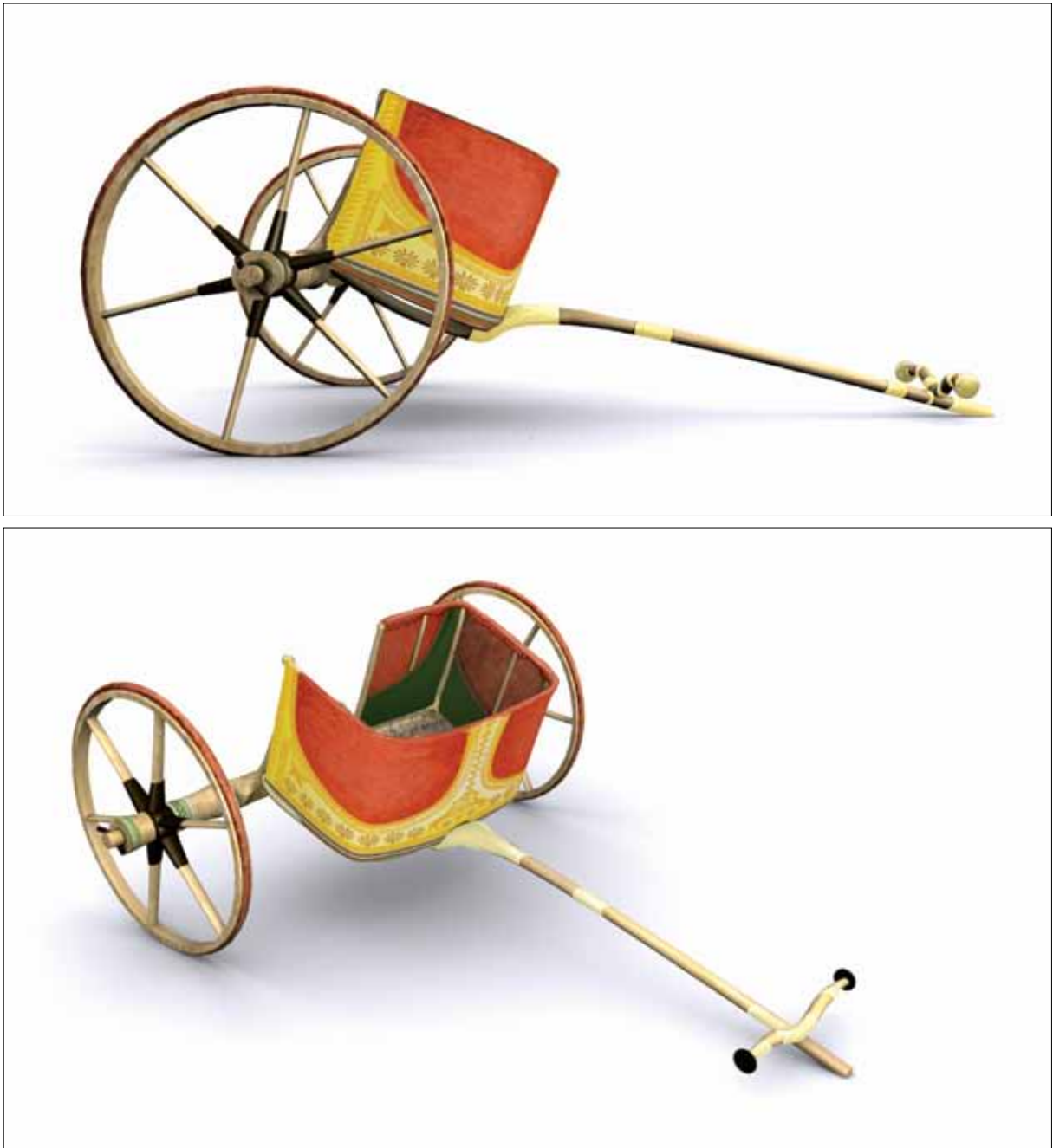


Figure 13. Reconstruction of the chariot from the tomb of Yuya and Tjuiu, which was a gift from son-in-law Amenhotep III. Artist's impressions by M.H. Kriek.

that these lashings were used for more expensive axes, an assumption which needs further research.

There are many examples of the coarse type of lashing, sometimes still *in situ* with the blade. It was a well-known property that rawhide shrinks upon wetting, thus producing a strong binding (Littauer & Crouwel, 1985: 93; Van Driel-Murray, 2000: 302; Veldmeijer, 2008a: 4) and was therefore much used in all kinds of objects. However, only a few other lashings would have a similar appearance to those

presented here. Littauer & Crouwel (1985: 93) mention the use of rawhide in various parts of chariots, although they add that “it seems more likely that coloured, dressed leather straps were used for all those lashings that were visible.” An example of rawhide lashing other than in axes or adzes is the lashing that ties the body of Thutmosis IV’s chariot to the frame (Carter & Newberry, 1904: 24, pl. IX; Littauer & Crouwel, 1985: LXVII). Bright red lashing is known from the tomb of Thutmosis IV.⁴⁸

Clothing

Evidence of leather clothing is scarce at Amarna and leather garments like those from Hierakonpolis have not been reported for indigenous Egyptians at all. The strong focus of Nubians and Nubian groups in Egypt on leather and the high quality of workmanship has been reported repeatedly (for example Wainwright, 1920: 29, pl. XI; Williams, 1983: 65; Van Driel-Murray, 2000: 300; Wills, 2001: 452; Veldmeijer & Laidler, 2008: 1217). Their knowledge of leather might even be one of the reasons that the Nubian population found a continued role in Egyptian society.

One of the most important leather pieces of clothing, the loincloth,⁴⁹ was, seemingly, the only leather clothing worn by indigenous Egyptians and a popular item in the New Kingdom, which is evident from many finds. Vogelsang-Eastwood (1993: 17-21), discusses all known examples,⁵⁰ most of which are unprovenanced. The most important examples (provenanced, condition) are the specimens from the tomb of Maiherpri (Carter, 1903: 46-47; Vogelsang-Eastwood, 1993: pl. 6) and the specimen that possibly originates from the tomb of Thutmosis IV (Petrie, 1910: xvi, 150-151, fig. 140).⁵¹ The examples that are housed in the British Museum are unprovenanced and are therefore of lesser importance. However, both specimens have been tested in order to determine the skin processing techniques, but the results were not unambiguous and are currently being analysed; more and different analyses, however, are necessary to find out the exact skin processing procedures.

Examples of openwork leather clothing, including possible fragments of loincloths from Nubian sites or from the Nubian C-Group and Pan-grave peoples in Egypt are numerous, including the finds from Balabish (Wainwright, 1920: 12, 28-29), Hierakonpolis (Friedman, 2004; 2007: 60; Veldmeijer, 2007b), Kerma (Reisner, 1923: 303-306, 311, pl. 65 [3], 66 [1 & 2]), Kerma Period finds from the Northern Dongola region (Wills, 2001: 450-451), Adindan (Williams, 1983: 71) and paintings and reliefs (see for a discussion for example Säve-Söderbergh, 1946: 75-78; 1989; Vogelsang-Eastwood, 1993: 24-29). The archaeological finds and depictions strongly suggest a Nubian origin (Vogelsang-Eastwood, 1993: 18, 20,

29-31; Friedman, 2004: 24-25; 2007: 60; Veldmeijer, 2007b: 24). Although it has been said that the loincloth was only worn by men (labourers, sailors, soldiers), an ostrakon showing a female dancer wearing a leather loincloth and dated to about 1200 BC suggests otherwise. The loincloth found with a female in tomb 9 in Hierakonpolis (figure 14)⁵² dates to the Nubian C-Group; it has been suggested that the lady might have been a dancer (Friedman, 2004: 25).



Figure 14. Artist's impression of the tattooed lady from tomb 9 wearing a leather loincloth. Drawing by M.H. Kriek.

Vogelsang-Eastwood (1993: 22-23) recognises four different types of loincloth: entirely closed examples, those made of cut-work and those made with slit work. This latter is differentiated into two types: slits that were cut in a series of staggered rows and the examples of “large, loosely diamond-shaped net[s]” that were made by “slitting the leather into fine strips and then pulling the slits open” (*Ibidem*).

Among the finds of the German excavations at Amarna are small fragments of loincloth (ÄM AM 041a-e, Cat. No. 62). The fragment is folded several times and its condition did not allow unfolding it because it is very hard and too brittle. Parts of the openwork are clearly visible. Fortunately, the fragment is big enough to show the high quality of manufacturing. The small slits are made by pushing the knife into the leather and then pulling the leather apart. The distance between the slits is comparable to the distance between the slits in TA AM 008 (Cat. No. 130), and also the length of the slits is comparable. However, in TA AM 008, the slits are always inserted stepwise to each other, whereas they are next to each other in ÄM AM 041. Moreover, the slits are still closed whereas they have been pulled apart in the Berlin example. The openings between the large extensions seem to be due to pushing the knife in the leather as well, rather than cutting out isolated holes. Although the fragments are small, it can be noticed that the extensions do not form meshes and therefore the loincloth differs from those we know thus far. It cannot be established whether the original object to which TA AM 008 and ÄM AM 041 belonged, was made of one piece of skin, as has been suggested for the other loincloths (Vogelsang-Eastwood, 1993: 21). Note that the remark that loincloths were always made from one piece is premature: Maiherpri's loincloth in the Museum of Fine Arts, Boston (03.1035) shows many seams, made with sailor stitches in the edge that borders the openwork fabric. Future research will have to establish what the exact meaning of these seams are: first, albeit rather superficial, observation did not show differences in the parts that were sewn together and it cannot be ruled out, for the time being, that the stitching is decorative.

Bags

Archaeologically, there are many examples of leather bags and other containers, such as vessels (Van Driel-Murray, 2000: 308-309; Laidler, 2005: 27-28). They have a long history (Van Driel-Murray, 2000: 309) and skins are still used as water bags (for example Keimer, 1954: 522, fig. 218; 525, fig. 222; Hobbs, 1990: 51); comparable bags are also used for carrying other items, such as the Bedouin in the Egyptian Eastern Desert who carry their traditional coffee-making equipment round in a goatskin (personal observation Berenike 1997).

According to Aude Gräzer (personal communication, September 2008), who studied water on a domestic scale, water bags were exclusively used outside in order to carry water or to constitute a mobile water supply and are usually depicted in desert hunting scenes (*e.g.* Newberry, 1893: pl. XIII) or used by a herder (*Ibidem*: pl. XII). In Deir el-Medinah goatskin water bags were used to carry water to the village (Christophe, 1955; Janssen, 1975: 400). Moreover, water bags are seen in agricultural scenes, where they are hung in the tree to keep the water cool (Christophe, 1955: 392, fig. 5; Parkinson, 2008: 112, fig. 118, see also pl. 148).⁵³

Archaeologically, leather water bags are attested in the tomb of Tutankhamun that “obviously [have] been used to bring up the water needed for the plastering of the doorways” (Carter & Mace, 1923: 94).⁵⁴

Water bags are usually made of a complete goatskin, the extremities of which serve as handles. However, not all extremities necessarily acted as a handle and often one or more are either closed (*e.g.* TA AM 018b & c; Cat. No. 64) or turned into a spout (TA AM 011, Cat. No. 63).⁵⁵

Straps, Belts, Cordage etc.

By straps, those other than sandal straps are meant. The use of cordage made from animal products is restricted to sinew for stitching (see above), bows (*e.g.* McLeod, 1970: pl. XIII) and rawhide for lashing (see above). Leather belts are not often encountered in Pharaonic times (an example of a beautifully decorated belt was recovered at Hierakonpolis,⁵⁶ personal observation 2007); the identification of at least some of the fragments from Amarna as belt is

uncertain. Note that small pieces that have broken off might easily be interpreted as part of a strap, belt or piece of cordage.

Book Covers

One small fragment of book cover was excavated from Kom el-Nana (TA AM 124, Cat. No. 240). Although small, it clearly shows impressed line decoration. We can draw on a relatively large corpus of book covers from Egypt for comparison, among which are the finds from Qasr Ibrim⁵⁷ (Veldmeijer & Van Driel, In preparation) and Deir el-Bachit⁵⁸ (Veldmeijer, 2008b; In press b) but it has yet to be seen if there are regional differences in, for example, decoration.

Offcuts, Waste⁵⁹

Offcuts are perhaps the best indications that leathercraft was present at a site, but these are first and foremost indicators of the manufacture of leatherwork, rather than of skin processing (cleaning, curing etc.). One particular entry is interesting, as it is a bright red offcut of thin leather, which compares well with the red leather in shoes (Veldmeijer, 2009a) and decorated leather (from chariots). Many tools, such as needles and certain bone tools,⁶⁰ might also have been used in other crafts.

DISCUSSION

Amarna's leatherwork includes some very well-known objects, such as the axe/adze lashings. Especially important for our understanding of the leatherworker's craft, however, are the fragments of decorated leatherwork, which originate from chariots and related items, and the footwear. The decoration techniques not only show a very high degree of craftsmanship, but also some new techniques, such as the stuffing of appliqué work through which high relief is created. Although this technique has not been observed before, material in the Egyptian Museum, Cairo confirms that it was used more widely. It is not possible yet to present a development of decoration, but this will be possible when other material, such as the material from Amenhotep III, is studied in detail (in progress).

The footwear shows a large variation and proves once more that the depiction of the sandal-maker is a standardised rendering rather than the depiction of a certain type of sandal. This suggests that a typology of footwear on the basis of depictions (Alfano, 1987) does not represent reality (see also Veldmeijer, 2010a).

The small fragment of openwork leather had enough features to conclude that it must be a fragment of clothing, probably a loincloth. Other small fragments show many small slits in a decorative

arrangement, which are tentatively identified as clothing as well.

Following the study of the Berlin material, revision of previous published results is possible. Van Driel-Murray (2000: 311) notes a white colour on ÄM AM 078a (Cat. No. 47) which is not noticeable on the object (anymore?). Moreover, the appliqué decoration is built up differently than illustrated in her fig. 12.9 and is more in line with the rest of the described, decorated fragments (*i.e.* sets of coloured strips rather than isolated strips, *cf.* ÄM AM 078a, Cat. No. 47). Moreover, the lily figure is filled, possibly with a small-diameter string, creating a high relief.

The few offcuts are evidence of the production of leather objects at Amarna, but the quantity seems too small to suggest a large-scale industry. Other sites, such as the monastery at Deir el-Bachit, had large numbers of offcuts and waste, clearly indicating that the production of objects was an important occupation. If the interpretation of some of the decorated leatherwork as ready-made parts of an object (for example a quiver) is correct, then this serves as a strong indicator of the on-site production of leather objects. Future research including that on tools and work spaces (as indicated in the introduction), might reveal a different picture.

NOTES

- 1 However, the work on the tombs especially by Davies is important for the overall analysis of the leather (see below).
- 2 Dates are from Shaw & Nicholson (1997: 310-312).
- 3 For a full list of publications especially from the 1977-present expedition, see <http://www.amarnaproject.com/pages/publications/index.shtml>.
- 4 For an overview on the study of leatherwork, see Veldmeijer (2008a).
- 5 The study of the leatherwork from Amarna is part of the Ancient Egyptian Leatherwork Project (AELP), which includes the study of leatherwork from several sites, besides Amarna, Elephantine and Dra Abu el Naga, and museum collections (see also www.leatherandshoes.nl). Due to the fact that a large proportion of leather finds is footwear, the project is intimately linked to the Ancient Egyptian Footwear Project (AEFP), which includes the footwear from Tutankhamun (Veldmeijer, 2010a).
- 6 The lineage goes further back in time, but there is a relatively well-documented corpus of leather from Thutmosis IV onwards, in contrast to the corpus before his succession, which is of importance for studying the development of leatherwork's manufacturing techniques. Post-Amarna leather finds are rare, but includes the leatherwork partially illustrated by Forbes (1957: 30, fig. 6; JE 88962).
- 7 More on the term 'leather' in section 'Skin Processing'.
- 8 Tools and especially the traces they leave will be discussed as part of the manufacturing process.
- 9 See Veldmeijer (2010a).
- 10 Except for the fragments in the Petrie Museum of Egyptian Archaeology UCL, which have been studied first hand, and are referred to by the Inventory Number of the Petrie Museum.
- 11 Personal communication with Gillian Vogelsang-Eastwood (2008).
- 12 Personal communication with Aude Gräzer (2008).
- 13 Schwarz argues (2000: 58-59) that sesam oil was the best oil for curing but does not rule out the use of other types, such as olive oil. But see Carter (1927: 176-178) about oil in the tomb of Tutankhamun.
- 14 Van Driel-Murray (2000: 299) explains the distinction between true leather, a chemically stable product that is obtained by vegetable tanning, and cured leather, which is an unstable product. Cured leather is, strictly speaking, a pseudo leather. This term, however, will not be used here.
- 15 The catalogue is without page numbers.
- 16 In moist condition, cured leather and rawhide, turns into a resinous mass, usually referred to as 'melting.' This can be so severe that the leather drips, as for example reported from the tomb of Tutankhamun (Lucas, 1927: 175-176; see also Veldmeijer, 2010a). This condition is due to microbial attack or hydrothermal shrinkage.
- 17 Also noted by Van Driel-Murray (2000: 306). However, it might be that the colour of the Amarna material in Berlin was still visible when the material was excavated, which is suggested by the excavation photographs. The decay seems to have started especially during and after a short-period storage during the Second World War somewhere outside the museum building (where exactly is unknown; see also Veldmeijer & Endenburg, 2007: 36).
- 18 Interesting is a bright red offcut (ÄM AM 020n, Cat. No. 78).
- 19 See also section 'Offcuts, Waste'.
- 20 See also section 'Decoration Techniques'. Goubitz *et al.* (2001: 35-38) offers a useful introduction to stitches and seams, even though it is focused on much younger footwear from Europe.

- 21 Interestingly, the chariot leather in the Egyptian Museum, Cairo is only partially made with sinew: most decoration is secured with flax.
- 22 These conclusions might be due to the fact that most of the stitching could not be recognised: the chariot leather in the Egyptian Museum, Cairo is made with different types of stitching, depending on the part of the object. Seemingly, those parts more prone to wear have been stitched with straight stitching. Moreover, sinew as well as flax has been used: the former, again, for the parts which needed stronger material and the latter predominantly for the appliqué work.
- 23 For example HK43 04-587.
- 24 For example HK27c 03-143.
- 25 Despite the attention this piece of garment has had in literature, nothing has been published about the actual construction, except for the slits (see below).
- 26 The publication of which is in preparation.
- 27 Although tempting to assume that this way of attachment is only seen in straps and the like, there is no way to be certain, because usually nothing else but the attachment has survived, such as ÄM AM 006b (Cat. No. 83). However, see the remark on the chariot wheel of Yuya and Tjuiu.
- 28 More on colour in section 'Colour'.
- 29 It is assumed that the strip in 22/119 has a different colour than the sole layers.
- 30 Or sole if the sandal consists of a single sole layer. A good example is ÄM AM 056a (Cat. No. 19).
- 31 Stamped decoration does occur in New Kingdom Egypt: a good example is the quivers found in the tomb of Maiherpri (Daressy, 1902; Reeves & Wilkinson, 1996: 181). Stamped decoration is seen often in Christian times, among which is sandals and book covers.
- 32 More on this object in section 'Clothing'.
- 33 Apparently this type of decoration was more common than can be deduced from the Amarna material: the aforementioned leather finds in the Egyptian Museum, Cairo show a comparable technique throughout the intact decoration.
- 34 The category 'Unidentified' is not given attention.
- 35 However, recent research on material in the Egyptian Museum, Cairo might suggest differently. Future study will have to establish a date; possibly they are from the same period.
- 36 But note the separate heel part (see Veldmeijer, 2009b).
- 37 El-077. See also note 38.
- 38 This sandal has also raised edges, combined with perimeter stitching. The raised edge is seen at the heel as well, but stitching could not be observed due to the bad condition of this part of the sandal.
- 39 Interestingly, a pair from Massada shows a comparable shape (Bossan, 2007: 14).
- 40 Remarkably, no mention is made of comparable parts of footwear from other Roman sites such as Didymoi (Leguilloux, 2006) or Mons Claudianus (Winterbottom, 2001). Sandals with comparable parts in the Louvre are, unfortunately, unprovenanced and hence without date (Montembault, 2000: 108, 110). Several examples, predominantly undated, are housed in collections, (for example in the Sammlung des Ägyptologischen Instituts der Universität, Heidelberg – one of which is not numbered, but also SAIUH 1162 FJ1827 and SAIUH 348).
- 41 Personal observation Petrie Museum of Egyptian Archaeology UCL (UC 28285), British Museum, London (EA 57313), Sammlung des Ägyptologischen Instituts der Universität, Heidelberg (SAIUH 1181 F1445).
- 42 For example el-045d and el-002 respectively.
- 43 Inventory number ÄM 26564.
- 44 Petrie Museum of Egyptian Archaeology UCL UC 28291ii is an example of a leather sandal with a extremely constricted waist.
- 45 The preliminary investigation of the leather group in the Egyptian Museum, Cairo suggest that the whole assemblage, *i.e.* the casing of the chariot, the quivers and bow-cases and the like, was made as one, showing the same kind of decoration, colours etc.
- 46 A detailed study and comparison between the known chariot leather is forthcoming as part of the Egyptian Museum Chariot Project.
- 47 More fancy adzes like the one from Tutankhamun (Carter No. 402) had lashing of strips of gold. Note that, without the object preserved, it is difficult if not impossible to know from which of the objects the lashing originate.
- 48 Cairo Museum Exh. No. 3391, 3392. The lashings are not mentioned by Carter & Newberry

- (1904), but probably form part of the “thirty-one miscellaneous pieces” mentioned (*Ibidem*: 38).
- 49 For a detailed account see Vogelsang-Eastwood (1993); here references are made to the most complete examples and/or ones of known context.
- 50 See also Schwarz (2000: 210-215).
- 51 Note that the status of the find is not entirely certain (Vogelsang-Eastwood, 1993: 19); it might be part of the group of miscellaneous finds mentioned by Carter & Newberry (1904: 38).
- 52 Numerous small fragments, among which HK 27c 03-143 and 03-161.
- 53 More examples are mentioned by Van Driel-Murray (2000: 308-309) and Laidler (2005: 27). More depictions in Martin (1989: pl. 35, fig. 23, 24; pl 95, fig. 69).
- 54 Water bags are well-attested for the late periods and many fragments have been identified from Roman layers (Leguilloux, 2003: 541-543; Winterbottom, 2001: 330-332; Veldmeijer, 2007a: 3-8) or later (Veldmeijer, In preparation; Veldmeijer & Van Driel-Murray, In preparation).
- 55 Despite the large gap in time, these parts are remarkably comparable to Roman examples, cf. Winterbottom (2001: 349, fig. 10.16; 350, fig. 10.17), Veldmeijer (2007a: 6, fig. 7). Note that the objects that are assumed to be handles of water bags (for example Winterbottom, 2001: 351, fig. 10.19; Veldmeijer, 2007a: 3-5, figs. 2-5), have not been recognised among the Pharaonic examples. However, the interpretation of the objects as handles is not without uncertainty (Veldmeijer, 2007a: 16).
- 56 HK47 01-0894a.
- 57 Unfortunately very fragmented, but cam-3496 is one entry.
- 58 The best-preserved fragments of which are 2196 and 2676.
- 59 See also section ‘Manufacturing Technology’.
- 60 For example, a simple tool, often with a tapering, pointed end and a rounded opposite end, mostly made of bone, is usually identified as a ‘pin-beater’ (references are abundant, but for a detailed account, which includes exhaustive references see Kemp & Vogelsang-Eastwood, 2001: 358-373) but might (also) have been used as a ‘folder’ or ‘crease’ (Darke, 2006: 104-105).

BIBLIOGRAPHY

- Alfano, C. 1987. I Sandali: moda e rituale nell' antico Egitto. – Città di Castello, Tibergraph.
- Borchardt, L. 1911. Ausgrabungen in Tell el-Amarna 1911 – Mitteilungen der Deutschen Orientgesellschaft zu Berlin.
- Borchardt, L. & H. Rieke. 1980. Die Wohnhäuser in Tell El-Amarna. – Berlin, Mann.
- Bossan, M.-J. 2007. The Art of the Shoe. – Kent, Grange Books.
- Carter, H. 1903. Report on General Work Done in the Southern Inspectorate. – Annales du Service des Antiquités de l'Égypte 4: 43-50.
- Carter, H. 1927 [2001]. The Tomb of Tut.Ankh.Amen. The Burial Chamber. – London, Gerald Duckworth & Co.
- Carter, H. 1933 [2000]. The Tomb of Tut.Ankh.Amen. The Annexe and Treasury. – London, Gerald Duckworth & Co.
- Carter, H. & A.C. Mace. 1923 [2003]. The Tomb of Tut. Ankh.Amen. Search, Discovery and Clearance of the Antechamber. – London, Gerald Duckworth & Co.
- Carter, H. & P.E. Newberry (with Contributions by G. Maspero & G. Elliot Smith). 1904 [2002]. Catalogue of the Antiquities Found in the Tomb. In: Carter, H. & P.E. Newberry. 1904 [2002]. Theodore M. Davis' Excavations: Bibân el Molûk. The Tomb of Thoutmôsis IV. – London, Duckworth: 1-144.
- Christophe, L.-A. 1955. Les Porteurs d'eau de Deir el-Médineh pendant le règne de Ramsès III. – Bulletin de l'Institut d'Égypte 36: 381-408.
- Darke, C. 2006. The Tools and Techniques of Leatherworking: Correct Tools + Skills = Quality. In: Kite, M. & R. Thomson. 2006. Conservation of Leather and Related Materials. – Amsterdam etc., Butterworth-Heinemann (Elsevier): 103-112.
- Darresy, G. 1902. Fouilles de la Vallée des Rois 1898-1899. – Cairo, Institut Français d'Archéologie Orientale.
- Davies, N. de G. 1903. The Rock Tombs of El Amarna. Part I. The Tomb of Meryra. – London, Egypt Exploration Society.
- Davies, N. de G. 1905a. The Rock Tombs of El Amarna. Part II. The Tombs of Panehesy and Meryra II. – London, Egypt Exploration Society.
- Davies, N. de G. 1905b. The Rock Tombs of El Amarna. Part III. The Tombs of Huya and Ahmes. – London, Egypt Exploration Society.
- Davies, N. de G. 1906. The Rock Tombs of El Amarna. Part IV. Tombs of Penthu, Mahu, and Others. – London, Egypt Exploration Society.
- Davies, N. de G. 1908a. The Rock Tombs of El Amarna. Part V. Smaller Tombs and Boundary Stelae. – London, Egypt Exploration Society.
- Davies, N. de G. 1908b. The Rock Tombs of El Amarna. Part VI. Tombs of Parennefer, Tutu, and Ay. – London, Egypt Exploration Society.
- Davies, N. de G. 1943. The Tomb of Rekh-Mi-Re at Thebes. Volume I, II. – New York, The Metropolitan Museum of Art (Publications of the Metropolitan Museum of Art, Egyptian Expedition 11).
- Davies, N. de G. 1963. Scenes from Some Theban Tombs: Private Tombs at Thebes IV. – Oxford, Griffith Institute.
- Davies, W.V. 1987. Catalogue of Egyptian Antiquities in the British Museum. I. Axes. – London, Trustees of the British Museum by British Museum Publications.
- Driel-Murray, van, C. 2000. Leatherwork and Skin Products. In: Nicholson, P.T. & I. Shaw. Eds. 2000. Ancient Egyptian Materials and Technology. – Cambridge, Cambridge University Press: 299-319.
- Forbes, R.J. 1957. Studies in Ancient Technology. Volume V. – Leiden, Brill.
- Frankfort, H. & J.D.S. Pendlebury. 1933. The City of Akhenaten. Part II. The North Suburb and the Desert Altars. The Excavations at Tell el Amarna during the Seasons 1926-1932. – London, Egypt Exploration Society (Fortieth Memoir).

- Friedman, R. 2004. Seeking the C-Group: Excavations in the Nubian Cemetery, 2005. – *Nekhen News* Fall 2004: 24-26.
- Friedman, R. 2007. The Nubian Cemetery at Hierakonpolis, Egypt. Results of the 2007 Season. – *Sudan & Nubia* 11: 57-62.
- Goubitz, O., C. van Driel-Murray & W. Groenman-van Waateringe. Eds. 2001. *Stepping Through Time. Archaeological Footwear from Prehistoric Times Until 1800*. – Zwolle, Stichting Promotie Archeologie.
- Haines, B.M. 2006. The Fibre Structure of Leather. In: Kite, M. & R. Thomson. 2006. *Conservation of Leather and Related Materials*. – Amsterdam etc., Elsevier: 11-21.
- Hanasaka, T. 2004. A Possible Leather Workshop at Akoris. – *Tsukuba Archaeological Studies* 15: 53-77.
- Hobbs, J.J. 1990. *Bedouin Life in the Egyptian Wilderness*. – Cairo, American University Press.
- Janssen, J.J. 1975. *Commodity Prices from the Rameside Period*. – Leiden, E.J. Brill.
- Keimer, L. 1954. Notes prises chez les Bissariens et les Nubiens d'Assouan. – *Bulletin de l'Institut d'Égypte* 35: 471-533.
- Kemp, B.J. Ed. 1984. *Amarna Reports I*. – London, Egypt Exploration Society.
- Kemp, B.J. Ed. 1985. *Amarna Reports II*. – London, Egypt Exploration Society.
- Kemp, B.J. Ed. 1986. *Amarna Reports III*. – London, Egypt Exploration Society.
- Kemp, B.J. Ed. 1987. *Amarna Reports IV*. – London, Egypt Exploration Society.
- Kemp, B.J. Ed. 1989. *Amarna Reports V*. – London, Egypt Exploration Society.
- Kemp, B.J. & G. Vogelsang-Eastwood. 2001. *The Ancient Textile Industry at Amarna*. – London, Egypt Exploration Society.
- Kueny, G. & Y. Yoyotte. 1979. *Grenoble, musée des Beaux-Arts Collection égyptienne*. – Paris, Éditions de la Réunion des musées nationaux.
- Kühnert-Eggebrecht, E. 1969. *Die Axt als Waffe und Werkzeug im alten Ägypten*. – Berlin, Verlag Bruno Hessling (*Münchner Ägyptologische Studien* 15).
- Laidler, J. 2005. *Ancient Egyptian Leatherworking up to the Ptolemaic Period*. – B.A. Theses, University of Durham.
- Leguilloux, M. 2003. Les objets en cuir. In: Cuvigny, H. Ed. 2003. *La route de Myos Hormos. L'armée romaine dans le désert oriental d'Égypte* 48. – Cairo, Institut Français d'Archéologie Orientale: 541-547.
- Leguilloux, M. 2006. Les objets en cuir de Didymoi. *Praesidium de la route caravanière Coptos-Bérénice*. – Cairo, Institut Français d'Archéologie Orientale 53.
- Littauer, M.A. & J.H. Crouwel. 1985. *Chariots and Related Equipment from the Tomb of Tut'ankhamun*. – Oxford, Griffith Institute.
- Lucas, A. 1927 [2001]. Appendix II. The Chemistry of the Tomb. – In: Carter, H. 1927 [2001]. *The Tomb of Tut.Ankh.Amen. The Burial Chamber*. – London, Gerald Duckworth & Co.: 162-188.
- Martin, G.T. 1989. *The Memphite Tomb of Horemheb Commander - in - Chief of Tutankhamun. I: The Reliefs, Inscriptions and Commentary*. – London, Egypt Exploration Society (*Excavations Memoirs* 55).
- McLeod, W. 1970. *Composite Bows from the Tomb of Tut'ankhamun*. – Oxford, Griffith Institute.
- Montebault, V. 2000. *Catalogue des chaussures de l'antiquité Égyptienne*. – Paris, Musée du Louvre.
- Newberry, P.E. 1893. *Beni Hasan. Part II*. – London, Kegan Paul, Trench, Trübner.
- Newberry, P.E. 1907 [2000]. Description of the Objects Found in the Tomb. In: Davis, T.M., G. Maspero, P.E. Newberry & H. Carter. 1907 [2000]. *Theodore M. Davis' Excavations: Bibân el Molûk. The Tomb of Youiia and Tuiyou*. – London, Duckworth: 1-48.
- Parkinson, R. 2008. *The Painted Tomb-Chapel of Nebamun. Masterpieces of Ancient Egyptian Art in the British Museum*. – London, British Museum Press.
- Peet, T.E. & C.L. Woolley. 1923. *The City of Akhenaten. Part I. Excavations of 1921 and 1922 at El-'Amarneh*. – London, Egypt Exploration Society (*Thirty-Eighth Memoir*).
- Pendlebury, J.D.S. 1951. *The City of Akhenaten. Part III. The Central City and the Official Quarters. The Excavations at Tell el-Amarna During the Seasons 1926-1927 and 1931-1936*. – London, Egypt Exploration Society (*Forty-fourth Memoir*).
- Petrie, W.M.F. 1894. *Tell el-Amarna*. – Warminster, Aris & Phillips.

- Petrie, W.M.F. 1910. *The Arts and Crafts of Ancient Egypt*. – London/Edinburgh, T.N. Foulis.
- Petrie, W.M.F. 1917. *Tools and Weapons*. – London, Constable/Bernard Quaritch.
- Reed, R. 1972. *Ancient Skins, Parchments and Leathers*. – London, Seminar Press.
- Reeves, N. & R.H. Wilkinson. 1996 [2005]. *The Complete Valley of the Kings. Tombs and Treasures of Egypt's Greatest Pharaohs*. – Cairo, American University Press.
- Reisner, G.A. 1923. *Excavations at Kerma. Parts IV-V*. – Cambridge (MA), Peabody Museum of Harvard University.
- Säve-Söderbergh, T. 1946. *The Navy of the Eighteenth Egyptian Dynasty*. – Uppsala, Almqvist & Wiksells.
- Säve-Söderbergh, T. 1989. *Middle Nubian Sites*. – Partille, Paul Åström (The Scandinavian Joint Expedition to Sudanese Nubia publications. Volume 4).
- Schwarz, S. 2000. *Altägyptisches Lederhandwerk*. – Frankfurt am Main etc., Peter Lang.
- Shaw, I. & P. Nicholson. 1997. *The British Museum Dictionary of Ancient Egypt*. – Cairo, American University Press.
- Skinner, L. 2007. A Visit to a Traditional Leather Tannery in Central Sudan. – *Sudan & Nubia* 11: 125-126.
- Trommer, B. 2005. *Die Kollagenmatrix archäologischer Funde im Vergleich zu künstlich gealterten Ledermustern historischer Gerbverfahren (Dissertation)*. – Freiburg, Technischen Universität Bergakademie <https://fridolin.tu-freiberg.de/archiv/pdf/WerkstoffwissenschaftenTrommer-Bernhard923047.pdf>
- Veldmeijer, A.J. 2007a. Preliminary Report on the Leatherwork from Roman Berenike, Egyptian Red Sea Coast (1994-2000). – *PalArch's Journal of Archaeology of Egypt/Egyptology* 1, 1: 1-36. Online at www.PalArch.nl.
- Veldmeijer, A.J. 2007b. *The World of Leather*. – *Nekhen News* 19: 24.
- Veldmeijer, A.J. 2008a. *Leatherwork*. – *UCLA Encyclopedia of Egyptology*. Online at <http://repositories.cdlib.org/nelc/uee/1045>.
- Veldmeijer, A.J. 2008b. *The Leatherwork from Deir el-Bakhit: Preliminary Report*. – *Antiquo Oriente* 6: 229-237.
- Veldmeijer, A.J. 2009a. *Studies of Ancient Egyptian Footwear. Technological Aspects. Part XV. Leather Curled-Toe Ankle Shoes*. – *PalArch's Journal of Archaeology of Egypt/Egyptology* 6, 4: 1-21.
- Veldmeijer, A.J. 2009b. *Studies of Ancient Egyptian Footwear. Technological Aspects. Part X. Leather Composite Sandals*. – *PalArch's Journal of Archaeology of Egypt/Egyptology* 6, 9: 1-27.
- Veldmeijer, A.J. 2009c. *Studies of Ancient Egyptian Footwear. Technological Aspects. Part VI. Sewn Sandals*. In: Ikram, S. & A. Dodson. Eds. 2009. *Beyond the Horizon: Studies in Egyptian Art, Archaeology and History in Honour of Barry J. Kemp*. – Cairo, SCA: 554-580.
- Veldmeijer, A.J. With Contributions by: A.J. Clapham, E. Endenburg, A. Gräzer, F. Hagen, J.A. Harrell, M.H. Kriek, P.T. Nicholson, J.M. Ogden & G. Vogelsang-Eastwood. 2010a. *Tutankhamun's Footwear. Studies of Ancient Egyptian Footwear*. – Norg, DrukWare.
- Veldmeijer, A.J. 2010b. *Leatherwork*. In: Kemp, B.J. & A.K. Stevens. Eds. 2010. *Busy Lives at Amarna. Excavations in a Housing Neighbourhood (Grid 12) in the Main City*. – London, Egypt Exploration Society.
- Veldmeijer, A.J. In press a. *Studies of ancient Egyptian Footwear. Technological Aspects. Part V. Fibre Shoes from Qasr Ibrim*. In: Godlewski, W. & A. Lajtar. Eds. 2008. *Acts of the 11th Conference of Nubian Studies, Warsaw, 27 August-2 September 2006, Vol. II. Session Papers*. – Warsaw, Warsaw University Publishers (Polish Centre of Mediterranean Archaeology of Warsaw University, Supplement Volume 4/5).
- Veldmeijer, A.J. In press b. *Sandals, Shoes and Other Leatherwork from the Coptic Monastery Deir el-Bachit. Analysis and Catalogue*. – Norg, DrukWare.
- Veldmeijer, A.J. In preparation. *Leatherwork from Qasr Ibrim. Volume I. Ottoman*. – Norg, DrukWare.
- Veldmeijer, A.J. & C. van Driel-Murray. In preparation. *Leatherwork from Qasr Ibrim. Volume II. The Pharaonic Period to the Age of Christianity*. – Norg, DrukWare.
- Veldmeijer, A.J. & E. Endenburg. 2007. *Amarna Leatherwork in Berlin*. – *Egyptian Archaeology* 31: 36-37.

- Veldmeijer, A.J. & E. Endenburg. 2008. Footwear from Qasr Ibrim. – *Egyptian Archaeology* 33: 18-20.
- Veldmeijer, A.J. & J. Laidler. 2008. Leather Work in Ancient Egypt. In: Selin, H. Ed. 2008. *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures*. – Heidelberg, Springer Verlag: 1215-1220.
- Vogelsang-Eastwood, G. 1993. *Pharaonic Egyptian Clothing*. – Leiden, E.J. Brill.
- Wainwright, G.A. 1920. *Balabish*. – London, Egypt Exploration Society.
- Williams, B. 1983. C-Group, Pan Grave, and Kerma Remains at Adindan Cemeteries T, K, U, and J. – Chicago, The Oriental Institute of the University of Chicago (The University of Chicago Oriental Institute Nubian Expedition Volume V: Excavations between Abu Simbel and the Sudan Frontier).
- Wills, B. 2001. The Kerma Period Leather Samples Excavated from Sites O16 and P37. In: Welsby, C.A. 2001. *Life on the Desert Edge. Seven Thousand Years of Settlement in the Northern Dongola Reach, Sudan*. – London, Sudan Archaeological Research Society 7: 449-457.
- Winterbottom, S. 2001. Leather. In: Maxfield, V.A. & D.P.S. Peacock. Eds. 2001. *Survey and Excavation Mons Claudianus. 1987-1993. Volume II. Excavations: Part I*. – Cairo, Institut Français d'Archéologie Orientale: 313-353.

PART II: CATALOGUE

A. GERMAN EXCAVATIONS 1911-1914

CATALOGUE NUMBERS 1-109

EXPLANATION OF THE CATALOGUE

Cat. No. ##	Catalogue Number	Group	All finds within the find number and context. The entry is only used when some of the sub-numbered fragments are described elsewhere.
Specialist No.	<p>A group of leather finds (group/find no./context) has been assigned a number (1, 2, 3 etc.) by the author. The fragments within this group are indicated by a sub-numbering by means of small characters (a, b, c, etc.). Because the leather finds might originate from different types of objects, sub-numbered fragments might have been catalogued elsewhere. If so, this can be found with 'Remarks'. The prefix 'ÄM' refers to the collection, <i>i.e.</i> Ägyptisches Museum und Papyrussammlung, Berlin; the prefix 'AM' refers to the site from which the artefacts originate, <i>i.e.</i> Amarna.</p> <p>Specialist numbers are assigned for several reasons: it makes it easier to refer to the object, but more importantly, part of the material is not catalogued (yet). Moreover, due to the troubled history of the Berlin collection (see Veldmeijer & Endenburg, 2007: 36), many objects lost their find number and context. The original find numbers were given to all finds within a certain context, without differentiation between the individual objects. In order to be able to refer to these (individual) objects, assigning a new number was necessary. The museum is still working on tracing missing original numbers and correlating them with the finds.</p>	<p>Year</p> <p>Find No.</p> <p>Context</p> <p>Measurements</p> <p>Material</p> <p>Colour</p>	<p>Year of excavation.</p> <p>Number given by the excavators during the excavations.</p> <p>The specific place within Amarna where the objects were found. Most of the finds have been registered from houses or other buildings.</p> <p>If two measurements are separated by a hyphen, it indicates the smallest and largest size. Measurements of fragments of which sides cannot be determined and hence no 'length' or 'width' can be recognised, are noted with 'x'. Usually, but not exclusively, these are featureless scraps. All measurements are in millimetres, unless stated otherwise. Abbreviations: d = diameter; h = height; l = length; t = thickness; w = width.</p> <p>Leather or (raw)hide with stitches of sinew or flax. Note that sometimes other materials are registered of associated objects (<i>e.g.</i> bone).</p> <p>The colour is only indicated in a broad sense; precise colour designations, as with the Munsell Color System, have not been applied.</p>

<i>Remarks</i>	Information about where to find the sub-numbered objects that are not described in the present catalogue number can be found here. Furthermore, one can find a statement if the object is not illustrated or sub-numbered or if the entry includes undescribed, featureless scraps. Occasionally, information of a different nature, such as on the context, can be found here as well.	<i>Description</i>	All objects are described; references are not included because this will be part of the forthcoming study (see Part I of this volume).
----------------	---	--------------------	--

FOOTWEAR (CAT. NOS. 1-30)

SANDALS (CAT. NOS. 1-29)

Cat. No.	Specialist No.	ÄM AM 002	<i>Description</i> Rounded heel with constricted waist. Towards the front, increasing in width, especially at the lateral edge, and terminating in a clearly pronounced big toe area resulting in a swayed sole. Three sole layers: the insole and treadsole are secured with leather thong running stitches along the perimeter, possibly including the midsole. Two copper nails at the lateral edge, which seems like a sort of repair rather than original construction. Pre-straps are missing: torn off. The front strap is largely intact and consists of a lengthwise folded strip of leather, secured at the ventral surface of the treadsole with a square enlargement of the strap.
<u>1</u>	Year	1911	
	Find No.	548	
	Context	House M 50, 7	
	Measurements	l: 180.0; w heel: 57.0; w waist: 47.0; w front: 78.7; t: 9.2 (at front where the thickness is more or less intact); w front strap at insertion: 7.2; w front strap at end towards back straps: 2.5; d bronze nails: 4.2	
	Material	Leather	
	Colour	Dark brown	
	Remarks	Inventory book: 25286	



ÄM AM 002. Dorsal and ventral view.

Cat. No.	Specialist No.	ÄM AM 006a, c
2	Group	ÄM AM 006a-d
	Year	1911
	Find No.	X727
	Context	House N 50, 17
	Measurements	(a) l: 240.0; w heel: 70.0; w front: 111.0; t: 3.2; (c) l: 100.0; w: 47.5; t: 15.8
	Material	Leather
	Colour	Grey brown surface, pinkish cross-section
	Remarks	(b), (d) See 'Unidentified' (Cat. No. 83). The group contains several featureless scraps, which are not described/illustrated.

Description

- (a) Sole with rounded heel and constricted waist.
From here, towards the front increasing in

width, especially at the lateral edge, resulting in swayed sole for the right foot. Originally at least two sole layers, judging from the running stitches with remnants of narrow leather thong along the perimeter. Slightly inwards of this row of stitching (about 8.5 mm from the edge) are remnants of tiny stitch holes of a second row of stitching. Large hole to accommodate the front strap. The right pre-strap of the insole is still complete and has remnants of the back strap *in situ*; the pre-strap of the treadsole is partly preserved.

- (c) Lengthwise folded piece of thin leather. There is a double row of stitch holes at one end (the edge is rounded), the appearance of which is comparable to ÄM AM 006a. Might be part of the treadsole.



ÄM AM 006a. Ventral and dorsal view.

Cat. No.	Specialist No.	ÄM AM 008b, c
3	Group	ÄM AM 008a-e
	Year	1912/1913
	Find No.	1160
	Context	House Q 47, 3. Room 9
	Measurements	(b) l: 40.0; w: 24.0; t: 13.5; (c) l: 45.0, 50.0 and 85.0
	Material	Leather
	Colour	Brown and black
	Remarks	(a) See 'Straps, Belts, Cordage etc.' (Cat. No. 65); (d), (e) See 'Uniden- tified' (Cat. No. 85).

Description

- (b) End of sandal's pre-strap with back strap and repair(?) back strap attached.
(c) Two parts of straps(?) and one part of pre-strap with back strap still attached.



ÄM AM 006c. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 009
4	Year	1913/1914
	Find No.	53
	Context	House P 47, 17
	Measurements	l: 80.0; w: 73.0; t: 9.1
	Material	Leather
	Colour	Light brown, beige
	Remarks	Several small, featureless frag- ments are not described/illus- trated.

Description

Three pieces of one(?) sandal of small dimensions (child's?), stuck to each other: middle, front and heel part. Double layer of stitch holes along the perimeter, some of which still include remnants



ÄM AM 008b & c respectively. Obverse and reverse.



ÄM AM 009. Obverse ('ventral') and reverse ('dorsal').

of narrow, leather thong running stitches. The sole gives an indication of the orientation by its asymmetrical front (pronounced big toe area). Probably a constricted waist.

Colour

Dark brown, black

Remarks

The specialist number includes a small fragment of strap, which is not described/illustrated.

Description

Sandal folded in two parts. The front and heel part overlap each other. Part of one of the pre-straps, including a small part of the back strap, still *in situ*. The stitch holes at the front might suggest that the sandal originally consisted of at least two sole layers. The sole is swayed.

Cat. No.	Specialist No.	ÄM AM 010
5	Year	1912/1913
	Find No.	1517
	Context	House Q 47, 19
	Measurements	l: 87.2 (folded); approximately 250.0 (unfolded); w: 69.0; t: 2.0
	Material	Leather



ÄM AM 010. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 014a, b, d
6	Group	ÄM AM 014a-d
	Year	?
	Find No.	?
	Context	House O 49, 1
	Measurements	(a) l: 80.0; w: 43.0; t: 4.8; (b) l: 73.3; w: 52.0; t: 1.4; (d) l: 100.0; w: 100.0; t: 9.0
	Material	(a), (b) Rawhide; (d) Leather
	Colour	(a), (b) Light brown; (d) Black
	Remarks	From "Buchkasten B." (c) See 'Unidentified' (Cat. No. 86).

Description

- (a) Front part of a small sandal, consisting of two sole layers. These are secured with small sinew(?) stitches along the perimeter (running stitch). Left(?) sandal.
- (b) Semi-circular, thin pieces with several big holes, due to deterioration. Possibly flaked off part rather than original piece.
- (d) Almost square piece of several fragments pressed together. Possibly remnants of (a) sandal(s). Note the few visible stitches.



ÄM AM 014a. Dorsal and ventral view.

ÄM AM 014. Obverse and reverse.



ÄM AM 014d. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 017a, b, d, h, i	(h) l: 100.0; w: 47.0; t: 3.3;
7	Group	ÄM AM 017a-i	(i) l: 80.0; w: 40.0; t: 2.7
	Year	?	Leather
	Find No.	?	Material
	Context	House O 49, 1	Colour
	Measurements	(a) 10.0 x 15.0 (folded); l: approxi- mately 230 (unfolded); w: 93.0 (just anterior of constriction); t: 4.0;	Remarks
		(b) l: 205.0; w: 14.5 - 66.2; t: 1.8;	(a), (b), (h), (i) Brown, light brown;
		(d) l: 50.0; w: 50.0; t: 1.7;	(d) Brown, light brown; dark band at perimeter
			From "Buchkasten B." (c), (e) - (g) See 'Unidentified' (Cat. No. 89). Several featureless scraps not de- scribed.

Description

- (a) Sandal's sole, folded several times. The narrow, leather thong running stitches along the perimeter suggest the sandal had more than one sole layer. Note that the stitch holes are in pairs. The pre-strap is cut out of the same sheet of leather. It is elongated, but tapering towards the end (which is broken off) and has a slit that is orientated lengthwise.
- (b) Thin, tapering sheet of leather, folded at the edges. Note the stitch holes at several spots along the edge, some with leather thongs *in situ*. Possibly piece of a sandal's sole.
- (d) Heel part. Along the perimeter is a darker coloured, decorative band (about 4 mm wide).

The inner part might have been coloured red. Stitch holes along the perimeter in the darker band; some still contain stitches (sinew?). Note the difference in orientation of stitch holes in ÄM AM 017a & d. Equals heel of ÄM AM 030a (Cat. No. 13).

- (h) Roughly rectangular fragment with a curved original edge. Possibly the small holes in pairs are worn stitch holes.
- (i) Fragment comparable to ÄM AM 017h. Roughly rectangular with edge preserved, showing two rows of stitch holes. The holes are orientated perpendicular to the edge and are in pairs as seen in ÄM AM 017a. Remnants of leather thong stitches still *in situ* in some stitch holes.

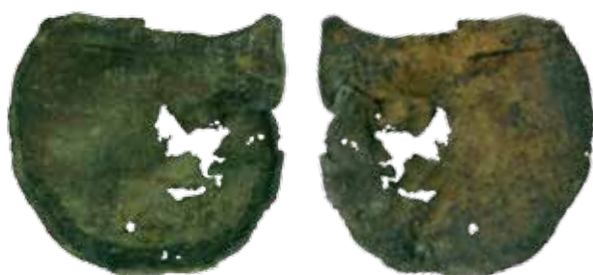


ÄM AM 017a. Ventral and 'dorsal' view (largely obscured due to the folding of the front towards the heel).

Left: Detail. The paired stitch holes with remnants of stitches in situ. Scale bar is 10 mm.



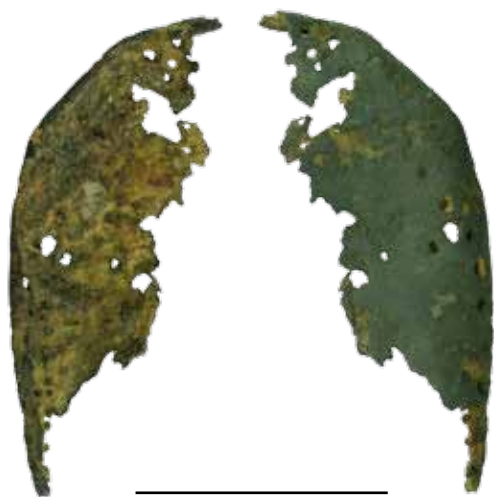
ÄM AM 017b. Obverse and reverse.



ÄM AM 017d. Dorsal and ventral view.

Right: ÄM AM 017d. Detail. Decorative band along the perimeter of the dorsal surface.

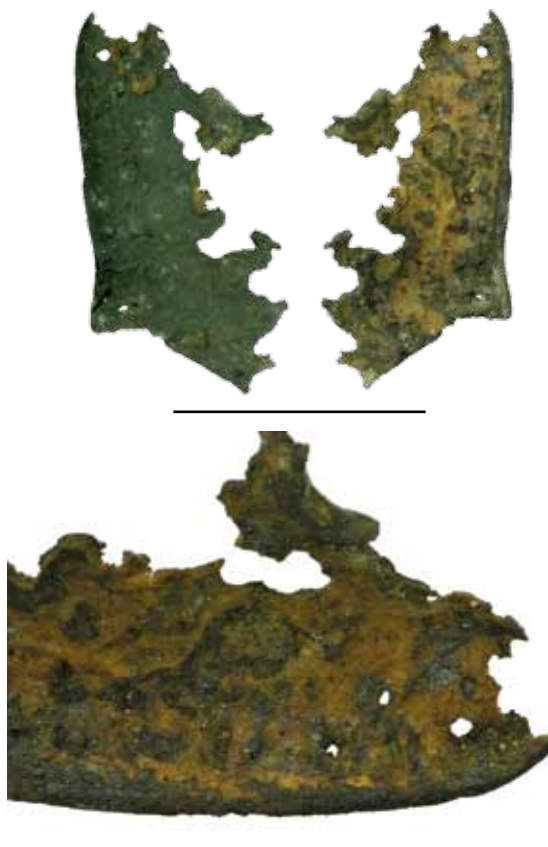




ÄM AM 017h. Dorsal and ventral view.

Top right: ÄM AM 017i. Ventral and dorsal view.

Right: ÄM AM 017i. Detail. Dorsal view, stitch holes with remnants of stitches. Scale bar is 10 mm.



Cat. No.	Specialist No.	ÄM AM 020c-e, h, i, l
8	Group	ÄM AM 020a-n
	Year	1912/1913
	Find No.	817
	Context	Stable court
	Measurements	(c) l: 47.5; w: 32.0; t: 2.2; (d) l: 63.0; w: 32.7; t: 2.2; (e) l: 95.0; w: 95.0; t: 2.0; (h) l: 85.0; w: 20.8; t: 3.4; (i) l: 54.3; w: 5.1 - 12.2; t: 3.7; (l) l: 36.2; w: 13.9; t: 2.3
	Material	Leather
	Colour	(c)-(e), (h) Dark brown; (i) Brown; (l) Light brown
	Remarks	(a), (b), (f), (g), (j), (k), (m) See 'Unidentified' (Cat. No. 91); (n) See 'Offcuts, Waste' (Cat. No. 78). This group includes many featureless scraps as well as numerous offcuts. These are not numbered and described, except for the red ones (ÄM AM 020n). There are also several small rectangular fragments, which might be fragments of sandal straps.

Description

- (c) Irregularly-shaped fragment with parts of the original curved edge intact. Paired stitch holes along the edge. At the other margin also stitch holes. Some holes with leather thong stitches *in situ*.
- (d) Roughly crescent-shaped fragment of sandal's(?) sole with pairs of small leather thong running stitches *in situ* mainly along the perimeter but also isolated paired stitch holes in the centre.
- (e) Roughly rectangular part of sandal's sole. The larger edge of one side is intact, showing a chaotic pattern of stitch holes, suggesting at one point two rows of stitch holes close together: this might be due to repair. The other margin has only a small piece of original edge *in situ*. In some holes, fragments of leather thong stitches *in situ*.
- (h) Narrow, curved edge of piece of footwear with two rows of sinew(?) stitches (straight stitching).
- (i) Small, tapering edge fragment of piece of footwear. The *in situ* stitch suggests straight stitching. Stitch holes parallel to edge.
- (l) Terminal part of a pre-strap with one mal-formed slit, orientated lengthwise.



ÄM AM 020c. Obverse and reverse.



ÄM AM 020d. Obverse and reverse.



ÄM AM 020e. Ventral and dorsal view.



ÄM AM 020h. Ventral and dorsal view.



Right: ÄM AM 020h. Details. Stitch holes with remnants of stitches in situ. Ventral and dorsal surfaces respectively. Scale bar is 10 mm.



ÄM AM 020i & l. Scale bar is 30 mm.

Cat. No.	Specialist No.	ÄM AM 023
9	Year	1912/1913
	Find No.	658
	Context	House P 45, 1
	Measurements	155.0 x 160.0
	Material	Leather
	Colour	Mainly black

Description

Several (three or four?) sandals, in such a bad condition that study was not possible without consolidation by a conservator first. Stitch holes, in pairs, at an estimated 45-degree angle to the edge. Remnants of leather thong stitches *in situ* in some stitch holes.

Cat. No.	Specialist No.	ÄM AM 025
10	Year	1912/1913
	Find No.	344
	Context	House Q 47, 5
	Measurements	l: 125.0; w: 65.0 (measured in box)
	Material	Leather
	Colour	Very dark brown, black

Description

Almost complete(?) sandal. Badly preserved, making study impossible: needs to be dealt with by conservator first. Possibly, the relatively wide strip of leather running diagonally across the sandal (arrow) is (part of) the back strap.

Cat. No.	Specialist No.	ÄM AM 027a-c
11	Year	1912/1913
	Find No.	333
	Context	House Q 47, 7
	Measurements	(a) l: 80.0; w: 51.6; t: 1.3; (b) l: 80.0; w: 27.4; t: 1.8; (c) l: 140.0; w: 77.0; t: 7.5



ÄM AM 023.

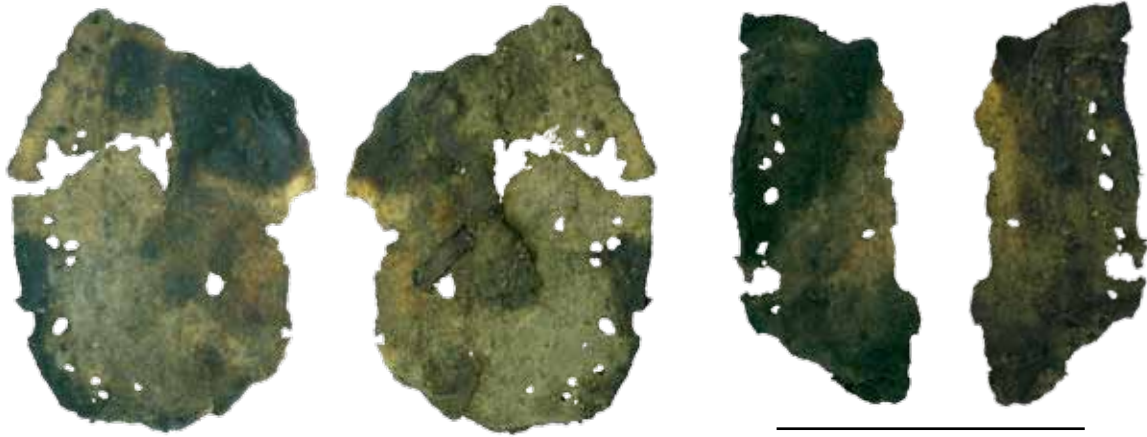


ÄM AM 025. Dorsal view(?)

<i>Material</i>	(a), (b) Leather; (c) Leather, with rawhide strip
<i>Colour</i>	(a), (b) Brown; (c) Dark brown, black. The rawhide strip is yellowish brown

Description

- (a) & (b) Small fragments possibly flaked off from ÄM AM 027c.
- (c) Larger part of a sandal of which the sole consists of three layers. At one side several stitch holes are visible. Note the strips, which adhere to one end, the construction of which cannot be determined. Small pieces of other, whitish leather are attached at the other side of the sandal.



ÄM AM 027a. Dorsal and ventral views.

ÄM AM 027b. Dorsal and ventral views.



ÄM AM 027c. Ventral and dorsal view.

Cat. No.	Specialist No.	ÄM AM 028b	Material	Leather, rawhide
12	Group	ÄM AM 028a, b	Colour	Very dark brown, black
	Year	1912/1913	Remarks	(a) See 'Unidentified' (Cat. No. 95).
	Find No.	313	Description	
	Context	House Q 47, 4		Three roughly square fragments (not numbered separately). All three show one large leather thong stitch. Possibly parts of multilayered-sole sandal(s).
	Measurements	26.0 x 27.0; 27.0 x 33.0; 33.0 x 34.5		



ÄM AM 028b. Scale bar approximately 10 mm.

Cat. No.	Specialist No.	ÄM AM 030a, b, d-f, i	Context	House N 50, 8
13	Group	ÄM AM 030a-l	Measurements	(a) l: 260.0 (as preserved); approximately 275 (reconstructed);
	Year	1911		w heel: 70.5; w waist: 64.2; w front: 100.9; t: 8.2 both sole layers;
	Find No.	227		



ÄM AM 030a. Dorsal and ventral view.



ÄM AM 030a. Details. Edge with straight stitching of tiny leather thong. Note the impressed line at the edge and the larger, isolated leather thong stitch. Scale bar is 10 mm.

- (b) l: 140.0; w: 78.8; t: 3.9;
- (d) l: 110.0; w: 87.2; t: 2.6;
- (e) l: 60.0; w: 75.0; t: 2.0;
- (f) l: 62.4; w: 56.3; t: 1.2;
- (i) l: 56.7 - 90.0; w: 60.0 - 81.5;
- t: 8.7 - 10.9

Material

Leather

Colour

- (a) Yellow brown;
- (b), (d) - (f) Brown;
- (i) Black

Remarks

(c), (g) See 'Unidentified' (Cat. No. 96); (h) See 'Weaponry' (Cat. No. 53); (j) See 'Straps, Belts, Cordage etc.' (Cat. No. 72); (k), (l) See 'Decorated Leather' (Cat. No. 33). The group includes many small featureless scraps, which are not described/illustrated. Only one of (i) is illustrated.

Description

- (a) Left sandal consisting of two sole layers. The heel is slightly pointed at its centre. The waist is constricted but due to the curved overall shape, slightly less at the lateral edge. Towards the front, the width increases asymmetrically: the lateral edge curves gently around to the

pronounced big toe and the medial edge curves towards the big toe from about halfway down the sandal's length. The stitches are very fine and made of narrow leather thong in straight stitching (text figure 8). There are two rows of stitches: one along the entire perimeter (about 6 mm from the edge) and a second row at the front part only, situated on the inner side of the first (about 12.5 mm from the edge). Note that the treadsole is secured halfway down the length with small (but still bigger than the perimeter rows) isolated stitches as well as with various isolated stitches at the heel. These are all at an angle of about 45 degrees to the edge and the two rows of stitching. Note the small remaining bits of impressed line decoration at the dorsal surface of the insole close to the rounded edge. Equals heel of ÄM AM 017d (Cat. No. 7) closely.

- (b) Right front part of an insole. The identification is based on the bulging, transverse, almond-shaped hole for the accommodation of the front strap. The bulging is due to the knot of the front strap at the ventral surface being pulled against the hole by the front strap itself. The stitches (narrow leather thong, widely-spaced running stitches) are placed much closer to the edge relative to ÄM AM 030a. Note the line decoration on both sides of the stitch row.



ÄM AM 030b. Ventral and dorsal view.

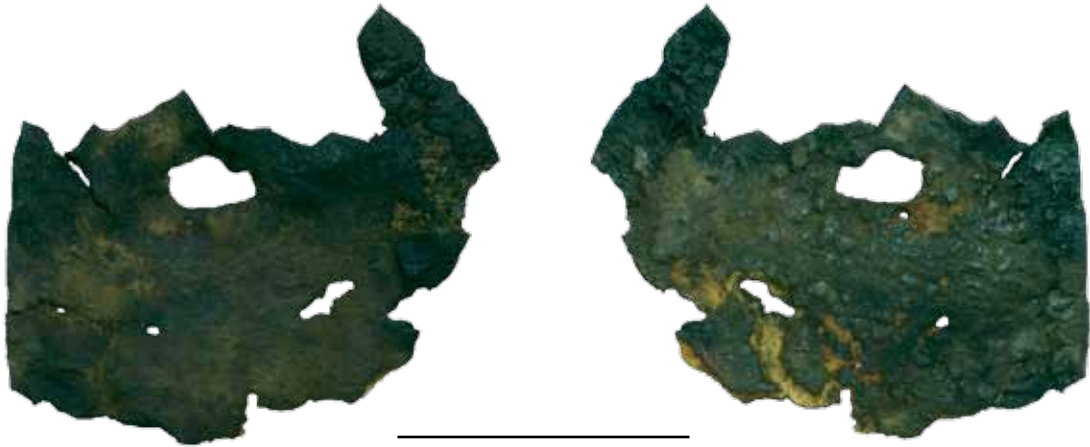


ÄM AM 030d.
Ventral and dorsal view.
Note the strap repair(?).

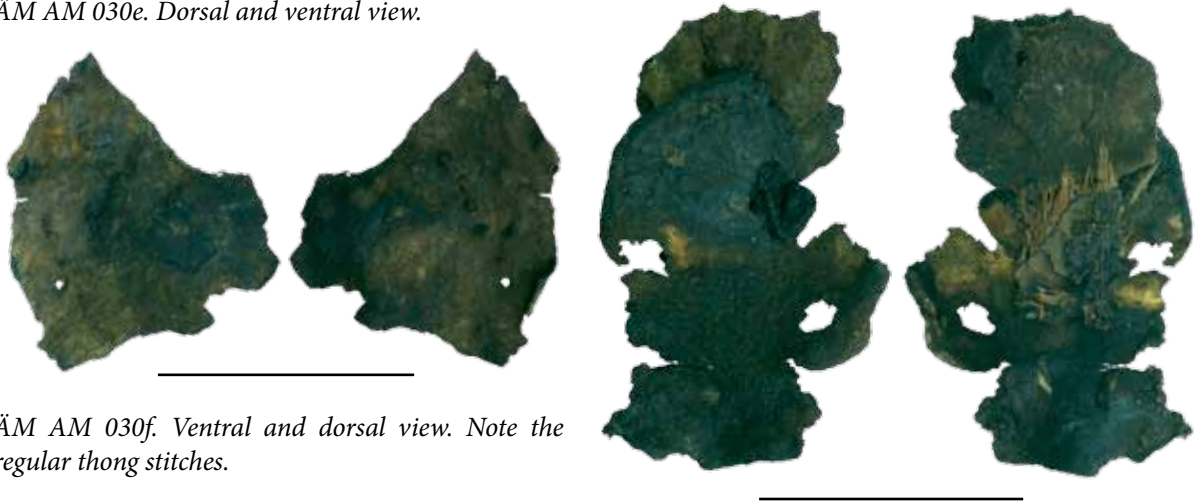
(d) Fragment of sandal with one, possibly two intact edges, showing widely-spaced running stitches with narrow leather thongs. Note the large leather stitch perpendicular to the edge, which might be a repair of the pre- and/or back strap.

(e) Small fragment of a sandal's sole. On one side, part of original edge is preserved. Widely-spaced running stitches with leather thong.

(f) Thin irregular piece with running stitches of narrow leather thong in a curve. Possibly part of a sandal's sole.



ÄM AM 030e. Dorsal and ventral view.



ÄM AM 030f. Ventral and dorsal view. Note the regular thong stitches.

Right: ÄM AM 030i. Obverse and reverse.

- (i) Three pieces, one of which is part of a sandal's heel or front (edge with poorly visible stitch holes and a decorative line). The largest fragment may be part of a sandal too, but is too badly preserved to be sure. The third fragment still has hair *in situ*.



ÄM AM 033.

Cat. No.	Specialist No.	ÄM AM 033
14	Year	1911
	Find No.	336
	Context	House N 50, 21
	Measurements	l: 150.0; w: 52.0 - 75.0; t: 1.5; w strap: 11.7
	Material	Leather
	Colour	Black
	Remarks	Still attached to packing paper. Smaller isolated scraps are not described/illustrated.

Description

Thin, almost complete sole of multi-layered sandal, as suggested by the stitch holes at the perimeter. Parts of straps still present.

(l) l: 52.3; w: 18.5; t: 1.8;

(m) l: 52.7; w: 13.1; t: 2.1

Material

Leather, bone

Colour

Mostly reddish brown. Some also blackish ('resin-like') or greyish

Remarks

From "Buchkasten B."

(n) See 'Clothing' (Cat. No. 61). It is tempting to suggest that the remnants are from one or a pair of sandals. However, the technique clearly suggests at least two different types of sandals. Several featureless fragments, including possible strap fragments, are not described/illustrated, including (f), (i) & (m).

Cat. No.

15

Specialist No. ÄM AM 036a-m

Group ÄM AM 036a-n

Year 1911

Find No. ?

Context House N 50, 1

Measurements (a) l: 74.7; w: 75.1; t: 1.5;

(b) l: 89.1; w: 55.2; t: 4.2;

(c) l: 44.2; w: 36.0; t: 8.0;

(d) 60.0 x 56.8;

(e) l: 38.3; w: 21.3; t: 2.2;

(f) l: 31.0; w: 15.8; t: 2.0;

(g) l: 19.3; w: 17.7; t: 2.3 (edge);

(h) l: 67.5; w: 50.0; t: 2.0 (edge);

(i) l: approximately 170;

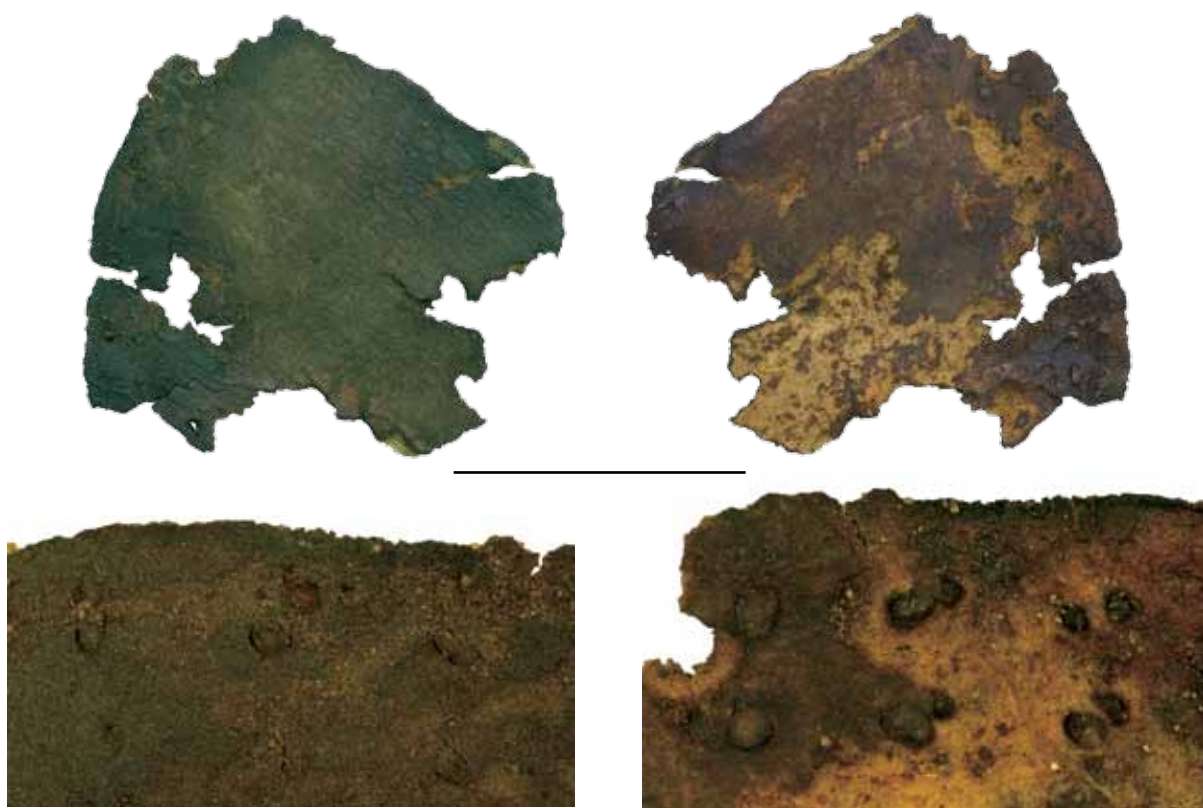
d: 17.0 x 12.2;

(j) l: 27.5; w: 40.8; t: 2.0;

(k) l: 55.8; w: 20.0; t: 2.0;

Description

(a) Irregularly-shaped fragment of a sandal's insole, indicated by several intact stitches of narrow leather thong, in two rows along the small fragment of intact edge (outer row 5.5 mm from edge; the inner row 12.0 mm). The stitches are running stitches, appearing short at the dorsal surface. An impressed line may have run along



Top: ÄM AM 036a. Dorsal and ventral view. Below: Details. The leather thong stitches suggest a sandal with several sole layers. Scale bar details is 5 mm.

- the perimeter, but this is uncertain and might be due to the poor state of preservation.
- (b) Small piece of sandal's rounded edge. The construction cannot be identified with certainty due to the poor preservation, but there might be two rows of stitches along the perimeter, as in ÄM AM 036a. A small fragment of the opposite side, which still adheres to the rest of the fragment by means of a narrow strip in the centre of the sandal, is folded over the edge fragment. Intact width? If so, the measurement suggests a child's sandal (estimated 78 mm).
- (c) Corner fragment of a sandal, possibly from the same sandal as ÄM AM 036b. It consists of three thin layers, secured along the perimeter with two rows of stitches. These are barely visible but might be as described in ÄM AM 036a. Note the small patch of hair at the ventral surface of the treadsole.
- (d) Strips of leather (probably fragments of the strap complex) stuck to a piece of sole. Resinous appearance due to 'melting.'
- (e) Roughly rectangular piece of curved sole's edge with two rows of tunnel stitches along the pe-



ÄM AM 036b. Dorsal and ventral view.



Left: ÄM AM 036c. Dorsal and ventral view. Note the small patch of hair at the ventral surface of the treadsole.



Bottom: ÄM AM 036d. Dorsal and ventral view (on the basis of the small fragment of sole).



ÄM AM 036e. Ventral and dorsal view. Right: Detail, showing two rows of tunnel stitches. Scale bar detail is 5 mm.

rimeter (5.2 and 9.4 mm from edge). The edge is accentuated on one side and thicker than the rest of the layer (2.1 versus 1.2 mm).

- (f) Small edge fragment of sole(?), comparable to ÄM AM 036e. However, there are no stitches visible; it is uncertain whether or not the few holes are stitch holes. Not illustrated.
- (g) Small, roughly square edge piece with isolated tunnel stitch.
- (h) Thin edge piece, with two rows of stitch holes along the curved, intact edge. These are equally widely-spaced in contrast to fragment ÄM AM 036a.
- (i) Larger piece of long bone (femur?), with remnants of skin, muscles and sinew. If so, it is a child's bone; did it belong to the owner of the child's sandal? Not illustrated.
- (j) Pre-strap (of 'ear' design) with fragment of back strap tied to it.
- (k) T-shaped fragment of the front strap, the horizontal part of the 'T' serving as fastening under the sole. Small fragments of the sole layer adhere to the strap.
- (l) As ÄM AM 036k but with less obvious rectangular horizontal part.
- (m) Fragment of strap. One end shows the beginning of a curl. Not illustrated.



ÄM AM 036g. Ventral and dorsal view.



ÄM AM 036h. Dorsal and ventral view respectively(?)

Cat. No.	Specialist No.	ÄM AM 037a-c	Material	Leather
16	Year	1911	Colour	Greyish black with red brown patches
	Find No.	?	Remarks	From "Buchkasten B." Several small featureless scraps are not described/illustrated.
	Context	House N 50, 1		
	Measurements	(a) l: 138.0; w: 81.6; t: 4.5; (b) l: 115.0; w: 127.6; t: 3.5; (c) 33.2 x 52.8		



ÄM AM 036j, k & l respectively in obverse and reverse.

Description

- (a) Larger part of a sandal, possibly consisting of an insole and treadsole. Seems intact width, but this is uncertain due to deterioration and the 'melted' condition. Leather stitches might be running stitches. The stitches do not go through the second layer unless the stitches go past the edge due to displacement of the sole layers. The stitching follows the sole's edge.
- (b) Small fragment of sandal, including the start of the pre-strap, consisting of a thin insole and

thick treadsole. The two sole layers are only clearly distinguishable on the side of the small piece of pre-strap; here, the tunnel stitching can still be seen, apparently used to connect the two sole layers. Only vague indications of the stitching can be seen on the other edges. Note the remnants of hair at the dorsal surface of the insole.

- (c) Accumulation ('melted') of fragments of back straps *in situ* in the pre-strap.



ÄM AM 037a. Ventral and dorsal view.



Left: ÄM AM 037b. Dorsal and ventral view of severely 'melted' sandal.

Top right: ÄM AM 037c. Obverse and reverse.



ÄM AM 037b. Detail. Tunnel stitch. Scale bar is 10 mm.

Cat. No.	Specialist No.	ÄM AM 046a-c
17	Year	?
	Find No.	?
	Context	?
	Measurements	(a) l: 175.0; w heel: 81.4; w waist: 63.5; w front: 97.2; t total: 8.7; (b) l: 110.0; w: 59.4 and 49.7; t: 5.0; (c) l: 230.0; w front: 92.7; w waist: 50.2; w heel: 65.4; t: 3.0; w pre-strap: 9.4
	Material	Leather
	Colour	Greyish to red brown
	Description	

(a) Incomplete sandal, of which only about the back three-quarters is preserved. The sole consists of an insole and treadsole. The heel is rounded and the waist distinctly constricted. From the waist, the sole widens rapidly towards the front. The waist of the insole is damaged from torn off pre-straps, suggesting that it had the familiar 'ear' pre-straps cut out of the same sheet of leather as the sole layer(s). This is confirmed by the treadsole, which clearly shows a small remnant of the base of this pre-strap on one side. Usually the pre-strap of in- and treadsole are taken together and are clad with a strip of leather (for example, see fragment ÄM AM 046c), the end of which would have a slit

for the reception of the back (and heel) strap. The sole layers are secured by means of rather coarse leather thong running stitches along the perimeter. At the heel these are more numerous. Several of the stitches are inserted in the leather as if a tunnel stitch, but they nevertheless penetrate both thicknesses.

(b) Piece of sole (treadsole) with repair (insole). Complicated piece as there is many different stitching. The insole is secured to the treadsole with coarse, widely-spaced leather thong running stitches, but because the layer is not included in the stitches along the perimeter of the treadsole, this would have been the only means of fastening. The treadsole shows, besides the relatively large stitch holes used for attaching the insole, some smaller leather thong stitches along the perimeter. These are widely-spaced, appearing short at the dorsal surface of the sole. They are all broken at the ventral surface of this sole, which suggests that



ÄM AM 046a. Dorsal and ventral view.



ÄM AM 046b. Dorsal and ventral view. Note the many different stitching.

originally there was another sole layer (or layers). As the stitches on the dorsal surface of the treadsole for attaching the repair insole are

broken too, it might be concluded that this sole (these soles) was (were) lost after the repair insole was added. On the inner side of the described short stitches of the treadsole is a series of stitch holes where the area between the holes are broken through, resulting in a crack with expansions of the stitch holes at regular intervals. Looking at the ventral surface, the stitches are intact on the other end of the object. They must have appeared short on the dorsal surface of the treadsole and large on the ventral surface of the, now lost, layer(s).

- (c) Nearly complete sandal. Frontmost part broken off but still present. Heel is rounded, and the waist is distinctly constricted. Towards the front the width increases, with the lateral edge curving more distinctly towards the front than the medial edge. The sandal may therefore be regarded as swayed and meant for the right foot. There is one oval, transverse slit for the reception of the front strap. The pre-straps at

the waist are cut from the same sheet of leather; the end has a slit lengthwise to receive the back (and heel?) strap. At the medial edge, however, the pre-straps consists of two elements on top of each other (the top one clearly showing a red colour) and are clad. It cannot be determined if this cladding is independent or just the extension of the back strap (of which remnants are still *in situ* in the slit). The second pre-strap is the remnant of a second sole. Besides the at-

tachment of the two sole layers by means of the pre-strap cladding and the insertion of the front strap through both sole layers, the layers were secured along the perimeter with narrow (about 1 mm in width) leather thong running stitches, which are rather regular. They appear short at the dorsal surface of the insole. Note that they are situated at the very edge of the sole, rather than slightly more away from the edge proper, except for the stitches at the heel. Note the strong overall curvature in medial direction.



ÄM AM 046c. Ventral and dorsal view. Note the strong overall curvature.

Cat. No.	Specialist No.	ÄM AM 054a, c-e	(c) l: 86.3; w front: 38.5;
18	Group	ÄM AM 054a-e	w 'back': 38.1; t: 4.6;
	Year	1911/1912	(d) l: 177.0; w heel: 56.1; w waist: 44.0; w front: 71.1; t: incomplete;
	Find No.	736	(e) l: 128.3 - 124.3; w: 24.1 - 26.9; t: 4.8
	Context	House P 49, 4	
	Measurements	(a) l: 190.0; w heel: 41.6; w waist: 51.7; w front: 64.5; t: approximately 11.5; w pre-strap: 19.3; d front strap: 5.5;	Material (a), (c), (d) Leather; (e) Rawhide
			Colour Beige, red brown, red

Remarks (b) See 'Straps, Belts, Cordage etc' (Cat. No. 76). Several small scraps are not described/illustrated.

Description

(a) Nearly complete sandal, consisting of five sole layers. The heel is small and rounded. Towards the front it increases in width continuously; the waist is therefore not constricted. The lateral edge curves gently towards the big toe area; because the medial side curves less strongly, the

sandal is clearly swayed and meant for the left foot. Note that, as seen in other Amarna sandals, the entire sandal shows a lengthwise curvature in medial direction. The sole layers are secured along the perimeter with regular leather thong, running stitches. Lengthwise down the centre is a row of running stitches too, but more widely-spaced. There is a pre-strap, but it cannot be established between which layers it is fastened or from which sole layer it is an



ÄM AM 054a. Dorsal and ventral view. Note the overall curvature.

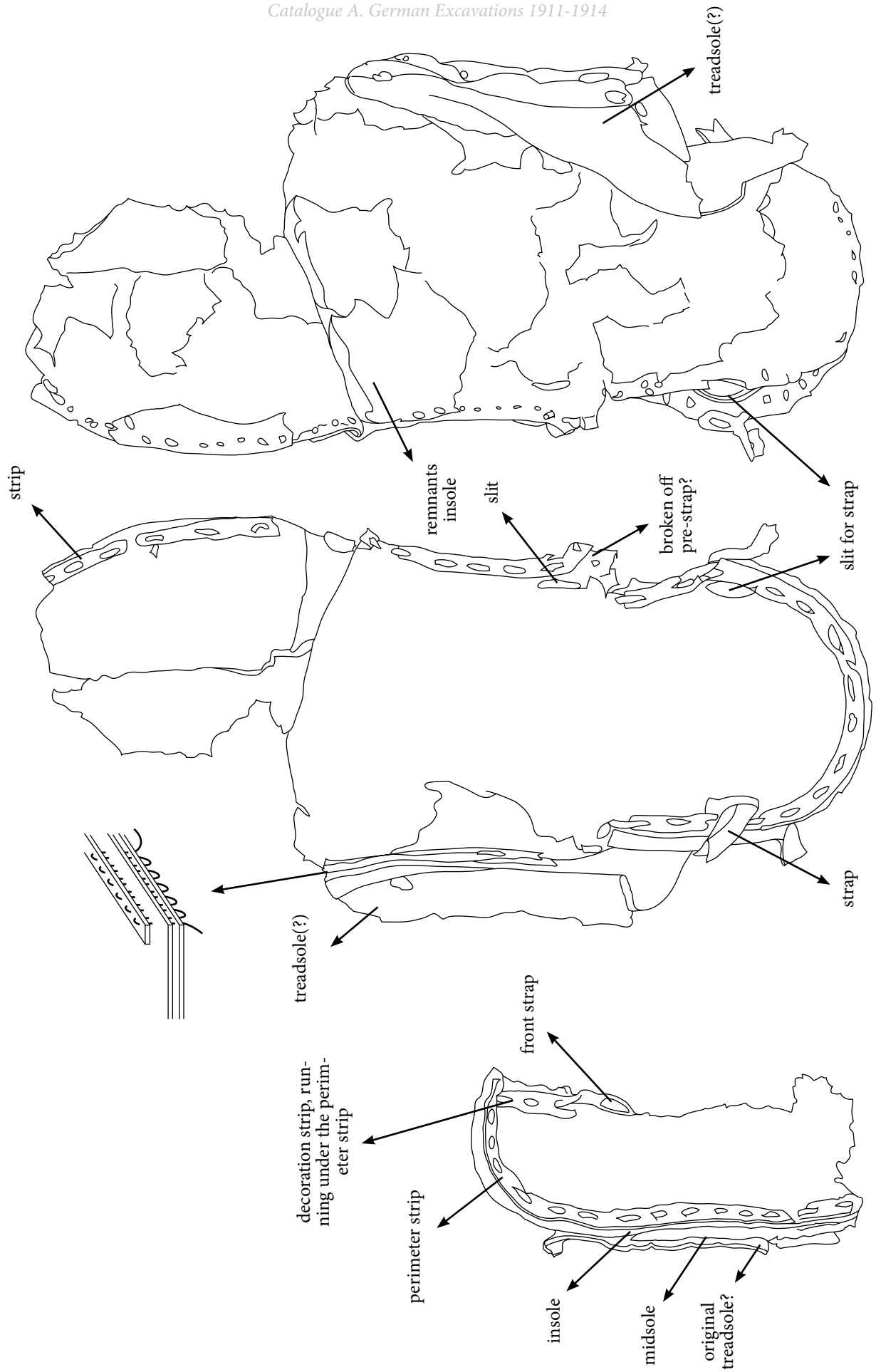


Top: ÄM AM 054c. Dorsal and ventral view.

Right: ÄM AM 054d. Dorsal and ventral view.

▲ ÄM AM 054c. Drawing of dorsal view.

▲ ÄM AM 054d. Drawing of dorsal and ventral view.



extension, due to the bad state of preservation. However, the thickness of the strap suggests that it is a separate element, as generally, the sole layers are much thinner. Most likely it ran between two sole layers from one side to the other. The end of the pre-strap is trapezoidal and contains three slits lengthwise. Parts of the back (and heel?) strap are still *in situ*. The front strap consists of a strip of red leather, which is coiled lengthwise and inserted through the entire sole. It is secured at the ventral surface of the treadsole by bending the end towards the medial edge. Note the small piece of red leather on the treadsole, which is a small part of the treadsole folded towards the ventral surface.

- (c) Small corner fragment of ÄM AM 054d, which is a sandal. They are both described as one. The sandal has a rounded heel, at the sides of which are slits to attach the back (and heel?) strap(s). Shortly anterior is a slightly constricted waist. Towards the front, the width increases and especially the lateral edge. This edge curves gently towards the distinct big toe area, to which the medial edge runs much more straight. This results in a distinctly swayed sandal, which is meant for the right foot. There are at least two sole layers. The insole is bright red and along

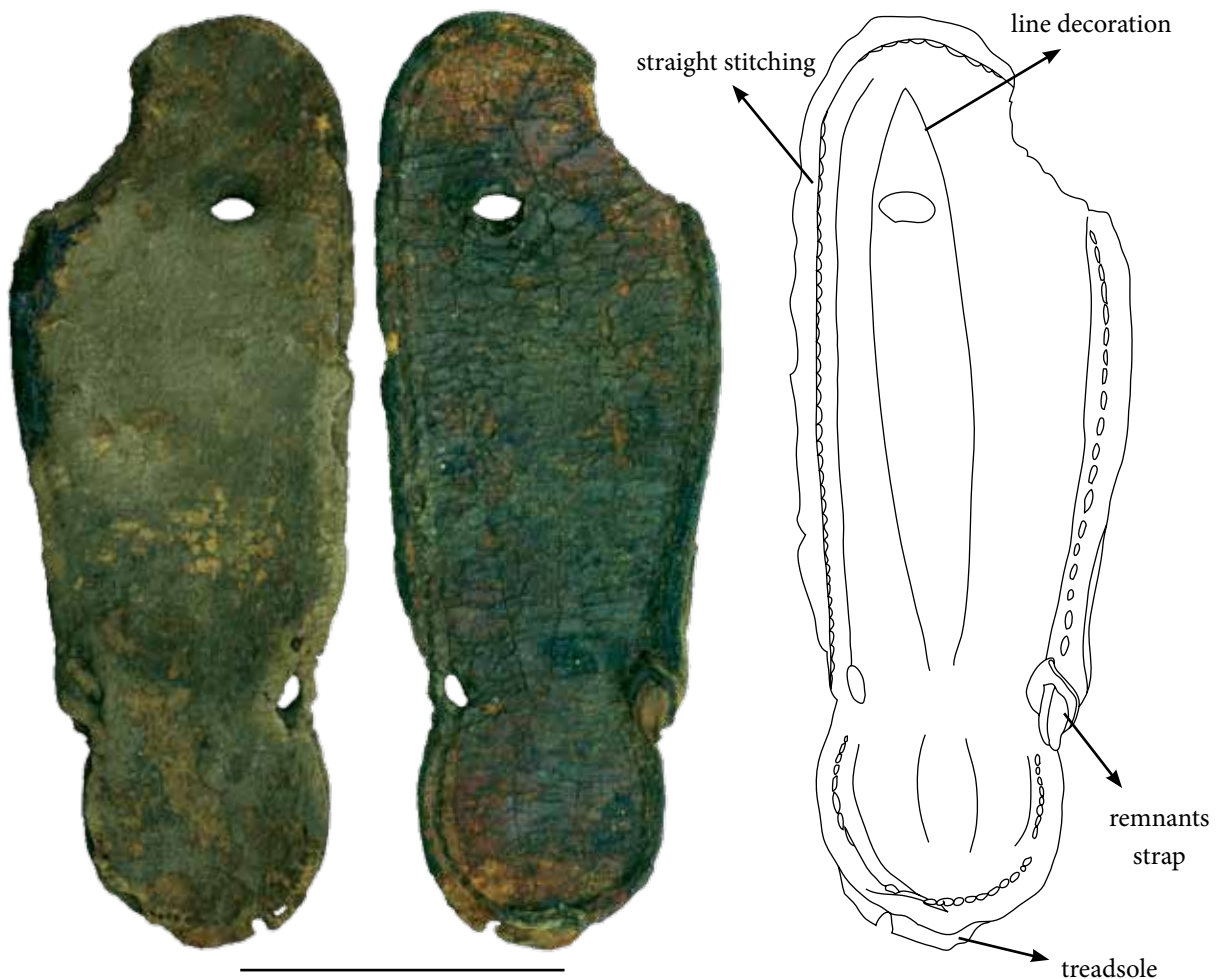
the perimeter aligned with a narrow (about 4 mm) leather strip, which is secured with leather thong, running stitches lengthwise down the centre. Seen from dorsal, at the lateral edge and anterior of the waist, the edge runs outwards. Possibly, this was the beginning of the original pre-strap, lost at some time and replaced by the slits in the heel and at the beginning of the 'original pre-strap'. Note the remnant of the strap complex still *in situ* in the slit in the heel at the medial edge. Fragment ÄM AM 054c gives additional information about repair: besides the two layers, it has three(?) thin additional sole layers, not visible in ÄM AM 054d. The first midsole (*i.e.* seen from the insole) shows stitches at the visible edge, but these are not used to secure it to the other sole layers. The front strap is secured ventrally to the ventralmost layer. Note at the dorsal surface of the insole in fragment ÄM AM 054c the decorative (and functional) strip of leather (4.9 mm wide) running from the perimeter (as it runs under this perimeter strap, it is added to the sole before it) to the front strap attachment.

- (e) Two rectangular pieces of unknown use. The edges in one are folded.



ÄM AM 054e. Obverse and reverse. For ÄM AM 054c & d, see previous pages.

Cat. No.	Specialist No.	ÄM AM 056a-m	(i) 88.5 x 59.7/68.3; t: 2.4 - 6.9;
19	Year	1911/1912	(j) l: 36.4; w: 25.8; t: 6.8;
	Find No.	1139.1140	(k) l: 57.1; w: 13.7; t: 3.1;
	Context	House N 49, 5	(l) 94.0 x 95.2 x 6.9 and
	Measurements	(a) l treadsole: 143.2; w front: 53.0; w waist: 35.3; w heel: 37.6; t: 5.2; (b) l: 136.6; w front: 59.8; w waist: 42.5; w heel: 34.4; t: 3.4; w pre-strap: 10.5; (c) l: 233.0; w front: 85.0; w waist: 47.0; w heel: 65.0; t: 2.7; (d) l: 200.0; w front: 90.2; w waist: 68.0; w heel: 67.0 (waist and heel measurements uncertain due to poor state of preservation); t: 6.3; (e) l: 135.8; w max: 118.6; t: 13.7; (f) 48.7 x 14.9 x 11.4/27.0 x 36.3 x 7.6; (g) l: 60.1; w: 16.4 - 20.1; t: 2.4; (h) 45.8 x 52.0; t: 1.6;	Material Leather Colour Beige brown to black Remarks Varying degree of preservation. Smaller fragments also identified as sandal due to association with identified footwear.
			Description (a) Child's sandal, consisting of an insole and treadsole. A small piece of the lateral front part is missing. The heel is rounded and the waist distinctly constricted. Towards the front, the width increases; the lateral edge curves more gently towards the big toe, resulting in a swayed sandal, which is meant for the right foot. The



ÄM AM 056a. Ventral and dorsal view. Note the slightly raised edge on the dorsal surface.

treadsole is slightly thinner (2.7 versus 2.1 mm) but this is due to wear, as is clearly visible at the heel. The insole has a distinct edge of about 3.3 mm, the inside of which has double running stitches (straight stitching) of sinew to secure the two sole layers. The raised edge might have evolved due to pulling the stitches tight. The dorsal surface of the insole has (incised?) line decoration, roughly following the shape of the sole, but more oval. Nothing remains of the front strap, although the transverse oval slit is still visible (5.4 x 6.4 mm). At the waist, however, is a slit on each side. A strip of leather is pulled through the lateral slit, which emerges at the ventral surface of the treadsole: it has a slit through which a second strip is pulled. This seems to be a repair, as fragments of the edges of the waist are clearly torn off. These might have been the original pre-strap cut from the same sheet of leather as the sole.

- (b) Child's sandal, consisting of one sole layer. The heel lacks the medial corner, but one can still

see that it is rounded. The waist is constricted. Towards the front, the width increases asymmetrically, resulting in a swayed sandal for the left foot. Note that the entire length is, albeit slightly, curved in medial direction. Nothing is left of the front strap except the transverse slit (5.2 x 2.3 mm). The pre-straps, which terminate in a straight edge with a slit lengthwise for the reception of the back (and heel?) strap (of which remnants are still *in situ* in the slit of the lateral pre-strap), are cut out of the same sheet of leather as the sole. Note, however, that the medial and lateral straps are not at the same distance: the medial one is situated closer to the heel.

- (c) Sole of a sandal. The outermost edge is lost for the most part, showing the characteristic semi-circular broken stitch holes, which were used to attach the sole to another layer(s). Only the lateral edge of the heel still has a part of the original edge *in situ*. The heel is rounded and the waist constricted. Towards the front, the



ÄM AM 056b. Dorsal and ventral view.

width increases especially at the lateral edge, which curves gently towards the big toe area, resulting in a swayed sole for the left foot. Only the front strap's transverse slit remains (11.9 x 5.6 mm). Note the indentation at the front, separating the big toe from the rest of the toes. On

the back part of the sandal there are no signs of the strap complex. However, at the medial edge is a long (34.2 mm) slit (orientated lengthwise), which might be a replacement attachment for straps.



ÄM AM 056c. Ventral and dorsal view.

- (d) Nearly complete sandal, but broken in two, just anterior to the waist. The entire sandal suffered 'melting', but the heel is especially affected and details are not visible at this part. The heel is rounded. The waist is not constricted: the width increases continuously from the heel onwards. The lateral edge, however, curves, especially the front half, towards the big toe; because the me-

dial edge runs more or less straight towards the big toe, the result is a swayed sole for the right foot. The three sole layers are secured along the perimeter with straight stitching of sinew, approximately 3.3 and 8.0 mm from the sandal's edge. The transverse slit (6.8 x 3.8 mm) for the reception of the front strap still has the fastening at the ventral surface of the treadsole *in situ*.



ÄM AM 056d. Dorsal and ventral view.

The heel shows small remnants of the pre-strap, which was most probably cut out of the same leather as the sole layers; however, exactly how (*i.e.*, all sole layers or only one) and in what shape is uncertain. Note the red patches on the dorsal surface of the insole, which might suggest the original colour.

- (e) Front part of a coarse, swayed, left sandal, consisting of three sole layers. At least the insole and midsole are secured with very small leather thong stitches along the perimeter. These appear short on the dorsal surface of the insole. However, there are no signs that they penetrated the entire thickness of the treadsole, and it seems, therefore, that, if it also attaches this sole, it was stitched through a part of the treadsole's thickness. One possible stitch can be seen at the ventral surface of the

treadsole, but as it lies deep in its stitch hole, it seems that the surface that once covered it is worn and thus confirms the suggestion. The sturdy front strap (7.1 x 3.8 mm) is pulled through the usual transverse slit, likely through the insole and midsole, but not through the treadsole. Sometimes, the front strap fastening is sandwiched between sole layers but this is rare and one wonders if in this case instead, the treadsole might be a repair rather than original.

- (f) Two small strips of leather, attached to another fragment of leather. A coiled edge(?) has a narrow strip of leather immediately next to it, which is secured with an overhand stopper knot. The other fragment consists of a narrow leather strip with two slits (orientated lengthwise) through which a narrow strip is pulled and knotted.



ÄM AM 056e. Dorsal and ventral view.

- (g) Thin fragment, probably of a sole layer. One surface has five stitches through part of the thickness. There are still remnants of leather thong stitches *in situ*. Note that the stitches are still visible on the other surface despite the fact that they go through only part of the leather's thickness.
- (h) Irregularly-shaped fragment, with remnants of leather thong running stitches on one small piece of edge.
- (i) Irregular fragment. It is uncertain whether it is a part of an object or perhaps waste. On one side, there are two holes, which look like large stitch holes.
- (j) Small fragments of sole, held together with remnants of stitches. One fragment has a small piece of original edge.
- (k) Roughly rectangular fragment with stitch holes. One edge is intact. Probably part of a sole.
- (l) Two pieces of very badly-preserved leather, which vaguely show the shape of a sandal. No details visible.
- (m) Eleven, featureless fragments, of which some are parts of soles (only the two most important ones are illustrated).

f



g



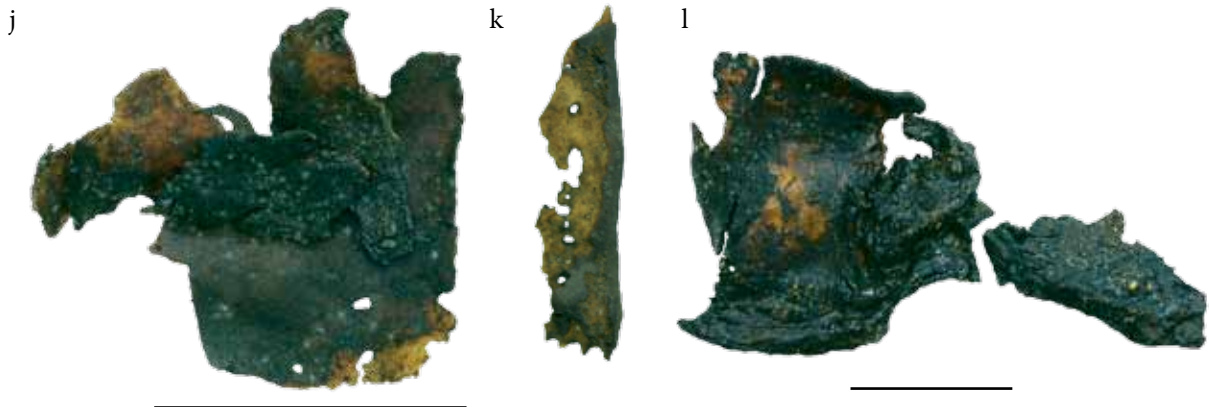
h



i



Right: ÄM AM 056f-i. Overview of several small sandal parts.



ÄM AM 056j-m. Overview of several small sandal parts.



ÄM AM 058a. Dorsal and ventral view.

Cat. No.	Specialist No.	ÄM AM 058a, b
20	Year	1911
	Find No.	?
	Context	House N 50, 1
	Measurements	(a) l: 121.6; w: 45.2 and 59.5; t: 7.5; (b) l: 167.0; w front: 70.2; w waist: 51.0; w heel: 17.8; t: 4.7
	Material	Leather
	Colour	Reddish to dark brown
	Remarks	From "Buchkasten B".
	Description	(a) Front part of a sandal, consisting of an insole and treadsole. Remnants of the insole are <i>in situ</i> on the lateral front corner. The position of the hole for reception of the front strap suggests a left sandal. The sole layers are secured along the perimeter with two rows of tiny leather(?) thong running stitches. (b) Posterior three-quarters of a sandal, consisting of an insole and treadsole. Seemingly, they are only secured along the perimeter of the heel with leather(?) thong running stitches. The sole layers are relatively thin. Nothing remains of pre-straps, which seem to have broken off. A small remnant of the strap complex adheres to the dorsal surface of the insole.

Measurements	l: 193.0; w front: 82.5; w waist: 56.9; w heel: 69.0; t: 4.2
Material	Leather
Colour	Dark brown
Remarks	From "Buchkasten B".

Cat. No.	Specialist No.	ÄM AM 059
21	Year	?
	Find No.	?
	Context	House N 50, 1

Description
Sandal, consisting of an insole and treadsole. The heel is mostly missing, but one can see the constriction of the waist. Towards the front, the sandal in-



ÄM AM 058b. Ventral and dorsal view.



ÄM AM 059. Ventral and dorsal view. Note the small fragment of red leather on the ventral surface of the treadsole.

creases in width; the lateral edge curves distinctly towards the big toe area. Because the medial edge runs almost straight towards this area and curves slightly posterior to it, the sandal is swayed and meant for the right foot. The sole is secured along the perimeter with narrow leather thong running stitches. These appear short at the dorsal surface of the insole and long at the ventral surface of the treadsole. The anterior part of the front strap, going through the transverse slit in the sole, is still preserved. It consists of a lengthwise folded, narrow strip of leather (w folded: 4.7 mm). The ventral surface of the treadsole has a fragment of red leather attached, the function of which is unknown. Note the overall longitudinal curvature of the sandal.

Measurements l: 183.0; w front: 85.1; w back: 63.9; t: 7.7

Material Leather

Colour Dark brown

Remarks From "Buchkasten B."

Description

Sandal, consisting of an insole and treadsole. The heel is missing. Towards the front the sandal increases in width, the lateral edge curving distinctly towards the big toe area. The medial edge curves too, but far less distinctly and starts its outwards course more anteriorly. The result is a swayed sandal, which is meant for the left foot. The sole layers are secured with two parallel rows of tiny stitches along the perimeter (4.3 and 7.7 mm inwards from the edge of the treadsole), which are most likely made of sinew. Large leather thong repair stitches (diagonally running stitches) can be seen on the lateral edge. The transverse slit for the attachment of the front strap (12.9 x 4.7 mm) is empty.

Cat. No.	Specialist No.	ÄM AM 060
22	Year	?
	Find No.	?
	Context	House N 50, 1



ÄM AM 060. Dorsal and ventral view.

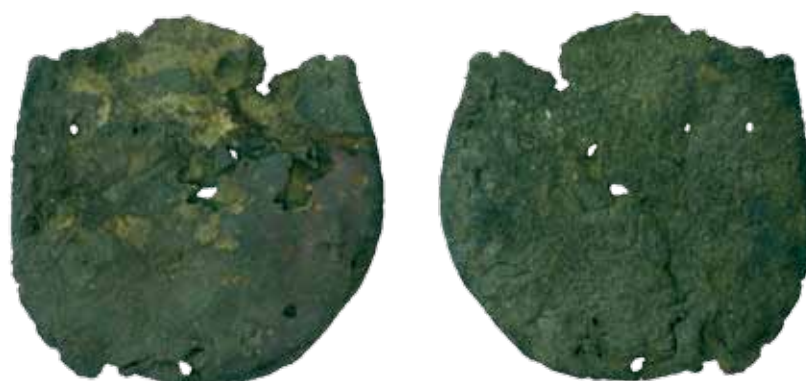
Cat. No.	Specialist No.	ÄM AM 061a, b
23	Year	1911
	Find No.	?
	Context	House N 50, 1
	Measurements	(a) l: 102.1; w: 68.9; t: 9.3; (b) l: 64.4; w: 66.4; t: 5.1
	Material	Leather
	Colour	(a) Dark brown, black; (b) Greyish brown, beige, red
	Remarks	From "Buchkasten B."
	Description	(a) Badly preserved piece ('melted'), which might be a fragment of sandal, consisting of two

sole layers. One side shows, on one end, additional pieces of leather, the function of which is unknown. One narrow piece of leather strip (stitching thong?) protrudes from it. Included in the specialist number is a small, detached fragment, which is not described/illustrated.

(b) Heel of a sandal, consisting of two layers, which are secured with leather thong running stitches. The stitches appear small at the dorsal surface of the insole, but larger at the ventral surface of the treadsole. The dorsal surface of the insole shows, on some spots, a red colour. The insole slightly overlaps the treadsole.



ÄM AM 061a. Ventral(?) and dorsal(?) view.



ÄM AM 061b. Dorsal and ventral view.

Cat. No.	Specialist No.	ÄM AM 064a, b	Measurements	(a) l: 112.7; w: 87.0; t: 2.2; (b) l: 114.6; w: 93.0; t: 2.3
24	Year	1911/1912	Material	Leather
	Find No.	1624	Colour	Beige to (greyish) brown
	Context	House O 49, 20	Remarks	The list only mentions "2 Sandalen."

Description

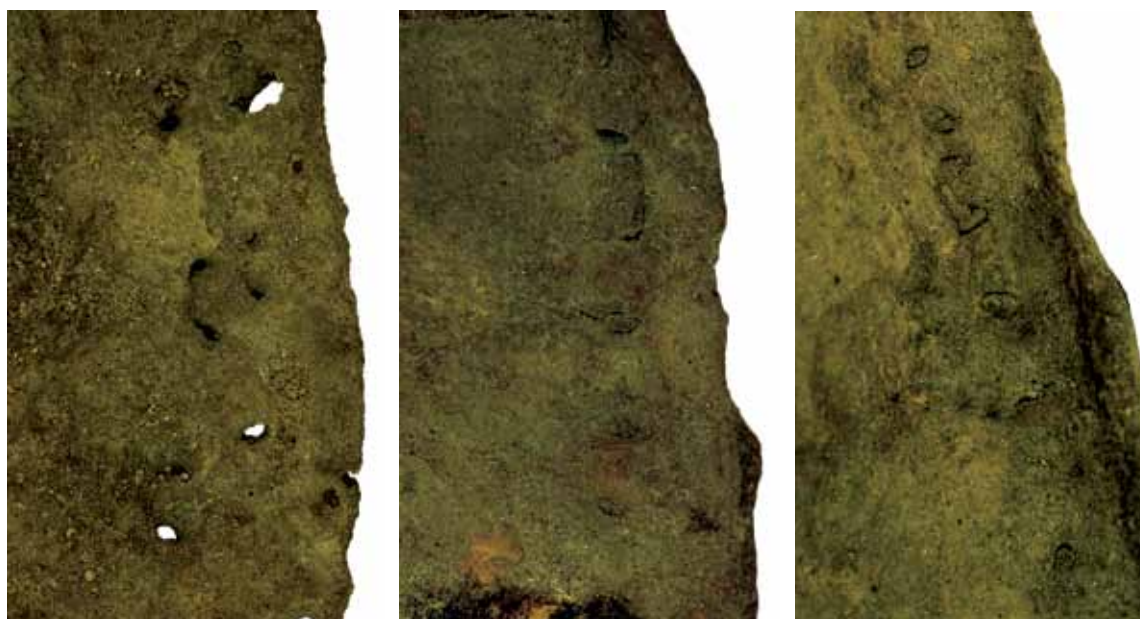
(a) Sole of a sandal, likely consisting of an insole and treadsole. Only the anterior third (approximately) is preserved, showing towards the big toe area a laterally more distinctly curving edge. The result is a swayed sandal for the right foot. The insole and treadsole are secured along the perimeter with two rows of narrow leather thong running stitches (about 9.7 and 12.7 mm

from the edge). The stitches are about equally long on both sides of the sole. The nearly circular hole for the reception of the front strap is still there but is enlarged due to wear.

(b) Treadsole, because the remnant of the front strap (folded lengthwise and ending in a 'knob') fits in the front strap hole in the insole. Moreover, the middle part, which is distorted, fits too.



ÄM AM 064a. Ventral and dorsal view.



ÄM AM 064a. Details. Stitch holes, some with leather thong stitches in situ. Scale bar is 10 mm.

Note, however, that the front strap is not inserted in the original slit (7.9 x 4.5 mm), but in a hole slightly more posterior. It is uncertain if

the front strap would fit in the slit in the insole if the original slit in the treadsole would have been used.

ÄM AM 064b. Dorsal and ventral view.



Cat. No.	Specialist No.	ÄM AM 065a, b	Measurements	(a) l: 125.4; w: 78.5; t: 1.4;
25	Group	ÄM AM 065a-c		(b) l: 220.0; w front: 57.7; w waist: approximately 59.4; w heel: 60.2
	Year	1911/1912	Material	Leather
	Find No.	1624	Colour	Beige to greyish brown. Black
	Context	House O 49, 20		



ÄM AM 065a. Ventral and dorsal view.

Remarks (c) See 'Decorated Leather' (Cat. No. 39). Note that the list gives only "2 *Sandalen*." The group includes several small, featureless scraps, which are not described/illustrated.

Description

(a) Front part of a sandal's sole. Might belong to ÄM AM 065b. Originally, it was part of a sandal with more sole layers, suggested by the evenly-spaced stitch holes along the perimeter and the narrow leather thong running stitches still *in situ* in some of them. Assuming the surface with the upright standing edges as dorsal surface, the sandal is a right one. A small (19.7 x 11.4 mm) rectangular piece of decorated leather adheres to the dorsal surface between

the anterior edge and the transverse slit (6.3 x 5.2 mm) for the reception of the front strap (arrow). It might consist of three layers, each of which consists of two overlapping layers.

(b) Incomplete sandal's sole, which seems to have been a layer of a multiple layer sole judging from the leather thong running stitches along the perimeter. These stitches are comparable to those seen in ÄM AM 065a. The heel is rounded, the waist constricted, and towards the front the sole increases in width, especially laterally. Thus a swayed sandal was created, meant for the right foot. Note the slight overall longitudinal curvature. The transverse slit for the front strap (9.1 x 3.7 mm) is the only remnant of the strap complex. Might belong to ÄM AM 065a.



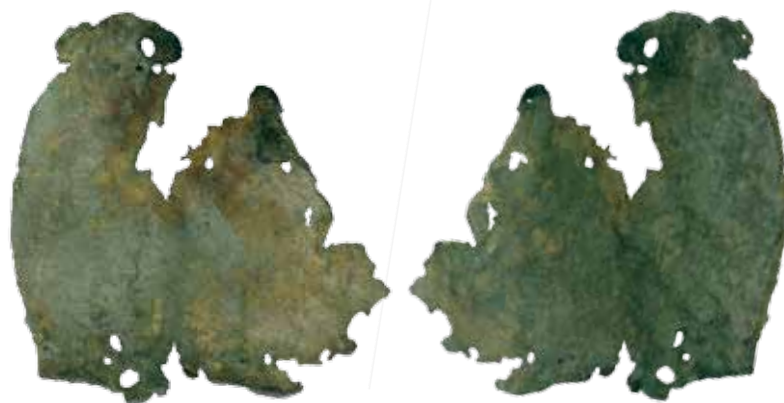
ÄM AM 065b. Ventral and dorsal view.

Cat. No.	Specialist No.	ÄM AM 066a, b
26	Year	1911/1912
	Find No.	1624
	Context	House O 49, 20
	Measurements	(a) l: 85.1; w: 84.7; (b) l: 90.0; w: 71.7

Material	Leather
Colour	Beige to greyish brown
Description	(a) Piece of sandal's sole, the width of which is intact. Along the perimeter are stitch holes, some still containing remnants of the leather thong stitches.

(b) Piece of sandal's sole, seemingly the waist area, including the larger part of the heel and a small

remnant of the middle part. Fragment ÄM AM 066a & b might be from the same sandal.



ÄM AM 066a. Ventral(?) and dorsal(?) view.



ÄM AM 066b. Ventral and dorsal view.

Cat. No.	Specialist No.	ÄM AM 068a, b, f, g
27	Group	ÄM AM 068a-g
	Year	1911
	Find No.	149?
	Context	House N 50, 5
	Measurements	(a) l: 223.0; w front: 95.7; w waist: 76.7; w heel: 68.2; t: 4.0; (b) l: 183.0; w front: 96.8; w back: 103.7; t edge: 8.2; (f) l: 101.6; w max: 97.3; t: 9.0; (g) 54.2 x 25.6 - 83.5 x 105.0; t: 1.0
	Material	Leather
	Colour	Beige brown. Dark brown
	Remarks	(c) See 'Decorated Leather' (Cat. No. 40); (d), (e) See 'Unidentified' (Cat. No. 107). There is one entry in the list from this house, which states "Sack."
	Description	(a) Incomplete sole of a sandal, originally consist-

ing of at least two sole layers, judging by the stitch holes along its perimeter. Some of the evenly-spaced stitch holes still contain remnants of leather thong running stitches. The heel is rounded and the waist seems constricted, but this is uncertain due to the incompleteness of the sole. Towards the front, however, it increases in width; the lateral edge curves more distinctly towards the big toe area than the medial edge. The result is a swayed sole for the left foot. One surface vaguely shows the impressed lines at both sides of the stitch holes (about 2.5 and 10.0 mm from the edge), following the shape of the sandal. This suggests that the sole is an insole.

(b) Incomplete, anterior three-quarters of a coarse sandal. The thick sole has stitch holes along its perimeter with several holes still containing leather thong stitches, suggesting there was at least one more sole layer. The heel is missing,



ÄM AM 068a. Dorsal and ventral view.



*ÄM AM 068b.
Ventral and dorsal view.*

but the back has a short piece of intact width. From here, towards the front, the width first increases but start to decrease from halfway down its length approximately, resulting in a rounded front. This suggests a straight sole; the off-centre position of the transverse slit (13.6 x 4.4 mm) for the reception of the front strap, however, suggests it is meant for the left foot.

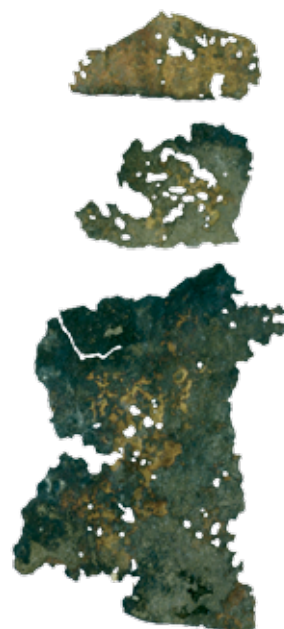
- (f) The shape suggests that this is the anterior part of a sandal/shoe. However, there is no sign of a front strap, which might indicate that it is a heel part instead. Four layers are secured along the perimeter with leather thong, running stitches. On one side of the dorsal surface of the insole are still pieces of a decorative(?) strip visible. The

multitude of stitches, stitch holes and remnants of it, suggests that this is not the first stitching. In between these layers are two additional sole layers, which are not included in the seam. However, one row of leather thong, running stitches lengthwise down the centre secures at least the dorsal five sole layers; most likely also the current treadsole, but since the centre of this sole is not preserved, there is no definite proof. Various randomly-placed stitches at both sides of the row down the centre, some of which are red, do not go through all layers.

- (g) Three thin scraps, which are sole remnants. The bigger pieces have a small piece of intact edge.



ÄM AM 068f. Dorsal and ventral view.



ÄM AM 068g. Overview.

Cat. No.	Specialist No.	ÄM AM 069b, d, g
28	Group	ÄM AM 069a-g
	Year	1911
	Find No.	149?
	Context	House N 50, 5
	Measurements	(b) l: 107.1; w: 99.6; t: 3.2; (d) l: 73.1; w: 78.4 - 46.0; t: 1.4; (g) varying from 33.4 x 20.3 to 53.4 x 87.4
	Material	Leather
	Colour	Greyish brown, brown
	Remarks	(a), (c), (e) See 'Unidentified' (Cat. No. 108); (f) See 'Straps, Belts, Cordage etc.' (Cat. No. 77). There is one entry in the list from this house, which states "Sack."

Description

- (b) Front part of a sole. The fact that there are stitch holes along the perimeter, some of which still have remnants of leather thong stitches *in situ*, indicates that there were additional sole layers. The stitches do not penetrate the entire sole thickness: they are tunnelled through the ventral surface of the sole. The orientation of the sole is based on the malformation of the transverse slit (11.5 x 6.1 mm) for the reception of the front strap, *cf.* ÄM AM 030b (Cat. No. 13), the edges of which are pulled due to the forces exerted on the front strap. This means that the sole layers are stitched from below, *i.e.* from the ventral surface of the treadsole. Since there are



ÄM AM 069b. Ventral and dorsal view.

no stitches to attach another sole on top of the described one, this must be an insole.

- (d) Piece of sole with a small fragment of second sole still *in situ* by means of a leather thong, tunnel(?) stitch (nothing protrudes from the

other side of the first layer). One edge seems original.

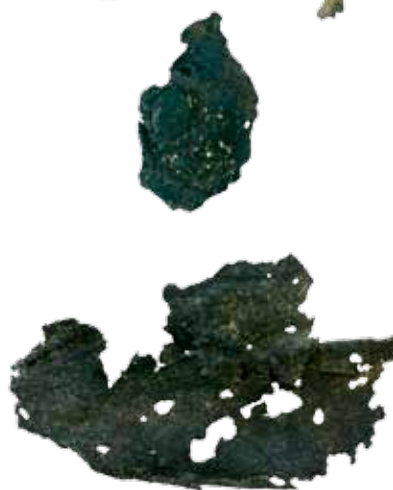
- (g) Several featureless scraps of varying size. Some are likely to be sole parts.



ÄM AM 069d. Dorsal(?) and ventral(?) view.

Right: ÄM AM 069g. Overview of small fragments of sandals.

Cat. No.	Specialist No.	ÄM AM 071a-c
29	Year	1911/1912?
	Find No.	?
	Context	House N 50, 23
	Measurements	(a) l: 81.4; w: 51.2 and l: 83.6; w: 59.8; t: 1.5; (b) l: 208.0; w front: 85.3; w waist: 73.0; t: 3.2; (c) 38.3 x 23.5 - 59.2 x 81.6



Material	Rawhide?
Colour	(a), (c) Red brown, dark brown, black; (b) Light brown
Remarks	The list gives one entry of leather for house N 50, 23, which is " <i>farbige Bruchstücke</i> ." This could mean the leather described here (as the colour varies from light brown to red brown and dark brown) but usually it refers to painted red and/or green leather rather than to the natural colour of leather and rawhide.

Description

- (a) Two pieces of comparable sole or perhaps the same sole. The fragment is crumpled but two edges show stitch holes for a(n) additional sole(s). Some still have narrow leather thong stitches *in situ*. Both have a slit (for reception of the front strap?): 7.5 x 3.5 and 5.9 x 6.1 for the smaller and bigger fragment respectively. It is not certain that these are parts of ÄM AM 071b.
- (b) Incomplete sandal's sole, lacking larger part of the heel and front corner. The heel is rounded and the waist is constricted. Towards the front,

the width increases, especially the lateral edge, which curves more distinctly towards the big toe area. Thus a swayed sole is created, meant for the right foot. There was at least one more sole layer, evidenced by the stitch holes along the perimeter, some still containing the remnants of leather thong stitches. On the dorsal surface, however, along the perimeter, another set of stitches are tunnel-like with remnants of leather thong in some of them. Most do not seem to match with the holes on the ventral surface. However, most likely the stitching thong is inserted at an angle; since the sole is rather thick, it will appear slightly off relative to the place where it is inserted. The waist on the lateral side has a protruding, vaguely crescent-shaped piece, which might be the broken side of the slit for the reception of the back strap: in some sandals the slit is cut into the side of the heel. Remarkably, the slit for the reception of the front strap (6.6 x 4.1 mm) is not placed transversely but lengthwise.

- (c) Three fragments of much-crumpled leather. The smallest shows stitch holes on its edge. The leather is slightly comparable to ÄM AM 071a; possibly parts of the same sole(s)?



ÄM AM 071a. Ventral and dorsal view.



ÄM AM 071b. Dorsal van ventral view.



ÄM AM 071c. Overview.

FOOTWEAR (CAT. NOS. 1-30)

SHOES (CAT. NO. 30)

Cat. No.	Specialist No.	ÄM AM 048a-t	(s) 18.0 x 21.7;
30	Year	?	(t) l: 10.2; w: 7.0
	Find No.	?	Material
	Context	?	Leather
	Measurements	(a) l: 103.3; w: 41.3 - 51.5; t: 2.1; (b) l: 95.8; w: 20.6 - 50.7; t: 2.2; (c) l: 76.4; w: 21.2 - 26.5; t: 2.0; (d) l: 65.0; w: 55.4; t: 1.0; (e) l: 58.0; w: 33.4; t: 2.3; (f) l: 70.7; w: 32.7 - 36.2; t: 1.2; (g) 35.6 x 35.2; t: 0.9; (h) h: 50.2; w total: 75.0; t: 4.2; (i) l: 83.0; w: 18.3 - 43.1; t: 0.9; (j) l: 75.2; w: 45; t: 1.0; (k) l: 68.4; w: 15.5 - 41.5; t: 1.0; (l) 35.2; w: 16.2; t: 3.8; (m) l: 51.7; w: 39.4; t: 1.3; (n) l: 34.8; w: 34.4; t: 2.0; (o) l: 28.0; w: 12.7; t: 2.2; (p) l: 55.0; w: 12.0; t edge: 2.1; (q) 31.0 x 33.4; t: 3.9; (r) 14.5 x 21.1 - 15.7 x 21.4;	Colour
			Dark brown, black
			Remarks
			Some fragments are tentatively identified as parts of footwear, due to their association with clearly recognisable parts. ÄM AM 048r not illustrated.
			Description
			(a) Larger fragment of a shoe's sole. One end terminates in a rounded, symmetrical ('spoon-shaped') expansion (note that the edge is missing parts); the other part is broken off but the start of an expansion is clearly distinguishable. The edge is turned upright, the stitching of which are inserted through it rather than through the edge of the leather, attaching a thin layer of an originally leather insole (millimetres of the surface are worn away, showing the striated inner side of the leather). These would have been much thinner than the tread-



ÄM AM 048a. Dorsal and ventral view of possible front part.

sole. Remnants of leather stitches remain in some stitch holes. The fragment might be a front part.

- (b) Fragment of treadsole, with a spoon-shaped end. Note that the expansion is asymmetrical. The other side shows an extremely constricted waist and the beginning of the expansion towards the opposite end. The waist and beginning of the front show the upright edge with stitches through-and-through; more towards the preserved expansion, however, the leather tends to be slightly thicker and the leather stitches (remnants remain in many holes) emerge at the edge.
- (c) Roughly rectangular fragment of treadsole, including a piece of edge and remnants of stitches.

- (d) Rounded piece of thin leather, the edges of which are folded and show stitch holes with remnants of leather thong stitches. Example of thin insole, described with ÄM AM 048a.
- (e) Roughly rectangular piece, consisting of two thin layers. The edge of one of the long sides is upright, with stitch holes through the thickness, allowing for attachment to the sole. The outer surface of one of the layers is decorated with sets of three diagonal lines in between which are, at right angles, less clearly-defined but evenly-distributed impressed lines. The fragment seems to be a piece of upper, but from which part exactly remains unknown.

Left: ÄM AM 048b. Dorsal and ventral view of the front part.

Below: ÄM AM 048c. Dorsal and ventral view of fragment of treadsole.



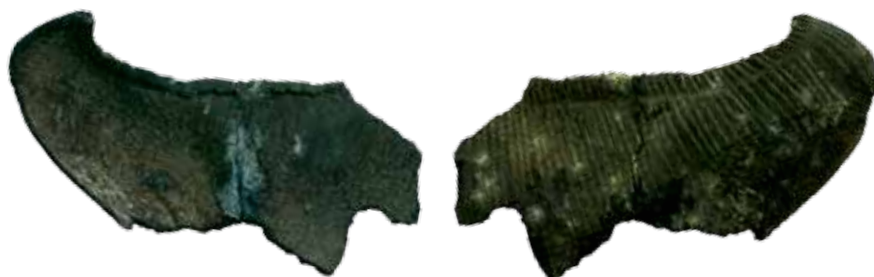
ÄM AM 048d. Ventral and dorsal view of fragment of insole.

Right: ÄM AM 048e. Inner view, showing a fragment of lining, and outer view respectively of fragment of upper(?).

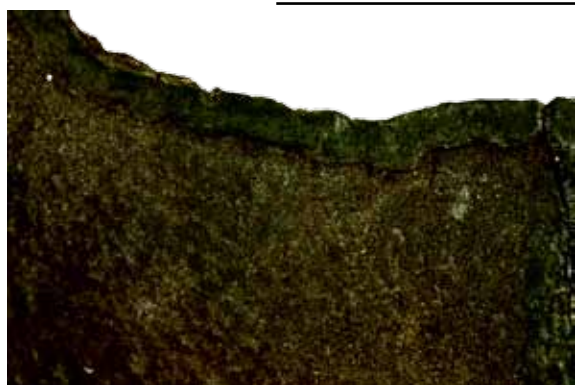
- (f) Single layer, irregularly-shaped fragment of which all but one long edge are broken off. At this intact edge, stitch holes can be seen on the leather's edge, rather than through the entire thickness as seen in for example ÄM AM 048e. The stitches are of flax. The fragment is convex, the convex surface showing a line at about 3.5 mm from the edge, and running parallel to it. The line is not incised but either impressed or cut by means of a gouge. From the edge fanning down (not at right

angles but slightly diagonally) are lines too, which have been made first, as the horizontal line cuts through them. Note that the fragment is broken and glued.

- (g) Triangular, convex fragment of thin leather. The straight edge consists of a strip of leather, which is folded over another thickness, thus sandwiching it. The folded edge is 5.5 mm high and secured with flax running stitches at the edge of the strip.



ÄM AM 048f. Inner and outer view of fragment of upper(?).



Above left and right: ÄM AM 048f. Two details. Edge on the inner surface and the decoration of the outer surface respectively. Scale bar is 10 mm.



Left: ÄM AM 048g. Obverse and reverse.



Below: ÄM AM 048g. Two details of the edge. Scale bar is 10 mm.

(h) Heel's upper, including the back seam. The height is intact. The left part of the upper still has a partly intact sole/upper seam, showing that the thin outer layer of the upper is folded and the stitches put through it. This might have been done with the lining too, but visibility is obscured by the innermost layer, sandwiching the intermediate layer. This innermost layer is of the same composition as described for ÄM AM 048a. The back seam is, due to the lining, not visible on the inner side. The back seam itself is a strip of leather (w: about 3 mm), pulled through slits in the edges of both quarters. The outer surface of the outer upper is covered with

patches of brown, fibrous material of unknown origin.

- (i) Irregularly-shaped fragment of thin leather. The long edge is sandwiched with a strip of bright red leather, running around the corner. It extends 6 - 7 mm on both sides of the sandwiched leather. The strip is stitched with straight stitching, most likely of flax. Possibly a part of upper's leather?
- (j) Thin, featureless fragment, curled lengthwise.
- (k) Piece of insole(?), one end of which expands into a wide, asymmetrical part. The interpretation as insole is due to its shape and thick-



Top left: ÄM AM 048h. Inner and outer view of heel of upper. Note the decorative back seam.

Top right: ÄM AM 048i. Obverse and reverse, with above right a detail of the edge with red binding. Cf. overview for scale.

Centre left: ÄM AM 048j. Obverse and reverse.

Left: ÄM AM 048k. Ventral and dorsal surface of insole(?).

ness, although slightly different to the ones described previously. One surface is decorated with superficial, diagonal lines, resulting in a diamond-pattern. The idea of decoration is to be visible: this surface, therefore, should face dorsally. Further support comes from the other side, to which patches of fibrous material, tentatively identified as papyrus, adhere. In some shoes, midsoles (or intermediate layers) consist of layers of papyrus or other vegetable material. Along the perimeter are large, lengthwise-orientated stitch holes.

- (l) Rectangular, well-made, highly-decorative fragment. One long edge is original. About 5.5 mm from it, are two rows of closely-spaced thong slots, through which passes a coarse, flax thread. Next to it, the leather's thickness is reduced, the edge of which is turned into tunnels too. Another layer is then inserted, having at its edge tunnels as well, which fit in the

open spaces of the first, thus closing the row. It is secured with flax thread. About 6 mm next to this row, the two thin layers, lying on top of each other, are secured by sewing a flax thread through slits in both of the layers. The slits are at right angles to the sewing direction.

- (m) Cf. ÄM AM 048f, but in contrast to that fragment, the edge is straight and the lines are at right angles to the edge; the line that crosses them runs parallel to the edge. Note, as in ÄM AM 048f, the elevated edge on the other surface (arrow), which is obtained by scraping away some of the leather's thickness. Stitch holes on the edge.
- (n) Horseshoe-shaped fragment, consisting of an outer ring in which, to the inner edge, a circular patch is stitched. The stitches go through the folded edges. The outer edge of the ring shows comparable stitches, suggesting that at least one other layer was attached originally.

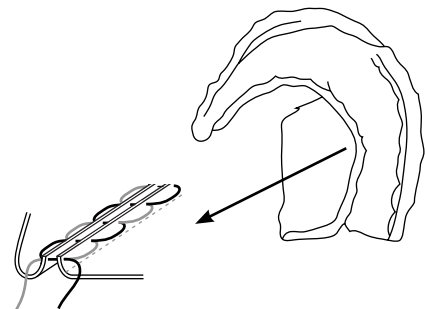


ÄM AM 048l. Obverse and reverse. Note the unique decoration. Identification as shoe part is uncertain. Scale bar is 10 mm.



ÄM AM 048m. Inner and outer surface.

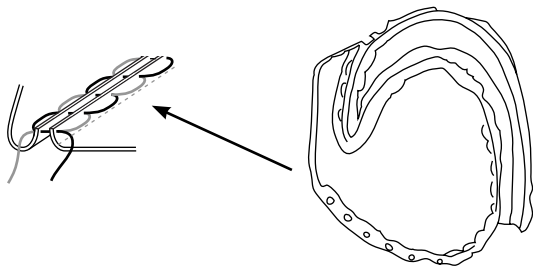
Above right and right: ÄM AM 048n. Inner and outer surface. Cf. ÄM AM 048q.



- (o) Fragment, which fits in the lost part of ÄM AM 048l.
- (p) Edge, consisting of a strip of leather folded over another, thin layer and thus sandwiching it. Comparable to ÄM AM 048g, but note that the stitches in ÄM AM 048p are not made of flax but most likely of sinew.
- (q) Roughly circular object, in technique comparable to ÄM AM 048n. However, this fragment consists of a circular inner part with a small piece protruding, leaving a space between the inner circle and itself. This space is filled with a



ÄM AM 048o. Obverse and reverse of decorated fragment. Cf. ÄM AM 048l.



ÄM AM 048q Inner and outer surface. Cf. ÄM AM 048n.

crescent-shaped piece that runs around the inner circle. Stitched with flax, straight stitching through upturned edges. Are these, ÄM AM 048n as well as ÄM AM 048q, decorative elements of a shoe's upper?

- (r) Scraps. Not illustrated.
- (s) Irregularly-shaped fragment with a single leather thong stitch. The other surface is decorated with seven, vaguely impressed, irregular lines.
- (t) Tiny fragment with two slits, through which once a leather strap or string was pulled.



ÄM AM 048p. Outer and inner side of edge fragment.



ÄM AM 048s. Obverse and reverse.



ÄM AM 048t. Obverse and reverse.

DECORATED LEATHER

(CAT. NOS. 31-49)

Cat. No.	Specialist No.	ÄM AM 013b-d	Description
31	Group	ÄM AM 013a-e	(b) Folded fragment with a system of stitched decorative strips, comparable to ÄM AM 074 (Cat. No. 43). Although the fragment's condition is better than ÄM AM 074 (Cat. No. 43), still the visibility is largely obscured due to poor preservation. Moreover, in contrast to ÄM AM 074, there are no excavation photographs of this object. The 'top' of the object tapers and terminates in a rounded end. The perimeter has a set of decorative strips, possibly followed more inwards by a band of zig-zag appliqué work and, finally, a set of two strips of leather (as the outermost set consisting of a wider lower and narrower upper strip). The object is made of two layers of leather. Parallels in the Metropolitan Museum of Arts, New York, dated to Amenhotep III, suggests that the stitching in the centre once fastened appliqué work of narrow strips of leather. Remnants of red colour suggest the use of green and red to decorate the leather.
	Year	1911/1912	
	Find No.	Uncertain: 1602?	
	Context	Uncertain: house P 49, 2?	
	Measurements	(b) l: 95.0 (folded); l: 180.0 (unfolded); w: 37.8 - 68.2; t: 4.5; (c) l: 36.0; w: 30.3; t: 3.5; (d) l: 19.2; w: 20.8; t: 3.7	
	Material	Leather	
	Colour	(b) Dark brown, black; (c) Brown, green, red	
	Remarks	(a), (e) See 'Straps, Belts, Cordage etc.' (Cat. No. 67). Although identified as 1602, this is highly unlikely as the description " <i>Riemengeflecht</i> " does not match the objects. ÄM AM 057 (Cat. No. 59) has this number as well and is indeed an axe lashing.	

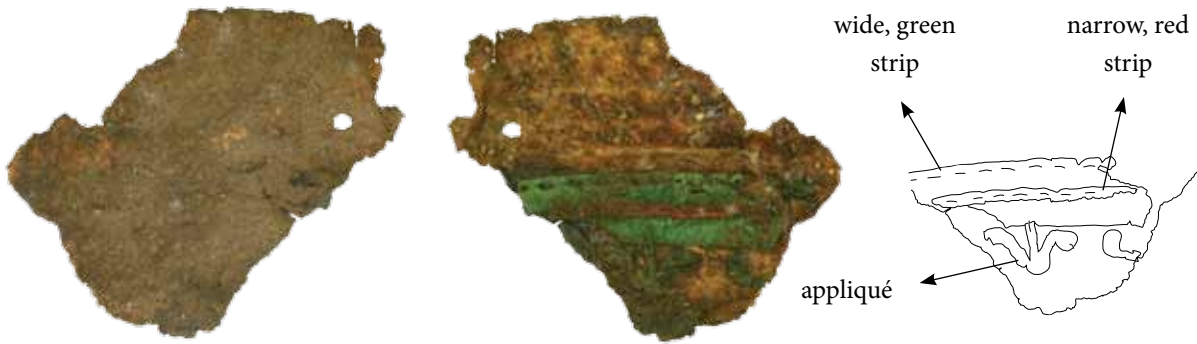


ÄM AM 013b. Obverse and reverse. Cf. ÄM AM 074 (Cat. No. 43).

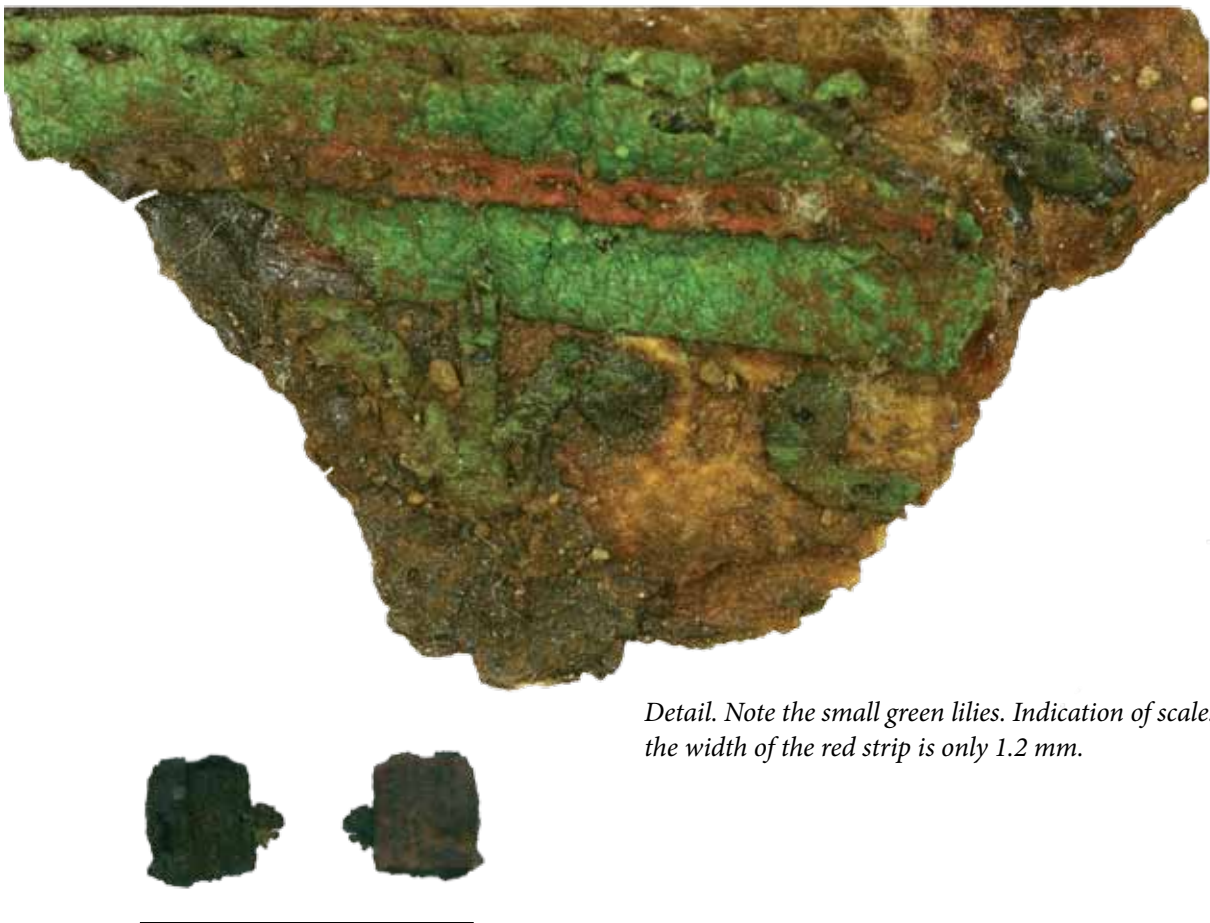
(c) Two pieces of leather secured by means of green and red decorative strips. The lower green strip (7 mm wide) lies close to the edge of the second layer and is secured at the edge. Small appliqué, green leather lilies are secured against the opposite edge with one stitch in the central leaf (slightly overlapping the green strip), and a stitch in the top of the side leaf. A narrow (1.2 mm wide) red strip is secured lengthwise

down the centre of the green strip. All stitches are running stitches with sinew. The stitches on the back side are largely obscured by adhering dirt.

(d) Small fragment, which possibly consists of two strips stitched to a surface. Another layer is attached on the reverse side. It is uncertain whether the features are artificial or not.



ÄM AM 013c. Obverse and reverse. Scale bar is 30 mm. Right: Line drawing. Stitches indicated in dashed line.



Detail. Note the small green lilies. Indication of scale: the width of the red strip is only 1.2 mm.

ÄM AM 013d. Obverse and reverse.

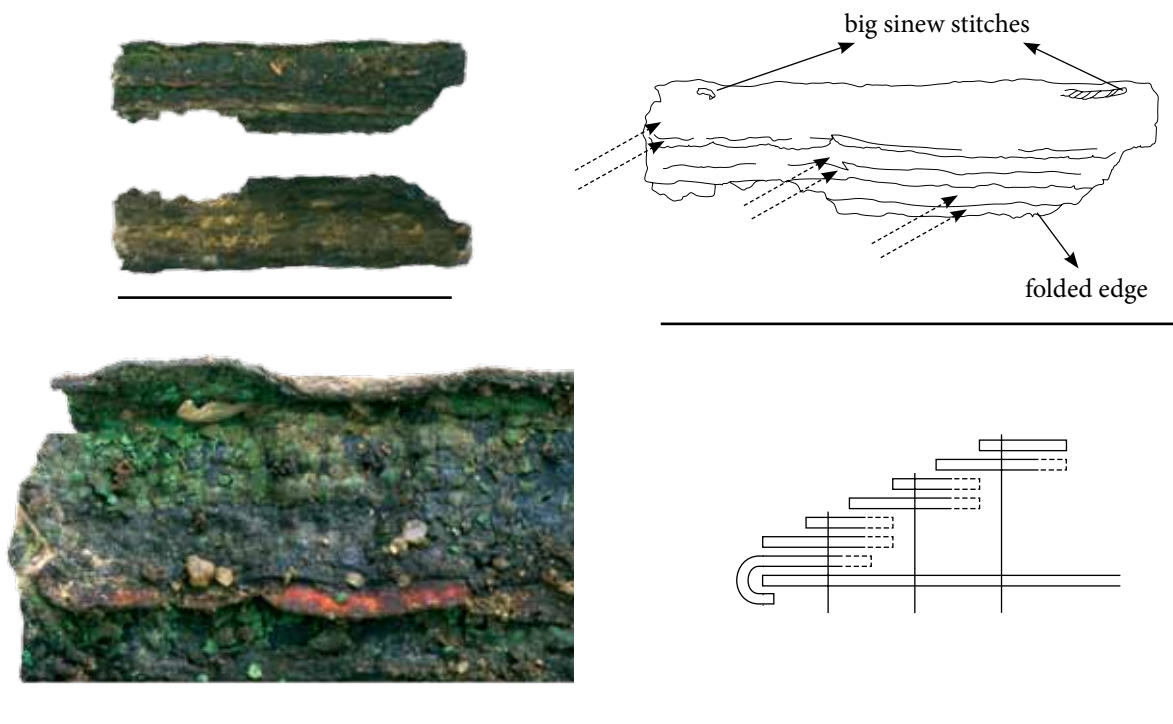
Cat. No.	Specialist No.	ÄM AM 026a-h
32	Year	1912/1913
	Find No.	333
	Context	House Q 47, 7
	Measurements	(a) l: 54.2; w: 14.1; t: 2.6; (b) l: 47.8; w: 15.1; t: 2.6; (c) l: 37.4; w: 16.8; t: 3.1; (d) l: 67.7; w: 16.4; t: 2.9; (e) 32.4 x 31.9; (f) l: 45.9 (curved); w: 15.4; t: 2.8; (g) l: 21.3; w: 16.2; t: 3.1; (h) l: 24.5; w: 16.2; t: 3.4
	Material	Leather
	Colour	Light brown, red on one side, dark brown and black on the other, green

Description

General: Layers of coloured leather arranged alternately green and red, although often the colour cannot be distinguished throughout anymore (for example, the lowest two narrow 'red' strips in ÄM AM 026a is referred to as 'faded red' but may not have been red at all but light brown [= original colour of the leather?]). The layers are secured with

small sinew threads in running stitch on a very thin foundation. The threads are placed in such a way that they are obscured by the next layer, but sometimes the overlap is too short to cover the stitches.

- (a) Seven layers of coloured leather. Note that the green colour flakes; this contrasts with the red colour, which seems to have been 'absorbed' by the leather.
- (b) Seven layers of alternating strips of green and red leather.
- (c) Seven layers of alternating layers of green and red leather. Here, the layers are secured at the edges, showing the stitches rather than being obscured by a partly overlapping next layer.
- (d) Seven layers of differently coloured leather. Stitches are visible.
- (e) Irregularly-shaped, badly 'melted' blackened piece without visible features.
- (f) Seven layers (note that the distinction between the first and second layer is not visible) in a crescent shape.
- (g) Small fragment of seven layers. Clearly visible sinew stitches.
- (h) As ÄM AM 026g.



Top left: ÄM AM 026a. Obverse and reverse. Bottom left: Detail. The decorated surface showing the green, flaking colour. Note the sinew stitch. Scale bar is approximately 5 mm. Top right: Line drawing showing the sets of layers (dashed arrows). Bottom right: Construction drawing. Not to scale.



ÄM AM 026b. Obverse and reverse.



Details of obverse, showing the overlapping strips, and the reverse of the fragment, showing the foundation. Note the sinew stitches. Scale bars are approximately 5 mm.



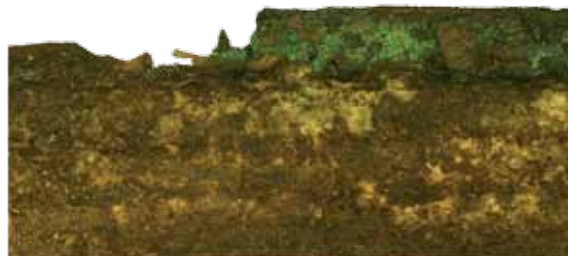
ÄM AM 026c. Obverse and reverse.



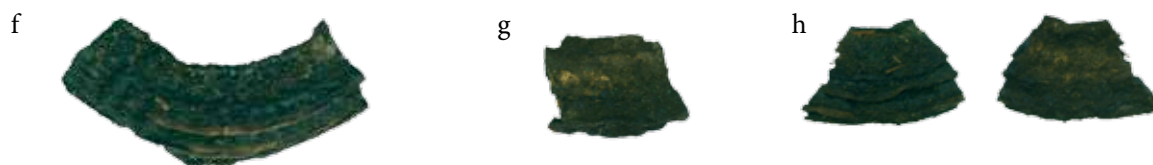
ÄM AM 026d. Obverse and reverse.



ÄM AM 026e. Obverse and reverse.



ÄM AM 026d. Details. Top and centre: Obverse. The overlapping layers obscure the stitches. Bottom: Reverse. Note the folded edge on the foundation. Scale bar is 30 mm.



Left and middle: ÄM AM 026f & g. Right: ÄM AM 026h. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 030k, l
33	Group	ÄM AM 030a-l
	Year	1911
	Find No.	227
	Context	House N 50, 8
	Measurements	(k) l: 38.7; w: 25; t: 3.4; (l) l: 85.0; w: 13.0; t: 2.5; l: 60.3; w: 14.0; t: 4.9 (largest fragment)
	Material	Leather
	Colour	(k) Black, red, green, yellow brown; (l) Black, red
	Remarks	(a), (b), (d) - (f), (i) See 'Sandals' (Cat. No. 13); (c), (g) See 'Uniden-

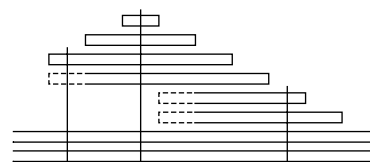
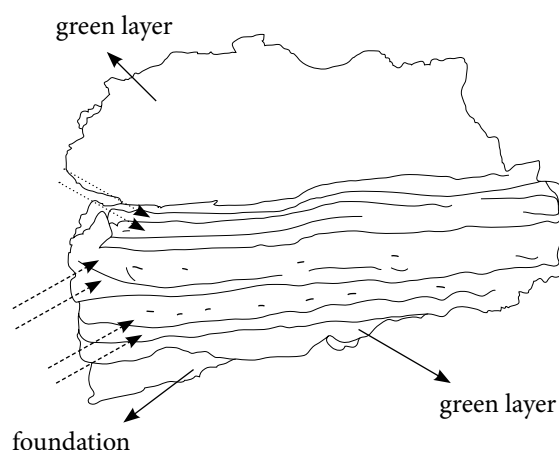
tified' (Cat. No. 96); (h) See 'Weaponry' (Cat. No. 53); (j) See 'Straps, Belts, Cordage etc.' (Cat. No. 72). Several small, featureless scraps are not described/illustrated.

Description

(k) Nearly square fragment of layers of coloured leather. One set of strips, the bottom one slightly wider and thus protruding from the top one, is overlapped by the next set of overlapping strips. This set, however, is much wider than the first set. The top one has a narrow set of strips placed close to one edge of the top strip. These two sets of two strips are secured with sinew



ÄM AM 030k. Obverse and reverse. Right: Line drawing (top) showing the sets of overlapping layers in stair-step fashion (dashed arrows; the dotted arrow marks the layers that are stitched entirely onto the previous layer). Scale bar is 25 mm.



Left: Detail. Clearly visible are the overlapping leather strips. Note the clearly visible running stitches. See overview for indication of scale. Right: Construction drawing. Not to scale.

running stitches lengthwise down the centre of the topmost, narrowest strip. The lower set, however, is also secured with running stitches through them at the first edge. The strips are stitched on a green layer of leather, which, in its turn, is attached to a foundation.



- (l) Three fragments of badly preserved decorated leather. One fragment is broken in two; the other is concreted to a rawhide strip (not illustrated). The fragments are too badly preserved to be sure what construction it is, but on one side there are five rows of tiny running stitches visible which run lengthwise. The middle part of this side has a red colour.



Left: ÄM AM 030l. Obverse and reverse. Note the packing paper adhering to the obverse. Right: Detail. Foundation, showing the stitching. Scale bar is approximately 30 mm.

Cat. No.	Specialist No.	ÄM AM 031a, b, e-g
34	Group	ÄM AM 031a-g
	Year	1911
	Find No.	227
	Context	House N 50, 8
	Measurements	(a) l: 107.6; w: 40.5 - 49.0; t: 5; (b) l: 75.0; w: 67.0; t: 20.0; (e) l: 18.6; w: 18.7; t: 3.1; (f) l: 135.0; w total: 71.0, topmost strip: 29.0; (g) l: 34.2; w: 23.2; t: 16.5
	Material	Leather
	Colour	(a) Yellow brown, brown, dark brown; (b) Black, red; (e) Black; (f) Yellow brown, black
	Remarks	(c), (d) See 'Unidentified' (Cat. No. 97). Several featureless scraps and few pieces of rawhide strips not described/illustrated.

Description

- (a) Rectangular fragment with one rounded end. At this rounded end, slightly off centre, is a large hole, which is original. Note the cut marks on one corner as well as at the rounded end itself. One layer of light brown leather is folded and

stitched on top of one surface of which at least two thin layers of (now) dark brown leather are stitched. The two thicker layers are secured with the decorative thin leather along the perimeter with three rows of tiny stitches and lengthwise down the centre with two rows. Note that the stitches in the centre do not extend all the way to the rounded end. All stitches are running stitches of sinew. Two small, thin separate fragments of light brown leather are detached from ÄM AM 031a and show rows of stitch holes.

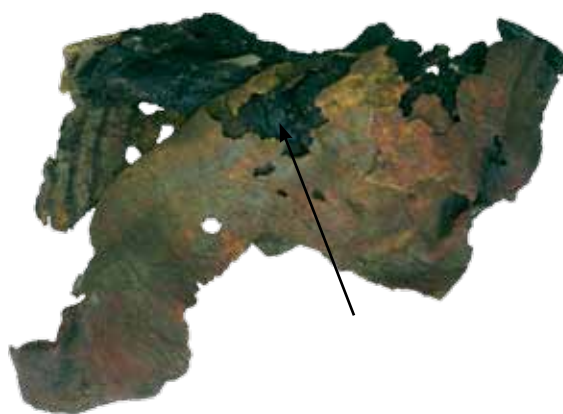
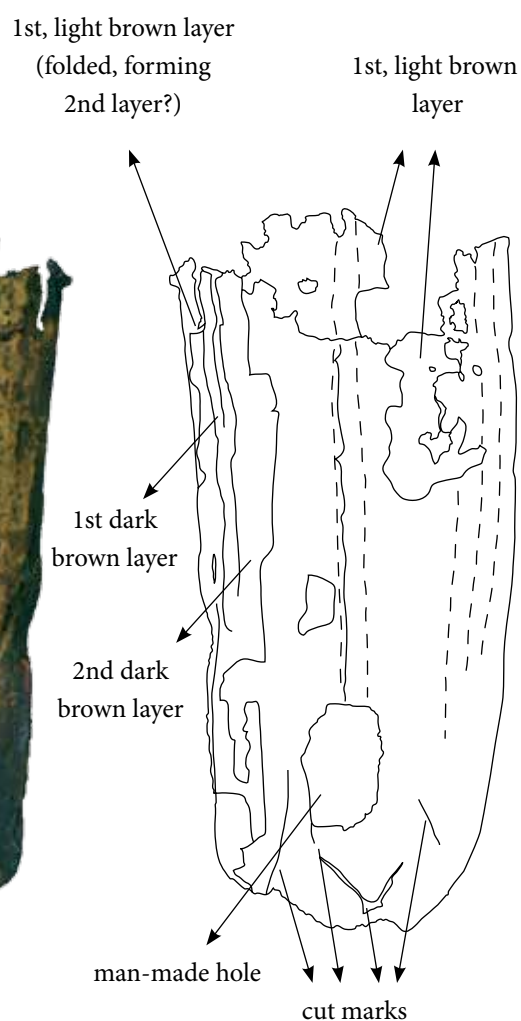
- (b) Small fragment of leather, as described with ÄM AM 031a, to which a small fragment of 'melted' sandal (area of the slit for the reception of the front strap) is 'glued' (arrow). Also 'glued' are remnants of thin red leather to which no function can be assigned.
- (e) Small, almost square piece consisting of five layers that are stitched in overlap. This number of layers differs throughout the fragment, which is likely due to the incompleteness of the fragment. No colours can be identified. Stitched onto a foundation with running stitches of sinew.
- (f) Two rectangular fragments concreted together. The topmost one is of its original width and runs diagonally over the lower; the lower one, however, is only part of the original width. Both

fragments show three lines of running stitches on the edge and lengthwise down the centre. In this way, they are comparable to ÄM AM 031a. However, there is no indication of the thin layer covering it (probably because it is lost). The top fragment has two lines of tiny running stitches on the edges. Concreted to the two is a black,

highly 'melted' piece of leather, the rectangular extension of which has folded edges.

- (g) Two edges(?) secured on either side with leather(?) thong whip stitches. No further details visible due to the bad state of preservation. Note the packing paper still adhering to the fragment.

Below: ÄM AM 031a. Obverse and reverse. See the excavation photograph of the object shortly after recovery (illustrated with ÄM AM 075, Cat. No. 44). Stitching in the drawing is indicated in dashed lines.



ÄM AM 031b. Obverse and reverse.



ÄM AM 031e. Obverse and reverse. Right: ÄM AM 031g. Obverse and reverse. Note adhering packing paper, hindering visibility. Scale bars are 30 mm.



ÄM AM 031f. Obverse and reverse. Possibly, this fragment forms, together with ÄM AM 031a, a comparable object as seen in the excavation photograph (illustrated with ÄM AM 075, Cat. No. 44). Other fragments with specialist number ÄM AM 031 might originate from this object too.

Cat. No.	Specialist No.	ÄM AM 032a-g	(e) w: 42.3; h: 21.1; t: 3.9;	
35	Year	1911	(f) w: 41.8; h: 21.5; t: 3.7;	
	Find No.	336	(g) w: 25.3; h: 34.1; t: 3.2	
	Context	House N 50, 13	Material	Leather
	Measurements	(a) w: 51.3; h: 29.7; t: not measured, see remarks;	Colour	Black
		(b) w: 39.9; h: 35.3; t: 3.6;	Remarks	The thickness of ÄM AM 032a has not been measured due to its fragile condition.
		(c) w: 41.0; h: 29.1; t: 3.0;		
		(d) w: 45.7; h: 30.7; t: 3.8;		

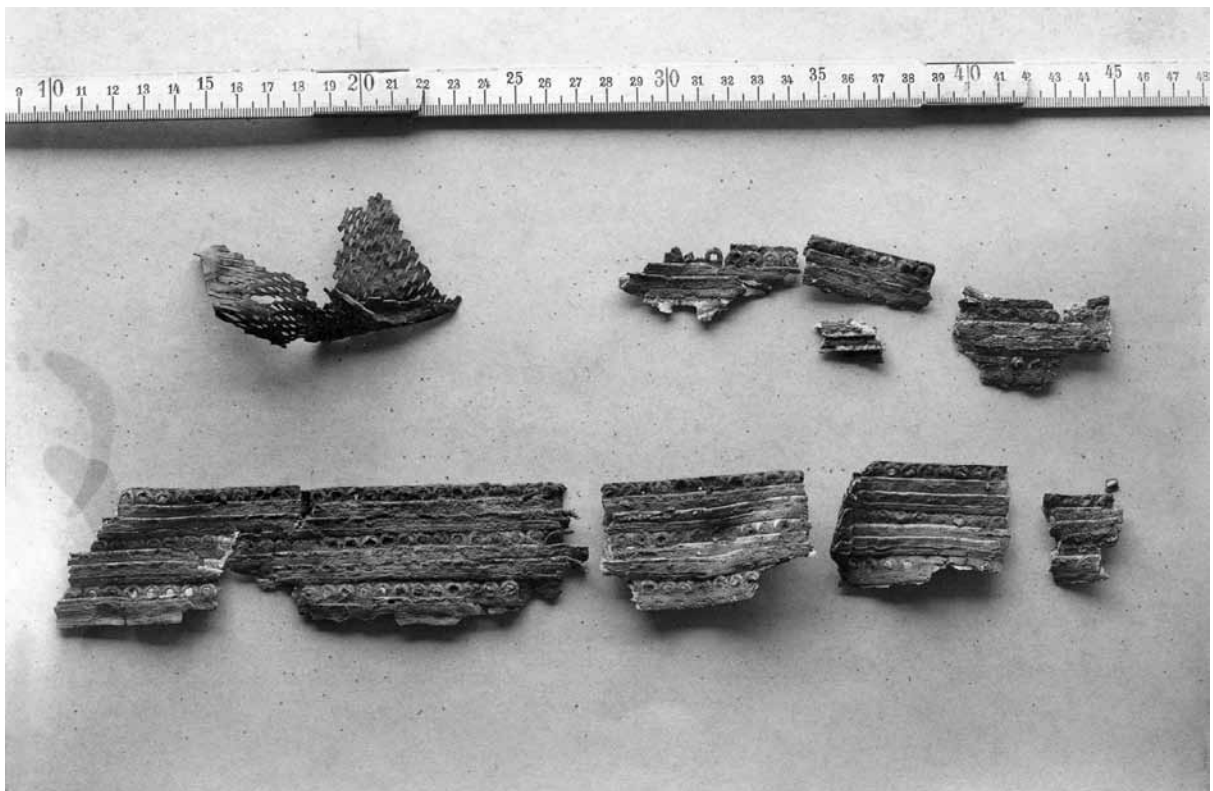
Description

Seven pieces and few small scraps of one and the same object, which is decoratively made with various overlapping layers of, according to the find card, coloured leather. Because the fragments are the only pieces with this type of decoration, it is certain that they are the remnants of the objects seen in the excavation photographs. However, it cannot be ascertained with certainty exactly which part of the object the seven fragments belong to and hence a general description is presented.

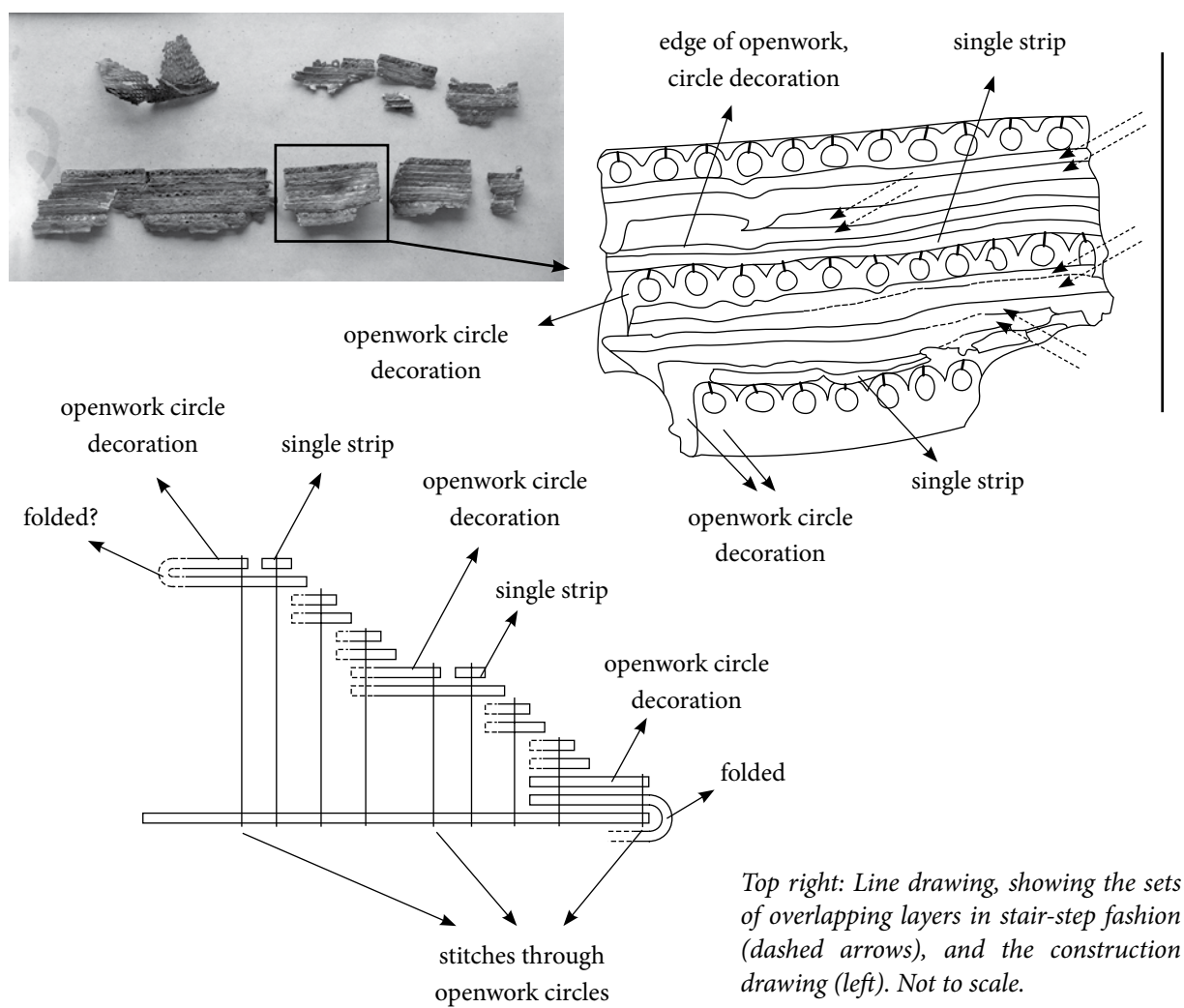
If seen with the circular decoration facing upwards, the decoration starts with strips of leather of which the lower part is cut into circular shapes, but still attached to the strip itself. Some fragments show that the closed edge is covered with a set of strips (comparable to the next rows with the circular decoration, see below). However, none of them are completely enough preserved to be sure about the nature of this cover, but note the paired stitch holes. It is certain that the stitching was done through the covered part. This strip is one of a set.

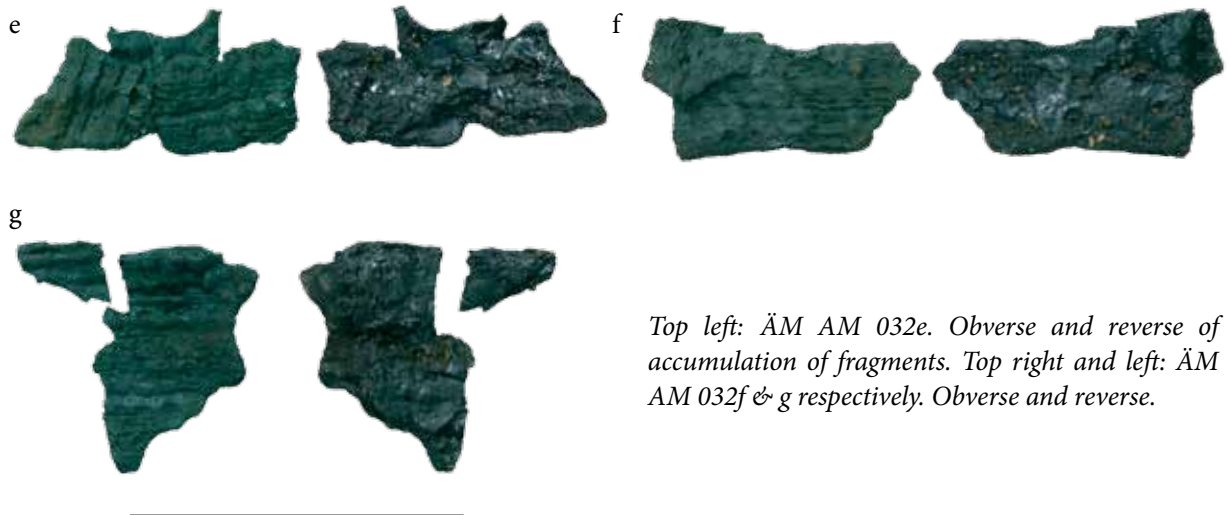
The top strip with the circular openwork motif is set back from the bottom one. It was probably of a different colour, as it shows in the open central part of the circles. Immediately below the circles, but well before the end of the second layer, is a narrow strip, which is used to stitch the layers. This set overlaps the next set, of which the top one is set back from the bottom one (in stair-step fashion). This set, in its turn, overlaps a same set of strips, which overlaps a band with circular openwork decoration, the composition of which is comparable to the previously-described one. Again two sets of strips follow, one overlapping the other. Finally, there is a strip with circular openwork decoration, which is with certainty the last one, as it lacks the narrow strip to stitch it to the foundation. Instead, the leather is folded around the edge.

ÄM AM 032e are small pieces concreted together. These lack the circular openwork decoration, but the composition of the overlapping sets of strips as well as the nature of preservation suggests they belong to the same objects.



ÄM AM 032. Excavation photograph shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.





Top left: ÄM AM 032e. Obverse and reverse of accumulation of fragments. Top right and left: ÄM AM 032f & g respectively. Obverse and reverse.

Cat. No.
36

Specialist No. ÄM AM 034
Year ?
Find No. ?
Context House N 50, 1
Measurements 126.0 x 131.7 and 88.0 x 77.5;
width edge complete: 16.0; w band
with zigzag appliqué work: ap-
proximately 4

Material Leather
Colour Black
Remarks Still attached to paper and cotton
wool.

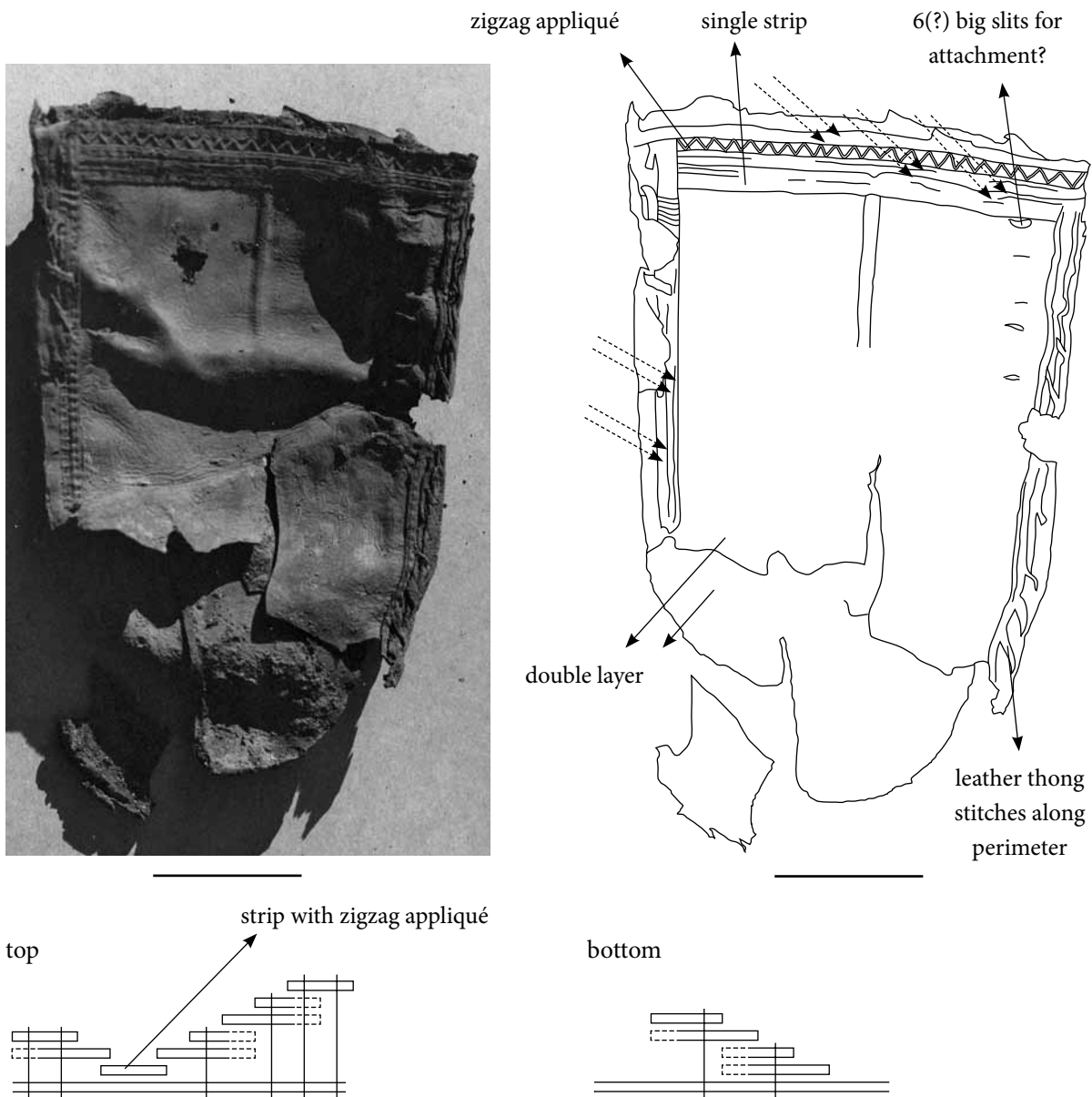
Description
Extremely badly preserved piece. As with all other
decorative leatherwork, we can safely assume the use
of different colours, which unfortunately cannot be
identified anymore. The larger of the two (included
in the number are also several smaller fragments) is

ÄM AM 034. Decorated
surface of the badly 'melted' object.



the top of the object (assuming it was directed with the tapering point downwards) and has three original edges preserved. The outer band of this edge consists of a set of two overlapping strips, the top one being set back from the bottom one in stair-step fashion. Next is a band of decorative zigzag appliqué work, but it is not certain if this band overlaps the previous set or *vice versa*. The appliqué work only occurs at the straight top edge of the fragment; one (or both?)

of the corners of which are overlapped by the side edges. Following onto the zigzag appliqué decoration is a set of overlapping strips (as usual the top one set back from the bottom one), which overlaps the lower edge of the band with decoration. The lower edge of this set of strips, in its turn, is overlapped with another set of strips. A single strip obscures the lower edge of this set, which is the last component of the top edge of the object.



Top left: ÄM AM 034. Excavation photograph shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin. Top right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows), and the construction drawing (bottom). Not to scale.

The side edges are made, seen from the edge inwards, of two sets of overlapping strips, which start slightly inwards from the edge of the object proper. There are big, leather thong whip stitches at the side edges, the function of which is unclear. Possibly, they were used to attach the object to a foundation, which might be the second leather layer visible at the centre of the object. Note that there is a series of slits (about 8.5 mm long) close to the side edge, parallel to the edge with the appliqué zigzag decoration (but also one in the smaller fragment). Judging by the malformation of the slits, a rather thick item was pulled through (possibly a thick leather/rawhide strap?). As seen in other, comparable fragments, there is a raised line running lengthwise down the centre, which is most prominent at the top of the object.

Measurements 203.0 x 70.0 - 140.0,
w edge complete: 18.5;
w band with slits: approximately 5

Material Leather

Colour Black

Remarks From "Buchkasten A." Still attached to paper and cotton wool.

Description

Extremely badly preserved piece, which makes a detailed analysis impossible. It is clear that the edge of the object consists of layers of (undoubtedly once coloured) leather. Assuming the tapering end should face downwards, the top edge starts most likely with a set of overlapping strips, which are now lost. It is followed by a band that consists of vertical 'bars,' which is bordered on both long edges by a narrow leather strip through which the stitching (running stitches) is done. This band is also the first horizontal decoration that can be recognised in the excavation photographs. The lower one obscures the long edge of a set of overlapping strips (as usual, the top one being set back from the bottom one in stair-step fashion),

Cat. No.
37

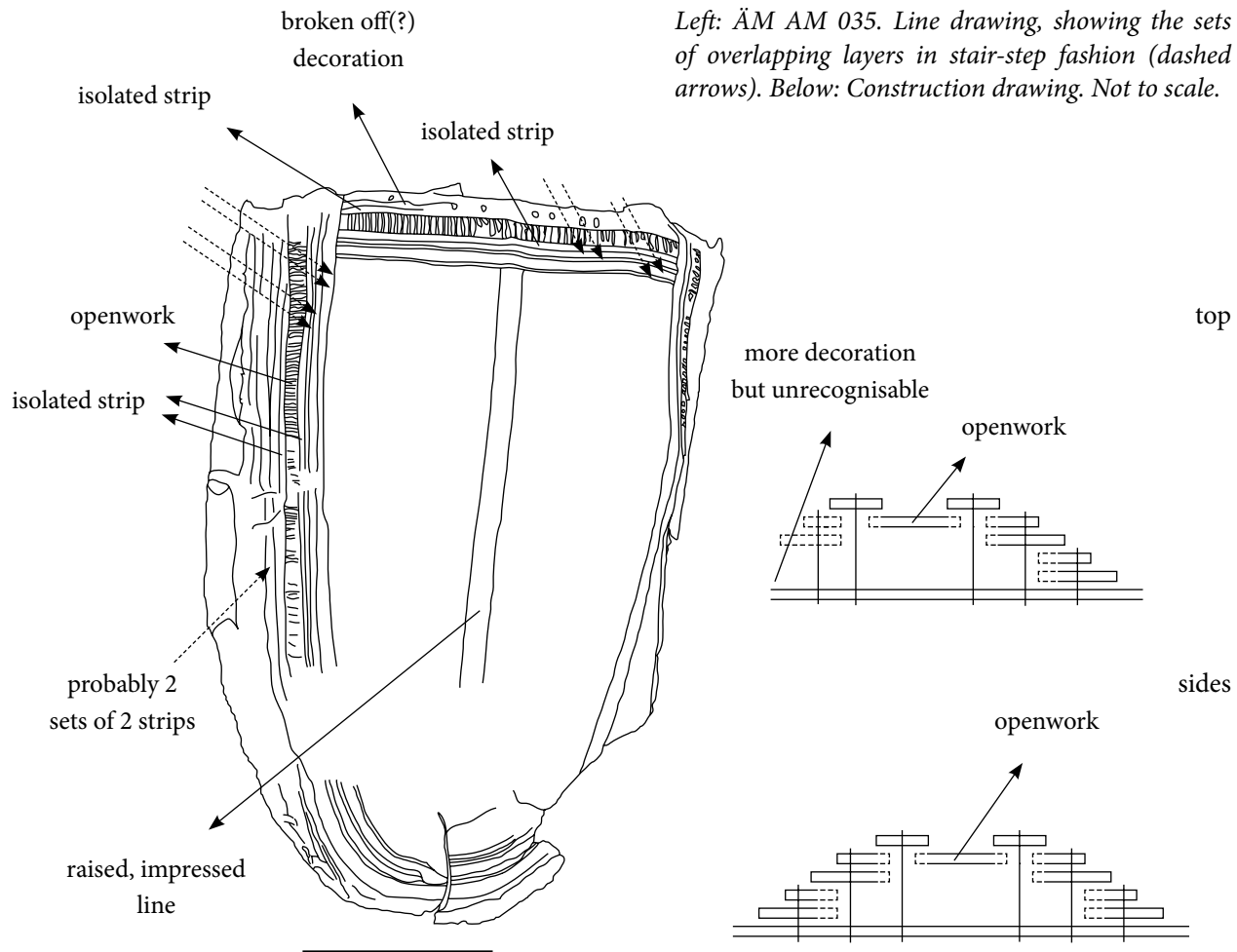
Specialist No. ÄM AM 035
Year ?
Find No. ?
Context House N 50, 1



Left: ÄM AM 035. Excavation photograph shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin. Right: The decorated surface of the badly 'melted' object nowadays.

which, in their turn, overlap another and final set of strips. The corners of this top edge are overlapped by the side edges. The convex curving side edges are made in exactly the same way as the top edge. Small damaged parts, however, show that the 'band of bars'

is an openwork strip of leather. The sides seem to consist, from inside out, of two sets of two strips, one isolated strip bordering the openwork strip (comparable to the top one) and possibly a comparable layout at the other side of this openwork strip.



Left: ÄM AM 035. Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Below: Construction drawing. Not to scale.

Cat. No.	Specialist No.	ÄM AM 053
38	Year	1911
	Find No.	584
	Context	House M 50, 11
	Measurements	104.5 x 103.0 (folded) and 120.0 (total) x 5.3
	Material	Rawhide and leather
	Colour	Brown, beige, red
	Description	Square-circular object, which consists of two rather thick (about 2 mm) layers of leather, both of which are coloured red on the outer surfaces. The dorsal surface has another layer of leather, dark in colour and much thinner. Along the edges, but not exactly following the perimeter, are stitched sets of strips of

leather: the lower one is slightly wider than the top one (9.1 and 7.0 mm respectively, but the strips vary in width). The bottom one is red; the top one has a dark colour. Most likely the dark colour is decayed green. Diagonal from one 'corner' to the other, is stitched a comparable set of strips (width varies from 7.5 and 4.1 mm for the bottom and top strip respectively at one end to 9.8 and 6.8 mm at the other end). This set does not touch the perimeter set. All sets are secured on the edges of the top one through all layers, with running stitches of sinew. However, the diagonal one is at its widest end secured with stitches on both edges but towards the smallest end, the rows join in the middle. There are also several leather thong stitches; these are repairs of the origi-

nal stitching. One end of this thong is finished with an overhand stopper knot. Note that the perimeter

strips are a little too long and are either folded over the edge of the object or folded back.



ÄM AM 053. Obverse and reverse.



Centre and right: ÄM AM 053. Details. Stitches and details of the strip decoration at the obverse. Far right: Reverse. Detail of the stitches. Scale bars are 5 mm; scale bar right and far right 30 mm.

Cat. No.	Specialist No.	ÄM AM 065c
39	Group	ÄM AM 065a-c
	Year	1911/1912
	Find No.	1624
	Context	House O 49, 20
	Measurements	l: 31.6 and 71.0; w: 17.6 and 51.4; t: 4.5 and 4.1
	Material	Leather
	Colour	Black
	Remarks	(a), (b) See 'Sandals' (Cat. No. 25). Note that the list only mentions

"2 *Sandalen*." The group includes several small, unnumbered scraps, some with empty stitch holes, which are not described/illustrated.

Description

Two black, 'melted' fragments. The biggest shows, albeit vaguely, a rectangular shape. The fragments are pieces of decorative leather; the various strips are partly visible on the bigger fragment. Both fragments have vegetable material concreted to them.



ÄM AM 065c. Obverse and reverse of biggest fragment.

Cat. No.	Specialist No.	ÄM AM 068c
40	Group	ÄM AM 068a-g
	Year	1911
	Find No.	149?
	Context	House N 50, 5
	Measurements	93.8 x 100.0; t: 5.2 (all measurements as folded)
	Material	Leather
	Colour	Dark brown, red, green
	Remarks	(a), (b), (f), (g) See 'Sandals' (Cat. No. 27); (d), (e) See 'Unidentified' (Cat. No. 107). There is one entry in the list from this house, which mentions "Sack."

Description

Pieces of red leather, consisting of one layer. It is folded two, but possibly three times. One of the long edges is intact; the other, however, is incomplete. The intact edge shows a nearly 90-degree angle, in the corner of which is a hole that might have been used to attach the leather to a surface. Due to the

folding it is not possible to get definite information about the opposite side, but if the third fold does exist, the leather tapers and terminates in a rounded end. The intact edges of the object show that a strip of leather was folded around it (extending about 3.5 mm, but with variations), thus sandwiching it. It is secured with running stitches of sinew. Note that many, but not all, stitch holes are in pairs. Looking at the corner, the edges have a row of stitches inwards of the edge binding (about 4 mm inwards) following the edges around the corner. Parallel to the one on the short edge, at right angles to the row of stitches on the long edge and with a distance of about 28 mm (thus close to the fold) are four more rows of stitches, separated from each other differently. They show a pattern characteristic for decorative sets of overlapping strips of leather. This suggestion seems to be confirmed by the relatively wide lines that are impressed into the surface: these might be the remnants of these decorative sets of strips, now lost.



ÄM AM 068c. Obverse and reverse. Note the strip that is folded around the edges and secured with running stitches.

Cat. No.
41

Specialist No. ÄM AM 072a-f

Year 1911

Find No. ?

Context House N 51, 3

Measurements (a) 62.5 x 64.3;
(b) 98.7 x 62.7;
(c) 45.7 x 36.8;
(d) 67.9 x 36.1;
(e) 27.4 x 26.5;
(f) 41.4 x 34.4

Material Leather

Colour Black

Remarks All fragments are badly deteriorated ('melted') and concreted to the packing paper and cotton wool; therefore, only one surface could be studied. Smaller fragments have not been numbered/discussed.

Description

(a) Most likely a corner fragment. It consists of several overlapping sets of leather strips. Two rows of horizontal openwork, vertical 'bar' decoration (cf. ÄM AM 035, Cat. No. 37) are visible too. Possibly, a row of openwork geometric figures can be seen close to the second band of openwork vertical 'bar' decoration but this is uncertain because these are not visible in the old photograph. In between, and above and below these bands, overlapping layers are visible but the exact composition cannot be identified.

A small strip with three running stitches can only be identified close to the corner(?) and its strip at right angles.

- (b) Little can be said about this fragment; the surface is badly eroded and no details are visible.
- (c) This fragment clearly shows four wide overlapping strips of leather (total w: 15.6; w top set: 8.0?); the two lower ones also show the remnants of a second strip. As usual in this type of leatherwork the top one is being set back from the bottom one in stair-step fashion (approximately 1 mm).
- (d) Small fragment with a piece lying at right angle to a second fragment. Note that the two are still connected on one side. Several sets of strips are identified, including overlapping of the two. Shallow bumps indicate the running stitches.
- (e) Nearly square fragment, showing two overlapping sets of leather strips (total w 11.2; w top set: 7.6). Dents and bumps indicate the stitching in the lower of the two sets.
- (f) Badly preserved, showing only two overlapping leather strips. No signs of sets of decorative strips, but this is probably due to its poor state of preservation.

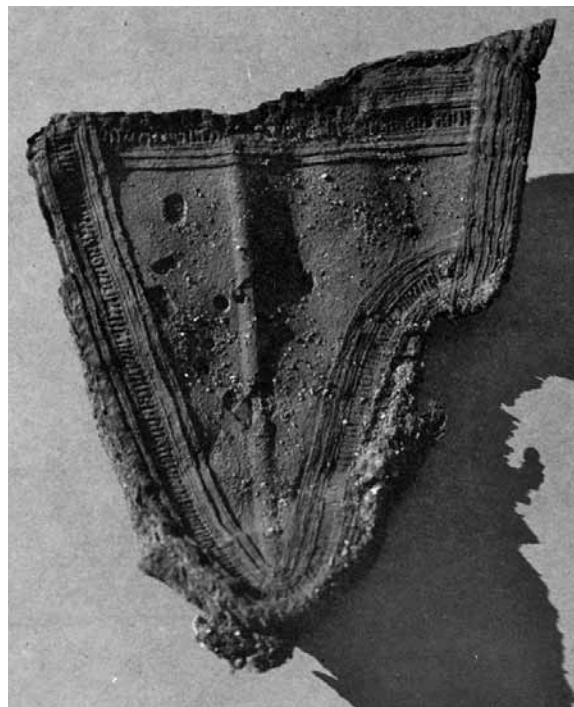
The excavation photograph proved again extremely useful. The straight edge, which is assumed to be the top of the object, consists of an openwork strip ('bars'), which is covered at both edges with a single



ÄM AM 072. Decorated surface of the badly 'melted' object.

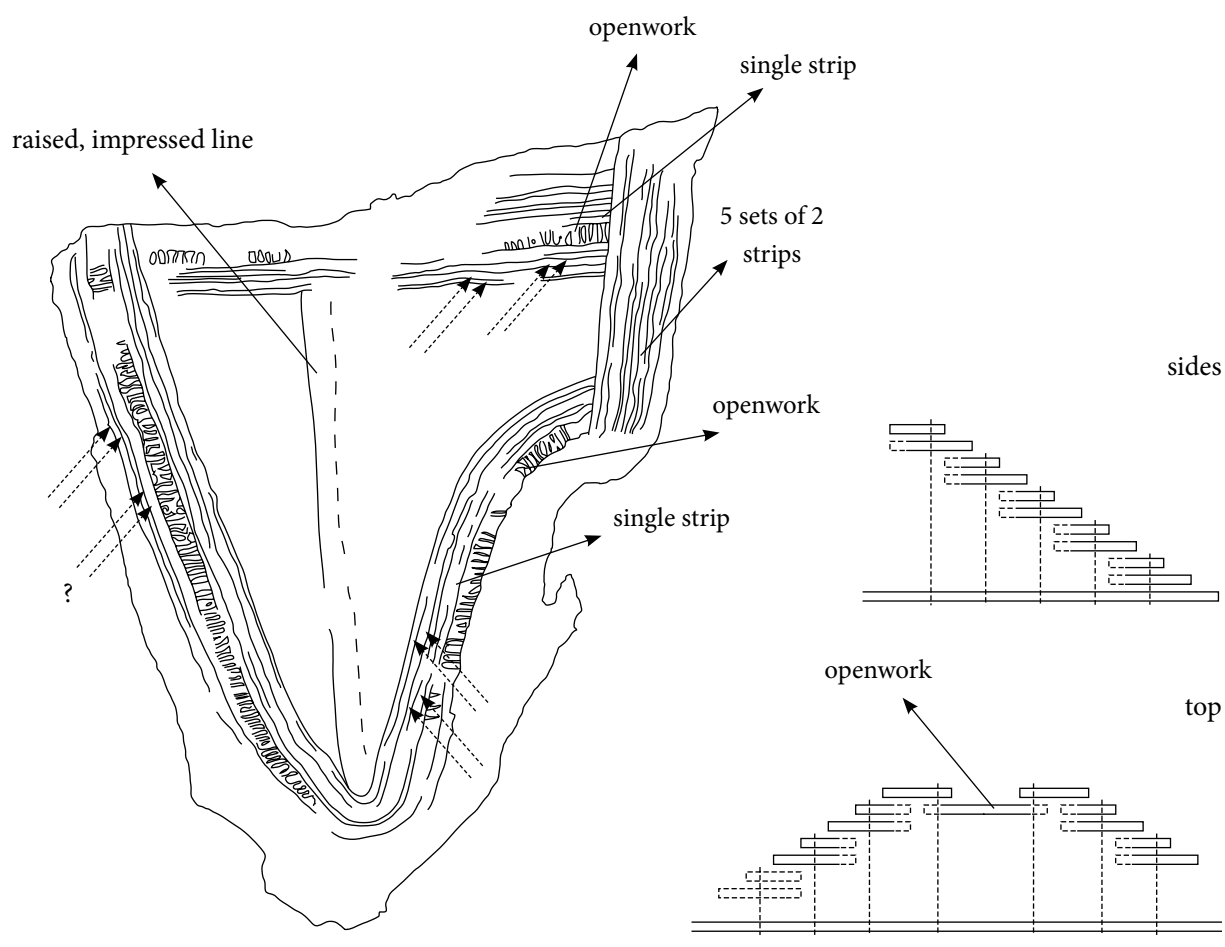
strip. This strip also covers the first (i.e. topmost) set of partial overlapping strips in stair-step fashion. At least one more set follows with possibly another set, but this is uncertain. Lengthwise, the object is asymmetrical, in contrast to most other comparable objects: it has a convex left side edge, but a strong concave right edge, both of which have a comparable layout as the top edge. More towards the top, this latter edge is overrun by five sets of overlapping strips in the usual, stair-step fashion. This object too has a raised line, lengthwise down the centre. Little can be noted of the stitching, but we can assume it is stitched as seen with the other, comparable objects.

Right: Excavation photograph shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.



► *Left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).*

► *Right: Construction drawing. Not to scale.*



Cat. No.	Specialist No.	ÄM AM 073a-f
42	Year	1911
	Find No.	29?
	Context	House N 51, 3
	Measurements	(a) 57.4 x 42.7; (b) 54.6 x 47.3; (c) 30.1 x 29.3; (d) 47.1 x 28.2; (e) l: approximately 175.0; w: 143.0; (f) 42.7 x 15.5. According to excavation records a total length of 18 cm.
	Material	Leather
	Colour	Black
	Remarks	If the identification is correct, then this object can only be the find no. 29, the entry of which reads: "Oberteil einer Bogenfuttermals mit aufgenähten farbigen Mustern."

Description

Badly preserved object (severely 'melted' and concreted to the packing paper and cotton wool). Immediately after excavation, this object was largely

intact and colourful; its photograph is used for the description. It tapers from a square edge to a pointed lower(?) part. On one corner at the straight edge is a large trapezoidal addition, which might be a repair. The structures in the photograph along the edge of this addition are tentatively identified as stitching; one stitch hole is identified on fragment ÄM AM 073d. The object in the Berlin collection consists of six fragments, of which ÄM AM 073a, b, c & d could be identified in the old photograph. The position of fragment ÄM AM 073f and an almost invisible piece, adhering to fragment ÄM AM 073e, could not be identified. The top of the object (*i.e.* the square edge) has an elaborate system of rows of decoration, which were most likely coloured in red and green originally. From top to bottom, there are two sets of two strips and, finally, a single strip (total width is 8.2 mm). The second set partly overlaps the first set of strips. A set in itself also consists of two overlapping strips in such a way that the top one is being set back from the bottom one in stair-step fashion. The second set is overlapped on its lower

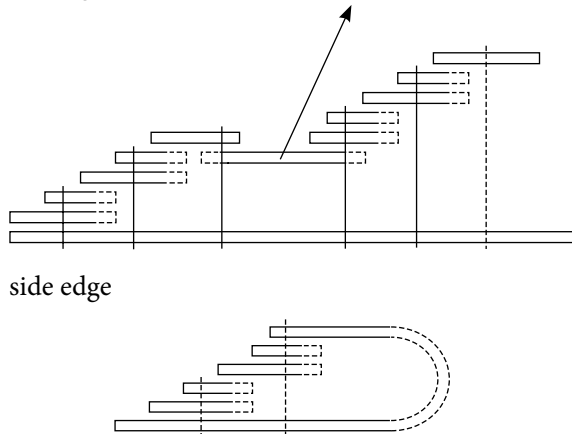
edge by a strip, which on its other edge overlaps a band of vertical, openwork vertical 'bars' (about 5.8 mm high). Below this band is again a set of strips, which overlaps it. Here, an isolated strip covering the lower edge of the openworked strip lack, which seems accidental, judging the fact that it is there at the other edge (as well as in all other comparable objects). The second set overlaps the first and finally, a strip overlaps the second set on its lower edge

(total width is 9.2 mm). This means that, rather than working symmetrically, the sets are attached in the same direction, which probably is accidental too. Moreover, the single strip, covering the last set and the top edge of the band of 'bars', is secured with one row of running stitches in the top half; in the lower half, however, this strip is secured with two rows of running stitches.

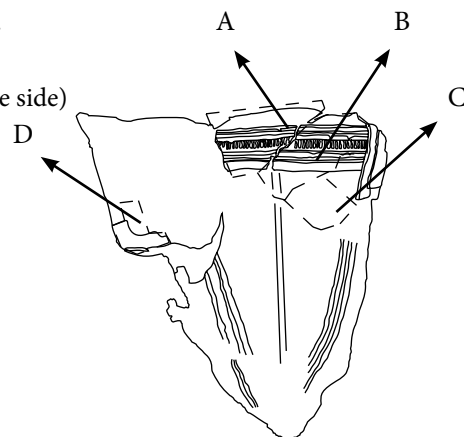


ÄM AM 073. Decorated surface of the badly 'melted' object.

top edge openwork (note the absence of a single strip at one side)



side edge



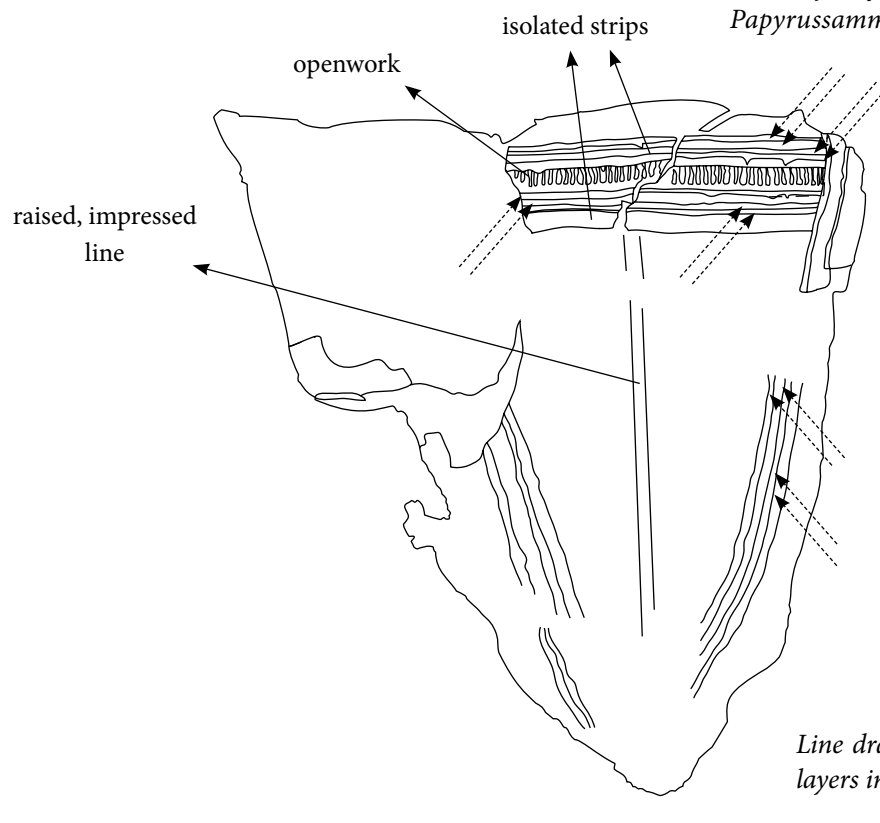
Inset: sketch, showing the identified parts.

Left: Construction drawings. Not to scale.

Rows of decoration also adorn the sides. On one spot, about halfway down, a piece of leather seems to have been folded over the edge (see construction drawing). On one side of this fragment, two layers of leather are visible, which suggests that the object may have consisted (partly) of more than one layer: likely two comparable fragments. The connection of this part to the sets of decorative strips is not clear: there are two sets, but the lowest one (*i.e.* the one closest to the centre) might be the edge of the folded strip. No measurements could be taken due to its poor condition. An impressed line runs lengthwise down the centre, which appears in relief on the visible surface. It is approximately 3 mm wide. Nowadays on this object this line does not appear in relief, but rather as two tiny raised lines on each side of the original width, *i.e.* it has flattened.



Excavation photograph shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.



Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).

Cat. No.	Specialist No.	Remarks	Find number uncertain. The list mentions "2 Laschen von Wagen- teilen(?) mit aufgenähten farbigen Ornamenten", which could be the fragments. The list mentions for house N 51, 3 the year 1911; the labels say 1910/1911.
43	ÄM AM 074a-c		
	Year	1911	
	Find No.	31?	
	Context	House N 51, 3	
	Measurements	(a) 114.7 x 108.0; (b) 110.9 x 74.7; (c) 92.2 x 73.0	

Additional: “*Aus Buchkasten A*”. Furthermore, the objects are the same as photographed with ÄM AM 077 (Cat. No. 46), a decorated piece excavated from house N 50, 1. The fact that these were photographed together suggests that they were found together, or at least in close association. Because the context of AM 077 (Cat. No. 46) is certain and the description as given for ÄM AM 074 is not in the list, it is assumed that the context given for ÄM AM 077 (Cat. No. 46) is valid for ÄM AM 074a-c too. The measurements are approximate.

Material Leather

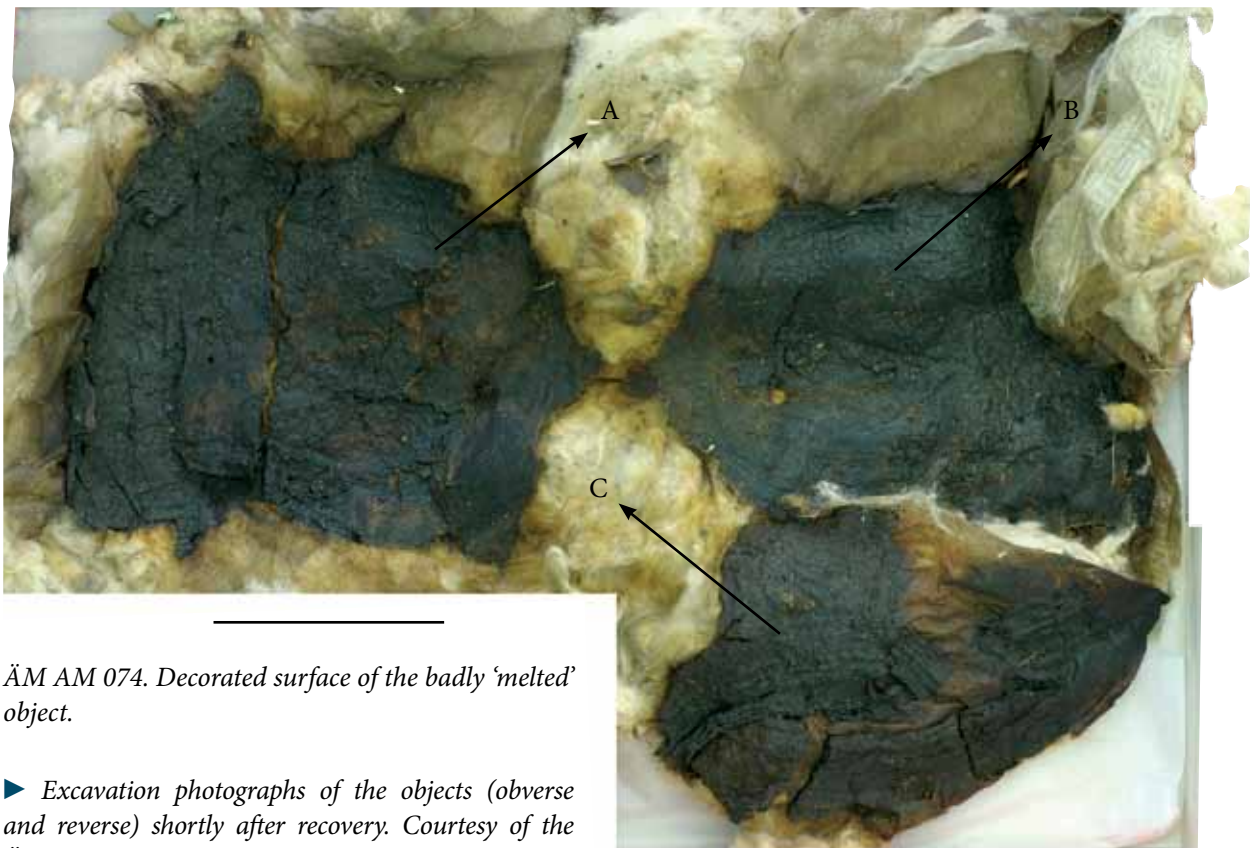
Colour Black

Description

Three fragments of extremely poorly preserved, decorated leather. Note that ÄM AM 074b is a group of concreted fragments rather than one that is isolated from the original objects. Due to the condition, the shape could not be identified with certainty. Details

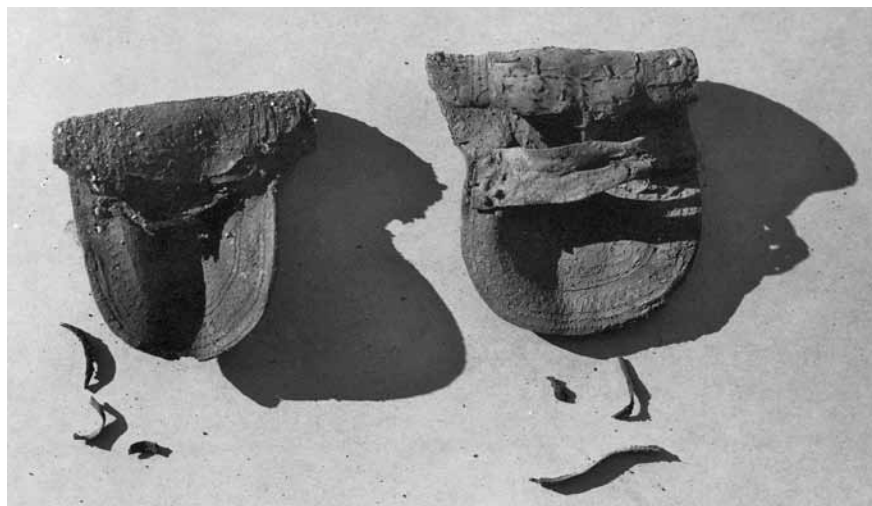
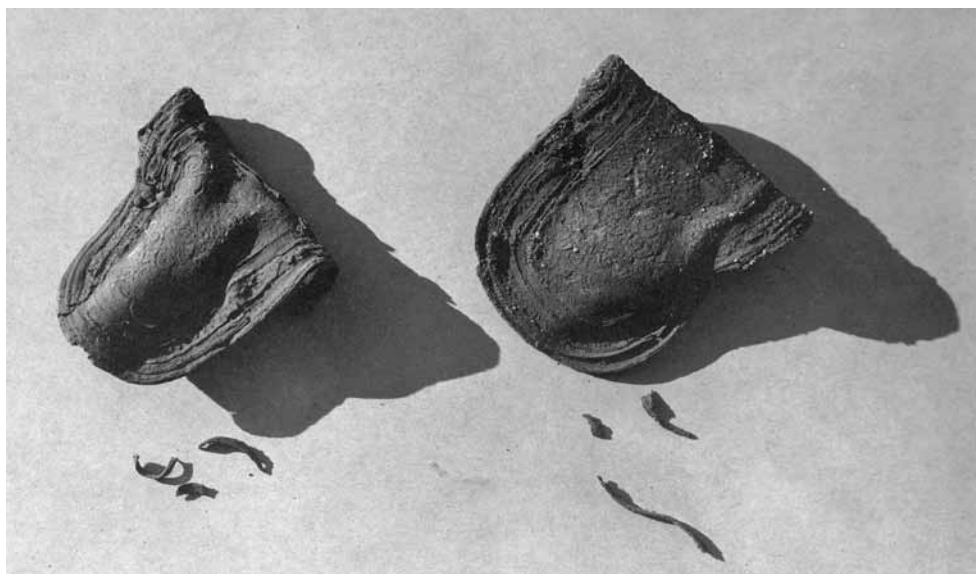
were not visible either. This is made worse due to packing paper adhering to the surface (the visible surface is the back of the object). Fortunately, the objects can be identified in the excavation photographs and the description be completed with the aid of these images.

- (a) Fragment ÄM AM 074a shows an edge of about 15 mm wide, suggested by two, possibly three rows of stitch holes on one side. An indication of such an edge is shown on the other side too, but the stitch holes are far less clear. A horizontal, rather wide strip (varying in width, but the left side is about 20 mm wide) lies across the object. The right end can barely be identified, but the left half of a big slit is still visible.
- (b) Fragment ÄM AM 074b shows a small part of the decoration, but the width could not be established, let alone details.
- (c) Fragments of decorated edges, showing several overlapping layers. The terminating strip (4.8 mm wide) is clearly visible, which overlaps the previous set of strips with one edge. The other long edge does not overlap and is itself not overlapped by other decoration either.



ÄM AM 074. Decorated surface of the badly ‘melted’ object.

► Excavation photographs of the objects (obverse and reverse) shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.



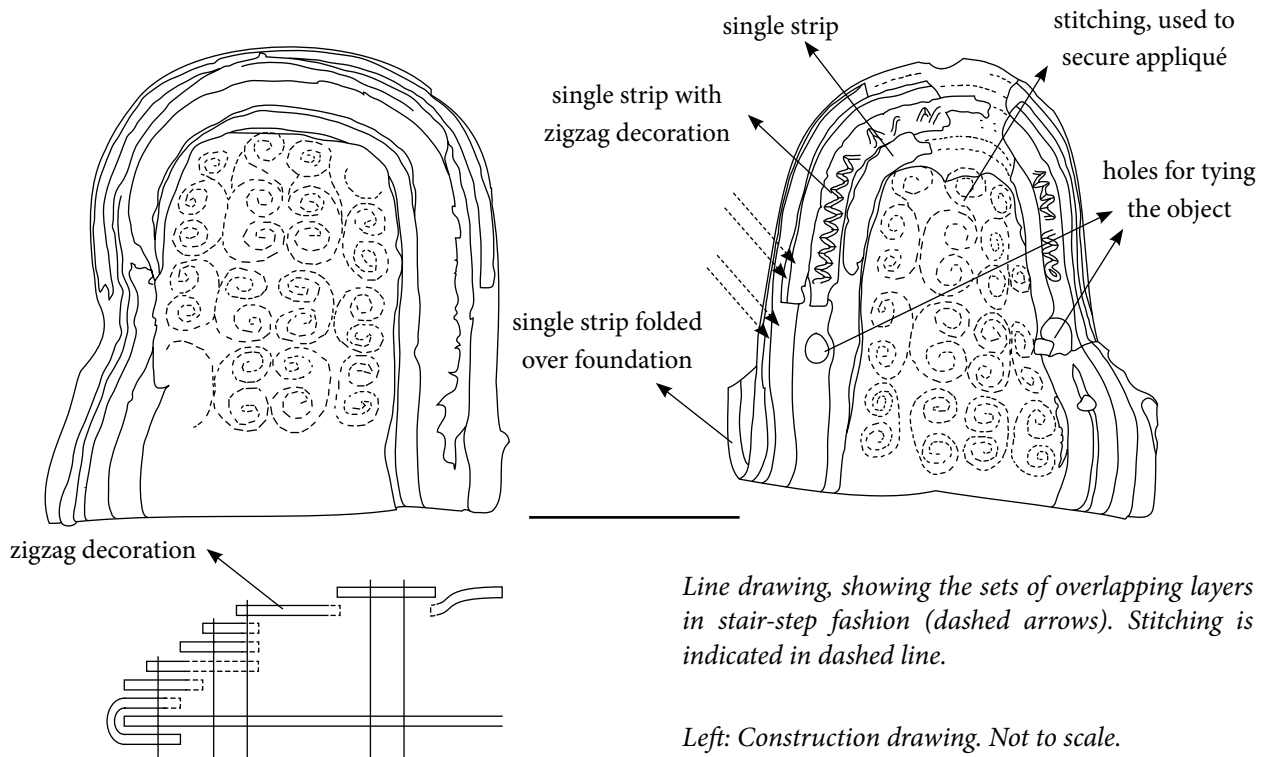
A horizontal row of shallow bumps suggests running stitches. There are two sets of strips of the usual layout: overlapping in stair-step fashion, leaving a narrow strip of the lower of the two strips visible. The total width is about 18 mm. Another fragment is part of a decorated edge. The terminating strip as well as two sets(?) of strips are tentatively identified.

The excavation photographs are more informative. The two objects are longer than they are wide. One end is rounded and towards the straight opposite end, which is bent towards the back of the object, it widens. The objects were meant to be tied to something, which is suggested by the straps on the back and the attachments of these at the front. Fragment ÄM AM 074b is the better preserved one. A thicker piece of leather serves as foundation. A strip of much thinner thick-

ness is folded around the edge. The first part of the decorated edge might be a set of two strips but if so, the lower one protrudes only very slightly. The second set of strips, as usual with the top one being set back from the bottom one in stair-step fashion, is placed entirely on the previous and is thus less wide. A single strip with zigzag appliqué decoration partly overlaps this second set. An overlapping, thin single strip of leather follows. The other edge of this strip is covered with the centre fragment, which does not seem to overlap the previously-mentioned single strip, but is rather placed with its edge against it or, perhaps, running underneath it. It seems to show decorative stitching, which would have been a unique feature in ancient Egyptian leatherwork, but better preserved examples of leatherwork from the tomb of Amenhotep III (housed in the Metropolitan Museum of Arts, New York and currently under study) shows that the stitching once held

appliqué decoration. Note that this stitching covers the entire surface except the edge, which is undecorated for a few millimetres. Several stitches can be identified, suggesting running stitches. Although the object itself does not give any information, it seems unlikely that these stitches would have been made of anything other than sinew. This stitching is, seemingly, not visible on the back and thus prefabricated. This contrasts with the stitches on the edge, securing the decorative strips, which are visible on the back of the object. The edge strip is secured with one row of running stitches, together with the first set of strips. The second set of strips is secured with at least one row of running stitches; perhaps, but most likely not, it is also included in the running stitches of the strip with the appliqué zigzag decoration. Besides these stitches, the strip is secured with stitches at the corner of the zigzag motif

(cf. text figure 11). The single strip following onto this one is secured with two rows of running stitches, neither of which go through other strips. The centre part is secured with the 'decorative' stitching, which are all running stitches. The strap on the back in ÄM AM 074b uses the original fastenings of leather thong and thus this narrow strap is original. In ÄM AM 074a, however, a wider one, terminating in a point with a slit, is stitched to the object, which therefore is regarded as a repair. From the photograph, the construction and decoration in ÄM AM 074a is the same, although it is not as clearly visible as in the other object. On the opposite side of the narrow, rounded end, a slit(?) is visible with the remnants of leather thong in it, the function of which is not clear. The exact attachment to the object is uncertain.



Cat. No.	Specialist No.	ÄM AM 075
44	Year	1911
	Find No.	226
	Context	House N 50, 8
	Measurements	109.5 x 119.4; t: 2.8
	Material	Leather
	Colour	Black, red, green, greyish brown
	Remarks	The object did not have a label. However, because it is photo-

graphed by the excavators together with ÄM AM 031a, it seems safe to assume a comparable context. The list mentions an "ovaler Schild mit aufgenähten Streifen," which perfectly suits the object. The fragment, which is attached to the object now, can be seen in the excavation photograph in its origi-

nal position, *i.e.* as part of the long edges of the oval object. The separate piece in the excavation photograph does not belong to ÄM AM 075 (see also text figure 3).

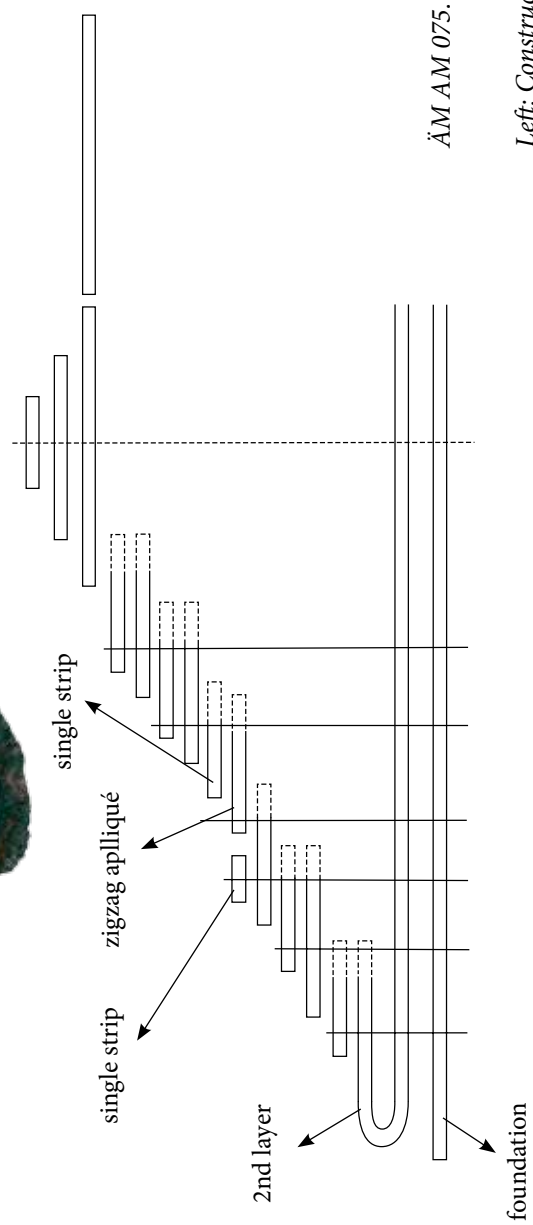
Description

Tapering object, with slightly convex sides, which is elaborately decorated with stitched-on strips of leather of different colour originally. In describing the object, the tapering end is facing downwards. The applied decoration is secured with sinew, running stitches with a total width of 28.8 mm. It consists of two layers: the first is a foundation, seen in other decorated objects as well. The second layer is a coloured layer, which seems to be folded upwards at the edge, thus serving as the wider of the first set of strips (width 4.5 mm). This layer might be the same as the layer visible at the centre of the object (thus inside the edge decoration), even though on the edge its colour is red with green inside. The second set (width 4 mm) overlaps the first partly, leaving small strips visible. This second set is partly overlapped by a set which consists of a wider strip (width 6.3 mm) onto which is stitched a narrow single strip and a wide strip (width 4.8 mm) with zigzag appliqué work. This motif is secured on the corners (text figure 11). Note that,

although it is stitched onto a separate strip, the zigzag decoration is stitched through all layers, which indicates that it was applied after the strip was added to the object rather than before. Strips are secured through the topmost one of the set; here, the row of stitches is situated just under the decoration. Following onto this, and overlapping the zigzag motif is a single strip (width 2 mm), which is secured together with the following set of strips (width 3.7 mm), the single strip slightly overlapping, and, again, followed by another set of strips. Finally, a more elaborate set of four strips follows (width 8.3 mm), as usual, overlapping the previous one in stair-step fashion. This last set consists of a wide strip onto which a narrower is placed. On the innermost edge are two much narrower strips (width 3.9 mm): the top one again narrower than the bottom one. In contrast to the previous sets, where the lower strip only protrudes from one of the edges of the top strip because the other edge is obscured by the next set of strips, here the top strips are placed lengthwise on the centre of the lower one, which therefore protrudes on both sides. The two narrower top strips are situated slightly inwards from the edge of the bottom two, thus creating a four-tier layer. The attachment, however, is uncertain.



Excavation photograph of the object, with at the right hand corner ÄM AM 075 (for other objects see ÄM AM 031a & f, Cat. No. 34; the object with the floral motif is currently housed in the Egyptian Museum, Cairo [10678]), the description of which will be published in the final analyses of Amarna's leatherwork) shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.



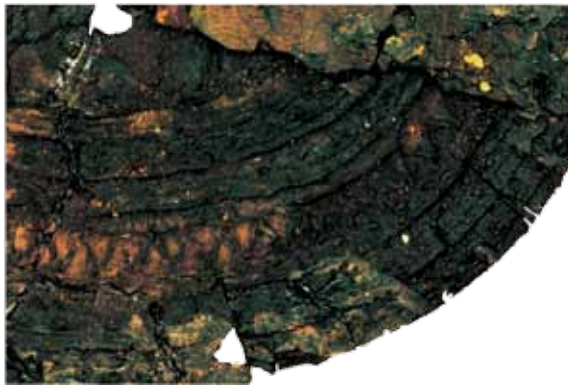
ÄM AM 075. Obverse and reverse respectively.

Left: Construction drawing. Not to scale.

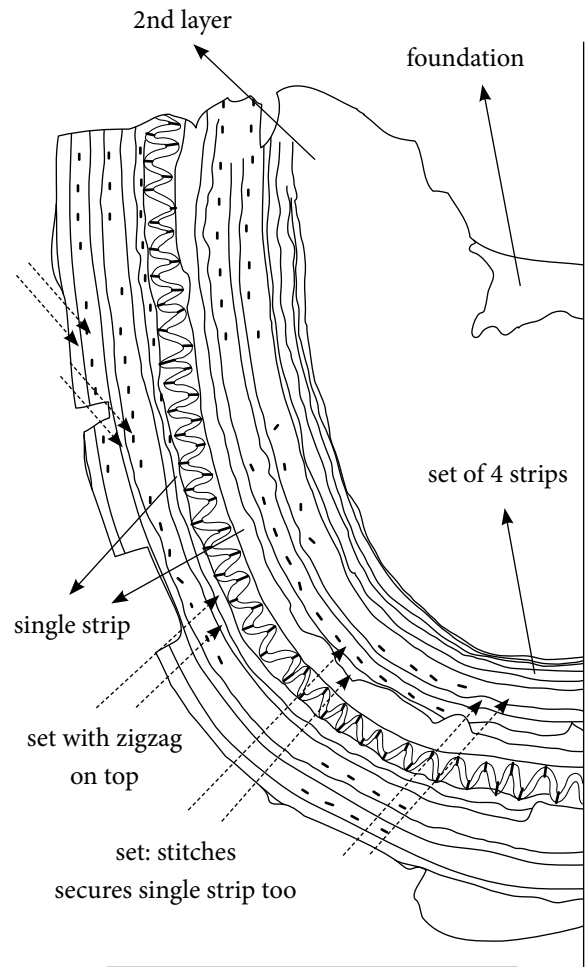
A



B



C

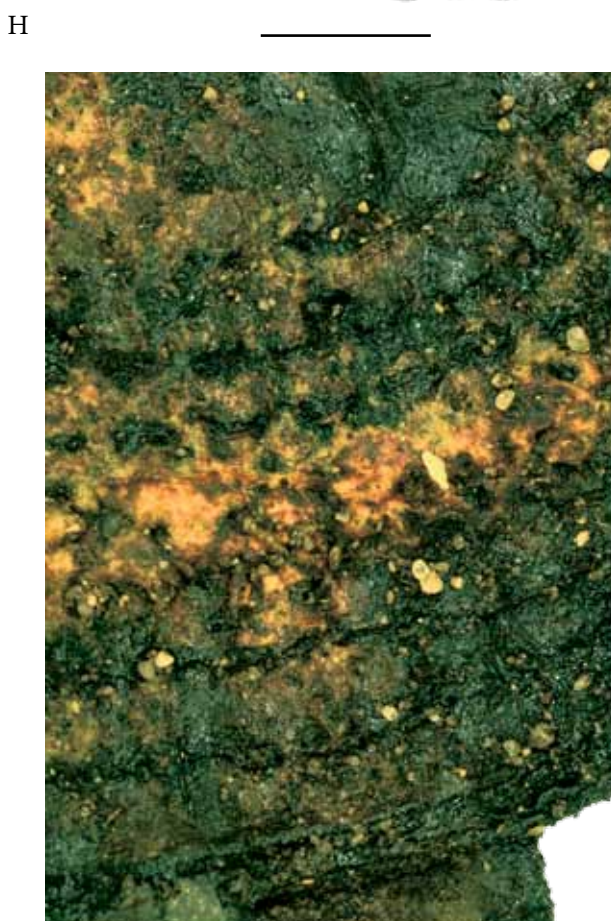
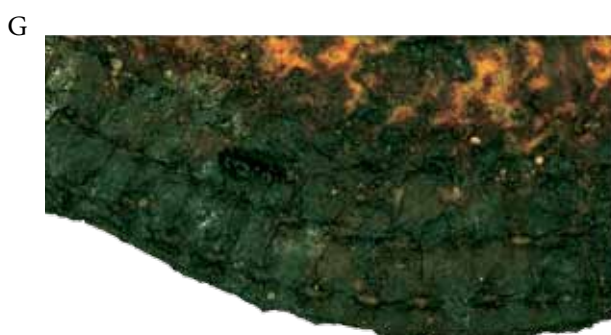


Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).

D



Details A-F: The elaborately decorated surface at various spots. G & H: The stitching on the reverse (foundation layer). Note the zigzag stitching. Scale bars are 10 mm.



Cat. No.	Specialist No.	ÄM AM 076a-ac
45	Year	1910-1911
	Find No.	29-42
	Context	House N 50, 1/N 51, 3
	Measurements	(a) 49.0 x 28.2 x 5.0; (b) 41.3 x 22.7 x 4.1; (c) 74.7 x 25.4 x 3.6; (d) 97.0 x 23.2 x 4.8; (e) 23.0 x 30.2 x 4.0; (f) 68.6 x 50.2 - 78.6 x 47.0; (g) 16.5 x 56.4 x 4.1; (h) 31.6 x 49.9 x 2.9; (i) 15.2 x 38.5 x 3.8; (j) 21.0 x 33.4 x 4.0; (k) 31.0 x 71.8 x 4.6; (l) 50.4 x 31.0 x 4.1; (m) 27.9 x 43.9 x 3.2; (n) 46.4 x 39.9 x 3.9; (o) 22.6 x 78.5; t: 4.0; (p) 18.7 x 43.8 x 5.0; (q) 58.6 x 42.1 x 2.8; (r) 49.4 x 72.5 x 7.3; (s) 18.4 x 38.7 x 4.5;

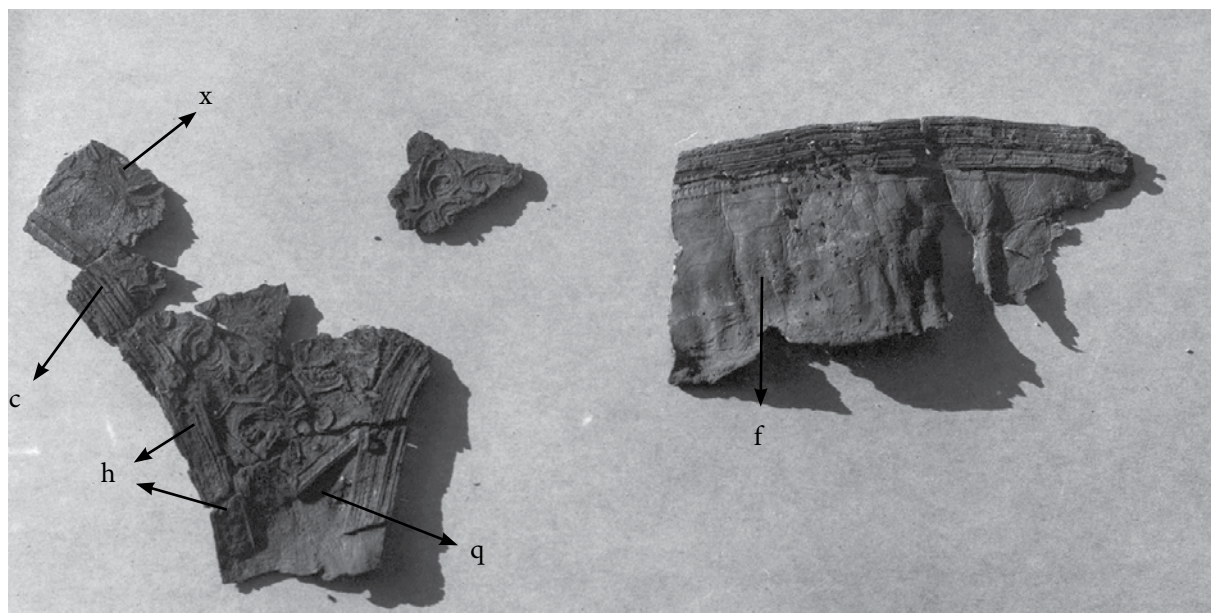
	(t) 23.6 x 103.0 x 3.4;
	(u) 23.6 x 44.2 x 4.2;
	(v) 22.8 x 57.5 x 2.5;
	(w) 40.7 x 48.0 x 1.0;
	(x) 36.5 x 37.0 x 2.3;
	(y) 36.2 x 38.2 x 4.4;
	(z) 29.4 x 40.7 x 1.1;
	(aa) 21.2 x 39.0 x 2.6;
	(ab) 21.4 x 44.4 x 2.9;
	(ac) not measured
Material	Leather
Colour	Brown, green, red, black
Remarks	Two find cards accompanied this group of objects, suggesting two different house numbers. The point of one of the short edges of ÄM AM 076o was broken off after excavation and glued; it fits with ÄM AM 076j. See also text figure 11.

Description

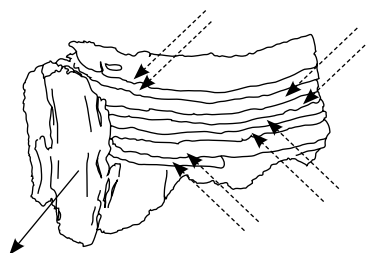
- (a) Corner piece, with stitched decoration of sets of strips clearly distinguishable on one end. The horizontal edge consists of four sets (consisting of two overlapping layers, as usual the top one being set back from the bottom one in stair-step fashion), each of which overlaps the next one (seen from outer to inner ones; total width:

15.5 mm). Stitched with sinew, running stitch. The vertical edge shows this type of decoration too, the exact composition of which cannot be identified (width 9.6 mm). It might be different in layout than the horizontal edge. On the outer edge of the decoration a small piece of decoration is still visible. This suggests that the decoration is placed over it: one wonders if the original edge was damaged and the decoration repaired. Note the bright green colour on the surface inside the two edges.

- (b) Rectangular fragment, of which the strips of decorative leather are visible as lengthwise orientated bumps. Exact composition not possible to determine: there might be five sets of overlapping strips of leather, stitched on a foundation. One, however, might be a set of strips in which a narrow top strip runs lengthwise down the centre of a wider bottom one, the latter of which is therefore visible at both long edges of the top strip, as seen in other fragments. This set is secured without stair-step overlap on top of the others.
- (c) Complete width of decorated leather. On both long edges the foundation is sandwiched with a narrow strip of leather, which is, at least on the back side, included in the first row of



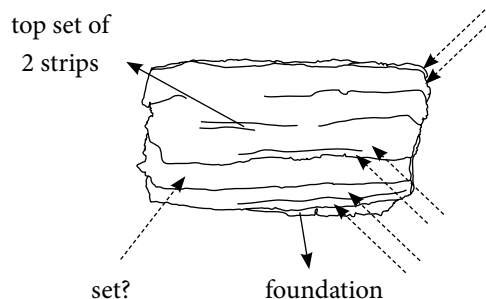
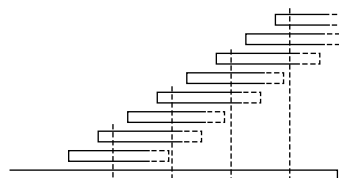
Excavation photographs of the objects shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin. Most of the fragments with specialist number ÄM AM 076 have been identified.



several sets of strips

ÄM AM 076a. Obverse and reverse. Corner fragment. Top right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).

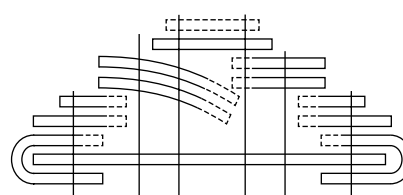
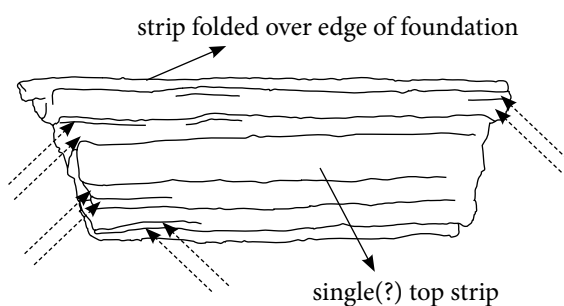
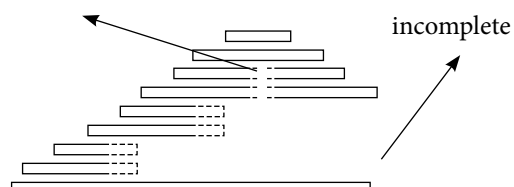
Right: Construction drawing. Not to scale.



ÄM AM 076b. Obverse and reverse. Top right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).

Right: Construction drawing. Not to scale.

likely as in ÄM AM 076c



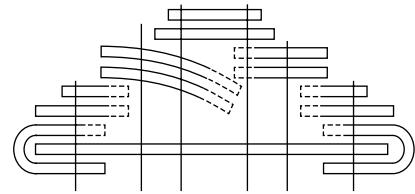
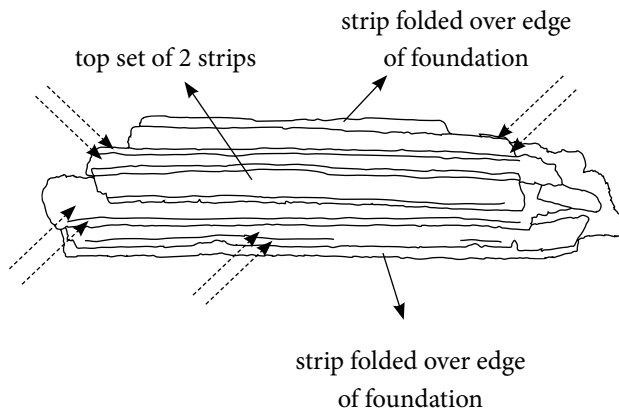
stitches. The first set of strips (4.1 mm wide) overlaps the folded edge strip partly but is, on its other edge, partly overlapped by the second set of strips (width 3.7 mm). On the other edge of the object, the situation is the same: strip folded around the edge, followed by two overlapping sets of strips. This means that the overlap on both halves is directed towards the edges. In the middle is a seemingly single strip (width 6.2 mm), but it might be a set as described for ÄM AM 076b. Broken pieces of this centre strip, however, show that the strips did not meet edge to edge, but rather run over each other. Undoubtedly, the strips were coloured differently, but nothing

remains of the colour anymore. All stitches are sinew running stitches.

- (d) Like fragment ÄM AM 076c. Here, the topmost 'strip' clearly is a set of strips, the bottom one slightly wider than the top one. Note the remnant of green colour under the central strip.
- (e) Roughly rectangular fragment with, on one of the short edges, four sets of strips. Inside this band of decoration are remnants of other decorative elements. Too little is preserved to give a detailed description, but circular forms are visible, which give the impression that this fragment might be comparable to ÄM AM 076h, q & x. Note that the surface upon which this decoration is stitched, is green.

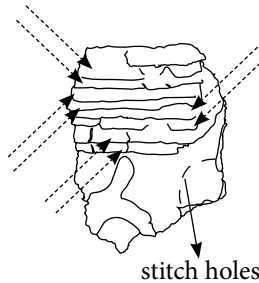


ÄM AM 076d. Obverse and reverse.



Left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Right: Construction drawing. Not to scale.

ÄM AM 076e



Far left: ÄM AM 076e. Obverse and reverse. Left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).

◀ ÄM AM 076c. Obverse and reverse. Bottom left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Bottom right: Construction drawing. Not to scale.

(f) Larger, sturdy piece of leather onto which is stitched, on its edge, decoration consisting of a narrow strip folded around the edge of the foundation (*cf.* for example ÄM AM 076c & d), with a strip on top in the usual way. This is followed by a set of two overlapping strips. All are secured with sinew running stitches through the top layer. Note the diagonal, ill-defined red

line across the surface. Close to the edge on the other side is a small piece of leather, which is secured with one leather stitch and is visible on the other side. From here downwards, with a length of about 22.5 mm, are several relatively large holes, which are stitch holes; remnants of the leather stitches are still *in situ*.



ÄM AM 076f. Obverse and reverse.

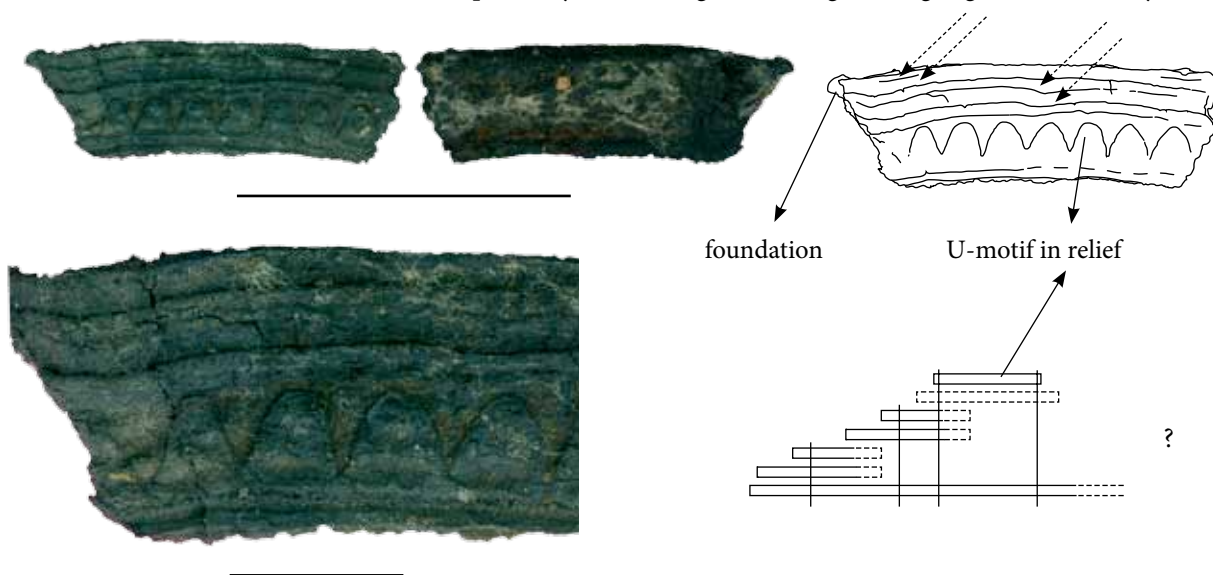


Details: The edge of the obverse. Left: The single, big stitch at the reverse. Scale bars are 10 mm.

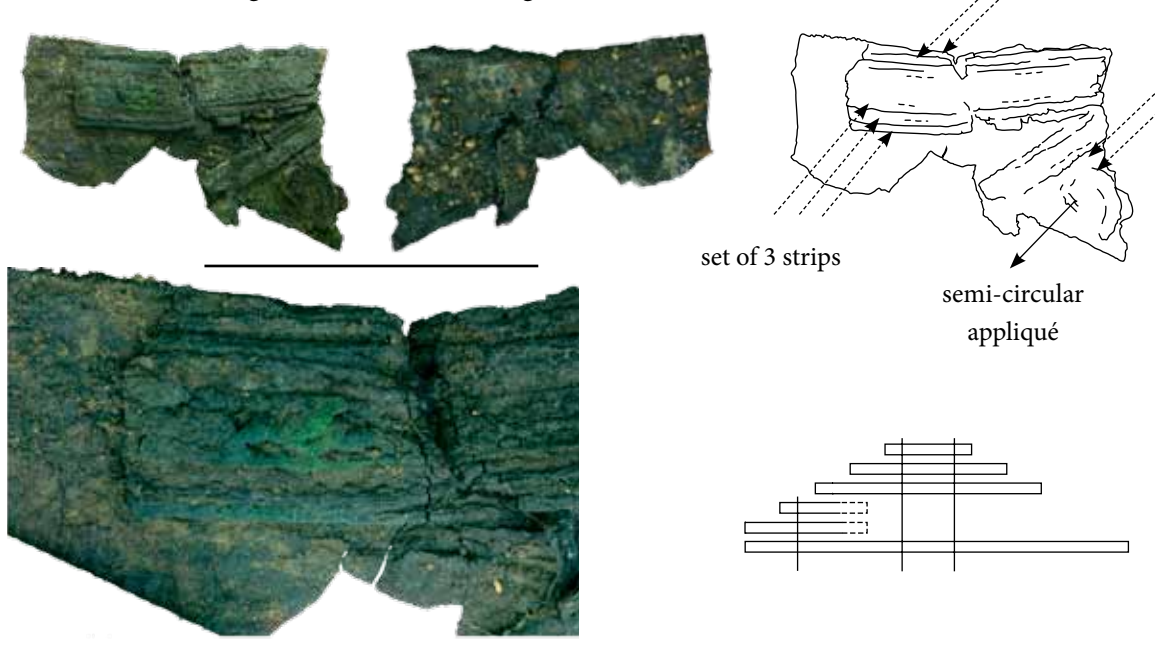
- (g) Rectangular piece but slightly curving. The system and overall techniques are the same as the others. The width of the fragment seems incomplete, but starting from the convex edge, there are two overlapping sets of each two strips, followed by a wider strip (10.7 mm) and thicker strip with U-shaped decoration in high relief, *i.e.* the leather that surrounded the decoration is scraped away.

Possibly, the strip with relief decoration is part of a set, but this cannot be identified with certainty. The relief decoration is the reason of the thickness of this strip. The fragment is broken off beneath this layer. The strip with the decoration is secured with sinew running stitches along its edges.

- (h) Fragment, broken in the middle but glued together. Along the long edge of the relatively thick



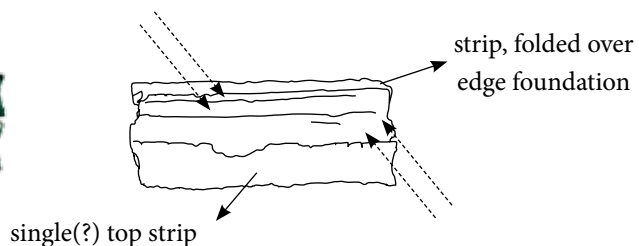
Top left: ÄM AM 076g. Obverse and reverse. Top right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Left: Detail. Decoration in relief by scraping away the surrounding surface. Scale bar is 10 mm. Right: Construction drawing. Not to scale.



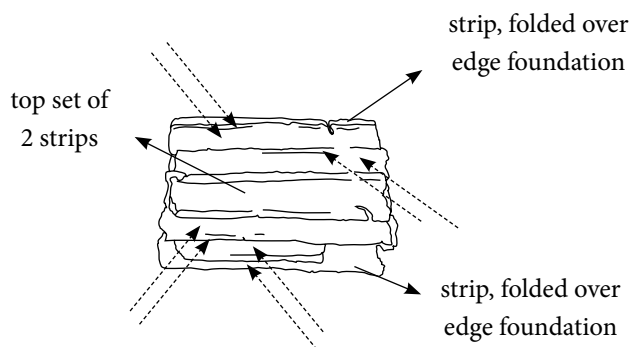
Top left: ÄM AM 076h. Obverse and reverse. Top right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching in dashed lines. Left: Detail. Edge of the fragment, showing the layers and the stitching. Scale bar is 10 mm. Right: Construction drawing. Not to scale.

foundation is a set of leather strips, but the two are rather narrow. Overlapping this set, bringing the total width at 12.5 mm, is a set of three strips (total width of 10.1 mm), narrowing in width from bottom to top. It is secured with two rows of running stitches along the edges of the upper strip, and with stitches in the upper strips of the first set of strips. The strips vary in colour: the lower and upper ones are both green, whereas the middle one is red. On one end additional decoration is visible beneath the triple edge decoration. A set of strips runs from the edge band diagonally down the bottom of the fragment. It seems that the narrower, top strip is recessed a little from the bottom one at only one edge. It is secured along both edges of the narrow upper strip. In the corner below this diagonal strip are remnants of circular appliqué work, which also seem to consist of two layers. The semi-circle (the other half is missing) is secured with a row of tiny running stitches of sinew.

- (i) Rectangular, incomplete fragment, missing part of its width. The remaining intact edge shows a foundation, which is sandwiched by a strip of leather. This is followed by two sets of overlapping leather strips. The third set has (almost)



ÄM AM 076i. Obverse and reverse. Right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).



ÄM AM 076j. Obverse and reverse. Right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).

complete edges, showing that this was a centre strip and not overlapped. It thus resembles other fragments, such as ÄM AM 076c & d. The stitching as usual goes through the top layers; the folded strip is included in the stitching of the first set whereas with the centre set, rows of stitches are situated on both edges of the upper strip.

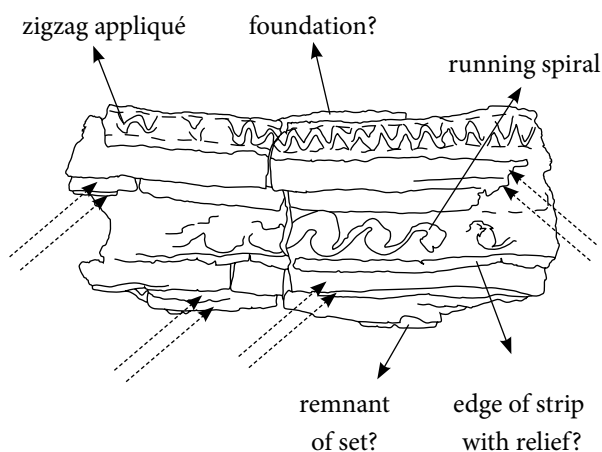
- (j) Rectangular fragment comparable to, for example, ÄM AM 076c & d. Here, at a break of the first set of strips, it is clearly visible that the folded strip runs quite far until at least the second set of strips. Note the small glued part.
- (k) Broken but glued fragment, consisting of a foundation, on which several layers are stitched: the first element seems to be a remnant of, probably, a set of strips: on the back, it is clear that this element is not the foundation. Following onto this is a set of strips (total width 3.8 mm) overlapped by a second set (about the same width). This, in its turn, is overlapped with a wider strip (8.5 mm wide), which is decorated, in high relief, with geometrical figures (running spirals). Possibly, the top edge of this strip has been left out as well when scraping away the leather. On its other edge it is overlapped with a set of

strips (2.9 mm), which is in turn overlapped on the other side with a second set (4.1 mm; see also the description of fragment ÄM AM 076m). This second set, finally, is overlapped with a strip (6.2 mm wide) upon which a narrow strip of leather (width smaller than 1 mm) is stitched in zigzag, with stitches on the corners. This strip seems to have two narrow strips along both edges, but this could not be clearly identified: it might be in high relief, due to scraping away the surface on which the appliqué is applied. It can be assumed that the sets are secured as always: through the upper strip. Stitches, however, have not been observed, except for the ones holding the zigzag appliqué decoration in place (*cf.* text figure 11).

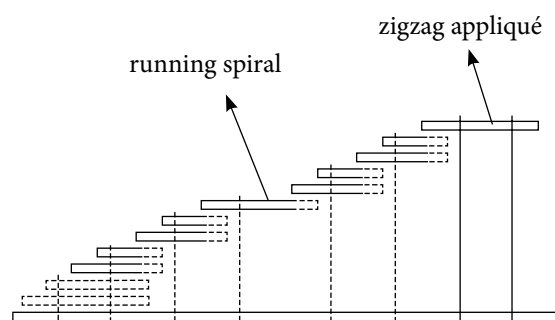
- (l) Roughly triangular piece, but broken in two. Two sets of strips are stitched onto the surface, partly overlapping each other. In contrast to most examples, where the overlap faces the edge, here the overlap is done away from the edge. The wide strip of leather, which sandwiches the edge of the leather, now includes the edge of the second set too. As always, secured through the upper strip with running stitches (sinew?) but no stitches have been identified at the folded strip. Moreover, there seems to be an extra row of stitches going through the edge of the widest strip of the first set, overlapping the second set.



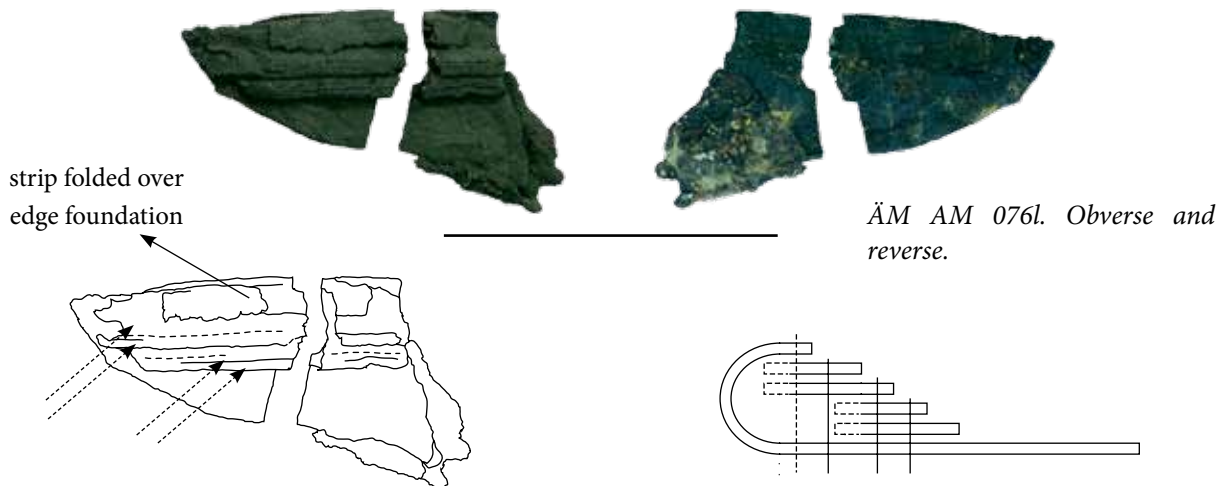
ÄM AM 076k. Obverse and reverse. Glued at the crack.



Left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Right: Detail of obverse. Scale bar is 10 mm.



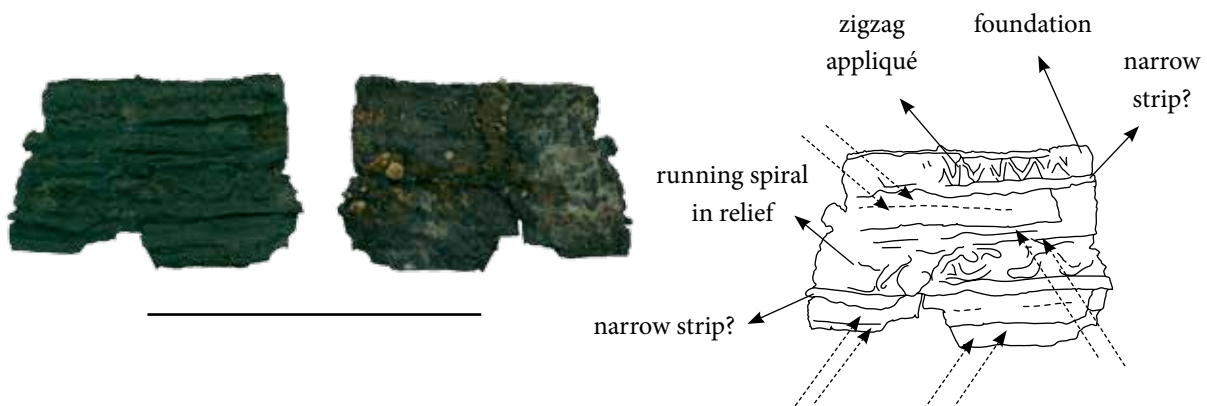
Construction drawing. Not to scale.



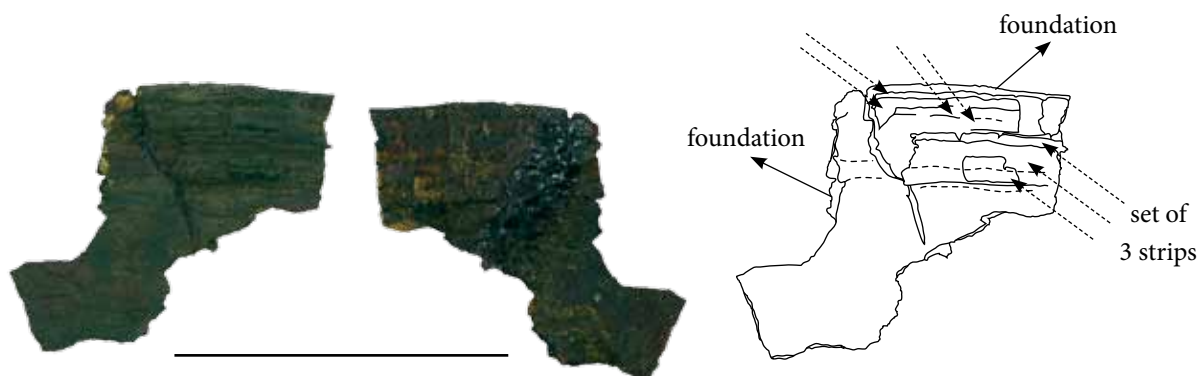
Left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching in dashed lines. Right: Construction drawing. Not to scale.

- (m) Rectangular fragment with the same decoration as fragment ÄM AM 076k, but in worse condition. However, the sinew stitches of the second row below the row with geometrical figures (*i.e.* the row overlapping the zigzag appliqué work) are better visible, showing that the stitches are very close to each other, and might have been made with double thread (straight stitching).
- (n) Irregularly-shaped fragment with remnants of decorative strips. From the edge onwards, there are three (3.1, 3.5 and 7.0 mm wide). The third, however, has a green strip on top, which is narrower (3.8 versus 6.0 mm) and positioned at the lower edge, so that only the upper edge protrudes from it. All rows are secured with sinew running stitches through the upper strip of the set; the third set, however, also has a

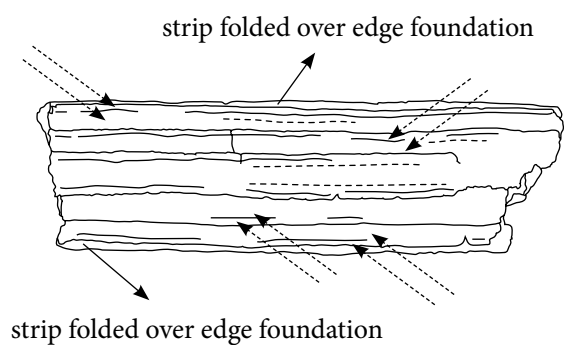
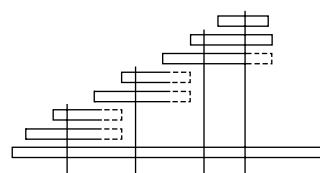
- row of stitches lengthwise down the centre of the third, green strip. Two layers on top of each other, close to the edge, are overlapping almost entirely. The upper one is broken, at the break of which is a single stitch, which suggests a repair.
- (o) Rectangular fragment, in layout like ÄM AM 076c & d. Clearly visible are the edges of the two sets, which meet beneath the central set; these do not touch but rather run over each other.
- (p) Although this rectangular fragment is rather compacted, the layers are clearly visible and show that the central strip consists of one layer, which is secured at the edges with rows of running stitches of sinew. This layer is green. The fact that the strip, which is folded around the edge of the foundation, is green, indicates that



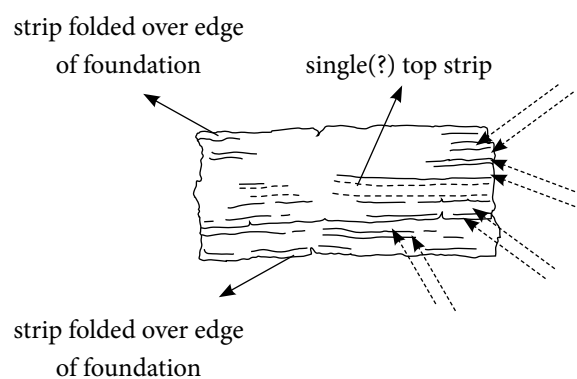
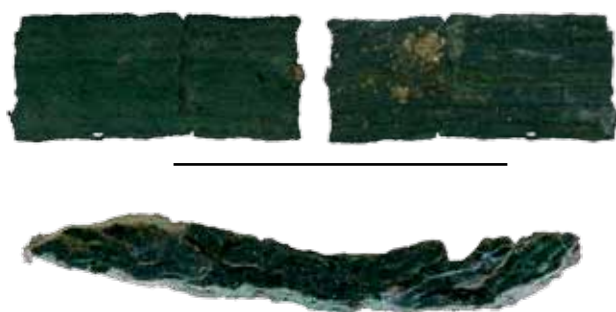
ÄM AM 076m. Obverse and reverse. Right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Note the barely visible band with geometrical motifs (*cf.* ÄM AM 076k). Stitching in dashed lines.



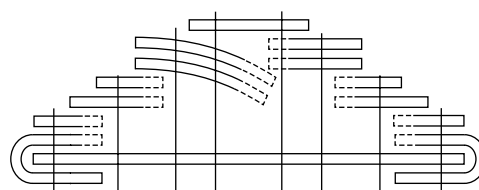
ÄM AM 076n. Obverse and reverse. Right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching in dashed lines. Right: Construction drawing. Not to scale.



ÄM AM 076o. Obverse and reverse. Left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching in dashed lines.

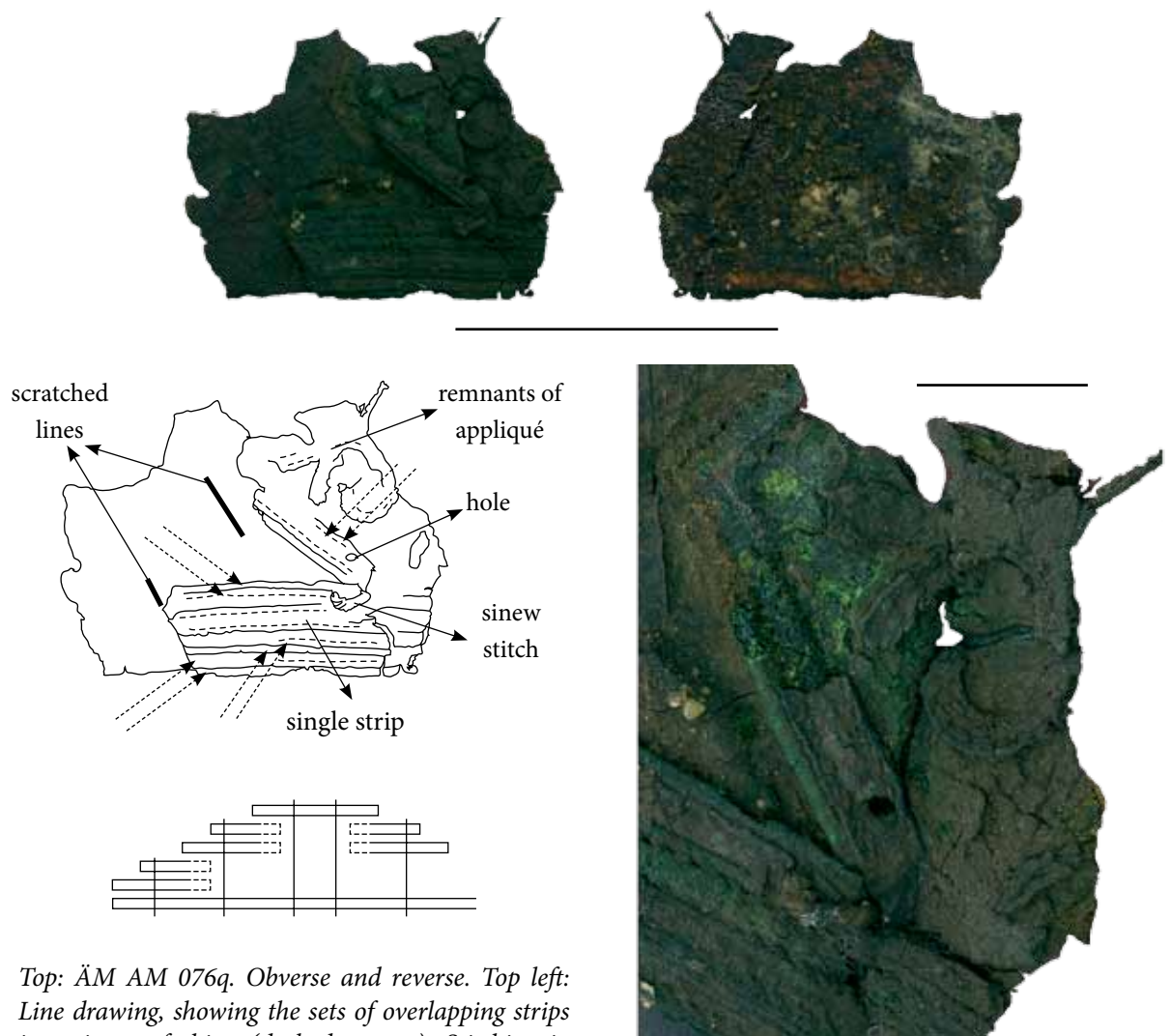


ÄM AM 076p. Obverse and reverse. Note the bright green colour of the foundation layer (reverse). Detail: Cross-section, showing the construction of the layers. Top right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching in dashed lines. Right: Construction drawing. Not to scale.



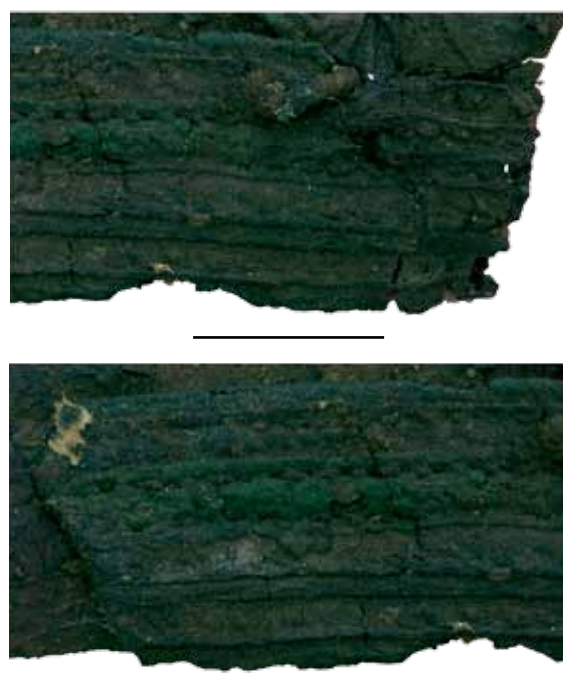
in the sets, the lower one is green. Most likely the upper one is red, as this is the usual colour combination. Moreover, red might turn into very dark brown/black over time. In this fragment, the strip folded around the edge of the foundation acts as the lower strip of a set; in the comparable fragments, it did not act as lower layer but the next layer is a set of strips instead. The foundation has a green colour.

- (q) Roughly rectangular piece with a decorative edge as well as appliqué decoration more inwards from the edge. The edge consists, from outside to inside, of two sets of strips, each one overlapping in stair-step fashion (total width 14.2 mm). This is finished with a single, green strip over the edge of the second strip, thus obscuring not only the edge, but also the joint between it and the set of strips coming from the other side. At the other side of the central strip, there is only one set of strips preserved. All are secured with sinew running stitches through their upper row: the central strip, however, is secured with a row of running stitches on either side. Inside the edge decoration, on a green foundation, is geometrical appliqué work, which is secured along both edges with running stitches of sinew. There might have been a core as in ÄM AM 076x. A diagonal strip (4 mm wide), seemingly borders this decoration; in it, close to the attachment of it with the edge decoration, is a relatively large stitch hole. Next to it, in the edge decoration, is a piece of sinew stitch sticking out; most likely it was inserted in the now-empty stitch hole in the diagonal strip. Possibly these were used to attach the leather to an object as the stitches are much bigger than those used to attach the decoration. At a roughly 35-degree angle to the diagonal strip are two parallel lines about 5.5 mm apart, scratched into the foundation.
- (r) Large and thick, triangular piece. It seems to consist of three layers, but it is not certain if the top layer is an original feature of the leather object; it might be concreted to it. Looking at the fragment with the intact short edge left, from top to bottom, two sets of strips follow onto each other, partly overlapping in such a way that the opening faces the edge. The sets as well as the individual strips are rather close to each other, resulting in only slightly protruding edges. The second one is overlapped by a single, green strip, which on its other edge covers the upper edge of the row of openwork, vertical 'bar'-decoration (total width of these two sets and the single strip is about 5.2 mm; the 'bar'-decoration is about 3.1 mm wide). This vertical 'bar'-decoration basically is a strip, which has been cut into the openwork pattern and inserted. The other edge is covered, again, with a single strip followed by a set of strips (total width about 4.8 mm), with the overlap facing the edge of the fragment. The lower edge covers a single strip (about 3.3 mm wide), which borders the next row with its lower edge. This row has a narrow leather thong (width 1 mm), which is stitched in zigzag with a stitch on the corners (*cf.* text figure 11). Against it and the top set overlapping the edge, are two sets of strips, partly overlapping each other in such a way that the opening faces the edge. A third and final set follows, consisting of three strips, the top one of which is a green strip that covers the edge of the lower strip (total width: 7.7 mm). The vertical edge is in bad condition. Possibly it consists of a set of strips, facing the horizontal decoration. More towards the outer side, dirt (and a third layer?) adheres to it, obscuring clear vision.
- (s) Rectangular piece of incomplete width. In construction it is comparable to fragment ÄM AM 076g.
- (t) Long rectangular fragment, but broken in two. Close to the current break is an older one, which has been repaired (post-excavation). In composition the same as *e.g.* fragment ÄM AM 076c & d.
- (u) Rectangular fragment like ÄM AM 076c, d etc. The width is only partly complete.
- (v) Badly preserved fragment, with much dirt adhering to the decorated surface. Although this seriously hindered identification, the band of zigzag appliqué work is clearly visible, which is made with a narrow strip of leather (*cf.* for example ÄM AM 076r).
- (w) Featureless fragment, save for some parallel running folds and two stitch(?) holes.



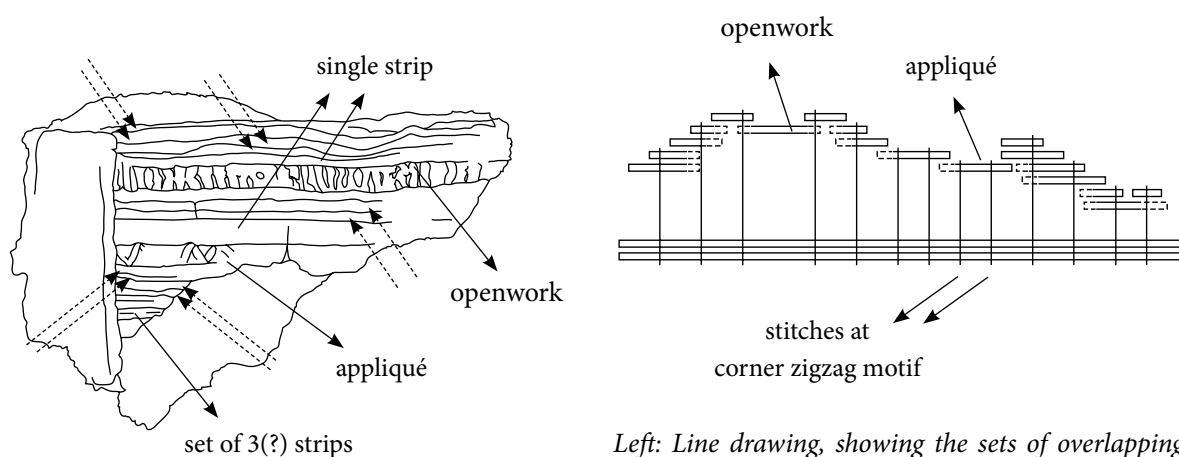
Top: ÄM AM 076q. Obverse and reverse. Top left: Line drawing, showing the sets of overlapping strips in stair-step fashion (dashed arrows). Stitching in dashed lines. Bottom left: Construction drawing. Not to scale. Right: Details. Note the big sinew stitch in the second photograph. Scale bar is 10 mm.

- (x) Roughly square piece with badly damaged appliqué work. In composition, comparable to, for example, ÄM AM 076e & q. Still visible on ÄM AM 076x is a cover with two rows of stitch holes, which are the remnants of a decoration of geometrical figures. This decoration is secured with rows of sinew running stitches along their edges. At the Y-junction of this decoration, short fragments of relatively thick fibre threads can be seen. They run under the appliqué decoration but are not used to attach the decoration to the surface: the figures are stitched on their edges (as in for example ÄM AM 076q). However, the decorations bulge as a result of the thread underneath them, which





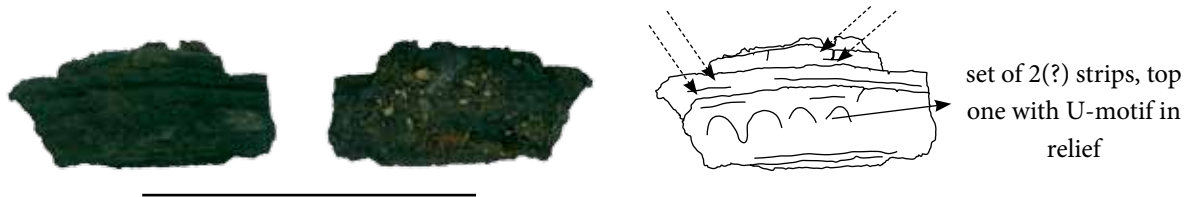
ÄM AM 076r. Obverse and reverse.



Left: Line drawing, showing the sets of overlapping strips in stair-step fashion (dashed arrows). Right: Construction drawing. Not to scale.



Details. Note the complex decoration of the top of the fragment, consisting of vertical 'bars' and zigzag appliqué work. Scale bars are 10 mm.

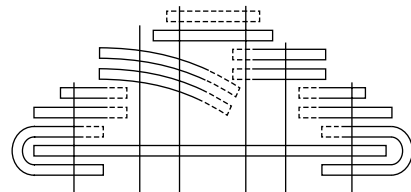


ÄM AM 076s. Obverse and reverse. Right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows).



Below: ÄM AM 076t. Construction drawing. Not to scale.

ÄM AM 076t. Obverse and reverse. The fragment is glued.



ÄM AM 076u. Obverse and reverse. The fragment equals, among others, ÄM AM 076t (see right for the construction drawing).



ÄM AM 076v. Obverse and reverse.



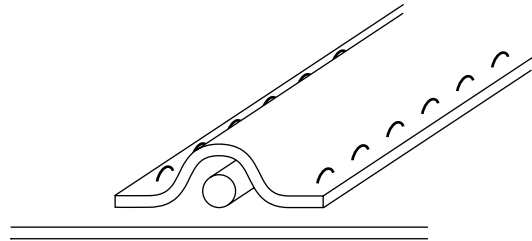
ÄM AM 076w. Obverse and reverse. Undecorated fragment.

suggests that, in order to let the decoration protrude from the surface proper ('relief'), the threads were included. It is uncertain if (and if so, how) these threads were secured, but likely they were just held in place by the stitching on each side of the leather strips.

- (y) Largely incomplete, tapering fragment with appliqué work, which compares well with ÄM AM 076x. The intact edge has a small strip (3.7 mm wide), which is added just inwards of the fragment's edge proper. It is secured with a row of sinew running stitches along both edges. An empty area follows (about 5 mm; one wonders if something is missing as it seems hard to believe that this was the intended layout). What follows is a band of zigzag appliqué decoration (about 6.5 mm wide). The condition of the object does not allow definite identification, but it seems that there are two layers, the top one of which has

the decoration stitched on (note that no stitches could be identified, again, due to the fragment's condition). Overlapping this band, the opening facing the edge, is a set(?) of two strips (about 4.3 mm wide). This set does not overlap; instead the upper one is somewhat smaller and positioned lengthwise down the centre on the lower one. A comparable set of strips is at angle of about 45 degree, thus leaving a triangular central area.

- (z) Like ÄM AM 076w, but without features.
 (aa) Rectangular fragment in bad condition and with much dirt adhering. Comparable to ÄM AM 076c, d etc.
 (ab) Badly preserved with dirt adhering. Comparable to ÄM AM 076v.
 (ac) Pieces of wood with plaster; uncertain about the association with the leather pieces.



ÄM AM 076x. Obverse and reverse. Right: Construction drawing of the padded appliqué work. Not to scale.



ÄM AM 076y. Obverse and reverse.



ÄM AM 076z. Obverse and reverse. Undecorated.



ÄM AM 076aa. Obverse and reverse.



ÄM AM 076ab. Obverse and reverse. Badly preserved.



ÄM AM 076ac. Obverse and reverse of associated wood with plaster.

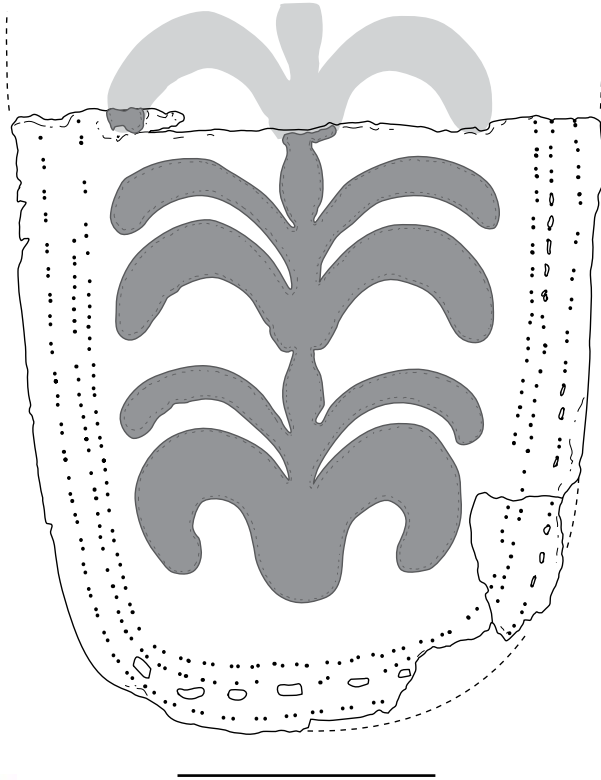
Cat. No.	Specialist No.	ÄM AM 077
46	Year	1911
	Find No.	35
	Context	House N 50, 1
	Measurements	l: 120.0; w: 95.2 - 112.7; t: 1.5
	Material	Rawhide, black leather
	Colour	Red brown and black

Description

One rounded end, the opposite end of which has broken off. The concave surface has a palmate motif, which is secured with widely-spaced running stitches of sinew along its perimeter. There are three rows of stitch holes along the perimeter of the object (respectively 5.2, 10.0 and 14.2 mm inwards from



Excavation photograph of ÄM AM 077 (right; for the objects to the left see ÄM AM 074, Cat. No. 43) shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.

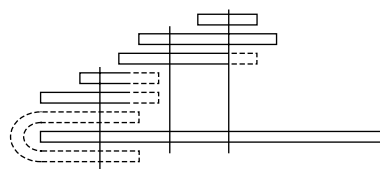
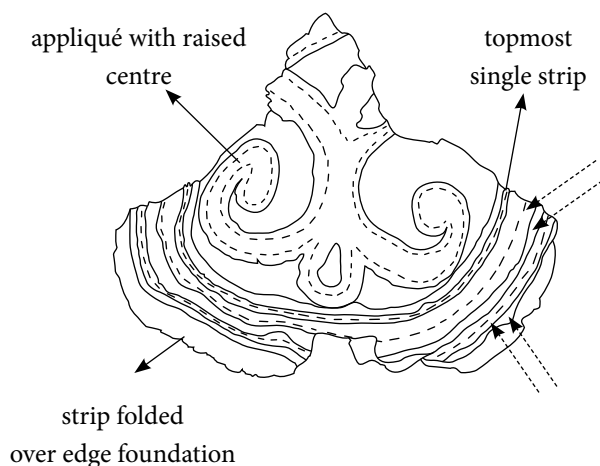
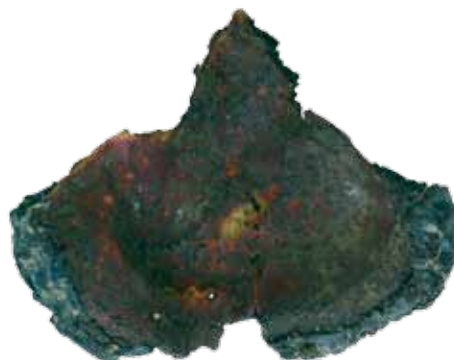


ÄM AM 077. Left: Obverse, showing palmate motifs, and reverse. Top: Drawing of the obverse. Note the big stitches at the bottom. Drawing by M.H. Kriek.

the edge), the stitch holes of which are grouped in pairs. Several intact sinew stitches clearly show that these were not used to attach the object to a surface: on the back side they are intact, and do not show that inclusion of any kind in them. The outer row, however, on the front, does show material included in the stitches, thus suggesting that it might have been attached to another surface in such a way

that the other material (*i.e.* to which the object was stitched) overlapped the edges on the surface with the decoration. Note the larger leather thong stitches at the bottom (arrow): these are broken on the back. The surface is red, the palmate motif was most likely green originally.

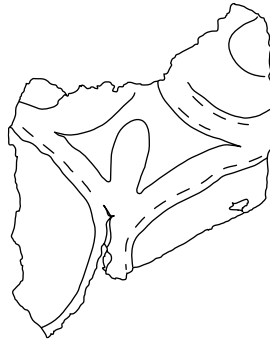
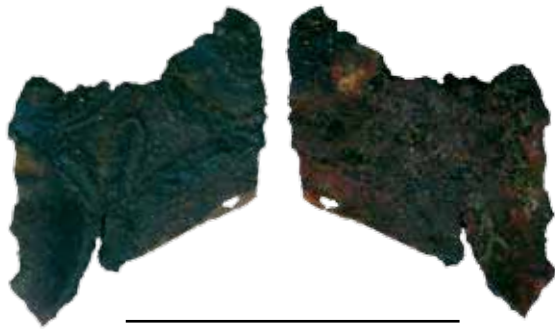
Cat. No.	Specialist No.	ÄM AM 078a-t	Material	Rawhide and leather
47	Year	1911/1912	Colour	Brown, red, green
	Find No.	584?	Remarks	According to the accompanying label, it "lag bei 11/12 584." This object is described here with specialist number ÄM AM 053 (Cat. No. 38). Fragment ÄM AM 078a has been published by Van Driel-Murray (2000: 311-312). She refers to the object as coming from House N 50, 1, but this is unlikely. Several featureless scraps are not numbered/described. The decoration of the fragments equals the one seen in ÄM AM 079 (Cat. No. 48), but they do not originate from this, nearly intact, object. This suggests a second specimen comparable to ÄM AM 079.
	Context	House M 50, 11		
	Measurements	(a) l: 51.8; w: 17.0 - 63.8; (b) 39.1 x 46.4 x 3.0; (c) l: 30.2; w: 38.4; t: 3.2; (d) l: 37.7; w: 37.3; t: 4.1; (e) l: 49.7; w: 28.8; t: 4.5; (f) 30.1 x 29.3 x 4.1; (g) 22.5 x 16.1 x 2.4; (h) 25.0 x 20.2 x 3.1; (i) 24.0 x 24.5 x 2.9; (j) 26.2 x 19.5 x 1.6; (k) l: 27.2; w: 14.9; t: 3.0; (l) l: 27.7; w: 25.0; t: 4.6; (m) l: 27.7; w: 12.2; t: 3.3; (n) l: 27.4; w: 12.3; t: 3.9; (o) 22.4 x 11.4 x 1.2; (p) l: 24.7; w: 15.8; t: 4.2; (q) 21.6 x 10.2 x 4.7; (r) 17.0 x 11.3 x 3.8; (s) l: 15.1; w: 9.4; t: 3.0; (t) 13.4 x 8.0 x 2.4		
			Description	(a) Roughly shaped like a quarter of a circle, but bent through the middle. It consists of a red foundation on which a lily-decoration is secured with running sinew stitching on both



ÄM AM 078a. Obverse and reverse. Lily motif cf. ÄM AM 079 (Cat. No. 48). Left: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Top: Construction drawing. Not to scale.

sides along the lily's perimeter (width varying from 5.7 to 6.3 mm). Some areas of the lily shape show a heightened central part. Most likely the leather of the figure covers a thread, as seen in, for example, fragment ÄM AM 076x. It seems that the rounded edge is sandwiched with a strip of leather but the visibility is poor and does not allow confident statements. However, ÄM AM 078d has such a construction. It is certain that there is a set of strips, partly overlapped with a second set, the opening of which faces the edge. The top strip of the second set runs a little further, leaving space for a narrow strip, which is placed on top in such a way that both edges of the upper strip of the set are visible.

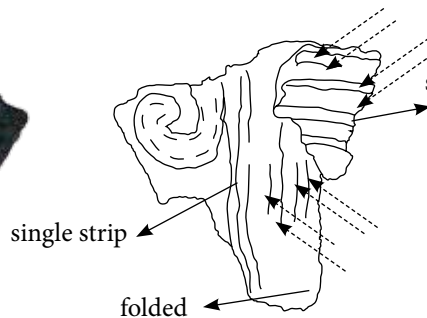
- (b) Diamond-shaped fragment. One surface shows remnants of the lily motif as seen in ÄM AM 078a. This fragment, however, is substantially thinner.
- (c) Roughly rectangular fragment like ÄM AM 078a, but with only the remnants of the coiled extension of the lily motif. It is a piece of edge, suggested by the remnant of the edge decoration (cf. ÄM AM 078a).
- (d) T-shaped fragment with intact edge and coil of the lily motif. This shows the same composition as described for ÄM AM 078a. Note that the fragment clearly shows the strip of leather, folded around the edge of the foundation layer. A small fragment of edge (length of 13 mm) adheres at right angle to the intact edge, includ-



ÄM AM 078b. Obverse and reverse. Right: Line drawing. Stitching in dashed line.



ÄM AM 078c. Obverse and reverse.

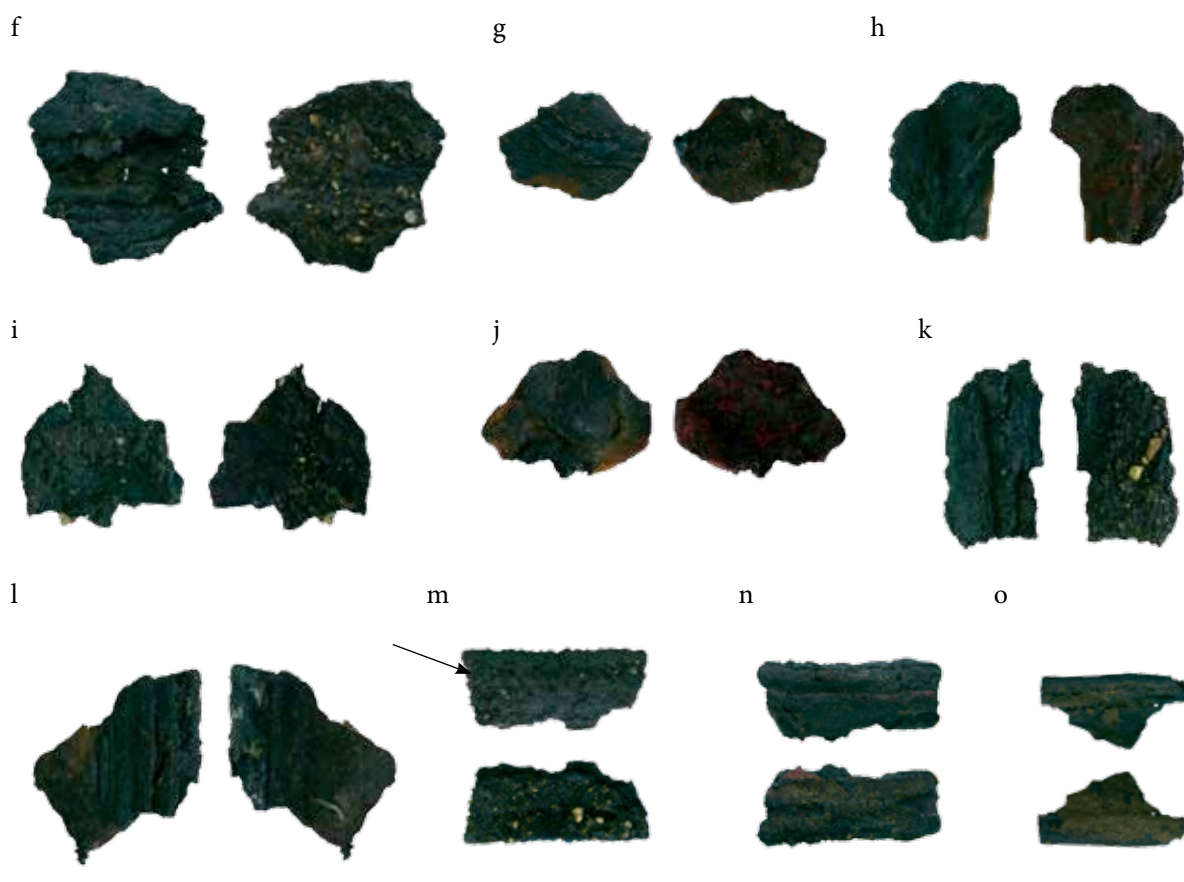


ÄM AM 078d. Obverse and reverse. Right: Line drawing. Stitching in dashed line.



ÄM AM 078e. Obverse and reverse.

- ing a 7 mm scrap of lily motif; it is not stitched to it and is interpreted as concreted rather than original.
- (e) Triangular fragment of edge, including a remnant of the coils of two lily motifs. Adhering packing paper obscures visibility of the edge, but enough remains to be certain on the composition, which is the same as ÄM AM 078a.
 - (f) Small, rather damaged fragment; therefore, certainty about its composition is not possible. For certain there is a single strip, secured with running stitches lengthwise on both edges and overlapping another layer(?) on both sides, one of which might be a set of strips.
 - (g) Small quarter-of-a-circle-shaped fragment with remnants of appliqué decoration.
 - (h) Small, roughly rectangular fragment with remnants of appliqué decoration (*cf.* ÄM AM 078b).
 - (i) Irregularly-shaped fragment with remnants of appliqué decoration. Much dirt adhering to this fragment.
 - (j) Small irregularly-shaped fragment with scrap of appliqué decoration.
 - (k) Rectangular fragment of edge. The width is incomplete, which is why it is not certain if it belongs to the other described fragments. The upper strip is green.
 - (l) Irregularly-shaped fragment with edge, the width of which is intact. Remnants of three partly overlapping sets of strips are visible.
 - (m) Small, rectangular fragment which differs from the fragments described thus far, as it consists of a green edge (not certain if this is the original edge), and a band of green zigzag appliqué decoration (arrow), made of narrow leather thong. It is not certain if one overlaps the other or not. The other edge, however, overlaps a strip of leather: most likely these two are a set. These two overlap at least one other layer (most likely a set too).
 - (n) Fragment of edge, the width of which is incomplete. Still remaining are two sets of partly

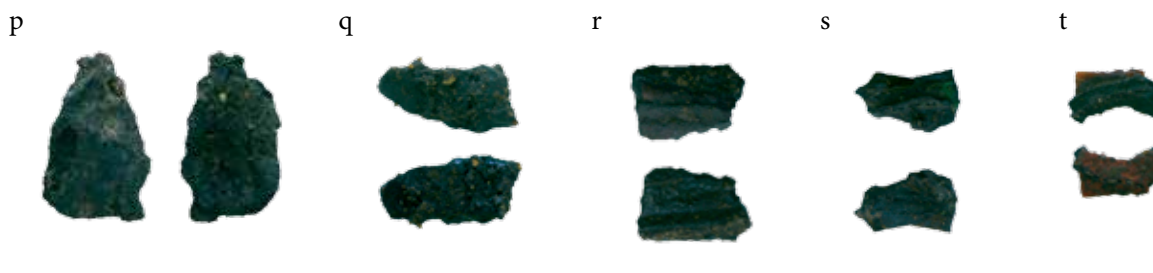


ÄM AM 078f-o. Obverse and reverse.

overlapping strips as well as the edge, consisting of a strip that is folded around the foundation's edge. The colour is still visible: the upper strips are green, the lower strips of the sets are red and the folded strip is green too.

- (o) Roughly triangular, incomplete fragment. Possibly a layer (and the remnants of another) of an edge. Two rows of stitch holes are visible, suggesting running stitches.
- (p) Big lump of 'melted' leather. Vaguely visible, however, are lengthwise structures, suggesting it is a part of an edge.

- (q) Small rectangular piece of edge(?).
- (r) Small rectangular piece of edge, showing remnants of overlapping layers.
- (s) Small, roughly rectangular fragment, consisting of a set(?) of green on red(?) strips, overlapped partially by another set. This latter set, however, differs because the upper strip is much narrower (about 1.5 mm versus at least 6 mm for the upper strip of the lower set). The extremely fine sinew running stitches are largely intact.
- (t) Scrap with one intact and several incomplete stitches (sinew, running stitch).



ÄM AM 078p-t. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 079
48	Year	?
	Find No.	Z 4420
	Context	?
	Measurements	Approximately 235 x 120
	Material	Leather
	Colour	Brown
	Remarks	ÄM AM 079 is described on the basis of the excavation photograph, as at present the object is too fragile to study without consolidation first. Due to the discovery of the excavation photographs, the object could be identified as an Amarna find (Veldmeijer & Endenburg, 2007: 36)

Description

Tapering object with straight edge (assuming this is the top edge) and slightly convex side edges. The decorated edges equal the edges in ÄM AM 035 (Cat. No. 37), to which the reader is referred for a detailed description. Lengthwise down the centre, dividing the object into two compartments, is a relatively wide (about 20 mm) strip of leather. Clearly visible on both vertical edges of this strip

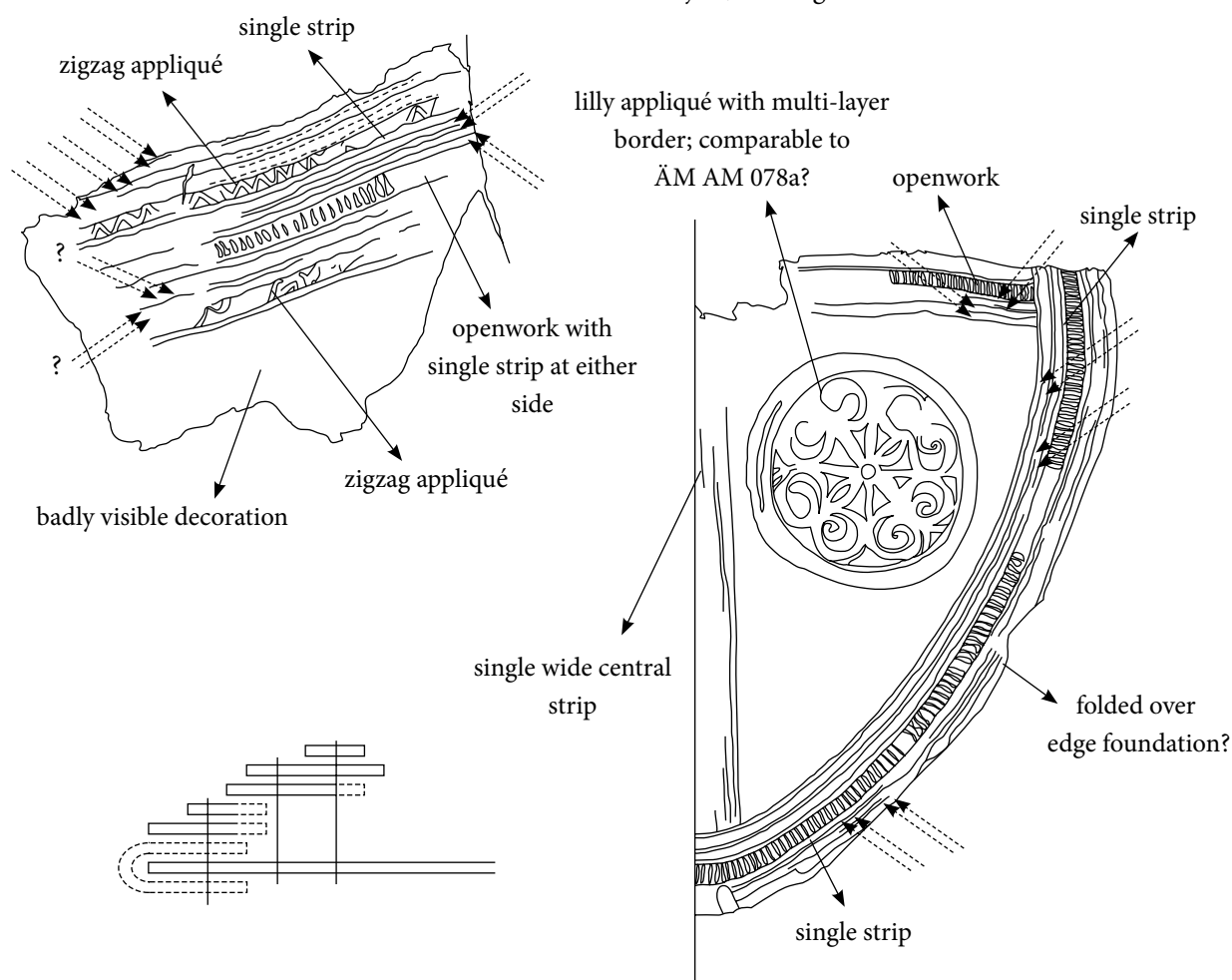
is that there are at least two sets of partly overlapping strips, which overlap each other in the familiar, stair-step fashion. It seems that in the middle of these, with four sets altogether, is a central, single strip. This vertical strip runs under the edge decoration.

In the top half of both compartments are circular appliqué decorations where four lilies are arranged, coming together in the centre of the circle. The lily appliqué equals those described for ÄM AM 078a; although it is tempting to assume a comparable layout for the edge of the circle too, this cannot be identified in the photograph nor on the object in its present state. Attached(?) to it is a fragment with the most elaborately stitched edge thus far described, but still within the familiar designs and techniques. Note that it cannot be identified in the photograph whether the horizontal decoration indeed consists of partly overlapping sets, but there is no reason to assume otherwise: single overlapping strips have not been registered and the pattern is comparable to other finds. The stitches, however, can clearly be seen in the excavation photograph. From top to bottom there are three sets of strips, a band with zigzag appliqué decoration, several



(two?) sets of strips, which are followed by a band with the vertical openwork 'bar'-decoration. As seen in ÄM AM 035, the attachment of this latter is finished with a narrow strip on both edges. Again several (exact number unknown) partly overlapping sets of strips follow as well as a band of zigzag

appliqué decoration. Beneath this band, the decoration with sets of strips seems to continue. To the left is a vertical edge with decoration, running over the horizontal decoration just described, the layout of which is uncertain. Note the small triangular piece with vertical 'bar'-decoration at the top of the main object, the origin of which is uncertain.



Top and right: Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching is indicated in dashed lines. Left: Construction drawing of the edge, untill the 'bar'-decoration, only. Not to scale.

Cat. No.	Specialist No.	ÄM AM not numbered	Remarks	This object has not been recognised among the material in the Berlin Museum. However, this does not mean that it is not there; it might have fallen apart into small fragments of which the origin cannot be determined with certainty. The
49	Year	?		
	Find No.	?		
	Context	?		
	Measurements	350 x 150		
	Material	Leather, textile		
	Colour	?		

◀ ÄM AM 079. Top: Decorated surface of the fragile object. Although fragile, fortunately this object did not suffer from 'melting' as most of the other decorated leather. Below: Excavation photograph of the object shortly after recovery. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.

measurements are taken from the photograph and are only a very rough indication of size.

Description

Large, elliptically-shaped object with decorated edges. The object is severely worn, which has caused a big hole in the centre, undecorated part. The decorated edges largely are lacking the decoration, so a description of the edge cannot be made. There is at least one strip with appliqué zigzag decoration. On

the back of the object is a coarse textile fabric, but the type of fabric nor the type of fibre can be identified. Moreover, although it seems that the leather was stitched to the textile fabric by means of the relatively coarse, widely-spaced leather thong running stitches at the edges, certainty on the basis of the photograph is impossible. The vertical strip of leather, stitched over the wide decorated edge, might be a repair. Note the cut on the edge, which must have been done with a knife or other cutting device.



ÄM AM not numbered. Large piece of decorated, but badly worn leather, which has not been recognised among the material in the Berlin Museum. Courtesy of the Ägyptisches Museum und Papyrussammlung, Berlin.

WEAPONRY

(CAT. NOS. 50-60)

Cat. No.	Specialist No.	ÄM AM 001
50	Year	1913/1914
	Find No.	158
	Context	House Q 48, 1
	Measurements	l: 90.0; w: 80.0; t: 21.0; w one strip: 8.0 - 13.5
	Material	Rawhide
	Colour	Grey brown, beige
	Remarks	Note the adhering packing paper. Inventory book: 22010.

Description

Axe lashing, plaited 'over 1/under 1'.



ÄM AM 001. Obverse and reverse. Note packing paper on reverse.

Cat. No.	Specialist No.	ÄM AM 004a, b
51	Year	1911
	Find No.	81
	Context	House N 51, 6
	Measurements	(a) l: 210.0; w: 40.0; t: 34.0; w one strip: 4.3 - 5.3; (b) l: 120.0; w: 65.0; t: 57.0
	Material	Rawhide
	Colour	Red to grey brown
	Remarks	Inventory book: 25305.

Description

- (a) Exceptional example of axe lashing, made of 12(?) rawhide strips and plaited 'over 2/under 2/shift 1'. It is elaborate and long for axe lashing and the strips are quite narrow. Note the different pattern on one side (not plaited: arrow).
- (b) Comparable axe lashing but with a larger diameter and less well-preserved. Might be a fragment from ÄM AM 004a.



ÄM AM 004a. Obverse and reverse. Note the fineness of the plaiting.

Cat. No.	Specialist No.	ÄM AM 005
52	Year	1911
	Find No.	381
	Context	House N 50, 18
	Measurements	l: 120.0; w: 105.0; t: 38.0; w one strip: 7.8 - 14.5
	Material	Rawhide



ÄM AM 004b. Obverse and reverse.

Colour Red brown

Remarks Inventory book: 25306.

Description

Axe lashing of wide strips of rawhide, coarsely plaited 'over 1/under 1'. Comparable to ÄM AM 001 but much coarser than ÄM AM 004.

Cat. No.
53

Specialist No. ÄM AM 030h
Group ÄM AM 030a-1
Year 1911
Find No. 227
Context House N 50, 8
Measurements l: 93.0; w: 64.5; w strips 5.3 - 9.0; t: 28.0
Material Rawhide
Colour Light, yellowish brown
Remarks (a), (b), (d) - (f), (i) See 'Sandals' (Cat. No. 13); (j) See 'Straps, Belts, Cordage etc.' (Cat. No. 72); (k), (l) See 'Decorated Leather' (Cat. No. 33); (c), (g) See 'Unidentified' (Cat. No. 96). Several small, featureless scraps are not described/illustrated.

Description

Plaited axe lashing of thick rawhide strips, plaited 'over 1/under 1'.



ÄM AM 005.



ÄM AM 030h.

Specialist No. ÄM AM 038a, b
Year 1911
Find No. ?
Context House N 50, 1
Measurements (a) l: 129.0; w total: 96.8; w strip: 9.4 - 12.5; t: 27.9; (b) l rectangular object: 106.9; w rectangular object: 35.4; w total: 73.2; w strips lashing: 5.6 - 9.4
Material Leather
Colour (a) Beige/reddish; (b) Grey, black
Remarks From "Buchkasten B"

Description

- (a) Coarse and short axe lashing in 'over 1/under 1' pattern. Rather big variation in width of strips.
 (b) Axe lashing of slightly more refined proportion than ÄM AM 038a. The lashing surrounds a rectangular, lengthwise folded (twice, so three

Cat. No.
54



Left: ÄM AM 038a. Right: ÄM AM 038b. Obverse and reverse of incomplete lashing. Note the rectangular piece of leather around which the lashing is plaited.

layers) piece of leather. The edge of the 'last' fold is difficult to see but the lower part is broken off; unclear how far it runs at the part covered with lashing.

Cat. No.	Specialist No.	ÄM AM 049b
55	Group	ÄM AM 049a-e
	Year	?
	Find No.	?
	Context	?
	Measurements	l: 165.0 (including curvature); w total: 36.4; w strips: 3.9 - 8.0; t: 19.7
	Material	Leather and rawhide
	Colour	Light brown, black
	Remarks	(a), (e) See 'Unidentified' (Cat. No. 102); (c), (d) See 'Straps, Belts, Cordage etc.' (Cat. No. 75)

Description

Incomplete(?) axe lashing(?). Heavily 'melted' end of the rawhide strips as well as one of the sides. The other side is covered with a black patch, which might be leather. Note that there is also one thicker, circular fragment (d: 8.3 x 8.5) but it is not certain if it just adheres to it or if it is part of the whole object. It seems to have been made of a twisted strip of leather as it shows a wavy line on one of the surfaces.



ÄM AM 049b. Obverse and reverse.



Cat. No.	Specialist No.	ÄM AM 051
56	Year	?
	Find No.	?

ÄM AM 051.

Context ?
Measurements 97.8 x 77.1 x 38.7;
w strip: 5.0 - 11.3; t: 1.5
Material Rawhide
Colour Greyish to beige brown
Remarks Several isolated fragments, which are not numbered separately. A fibre and hair object (not studied) is associated.

Description

Coarse rawhide axe lashing ('over 1/under 1' pattern).



ÄM AM 052.

Cat. No. **57** *Specialist No.* ÄM AM 052
Year 1911/1912
Find No. 493
Context House O 49, 16
Measurements 86.0 x 60.3 x 32.1;
w strip: 7.0 - 15.2; t strip: 1.5
Material Rawhide
Colour Brown to black
Description Complete, coarse rawhide axe lashing ('over 1/under 1'). The object seems entirely closed, but this is due to compression during deposition.



ÄM AM 055.

Cat. No. **58** *Specialist No.* ÄM AM 055
Year 1911/1912
Find No. 648
Context House N 48, 17
Measurements 114.3 x 84.8 x 29.4;
w strip: 9.5 - 13.9; t strip: 1.7
Material Rawhide
Colour Greyish brown
Description Complete, coarse rawhide axe lashing ('over 1/under 1').



ÄM AM 057.

Cat. No. **59** *Specialist No.* ÄM AM 057
Year 1911/1912
Find No. 1602
Context House P 49, 2
Measurements 94.5 x 71.0 x 25.1;
w strip: 4.3 - 10.0; t strip: 3.0.
Reef knot: 16.6 x 12.5 x 32.1;
t strip: 2.3; w strip: 13.0
Material Rawhide
Colour Beige brown

Remarks See Cat. No. 31 and 67 (ÄM AM 013) for remarks on the context.

Description

Complete, coarse rawhide axe lashing ('over 1/under 1') and an isolated reef knot.

Cat. No.	Specialist No.	ÄM AM 062a
60	Group	ÄM AM 062a-c
	Year	1911
	Find No.	?
	Context	House N 50, 1
	Measurements	105.4 x 72.7 x 36.1; w strip: 5.8 - 13.1; t strip: 2.5
	Material	Rawhide
	Colour	Beige brown
	Remarks	(b), (c) See 'Unidentified' (Cat. No. 104).
	Description	Complete, coarse rawhide axe lashing ('over 1/under 1').



ÄM AM 062a.

CLOTHING

(CAT. NOS. 61-62)

Cat. No.	Specialist No.	ÄM AM 036n
61	Group	ÄM AM 036a-n
	Year	1911
	Find No.	?
	Context	House N 50, 1
	Measurements	l: 65.4; w (folded): 32.9; t (folded): 4.8
	Material	Leather
	Colour	Greyish brown
	Remarks	From "Buchkasten B." (a) - (m) See 'Sandals' (Cat. No. 15). Several small and larger, featureless frag- ments, which are not described/ illustrated.

Description

Thin fragment, the sides of which have been folded, slightly overlapping each other. One leather stitch is inserted on one edge, which seems rather like some sort of strap than a true stitch. Although some of the sole layers are thin too, this fragment does not look like a sole layer and one wonders if it might be part of a leather garment or the like.



ÄM AM 036n. Obverse and reverse.

to their multiple layers of leather pressed together. According to the registration it should be from House P 47, 23, number 581 but, as suggested by the museum's conservator, this seems unlikely.

Description

(a) Piece of very thin leather (<0.5 mm), folded over and over again. The fragment, like the other ones, are part of a garment or, perhaps more likely, a loincloth. At some point, the fragment has a band (width about 9 mm), which is perforated with two rows of tiny slits at right angles to the length of the band. Each edge of this band forms extremely fine (diameter of about 0.5 mm) extensions, which are attached at their other end to the garment's leather, their length being about 20 mm. Thus is created a decorative, extremely open part. The strands and the slits are not related to each other. A thicker strip of leather (diameter 1.4 mm) lies partially across the openwork and might be an, albeit very thin and thus fragile, sort of fastening. On one end, an S-overhand knot is tied with two leather strips, which are comparable to the isolated thicker strip, but wider (3.8 mm wide).

Cat. No.	Specialist No.	ÄM AM 041a-e
62	Year	?
	Find No.	?
	Context	?
	Measurements	(a) 67.5 x 41.5 x 15.7; (b) 83.8 x 65.5 x 17.5 (approx- imately); (c) 31.4 x 17.7 x 8.6; (d) 27.6 x 17.8 x 5.8; (e) 22.6 x 17.8 x 6.2
	Material	Leather
	Colour	Black
	Remarks	The fragments are extremely brittle. Numerous small, featureless scraps are not numbered. Note the apparent lack of seams, which is strange, as seams often have a better chance of surviving due

- (b) Larger piece, mainly consisting of folded leather. Only a small part of the openwork as described for ÄM AM 041a is visible. Note, almost down the middle, a rolled up part, which seem to bear little relation to the rest of the fragment.
- (c) Small fragment with tiny piece of openwork band. There are at least four layers on top of each other. A remnant of isolated stitch on one side might be a repair.
- (d) Small fragment of several layers of leather. No features, except for small holes, which are either due to wear or poor state of preservation.
- (e) Small fragment of at least five layers of leather. Small parts of the band with slits as well as several remnants of the tiny leather strands are visible.



ÄM AM 041a. Obverse and reverse.



Details, showing the perforated 'band' with fine extensions. Scale bars are 5 mm.



ÄM AM 041b. Obverse and reverse. Right: Detail, showing the extremely fine extensions of about 20 mm length. Scale bar of detail is 5 mm.



ÄM AM 041c-e. Obverse and reverse of smaller fragments.



BAGS

(CAT. NOS. 63-64)

Cat. No.	Specialist No.	ÄM AM 011
63	Year	1912/1913
	Find No.	1609
	Context	House P 47, 8
	Measurements	l: 76.3; w: 17.5; t: 10.5
	Material	Leather
	Colour	Dark brown, black

Description

Rectangular piece of thin leather that has been gathered in a comparable way as seen in handles of water bags. It cannot be determined whether it is a sheet of leather or a leg of a small animal such as a goat.



ÄM AM 011. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 018b, c
64	Group	ÄM AM 018a-c
	Year	1912/1913
	Find No.	781
	Context	House Q 46, 2
	Measurements	(b) l: 35.5; d: 24.0 x 29.0; (c) l: 22.5; d: 25.0 x 26.0
	Material	Leather
	Colour	Grey brown
	Remarks	(a) See 'Unidentified' (Cat. No. 90).

Description

(b) Knob comparable to the knobs seen in Qasr Ibrim water bags: the end of the leg of an animal turned inside out.

(c) As ÄM AM 018b but less complete.



ÄM AM 018b. Obverse and reverse.



ÄM AM 018c. Obverse and reverse.

STRAPS, BELTS, CORDAGE ETC.

(CAT. NOS. 65-77)

Cat. No.	Specialist No.	ÄM AM 008a
65	Group	ÄM AM 008a-e
	Year	1912/1913
	Find No.	1160
	Context	House Q 47, 3, room 9
	Measurements	l: 10.0 and 10.0; w: 26.7 and 30.0; t: 4.5
	Material	Leather
	Colour	Brown and black
	Remarks	(b), (c) See 'Sandals' (Cat. No. 3); (d), (e) See 'Unidentified' (Cat. No. 85).

Description

Two pieces of belt. The first piece consists of two layers, which are secured with narrow leather thong stitches (running stitch). Note that the inner layer ends in a point against the break of the outer layer. The other end is knotted: one of the two layers is knotted around the other (half knot).



ÄM AM 008a.
Obverse and
reverse.

Cat. No.	Specialist No.	ÄM AM 012a, b
66	Year	?
	Find No.	?
	Context	House O 49, 1
	Measurements	(a) l: 470.0; w: 21.0 - 33.0; t: 2.6; (b) l: 185.0; w: 19.5 - 23.2; t: 2.1; not numbered/illustrated featureless scraps l: 155.0 - 455.0; w: 23.0 - 49.8; t: 2.0 - 3.2
	Material	Rawhide
	Colour	Red brown, yellow
	Remarks	From "Buchkasten B." Featureless scraps not illustrated.

Description

Five pieces of 'belt,' three of which are without features. ÄM AM 012a has a connection as described for ÄM AM 006b (Cat. No. 83). ÄM AM 012b has

Right: Detail. Attachment by means of slits (cf. text figure 10).





the remnants of three slits (note the cut marks) likely for a comparable kind of attachment as seen in, for example, ÄM AM 012a and ÄM AM 006b (Cat. No. 83; cf. text figure 10).

Left: ÄM AM 012a. Right: ÄM AM 012b. Note the slits.

Cat. No.	Specialist No.	ÄM AM 013a, e
67	Group	ÄM AM 013a-e
	Year	1911/1912
	Find No.	Uncertain: 1602?
	Context	Uncertain: house P 49, 2?
	Measurements	(a) l: 70.0 - 190.0; w: 26.0 - 44.5; t: 2.1; (e) l: 20.0 - 220.0; w: 7.7 - 13.7; t: 1.3 - 3.0; not numbered featureless scraps: 13.4 x 17.8 - 36.6 x 46.5
	Material	Leather(?)
	Colour	(a) Yellow; (e) Brown
	Remarks	(b) - (d) See 'Decorated Leather' (Cat. No. 31). Although identified as 1602, this is highly unlikely as the description " <i>Riemengeflecht</i> " does not match the objects. ÄM AM 057 (Cat. No. 59) has this number as well and is indeed an axe lashing.

Description

- (a) Six pieces of belt, some of which show small stitch holes.
- (e) Five pieces of rectangular strips, possibly sandal straps. No features. Only larger fragment illustrated.



Right: ÄM AM 013a. Six pieces of belt.

Cat. No.	Specialist No.	ÄM AM 016b
68	Group	ÄM AM 016a-c
	Year	?
	Find No.	?
	Context	House O 49, 1
	Measurements	l: 305.0; w: 20.0 - 46.9; t: 2.8
	Material	Rawhide
	Colour	Light brown, reddish brown
	Remarks	From "Buchkasten A oder B." (a), (c) See 'Unidentified' (Cat. No. 88).

Description

Two lengths of rawhide attached in the familiar way by slits and centre core as described for ÄM AM 006b (Cat. No. 83) and ÄM AM 012a (Cat. No. 66; see text figure 10).



ÄM AM 013e.

ÄM AM 016b. Obverse and reverse.
Cf. text figure 10).

Cat. No.	Specialist No.	ÄM AM 019
69	Year	1912/1913
	Find No.	835
	Context	House Q 46, 2
	Measurements	l: 195.0; w: 12.5 (at cladding), w one strand: approximately 6; t (at cladding): 9.8
	Material	Rawhide
	Colour	Reddish brown
	Remarks	Only largest fragment illustrated.

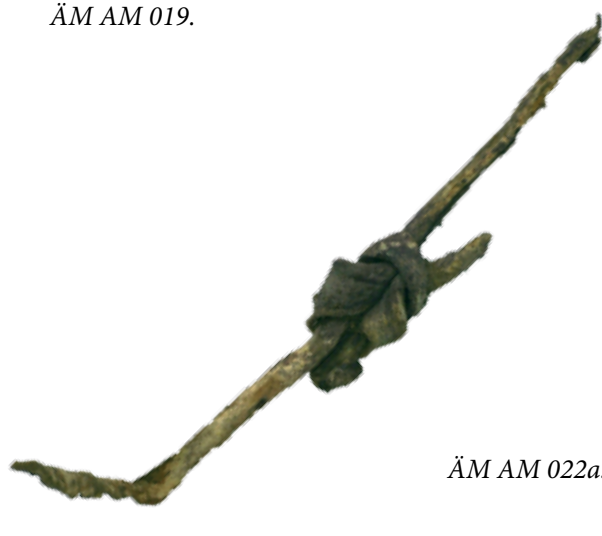
Description

Four fragments; the description focuses on the largest. It consists of three small strands of rawhide, which are wrapped with a fourth one. The construction is secured by tucking it in with the upper winding of the cladding. The object is circular but has been cut to release it from the tied object.



ÄM AM 019.

Cat. No.	Specialist No.	ÄM AM 022a
70	Group	ÄM AM 022a, b + offcuts
	Year	1912/1913
	Find No.	699
	Context	House Q 46, 1
	Measurements	l: 175.0; w: 17.6 (knot), 4.5 - 6.1 (strip); t: 11.0 (knot), 2.0 (strip)
	Material	Rawhide
	Colour	Light brown
	Remarks	(b) See 'Unidentified' (Cat. No. 93). See also 'Offcuts, Waste' (Cat. No. 79).



ÄM AM 022a.

Description

Two small strips of rawhide tied together by means of a reef knot.

Cat. No.	Specialist No.	ÄM AM 029
71	Year	1911
	Find No.	37
	Context	House Q 50, 1
	Measurements	l: 115.0 - 253.0; w: approximately 30 - 47; t: approximately 3.
	Material	Rawhide
	Colour	Yellow brown

Description

Five pieces of rawhide apparently used as large straps/belts. One fragment forms a ring, but it is not clear if it was used as such.



ÄM AM 029.

Cat. No.	Specialist No.	ÄM AM 030j
72	Group	ÄM AM 030a-1
	Year	1911
	Find No.	227
	Context	House N 50, 8
	Measurements	l: 140.0; w: 13.0 - 18.3; t: 2.0; l: 76.0; w: 36.5; t: 23.3; l: 105.5; w: 14.7; t: 11.8
	Material	Rawhide
	Colour	Light. Yellowish brown
	Remarks	(a), (b), (d) - (f), (i) See 'Sandals' (Cat. No. 13); (h) See 'Weaponry' (Cat. No. 53); (k); (l) See 'Decorated Leather' (Cat. No. 33); (c), (g) See 'Unidentified' (Cat. No. 96). Several small, featureless scraps are not described/illustrated.

Description

Three fragments of rawhide strips, two of which are folded several times. In the best preserved one and most neatly constructed fragment, one(?) strip is folded twice and stitched, seemingly randomly, with narrow rawhide stitches. One end is expanded into a rounded part in which a piece of rawhide is inserted and stitched. The outer side of this rounded end is covered with thin black leather and secured with long but narrow leather running stitches. There is some red leather, possibly also for the stitches. Function unknown, but certainly not rims of bags; handles are equally unlikely because of the elaborate stitching? Perhaps sort of binding.



ÄM AM 030j. Obverse and reverse.

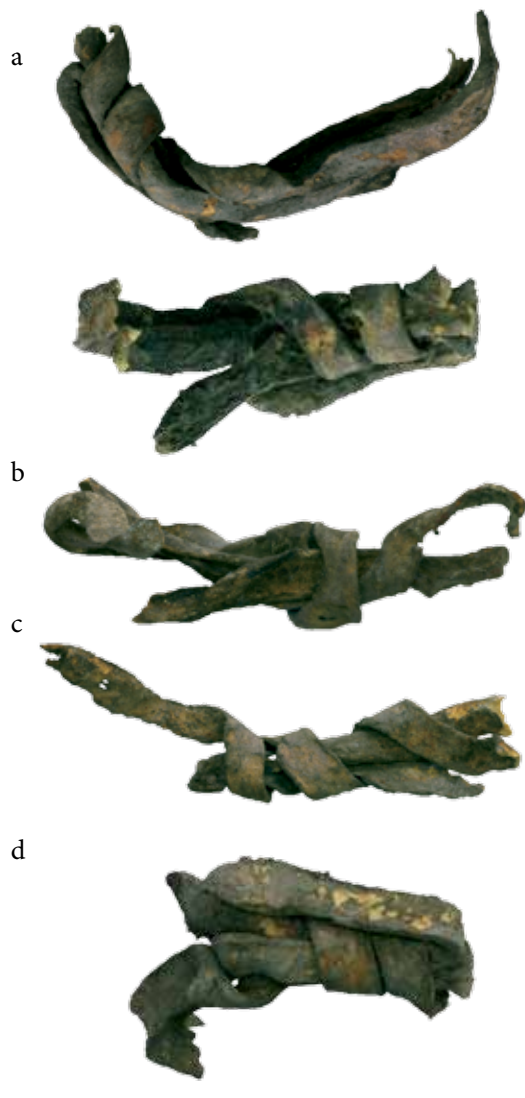
Cat. No.	Specialist No.	ÄM AM 039a
73	Group	ÄM AM 039a-c
	Year	1911
	Find No.	?
	Context	House N 50, 1
	Measurements	l: 128.9; w total: 67.2; w strip end: 1.2; w strip other end 22.9; w strip 'middle': 30.2; t total: 20.7; t strip: 3.4
	Material	Leather
	Colour	Black
	Remarks	From "Buchkasten B." (b), (c) See 'Unidentified' (Cat. No. 98). As- sociated(?) is a small tapering piece of bone (not illustrated).

Description

Strip, folded and tied as if to store for future use. The strip varies in width and thickness. The tying end is narrower than the folded part. Note that one end has two, possibly three, lengthwise-situated slits and its end is cut off diagonally on the corner, reminiscent of pre-straps. There is another end sticking out, which seems to have no connection with the rest: it clearly tapers and the widest part terminates in a rounded shape (incomplete). This must be a second piece folded with the other one. It is a sandal, cut into the strip.



ÄM AM 039a.



ÄM AM 043a-d respectively – (a) in obverse and reverse.

Description

Rawhide strips of which ÄM AM 043a-c are wound in more or less a comparable way. It seems that they have been cut off. Note the patches of hair on several strips.

Cat. No.	Specialist No.	ÄM AM 043a-d
74	Year	?
	Find No.	?
	Context	?
	Measurements	(a) l: 170.0; w total: 34.6; w strip: 11.7 - 15.5; t total: 20.5; t strip: 3.6; (b) 190.0; w total: 26.8; w strip: 9.1 - 14.3; t total: 19.2; t strip: 4.3; (c) l: 145.0; w total: 28.8; w strip: 7.7 - 12.2; t total: 13.0; t strip: 2.0; (d) l: 41.5 - 168.0; w: 8.0 - 13.3; t: 2.1 - 4.1
	Material	Rawhide
	Colour	Beige
	Remarks	Reference to wrong find number, as it reads: "1 Ble[.]tel mit Bruch- stücken Kopfer, Blei[.]f."

Cat. No.	Specialist No.	ÄM AM 049c, d
75	Group	ÄM AM 049a-e
	Year	?
	Find No.	?
	Context	?
	Measurements	(c) l: 50.3; w total: 24.8; w strip: 9.4; t total: 16.3; t strip: 1.3; (d) l: 85.1; w total: 20.1 - 39.1; w strips: 10.8; t total: 15.0; t strip: 2.2
	Material	Leather and rawhide
	Colour	Reddish and greyish to light brown, black
	Remarks	(a), (e) See 'Unidentified' (Cat. No. 102); (b) See 'Weaponry' (Cat. No. 55).

Description

- (c) Strip of leather, folded and tied with a comparable strip, which is possibly one of the six folded ones. The knot is a half knot, the end of which is pulled through the hole of the folded leather. Note that only one end protrudes from the knot. Partly 'melted.'
- (d) Five strips are folded; remnants of tying (comparable strip of leather) still *in situ*.



ÄM AM 049c & d. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 054b
76	Group	ÄM AM 054a-e
	Year	1911/1912
	Find No.	736
	Context	House P 49, 4
	Measurements	l: 45.6; w: 24.2 - 18.4; t (= w strip): 13.1; t strip: 1.8
	Material	Rawhide
	Colour	Beige
	Remarks	(a), (c) - (e) See 'Sandals' (Cat. No. 18). Several small scraps are not described/illustrated.

Description

Coiled strip of rawhide, resulting in eight layers. A big hole is inserted about halfway down the thickest part, which goes through all layers. Before the thickest part, the object has only five layers, through which another hole is made. Both were used to fasten the coiled strip. Remnants of thin leather strips (to tie the coil?) are still *in situ*.



ÄM AM 054b. Seen at the width of the strips and from aside respectively.

Cat. No.	Specialist No.	ÄM AM 069f
77	Group	ÄM AM 069a-g
	Year	1911
	Find No.	149?
	Context	House N 50, 5
	Measurements	l: 59.6; w: 18.7 x 11.1; t strip: 2.8
	Material	Rawhide
	Colour	Beige
	Remarks	(a), (c), (e) See 'Unidentified' (Cat. No. 108); (b), (d), (g) See 'Sandals' (Cat. No. 28). There is one entry in the list from this house, which states "Sack."

Description

Strip, wound around three other pieces of strip. To finish the winding strip, the end is inserted between the last winding and the vertical strips.



ÄM AM 069f. Obverse and reverse.

OFFCUTS, WASTE

(CAT. NOS. 78-81)

Cat. No.	Specialist No.	ÄM AM 020n
78	Group	ÄM AM 020a-n
	Year	1912/1913
	Find No.	817
	Context	Stable court
	Measurements	l: 33.2 - 85.0; w: 12.6 - 31.2; t: 0.7
	Material	Leather
	Colour	One surface is coloured bright red, the other surface is not, and shows the light brown colour of leather.
	Remarks	(a), (b), (f), (g), (j), (k), (m) See 'Unidentified' (Cat. No. 91); (c) - (e), (h), (i), (l) See 'Sandals' (Cat. No. 8). This collection includes many featureless scraps as well as numerous other offcuts (see photograph for some examples). These are not numbered and described, except for the red ones. There are also several small rectangular fragments, which might be pieces of sandal straps.

*Description*

Three pieces of thin leather of which two have the typical shape of offcuts. One surface is painted bright red. This means that the leather is painted before being processed into an object, which is the logical sequence of the process.

ÄM AM 020n. Bright red offcuts. Scale bar is 30 mm.

fied' (Cat. No. 93). This number includes many featureless scraps (not illustrated).

Description

Offcuts of different shapes and sizes.

Cat. No.	Specialist No.	ÄM AM offcuts (not numbered separately)
79	Group	ÄM AM 022a, b
	Year	1912/1913
	Find No.	699
	Context	House Q 46, 1
	Measurements	Varied, not specified
	Material	Rawhide
	Colour	Light brown
	Remarks	(a) See 'Straps, Belts, Cordage etc.' (Cat. No. 70); (b) See 'Unidenti-

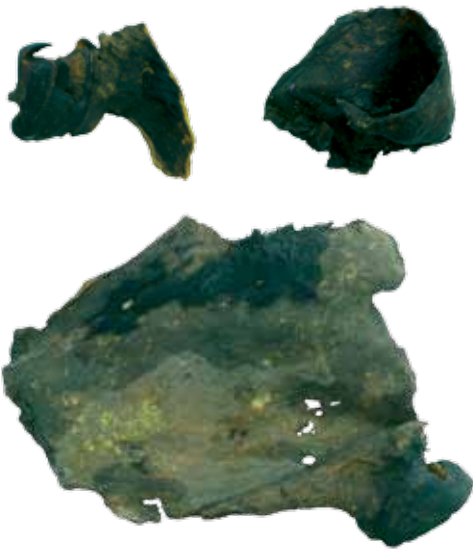
Specialist No.	ÄM AM 044	Cat. No.
Year	?	80
Find No.	?	
Context	?	
Measurements	Varying from 51.2 x 17.7 x 9.8 to 111.0 x 99.5 x 22.2	
Material	Skin, rawhide	
Colour	Brown to greyish brown	
Description	Waste.	



ÄM AM 022. Offcuts.

Cat. No.
81

Specialist No. ÄM AM 047a (and several un-numbered fragments)
Year ?
Find No. ?
Context ?
Measurements (a) l: 100.0; w: 3.3 - 36.4; t: 2.2;
 remainder varying from 37.5 x
 25.3 x 4.6 to 118.0 x 55.0 x 30.6
Material Leather, but also rawhide
Colour Gamut of colours, from red brown
 to greyish brown and black. One
 artificially coloured offcut is red.
Remarks Only the described fragment is
 numbered (a).



ÄM AM 044. Several examples.

Description

- (a) Offcut of characteristic tapering shape. One surface is red. Note the scratch close to the wide edge. The remaining fragments are highly 'melted' and of various origin, including offcuts.



ÄM AM 047. Examples of unnumbered fragments.

a



ÄM AM 047a. Offcut in obverse and reverse. Note the red reverse.

UNIDENTIFIED

(CAT. NOS. 82-109)

Cat. No.
82

Specialist No. ÄM AM 003
Year 1911
Find No. 296
Context House N 50, 7
Measurements l: 68.5; w: 35.8; t: 23.1
Material Leather
Colour Dark brown, black
Remarks Inventory book: 25293.

Description

Rectangular piece of wood with leather strips wound around one end. These strips are broken on one side so that the ends are not in contact anymore.



ÄM AM 003. Obverse and reverse.

Cat. No.
83

Specialist No. ÄM AM 006b, d
Group ÄM AM 006a-d
Year 1911
Find No. X727
Context House N 50, 17
Measurements (b) l: 135.0; w: 90.0; t: 3.0;
 (d) l: 135.0; w: 44.0; t: 2.0
Material Rawhide
Colour Light brown, reddish
Remarks (a), (c) See 'Sandals' (Cat. No. 2). Several small featureless scraps are not described/illustrated. (d) is not illustrated.

Description

(b) Larger and smaller piece of leather which are attached by means of slits in both, through which the remaining strips of leather are pulled between the slits of the other piece of leather. In the thus created tunnel, a narrow leather strip is pulled to secure the construction. Note that a triangular piece is detached; put together the object is clearly circular. Probably, the object is some sort of strap (cf. ÄM AM 012a & b, Cat. No. 66; ÄM AM 016b, Cat. No. 68; text figure 10). Usually, as seen with the entries in 'Straps, Belts, Cordage etc.' the construction consists of three 'tunnels'; here, there are many more, hence the uncertainty of identification.



ÄM AM 006b. Obverse and reverse.

- (d) Rectangular, thin piece. Seems original and its function cannot be identified.

Cat. No.	Specialist No.	ÄM AM 007
84	Year	1912/1913
	Find No.	963
	Context	House P 47, 8
	Measurements	130.0 x 120.0
	Material	Leather
	Colour	Brown and black
	Remarks	Packing paper adheres to the leather. Inventory book: 963.

Description

Concreted and resinous amount of leather. Some spots with the original brown leather are still visible despite the 'melted' condition. Remnants of intact whip stitches are visible at several spots (see detail).



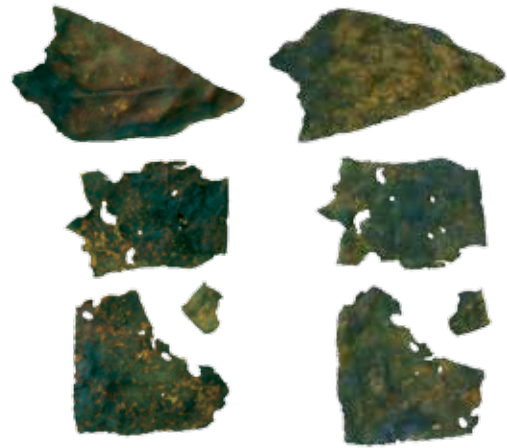
Top right: ÄM AM 007. Visible surface of the badly 'melted' object. Above: Detail of the whip stitched elements. Scale bar detail is 10 mm.

Cat. No.	Specialist No.	ÄM AM 008d, e
85	Group	ÄM AM 008a-e
	Year	1912/1913
	Find No.	1160
	Context	House Q 47, 3. Room 9
	Measurements	(d) 20.0 x 45.0 - 125.0 x 165.0; (e) l: 25.0 x 70.0 - 170.0 x 145.0
	Material	Leather
	Colour	Brown and black
	Remarks	(a) See 'Straps, Belts, Cordage etc.' (Cat. No. 65); (b), (c) See 'Sandals'

(Cat. No. 3). Numerous small featureless pieces, which are not described/illustrated.

Description

- (d) Several fragments of very thin sheets of leather. The grain side has spots of bright red colour. Two fragments are corner pieces. The pieces show various small stitch(?) holes.
- (e) Six pieces of relatively thick leather, most of which has man-made holes. Some fragments have hair (yellow) still *in situ*.



ÄM AM 008d. Obverse and reverse. Note the spots of colour.



Cat. No.	Specialist No.	ÄM AM 014c
86	Group	ÄM AM 014a-d
	Year	?
	Find No.	?
	Context	House O 49, 1
	Measurements	l: 39.5; w: 17.1; t: 11.0
	Material	Leather
	Colour	Black. Featureless scraps: yellow, light brown
	Remarks	From "Buchkasten B." (a), (b), (d) See 'Sandals' (Cat. No. 6). Three featureless scraps are not described/illustrated.

ÄM AM 008e. Obverse and reverse. Note the spots of hair.

Description

Folded piece (uncertain due to poor state of preservation).



ÄM AM 014c. Obverse and reverse.

*Description*

Four larger pieces of rawhide, three of which are long strips; one is a squarer piece. No features.

Cat. No.	Specialist No.	ÄM AM 015
87	Year	?
	Find No.	?
	Context	House O 49, 1
	Measurements	l: 290.0 - 485.0; w: 18.3 - 65.0; t: 2.2 - 3.7
	Material	Rawhide
	Colour	Light brown, brown
	Remarks	From "Buchkasten B."

Cat. No.	Specialist No.	ÄM AM 016a, c
88	Group	ÄM AM 016a-c
	Year	?
	Find No.	?
	Context	House O 49, 1
	Measurements	(a) l: 140.0; w: 69.3 - 85.0; t: 1.7; (c) l: 38.5 - 75.0
	Material	Rawhide
	Colour	(a) Light brown, reddish brown; (c) Yellow, black
	Remarks	From "Buchkasten A oder B." (b) See 'Straps, Belts, Cordage etc.' (Cat. No. 68). (c) not illustrated.

Description

(a) Almost rectangular, very thin sheet of leather. Likely original cut-width. Few small stitches at one edge (arrow).

(c) Small fragments without features.

ÄM AM 015. Obverse and reverse.



ÄM AM 016a.

Cat. No.	Specialist No.	ÄM AM 017c, e-g
89	Group	ÄM AM 017a-g
	Year	?
	Find No.	?
	Context	House O 49, 1
	Measurements	(c) l: 155.0; w: 17.6 - 52.5; t: 2.3; (e) l: 33.0; w: 30.0; t: 1.1; (f) l: 40.0; w: 25.0; t: 1.1; (g) l: 65.0; w: 47.0; t: 3.2
	Material	Leather
	Colour	(c) Brown, light brown; (e), (f) Dark brown; (g) Light brown

Remarks From "Buchkasten A." (a), (b), (d), (h), (i) See 'Sandals' (Cat. No. 7). Several featureless scraps not described/illustrated.

Description

(c) Tapering piece with a small hole (stitch hole?) at one end (arrow). No features.
(e) Small thin fragment with relatively big leather thong whip stitch attaching a small scrap to a larger one.
(f) Rectangular piece, comparable to ÄM AM 017e. But here a strip of leather is stitched onto

a leather foundation with leather thong whip stitches at the edges of the strip.

- (g) Roughly triangular, light brown coloured fragment which likely is not leather. Surface with holes.



Cat. No.	Specialist No.	ÄM AM 018a
90	Group	ÄM AM 018a-c
	Year	1912/1913
	Find No.	781
	Context	House Q 46, 2
	Measurements	l: 50.0; w total: 25.0; w strip 7.2; t: 3.8
	Material	Leather
	Colour	Grey brown
	Remarks	(b), (c) See 'Bags' (Cat. No. 64). Several featureless scraps not described/illustrated.

Description

Two narrow lengthwise folded strips, which are attached by pulling one through the eye of the other. It is not a pre/back strap complex of a sandal because of the lengthwise folding of the strips, which has thus far not been identified in sandals.

ÄM AM 017c, e-g. Obverse and reverse. ÄM AM e & f: Note the whip stitch. Scale bars (e) - (g) are 30 mm.



ÄM AM 018a. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 020a, b, f, g, j, k, m
91	Group	ÄM AM 020a-n
	Year	1912/1913
	Find No.	817
	Context	Stable court
	Measurements	(a) l: 90.0; w: 55.0 (folded); t: 1.3; (b) l: 55.0; w: 16.7 - 25.2; t: 3.0; (f) l: 49.5; d: 21.4 - 31.2; t: 2.1; (g) l: 90.0; w: 29.7 - 33.9; t: 3.5; (j) l: 53.0; w: 6.5 - 11.5; t: 2.3; (k) l: 65.0; w: 11.2 - 38.3; t: 4.9; (m) l: 90.0; d: 8.4 x 9.4
	Material	(a), (b), (g) - (j) Leather; (f) Leather?; (k) Rawhide?

<i>Colour</i>	(j), (k) Light brown; (a), (g), (i) Brown; (b), (h), (j) Dark brown; (f), (n) Red surface, creamy white cross-section (in (n) only one surface is coloured).	(b) Tapering, relatively thick fragment with stitch holes on both sides of the cross-section. (f) 'Tube' of red coloured leather (but white cross-section). There are some holes in it but these do not seem to be man-made.
<i>Remarks</i>	(c), (d), (e), (h), (i), (l) See 'Sandals' (Cat. No. 8); (n) See 'Offcuts, Waste' (Cat. No. 78). This collection includes many featureless scraps as well as several offcuts. These are not numbered and described, except for the red ones. There are also several small rectangular fragments, which possibly are fragments of sandal straps.	(g) Slightly tapering, nearly rectangular fragment with stitch holes. The stitches are visible at the cross-section. Note the wavy line of one of the short ends. (j) Tapering fragment with stitch holes. The holes insert from the flesh side. (k) Trapezoidal fragment, slightly curving. The grain side is reddish brown (painted?) and shows seven small holes along the curved edge, which do not penetrate the thickness entirely.
<i>Description</i>	(a) Roughly rectangular piece of which two edges are folded. The edge of one of the folds is cut off (other edges are torn or at least worn).	(m) Strip of leather folded to form a fastening with a slit on one end, which is comparable to those seen in sandal pre-straps.



ÄM AM 020 a, b, f, g, j, k & m.

Cat. No.	Specialist No.	ÄM AM 021
92	Year	1912/1913
	Find No.	682
	Context	House P 47, 6
	Measurements	75.5 x 62.0
	Material	Leather
	Colour	Light brown, black
	Description	Extremely badly decayed leather object; study not possible before consolidation.



ÄM AM 021. Visible surface of the badly 'melted' object.

Cat. No.	Specialist No.	ÄM AM 022b
93	Group	ÄM AM 022a, b
	Year	1912/1913
	Find No.	699
	Context	House Q 46, 1
	Measurements	l: 30.0; w: 5.5 - 19.5; t: 2.0
	Material	Rawhide
	Colour	Light brown
	Remarks	This number includes many featureless scraps (not illustrated). (a) See 'Straps, Belts, Cordage etc.' (Cat. No. 70). See also 'Offcuts, Waste' (Cat. No. 79).

Description

Roughly triangular fragment with slits (which are only partially preserved).



ÄM AM 022b. Scale bar is 30 mm

Cat. No.	Specialist No.	ÄM AM 024
94	Year	1912/1913
	Find No.	481
	Context	House P 47, 3
	Measurements	19.8 x 24.5
	Material	Leather
	Colour	Light brown, red
	Description	Small fragment with three rows of tiny stitch holes. One surface has a reddish colour, which is possibly man-made.



ÄM AM 024. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 028a
95	Group	ÄM AM 028a, b
	Year	1912/1913
	Find No.	313
	Context	House Q 47, 4
	Measurements	l: 95.5; d: 32.0 x 24.0; w strips: 7.5 - 9.2
	Material	Rawhide



ÄM AM 028a. Obverse and reverse.

Colour Reddish brown
Remarks (b) See 'Sandals' (Cat. No. 12).

Description

Bunch of rawhide strips, which seem to be folded for future use, possibly as axe lashing. Several isolated fragments of strips.

Cat. No.	Specialist No.	ÄM AM 030c, g
96	Group	ÄM AM 030a-l
	Year	1911
	Find No.	227
	Context	House N 50, 8
	Measurements	(c) l: 95.0; w: 44.7; t: 1.0; (g) l: 42.4; w: 17.6; t: 23.5
	Material	Leather
	Colour	Brown
	Remarks	(a), (b), (d) - (f), (i) See 'Sandals' (Cat. No. 13); (k), (l) See 'Decorated Leather' (Cat. No. 33); (h) See 'Weaponry' (Cat. No. 53); (j) See 'Straps, Belts, Cordage etc.' (Cat. No. 72). Many small, featureless scraps not described/illustrated.

Description

(c) Roughly rectangular, thin piece with stitch holes lengthwise at one edge. Note the wavy appearance of these holes.

(g) Reef knot made of one thicker (w: 7.4; t: 4.5) and one thinner (w: 8.8; t: 1.3) piece of leather.

Cat. No.	Specialist No.	ÄM AM 031c, d
97	Group	ÄM AM 031a-g
	Year	1911
	Find No.	227
	Context	House N 50, 8
	Measurements	(c) l: 76.0; w: 42.0; t: 1.7; (d) l: 35.5; w: 26.8; t: 1.3
	Material	Leather
	Colour	Black



ÄM AM 031d. Scale bar is 30 mm.



ÄM AM 030c. Obverse and reverse



ÄM AM 030g.



ÄM AM 031c. Obverse and reverse.

Remarks (a), (b), (e) - (g) See 'Decorated Leather' (Cat. No. 34). Several featureless scraps and pieces of rawhide strips not described/illustrated.

Description

- (c) Irregularly-shaped fragment with remnants of leather thong stitches at two edges, which are original. Note the two pairs of stitch holes(?) close to the corner (arrow).
 (d) Small irregularly-shaped fragment with rounded edge on one end. Three stitch holes with leather thong *in situ* in two of them (arrow).

Cat. No.	Specialist No.	ÄM AM 039b, c
98	Group	ÄM AM 039a-c
	Year	1911
	Find No.	?
	Context	House N 50, 1
	Measurements	(b) l: 117.1; w max.: 66.0; t: 2.2; (c) l: 53.4; w: 26.2 - 38.8; t: 4.3
	Material	Leather
	Colour	(b) Red brown; (c) Greyish brown with red
	Remarks	From "Buchkasten B." (a) See 'Straps, Belts, Cordage etc.' (Cat. No. 73). Associated(?) is a small tapering fragment of bone.

Description

- (b) Oval fragment without features. The bigger of two holes seems due to preservation; the smaller, however, might be man-made.
 (c) Tapering fragment. One long edge is slightly thicker than the other, on which side is a red band (the only colour preserved) with 15 remaining tiny, regularly-spaced stitch holes with remnants of sinew stitches. Next to it are five remaining tiny leather thong stitches, appearing small at the surface showing the red colour. The stitches are broken, which suggests that there was another layer. Note the oval hole at the tapered end, which is malformed by forces exerted on the edge by pulling a rope through the hole or hanging it with a rope through the hole. Cf. ÄM AM 031a (Cat. No. 34), which is classed with decorated leather due to its identified additional layers of leather.



ÄM AM 039b. Obverse and reverse.



ÄM AM 039c. Obverse and reverse (cf. ÄM AM 031a, Cat. No. 34).

Specialist No.	ÄM AM 040a-e	Cat. No.
Year	?	99
Find No.	?	
Context	?	
Measurements	(a) l: 84.8; w: 23.9; t: 1.7; (b) l: 80.8; w: 19.8; t: 1.3; (c) l: 135.0; w: 19.8; t: 1.7; (d) l: 82.0; w: 11.2 - 21.0; t: 1.2; (e) l: 81.8; w max.: 29.8; t: 2.0	
Material	Leather, rawhide	
Colour	(a) - (c) Red brown to dark brown, black; (e) Beige brown	
Remarks	Several small, featureless scraps are not described/illustrated.	

Description

- (a) Rectangular fragment. One side (based on the smooth surface – the surface which was on the visible side of the object) has grooves lengthwise, concentrated close to the edges rather

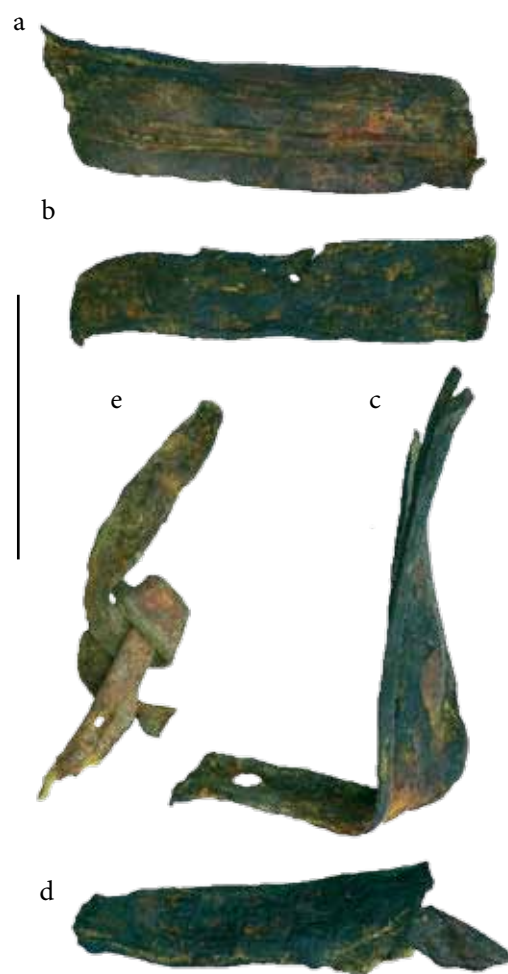
than the inside of its width. They seem artificial and hence could be decoration. Note that nothing is visible on the other side.

- (b) Like ÄM AM 040a, but darker in colour. Moreover, the striations are more numerous but less deep and well-defined. They occur across the entire width of the fragment.
- (c) Like ÄM AM 040a & b but the striations are almost absent.
- (d) Tapering, due to the fact that it is broken. Striation as in ÄM AM 040c.
- (e) Two small strips of rawhide. One is curved around the other, perhaps as a beginning of a half knot. Broken.

Cat. No.	Specialist No.	ÄM AM 042a-g
100	Year	?
	Find No.	?
	Context	?
	Measurements	(a) 75.3 (folded; unfolded: 158.0) x 75.5 x 3.1; (b) 27.2 x 24.8; t: 1.1; (c) 34.3 x 32.9; t: 5.3 (folded); (d) 25.8 x 22.4; t: 10.4; (e) 26.5 x 25.5; t: 1.7; (f) 19.1 x 17.7; t: 1.7; (g) l: 136.5; w: 48.8; h: 70.0
	Material	Leather, rawhide
	Colour	Greyish and beige to dark brown. Only (g) is beige and of rawhide.
	Remarks	Possibly, (a) is a sandal, of almost intact width, heavily decorated. "Auf den Deckel aber durchgestrichene: N 47,7; O 47, 12, 13; 475-476, 478-490, F.J. 13/14. Unleslich. Zubalt stimmt nicht! Das unlesliche: 13/14 O 47, 13 47[...]-476, 460-476[4]61."

Description

- (a) Incomplete, semi-circular (if we assume that the rows of stitch holes follow the perimeter: it was not entirely circular, as the rows turn inside the current edge) fragment of fairly thick leather. Roughly folded in two. Inside the fold is a second, but much thinner layer visible, which might be part of the decorative strips. However, if so, it would be positioned strangely in the centre of the circle. Along the perimeter are six



ÄM AM 040a-e.

rows of stitch holes. Some are empty but others still have remains of sinew stitches *in situ*. The first row is very close to the edge (2 mm; the second 5.5 mm; the third 9 mm; the fourth 15.5 mm; the fifth 20 mm; the sixth 23 mm). Remnants of a strip of leather are still *in situ* at the third and fourth rows, which are slightly further apart than the previous and subsequent rows. A remnant of a smaller strip on top of them, which has a greenish tint, suggests that the fragment might have had a complex set of decorative, differently coloured strips. A bright red leather patch is visible a little further, in roughly the area between the third and fourth rows of stitch holes. Although red is often used, the structure of the patch (rather fibrous, lying on top of the leather), contrasts with the red colour in other fragments; therefore it cannot be excluded that these are remnants of packing paper used by the archaeologists. Visible on

the reverse are remnants of stitches, which suggest that there were not more layers, as several intact stitches clearly show. There are different stitches on this side ('T-shaped'). However, these cannot be identified on the other side, due to the poor state of preservation. Diagonally, roughly in the same direction as the folded part are striations, which run more or less parallel to each other. Note that these go under the red patch, which means that these are older than the patch.

- (b) Small, roughly square fragment with six rows of barely visible stitch holes of which one row is only indicated by means of one possible stitch hole; the rest is broken off.

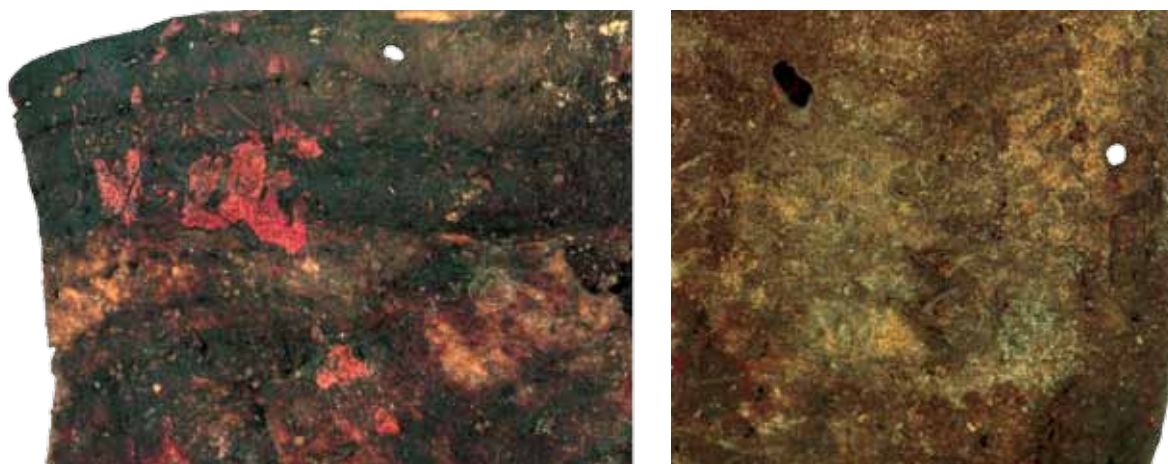
- (c) Folded fragment of rather thick leather. Clear, crescent striations visible on one surface, together with two small stitch(?) holes. It is uncertain if there are remnants of stitches.

- (d) Small, trapezoidal fragment, with one edge curled as if pressed around a circular object or strap. There are indications of decorative strips of leather but the fragment is too poorly preserved to identify the exact composition.

- (e) Small, irregularly-shaped fragment with at least two rows of stitch holes, which are relatively widely-spaced from each other. Possibly remnants of sinew stitches *in situ* in some of them.



ÄM AM 042a. Obverse and reverse.



Details of the stitching of obverse and reverse respectively. Scale bars are 10 mm.

(f) Small, roughly rectangular fragment with possible stitch holes. In too poor of a condition, however, to be sure. Small red patches.

(g) Large piece of leather, broken lengthwise (measured as one). There is a hole at one end, which is almost certainly due to preservation. Patches of hair. Seemingly no connection to other fragments.



ÄM AM 042b-f and, right (g). Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 045a-e
101	Year	1911/1912
	Find No.	?
	Context	House N 48, 11
	Measurements	(a) l: 66.1; w folded: 38.8; w total: 8.8; t folded: 15.4; t leather: 1.3; (b) 43.8 x 32.3 x 13.0; (c) 44.9 x 37.6 x 4.9; (d) 35.9 x 18.5 x 1.9; (e) not measured
	Material	Leather
	Colour	Dark brown to black
	Remarks	(e) Not illustrated. The list of House N 48, 11 does not contain an entry for leather.

Description

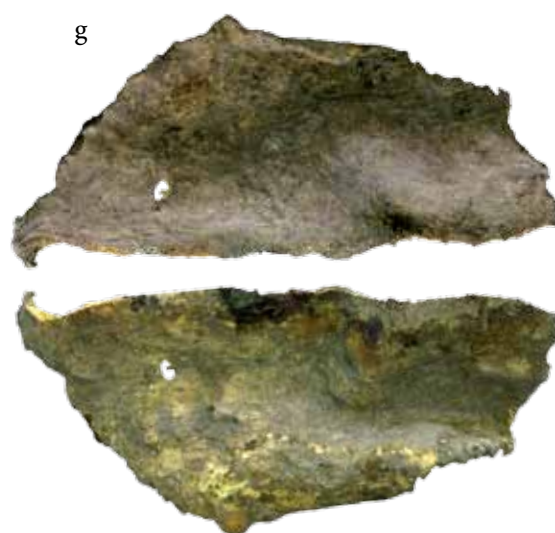
Poorly preserved; details not or at best barely visible.

(a) Might have one narrow decorative(?) strip on the edges (possible width approximately 2.8 mm), but it is not certain if there were more. The edges seem intact: thus the length might very well be the total width of the object.

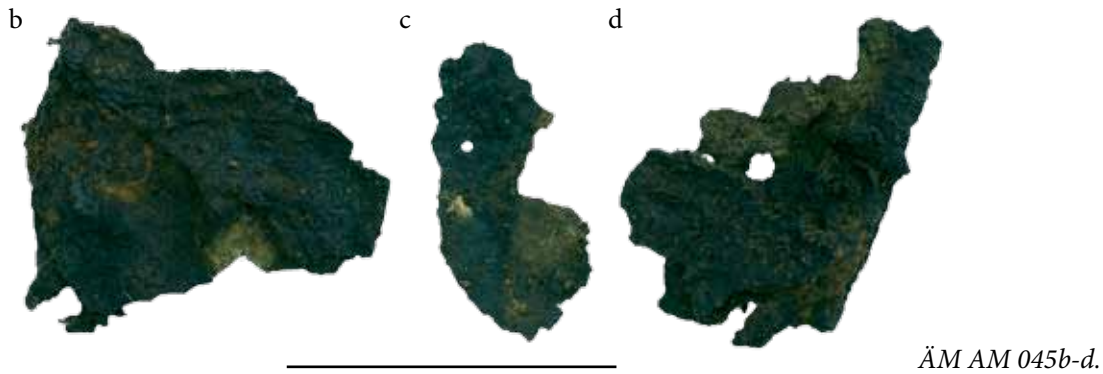
(b) Featureless.

(c) Irregularly-shaped fragment showing two rows of running stitches (possible width about 3.8 mm), of which the material cannot be identified. The rows might have held a decorative strip of leather; they stop at a diagonal edge, which might be the edge of the layer. At the side opposite the abrupt halt of the rows, there are three possible stitches, that are situated close to a semi-circular original(?) edge of one layer.

(d), (e) Featureless scraps.



ÄM AM 045a. Obverse and reverse.



ÄM AM 045b-d.

Cat. No.	Specialist No.	ÄM AM 049a, e
102	Group	ÄM AM 049a-e
	Year	?
	Find No.	?
	Context	?
	Measurements	(a) l: 66.7; w: 34.0; t: 2.2; (c) l: 50.3; w total: 24.8; w strip: 9.4; t total: 16.3; t strip: 1.3; (e) d: 76.8 x 73.0; h: 37.4
	Material	Leather, rawhide
	Colour	Reddish and greyish brown, black
	Remarks	(b) See 'Weaponry' (Cat. No. 55); (c), (d) See 'Straps, Belts, Cordage etc.' (Cat. No. 75)

Description

(a) Nearly rectangular object. On both long edges are two parallel lines incised (3.4 and 5.9 mm from the edge respectively, but it varies). Between the inner two is an 'x' incised, dividing the inner rectangle into four compartments. The long triangles (*i.e.* of which the base is parallel to the long edge of the object) as well as the outermost edge might have been coloured red, but whether the small, pointy triangles were green or also red is uncertain. Note that one long edge is thicker than the other (3.4 - 2.0 mm). Close to the thicker edge is a small hole, which might have been used to attach the ob-



ÄM AM 049a. Obverse and reverse.



ÄM AM 049e. Obverse and reverse. Non-leather object but associated (cf. Elephantine, el-054).

ject to a foundation. One corner of one of the short edges is intact; the rest is broken off.

- (e) Half of a ball of mud. Small patches of resinous material suggest it was in close contact with leather (*cf.* Elephantine, el-054).

Cat. No.	Specialist No.	ÄM AM 050
103	Year	?
	Find No.	?
	Context	?
	Measurements	Approximately 225 x 100 x 60 (including the wood)
	Material	Leather, rawhide, wood
	Colour	Mainly black; the strip is red brown. The wood is brown.

Description

Large, much crumpled and folded piece of poorly preserved ('melted') leather, on top of which rests a piece of wood. The wood does not seem to be part of the leather object but is rather concreted to it. The leather has no features; at the back, however, a strip of rawhide can be identified, but its relation to the rest is uncertain.



ÄM AM 050. Obverse and reverse.

Colour	Brown, (greyish) black, green, red
Remarks	(a) See 'Weaponry' (Cat. No. 60). There are several fragments of leather, which are comparable to (c), but without features. These are not described/illustrated.

Cat. No.	Specialist No.	ÄM AM 062b, c
104	Group	ÄM AM 062a-c
	Year	1911
	Find No.	?
	Context	House N 50, 1
	Measurements	(b) 127.0; w: 68.8; t: 8.1; (c) 127.0 x 95.0
	Material	Leather

Description

- (b) Irregularly-shaped fragment. Note the red and green colour on one surface; the other surface only shows the reddish colour.
- (c) Thin fragment of leather, which is folded several times. One edge shows coarse stitch holes; on the edge, a narrow leather thong stitch is still *in situ*. On the other side, one stitch hole can be clearly seen (arrow). Piece of garment?



ÄM AM 062b. Obverse and reverse.



ÄM AM 062c. Obverse and reverse.

Cat. No. 105	Specialist No.	ÄM AM 063	Material	Leather
	Year	1911	Colour	Beige brown, dark brown, black
	Find No.	40	Remark	(e) Not illustrated.
	Context	House N 50, 1	Description	
	Measurements	Varying from 225.0 x 65.3 to 51.5 x 19.6; t: 0.8 for the leather and 85.0 x 26.6 to 39.9 x 7.0; t: 1.3 for the rawhide	(a)	Folded piece of creamy brown leather. The side opposite to the fold is stitched together with sinew(?) sailor stitches, thus repairing the original seam (which is stitched with whip stitches). Note that one of the layers stops here; another layer is attached to it. This seems to be an original feature rather than a repair, as it also secures the other layer of the folded leather. On the side of the additional layer, the leather shows a distinct dent, parallel to the fold.
	Material	Rawhide, leather	(b)	Folded fragment (as ÄM AM 067a but with a smaller folded part), of which the stitch holes with remnants of stitches still <i>in situ</i> in some of them, are visible on one edge. The uppermost surface is partly flaked off, which might be due to use.
	Colour	Beige brown, dark brown	(c)	Like fragment ÄM AM 067a & b, but only a small fragment, showing the empty stitch holes and the start of the fold. Another small fragment without features is included in this specialist number, but it is not sure whether it belongs to it (not illustrated).
	Remarks	Not illustrated.	(d)	Circular object with one straight edge. Might be the same leather as fragments ÄM AM 067a - c
	Description	Several leather and rawhide fragments without features.		
Cat. No. 106	Specialist No.	ÄM AM 067a-e		
	Year	?		
	Find No.	?		
	Context	House N 50, [unreadable]		
	Measurements	(a) l: 90.9; w: 45.1 - 54.2; t folded: 6.6; t: 1.5; (b) l: 88.8; w max.: 24.1; w folded edge: 16.3 - 20.6; t fold: 5.1; t: 1.6; (c) l: 46.2; w: 17.3; t: 1.3; featureless scrap: 29.0 x 17.4; (d) 41.5 x 39.1; t: 1.3; (e) 50.3 x 24.2 - 108.5 x 93.0		

but in contrast to these, ÄM AM 067d is rather brittle and covered with holes. One side shows red patches, but it seems that at one time the surface was entirely red. The other surface also shows patches of red, but fewer.

(e) Five pieces of thin, dark brown ('melted') leather without features (and if present, these are not visible anymore due to its state of preservation; old packing material still adheres to it).

a



ÄM AM 067a. Obverse and reverse.



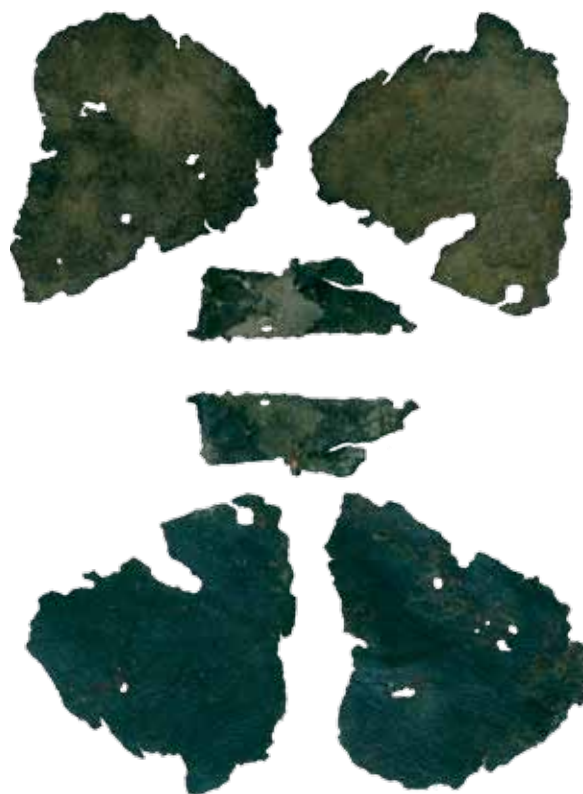
Obverse, details of the stitching. Left: Reverse, detail of the stitching. Scale bars details are approximately 5 mm.



ÄM AM 067b. Obverse and reverse.



ÄM AM 067c. Obverse and reverse. Right: ÄM AM 067d. Obverse and reverse.



ÄM AM 068d. Obverse and reverse.



ÄM AM 068e. Obverse and reverse.

Cat. No.	Specialist No.	ÄM AM 068d, e
107	Group	ÄM AM 068a-g
	Year	1911
	Find No.	149?
	Context	House N 50, 5
	Measurements	(d, fragment with stitch) l: 40.8; w: 18.2; t: 1.2; (featureless fragments): 59.9 x 50.8 - 56.9 x 50.8; t: 0.9; (e) l: 60.1; w: 17.7 - 20.0; t: 1.5
	Material	Leather
	Colour	Dark brown
	Remarks	(a), (b), (f), (g) See 'Sandals' (Cat. No. 27); (c) See 'Decorated Leather' (Cat. No. 40). There is one entry in the list from this house, which states "Sack."

Description

- (d) Two featureless scraps of thin leather, dark brown on the grain side but greyish brown on the flesh side. A third piece is roughly rectangular and has a possible stitch hole on one of its long edges. The other edge shows a single leather thong stitch.
- (e) Well-made, roughly rectangular rawhide fragment. One end tapers, although the rounded end is off centre. The object has a fold lengthwise down the centre, but it never reaches both short edges. There are several slits on the corners and the short edges, and a hole at the edge opposite the pointed end. The edges are slightly raised.

Cat. No.	Specialist No.	ÄM AM 069a, c, e
108	Group	ÄM AM 069a-g
	Year	1911
	Find No.	149?
	Context	House N 50, 5
	Measurements	(a) 126.4 x 130.5; t: 1.6; (c) l: 120.0; w: 75.0; t: 2.4; (e) l: 33.1; w: 19.9; t: 0.7 - 1.7

Material Leather, rawhide
Colour Beige to greyish and dark brown
Remarks (b), (d), (g) See 'Sandals' (Cat. No. 28); (f) See 'Straps, Belts, Cordage etc.' (Cat. No. 77). There is one entry in the list from this house, which mentions "Sack."

Description

(a) Nearly square piece. No features, although it is possible that some of the holes are stitch holes.

(c) Folded piece, one edge of which has stitch holes with, *in situ*, leather thong whip stitches. These are used to stitch the two edges together, but the stitch holes of one of the edges are torn.
 (e) Rectangular fragment of relatively thick leather to which adheres a piece of thin, red leather. It is secured by means of rather coarse stitches: the stitch holes and the impressions of the stitch itself are still visible on the thicker layer (and the stitch holes also on the red layer).



ÄM AM 069a. Obverse and reverse.



ÄM AM 069c. Obverse and reverse.



ÄM AM 069e. Obverse and reverse. Scale bar is 10 mm.

Cat. No.	Specialist No.	ÄM AM 070	stated on the labels. The fragments
109	Year	1911	are stuck to the packing material.
	Find No.	?	<i>Description</i>
	Context	House N 50, 14	Thirteen fragments and several small scraps. The
	Measurements	14.7 x 17.7 - 73.3 x 95.8	majority of the leather is 'melted' and details are not
	Material	Leather	visible, except for some length of edge of stitched
	Colour	Dark brown, black	strips of leather. One fragment of strip perhaps
	Remarks	The list does not give an entry of	shows various layers. All are secured with running
		leather for House N 50, 14, which is	stitches.



ÄM AM 070.

PART II: CATALOGUE

B. EGYPT EXPLORATION SOCIETY / AMARNA TRUST
1977-PRESENT

CATALOGUE NUMBERS 110-232

EXPLANATION OF THE CATALOGUE

Cat. No. ##	Catalogue Number		
Specialist No.	All objects have been given a specialist number that is unique for the combination of a registration and context. It means that within one registration number, different specialist numbers might occur; the same can happen for the context. The prefix 'TA' refers to the site, <i>i.e.</i> Amarna, in order to separate them from the finds from the German excavations (part A of this catalogue) or from finds from the early EES excavations. The prefix 'AM' refers to the site as well, <i>i.e.</i> Amarna, but all finds from the site done by the German or EES excavations (1977-present) have this prefix. This is necessary in order to be able to separate them from finds from other sites (for example Elephantine, prefixed 'el'). The finds are stored in the SCA magazine at the site in Egypt.	<p># 1 – Main City, building Q48.4 and well;</p> <p># 2 – Main City, house P46.33;</p> <p># 3 – Small Aten Temple;</p> <p># 4 – Workmen's Village, main grid;</p> <p># 5 – Workmen's Village, site X1;</p> <p># 6 – Workmen's Village, site X2;</p> <p># 7 – Kom el-Nana;</p> <p># 8 – glass kilns south of water tower;</p> <p># 9 – North Palace, well depression in east court;</p> <p># 10 – Great Palace, O42.1 & O42.2;</p> <p># 11 – North Palace, site X1: west gateway;</p> <p># 12 – House of Ranefer and adjacent small houses;</p> <p># 13 – Stone Village;</p> <p># 14 – South Tombs Cemetery</p>	
Year	Year of excavation.	Provenance	The position within the context.
Registration No.	This is the number given to each find by the excavators. The number is linked to the information on context and provenance and is unique for the find. It might be sub-numbered.	Measurements	If two measurements are separated by a hyphen, it indicates the range of sizes. Measurements of fragments of which sides cannot be determined and hence no 'length' or 'width' can be recognised, are noted with an 'x'. Usually, but not exclusively, these are featureless scraps. All measurements are in millimetres (mm), unless stated otherwise.
Context	The area in which the object was found. The site grid consists of individually labelled five-meter squares. The following squares are in use (see www.amarnaproject.com , visited 20 August 2008):		Abbreviations: d = diameter; l = length; t = thickness; w = width.

<i>Material</i>	Leather or (raw)hide with stitches of sinew or flax. Note that sometimes other materials are registered of associated objects (<i>e.g.</i> bone).		cludes undescribed, featureless scraps. Occasionally, information of a different nature, such as about the context, can be found here as well.
<i>Colour</i>	The colour is only indicated in a broad sense; precise colour designations, as with the Munsell Color System, have not been applied.	<i>Description</i>	All objects are described but references are not included; this will be part of the forthcoming study.
<i>Remarks</i>	Secondary information, including statements such as if the object is not illustrated or if the entry in-		

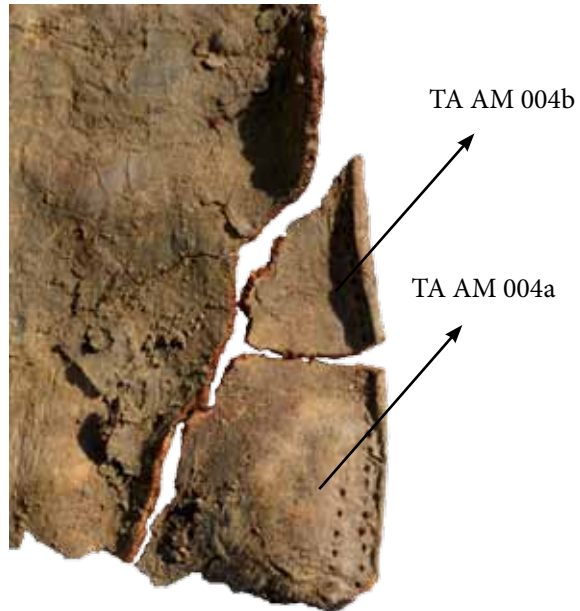
FOOTWEAR (CAT. NOS. 110-128)

SANDALS (CAT. NOS. 110-128)

Cat. No.	Specialist No.	TA AM 004a, b & TA AM 007a-i	
110	Year	2004	
	Registration No.	34144	
	Context	House of Ranefer and adjacent small houses (Grid 12)	
	Provenance	T5 (10445)	
	Measurements	TA AM 004: (a) l: 37.5; w: 23.0; t: 2.4; (b) l: 21.7; w: 16.0; t: 1.7 TA AM 007: Stitch holes: d: about 1.5; spacing about 2 (with variation); 4.0 from the edge. (a), (b) l: 165.0; w front: 90.0; w heel: 73.0; t: 1.7; (c) 15.8 x 10.4; (d) 20.1 x 6.4; (e) 12.4 x 20.6; w between stitch holes/edge: 1.5; distance between two rows of stitch holes: 3.5; (f) 9.6 x 21.0; (g) 10.3 x 12.8; (h) 22.0 x 24.0; (i) wrapped part: l: 21.0; d: 9.6 x 12.8	seems pointed but this is due to the crumpling of the leather. One row of stitch holes follows the perimeter. At the front is evidence of a second row, which is placed inside the other. This row, however, does not follow the entire perimeter, but is restricted to the front part only. (a) Largest of the two fragments. Remnants of two series of interrupted (because the intermediate part broke off) stitch holes (three and five) of oval shape. Remnants of leather stitches with circular cross-section are still <i>in situ</i> in some holes. (b) Triangular, featureless fragment.
	Material	Leather	
	Colour	Dark brown, greyish brown. Cross-section beige to white.	
	Remarks	Fragment TA AM 004a & b belongs to a largely complete sole (TA AM 004), which is associated with TA AM 007 (either the soles of a pair, or two sole layers of one sandal). The larger part of 34144a (= TA AM 004) has not been studied first-hand. See also Veldmeijer (2010b).	TA AM 007 is a sole, now in two parts with six small fragments with stitch holes only (TA AM 007j-o), two fragments with small leather strips (TA AM 007p & q), one fragment with the front strap hole (?; TA AM 007r) and one fragment consisting of the terminal end of the clad pre-strap (TA AM 007i). There are six small fragments without features (TA AM 007c-h). TA AM (a) and (b) make up the larger part of the sole and are therefore described together. The sole is seriously malformed so the shape is impossible to describe. This is further hindered by the damaged edges as well as the missing front part (the identification of which is based on the second row of stitch holes, cf. TA AM 004). (b) Small part of the front edge, standing upright. Along the perimeter is a series of regularly-spaced stitch holes of a slightly oval shape. The holes taper at the ventral surface, suggesting that they were punched from dorsal. Remnants of stitches are <i>in situ</i> in some holes. The stitches are made of sinew. (c) A triangular fragment with one intact edge including four stitch holes. Note that the edge protrudes slightly above the thickness on one side.
	Description	Sole TA AM 004 is malformed; therefore, the shape is difficult to describe. Moreover, it is missing large parts of the front. The width is fairly even. The heel	

- (d) Small rectangular fragment with one intact edge and seven stitch holes. Again edge protruding above the thickness.
- (e) Almost rectangular fragment with intact edge and two parallel rows of stitch holes. The bot-

tom row consists of three holes; the upper one has seven and thus extends along the entire length of the fragment. Some stitch holes have remnants of stitches *in situ*. Note that the small stroke between the edge and the top row of



TA AM 004. Dorsal view. The larger part has not been studied first-hand and hence not given a separate number. Details: The stitch holes suggest at least one additional sole layer. Photography by B.J. Kemp/A.K. Stevens.

stitches is slightly depressed relative to the surface; still the edge slightly protrudes upwards as seen in the other fragments.

- (f) Irregularly-shaped fragment with remnants of stitch holes.
- (g) Small, almost rectangular fragment with two stitch holes. These holes are slightly elevated relative to the leather's surface. A sinew stitch is still *in situ*.
- (h) Square fragment, slightly bent. Three stitch holes are visible in one corner, but without intact edges.

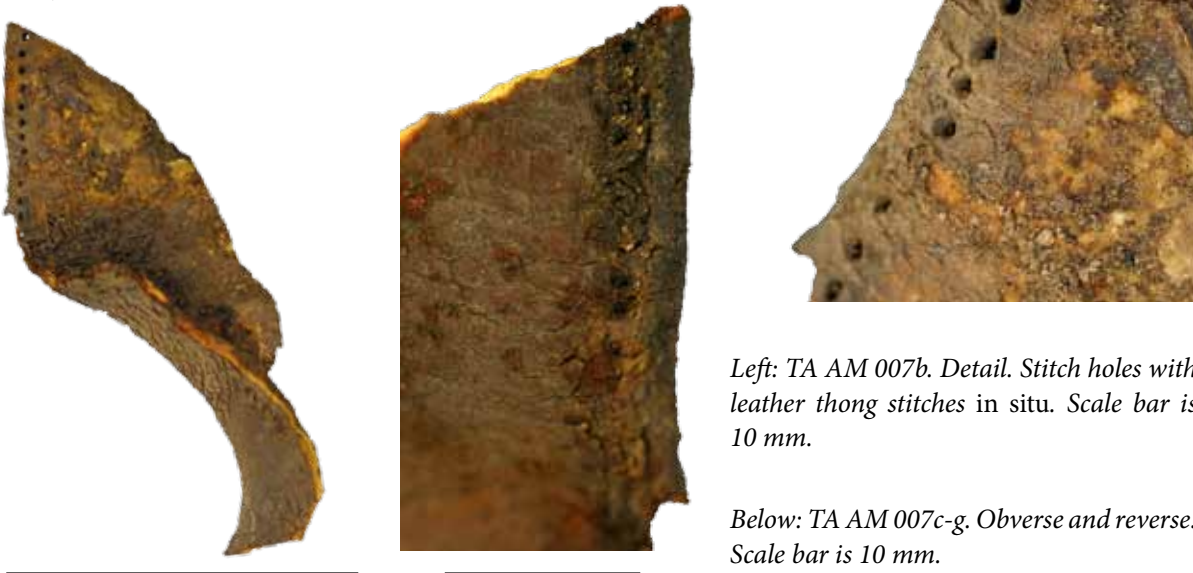
- (i) At least one thicker strip of leather, which has been cut at the top, resulting in two extensions. Together with this object, there is a strip (approximately 5 mm wide) pierced with a hole and containing a leather strip which tapers from 2 to 1 mm. Note that the fragments have been much damaged and the strip is not recognisable anymore. However, on drawings made shortly after recovery, the fragment was more complete and recognition as clad pre-strap, often seen in leather sandals, is certain.



TA AM 007a. Dorsal and ventral view.

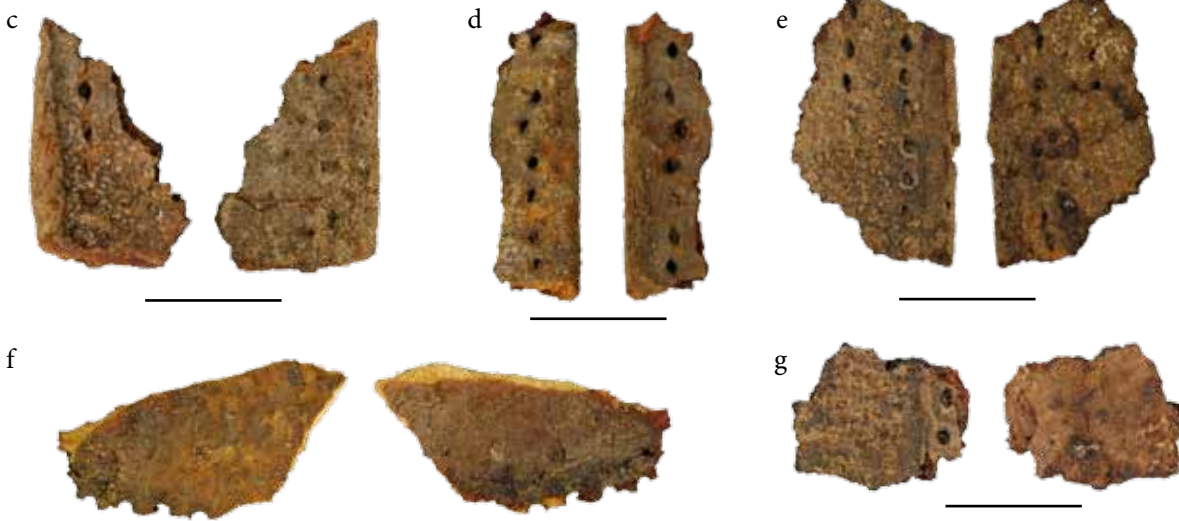


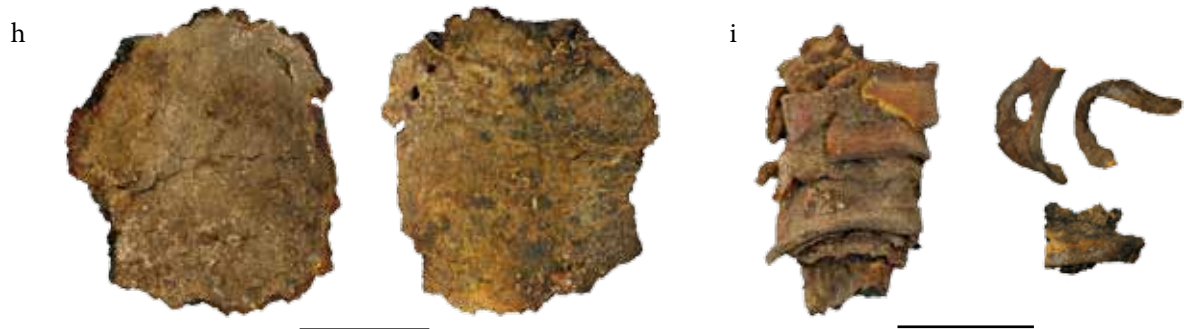
TA AM 007a. Details. The stitch holes at the dorsal (top left and centre) and ventral (top right and right) surface respectively, suggest at least one more sole layer. Scale bar is 10 mm.



Left: TA AM 007b. Detail. Stitch holes with leather thong stitches in situ. Scale bar is 10 mm.

Below: TA AM 007c-g. Obverse and reverse. Scale bar is 10 mm.





TA AM 007h. Obverse and reverse. Right: TA AM 007i. Scale bars are 10 mm.

Cat. No.	Specialist No.	TA AM 006
111	Year	2004
	Registration No.	4145
	Context	House of Ranefer and adjacent small houses (Grid 12)
	Provenance	T5 (10348)
	Measurements	l: 60.3; w: 84.0; t: 2.6
	Material	Leather
	Colour	Greyish brown with white spots
	Remarks	See also Veldmeijer (2010b).

Description

Almost rectangular fragment of a sandal's sole. The width is intact, showing stitches along the perimeter (in which in some remnants of the leather thong stitches *in situ*). On one corner, five stitch holes are arranged in a circle (arrow). Possibly, these were used for the attachment of a repair or decorative patch. The leather shows several shallow depressions as well as slightly elevated areas. The surface is much encrusted with sand.



TA AM 006. Dorsal and ventral view.

Cat. No.	Specialist No.	TA AM 013
112	Year	1992
	Registration No.	19283
	Context	TACC'92 #3
	Provenance	7001
	Measurements	w: 29.7; h: 23.8; t: 2.5
	Material	Leather
	Colour	Greyish brown
	Remarks	Possibly surface treatment.

Description

Folded piece of leather with rounded corners. Looks rather similar to objects used to fasten a front strap at the ventral surface of the treadsole.



TA AM 013. Obverse and reverse. Scale bar is 10 mm.

Cat. No.	Specialist No.	TA AM 025a, b
113	Year	1982
	Registration No.	3957
	Context	Workmen's Village
	Provenance	L18 7
	Measurements	(a) 16.0 x 18.6; (b) 3.1 x 31.7
	Material	Leather
	Colour	Brown, greyish brown
	Description	

- (a) Smallest fragment. Contains two stitch holes.
 (b) Two parts stuck together due to poor state of preservation. One is an original edge with a pair of small stitch holes. Seems to be part of a sandal, judging by the rounded edge with stitch holes close to it.



TA AM 025. Obverse and reverse of (a) and (b) respectively. Scale bar is 10 mm.

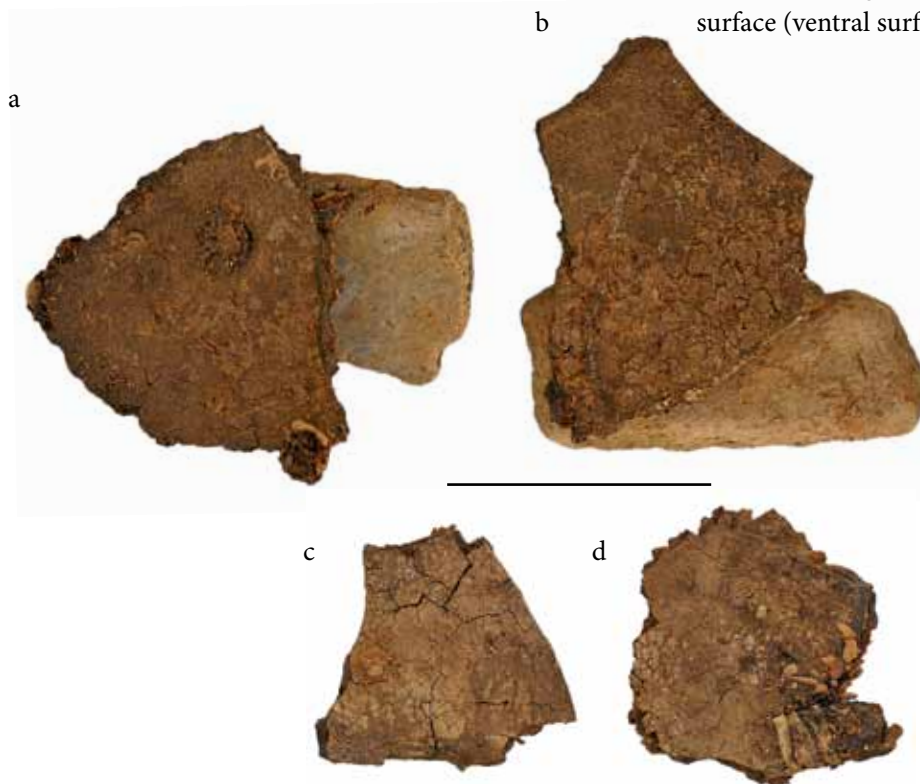
Material	Leather
Colour	Dark grey brown, black
Remarks	(a), (b) are stuck to stones with their dorsal(?) surface. Note the glazed black cross-section.

Description

Four fragments of double thickness of leather of the soles of one(?) sandal.

- (a) Front part, including the hole to accommodate the front strap.
 (b) Fits TA AM 043a, making up part of the edge.
 (c) Featureless fragment.
 (d) Includes the pre-strap, which is cut out of the same leather as the sole and clad with leather strips of which small parts are still *in situ*. Much dirt, such as vegetable material, adheres to one surface (ventral surface?).

Cat. No.	Specialist No.	TA AM 043a-d
114	Year	1985
	Registration No.	11709
	Context	Workmen's Village
	Provenance	O26 1384
	Measurements	(a) 59.2 x 57.3; (b) 68.4 x 63.6; (c) 57.2 (including the pre-strap) x 51.1; (d) 41.9 x 44.6; t: 5.4



TA AM 043a-d.

Cat. No.	Specialist No.	TA AM 048
115	Year	1980
	Registration No.	?
	Context	Workmen's Village
	Provenance	N16 7
	Measurements	8.8 x 27.2 - 5.9 x 75.0; t: 2.1
	Material	Leather
	Colour	Beige
	Remarks	Not numbered separately.
	Description	

Two scraps, which are possibly parts of a strap complex. The smallest fragment is incised at one of the short ends.



TA AM 048. Scale bar is 30 mm.

Cat. No.	Specialist No.	TA AM 049
116	Year	1986
	Registration No.	2103
	Context	Workmen's Village
	Provenance	GM55 W51
	Measurements	l: 70.0; w: 9.1; t: 5.5
	Material	Leather
	Colour	Grey brown
	Description	

Semi-circular fragment, rectangular in cross-section. Fragment of strap complex? Not illustrated.



TA AM 055. Dorsal and ventral view. Scale bar is 30 mm.

Provenance	GS8 1431
Measurements	11.2 x 130.0; t: 4.0
Material	Leather
Colour	Brown beige

Description
Rectangular, on both sides tapering fragment; possibly piece of a sandal's sole. Note that one end is cut, resulting in two protruding parts.

Cat. No.	Specialist No.	TA AM 055
117	Year	1980
	Registration No.	?
	Context	Workmen's Village
	Provenance	N16 2
	Measurements	20.1 x 28.8; t total: 8.0
	Material	Leather
	Colour	Brown
	Remarks	The number includes several small scraps which are not described/illustrated

Description
The irregularly-shaped fragment has one curved edge around which a small strip of leather might be folded and stitched. However, this is uncertain because the condition is bad. Note the dirt adhering to one surface. Sole fragment?



TA AM 078. Dorsal and ventral view. Scale bar is 30 mm.

Cat. No.	Specialist No.	TA AM 078
118	Year	1985
	Registration No.	11537
	Context	Workmen's Village

Cat. No.	Specialist No.	TA AM 099
119	Year	1980
	Registration No.	11787
	Context	Workmen's Village
	Provenance	GS8 1585
	Measurements	20.6 x 63.0; t: 5.1
	Material	Leather
	Colour	Greyish brown
	Description	Pre-strap(?) The end with the slit, positioned length-wise, has clearly been cut off. Note the thickness.

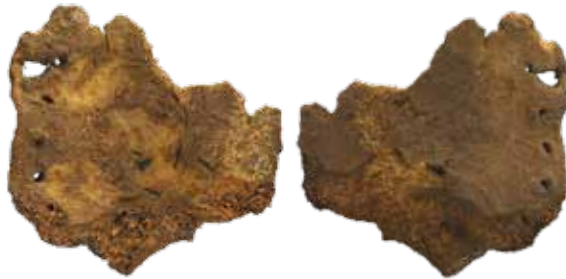


TA AM 099. From above and side view.

Cat. No.	Specialist No.	TA AM 102
120	Year	1980
	Registration No.	12009
	Context	Workmen's Village
	Provenance	N16 2
	Measurements	21.0 x 14.5; t: 3.7
	Material	Leather
	Colour	Greyish brown
	Description	Small triangular fragment, with one curved, intact edge, showing three stitch holes. Remnants of paired leather thong stitches are still visible. Note the beige cross-section, suggesting surface treatment. Sole fragment(?)



TA AM 102. Dorsal and ventral view. Scale bar is 30 mm.



TA AM 107. Dorsal and ventral view. Scale bar is 30 mm.

Cat. No.	Specialist No.	TA AM 107
121	Year	1984
	Registration No.	19275
	Context	Workmen's Village
	Provenance	Q20 1084
	Measurements	41.5 x 39.0; t: 2.2
	Material	Leather
	Colour	Greyish brown
	Description	Roughly rectangular, convex fragment. One edge shows four stitch holes. Possibly piece of a sandal's sole.

Colour Greyish brown
 Description Intact width of a sandal's sole, but incomplete length. The fragment is folded diagonally, resulting in a triangular shape. Note that there are stitch holes on the lateral and medial edges, some of which contain remnants of leather thong, running stitches.

Cat. No.	Specialist No.	TA AM 111
122	Year	1982
	Registration No.	16042
	Context	Workmen's Village
	Provenance	M10 83
	Measurements	w: 90.0 (unfolded); l: 100.0; t: 2.4; 69.1 x 74.3 x 23.1 (folded)
	Material	Leather

Specialist No. TA AM 112
 Year 1981
 Registration No. 16024
 Context Workmen's Village
 Provenance L18 7
 Measurements 28.7 x 50.0; t: 2.3
 Material Leather
 Colour Greyish brown
 Description Semi-circular object, the edges of which are damaged. The straight edge has a shallow, almost semi-

Cat. No.
123



TA AM 111. Obverse, reverse and seen from above.

circular dent slightly off-centre. The ventral(?) surface shows a wrinkle partially surrounding this circle. Along the curved edge are two rows of holes, none of which penetrate the entire thickness. Possibly, but this is not supported by observations, the holes are remnants of tunnel stitches. Note that remnants of stitches are still *in situ* in some holes. Perhaps fragment of sole.



TA AM 112. Dorsal(?) and ventral(?) view.

Description

Three fragments of a sandal's sole, two of which are very small fragments but show stitch holes nevertheless. The largest one has remnants of leather thong stitches *in situ* along the short length of the intact perimeter.

Cat. No.	Specialist No.	TA AM 116c
124	Group	TA AM 116a-c
	Year	1981
	Registration No.	16021
	Context	Workmen's Village
	Provenance	K18 4b
	Measurements	13.0 x 21.3 - 47.3 x 52.2; t: 1.4
	Material	Leather
	Colour	Beige, greyish brown
	Remarks	(a), (b) See 'Straps, Belts, Cordage etc.' (Cat. No. 145).

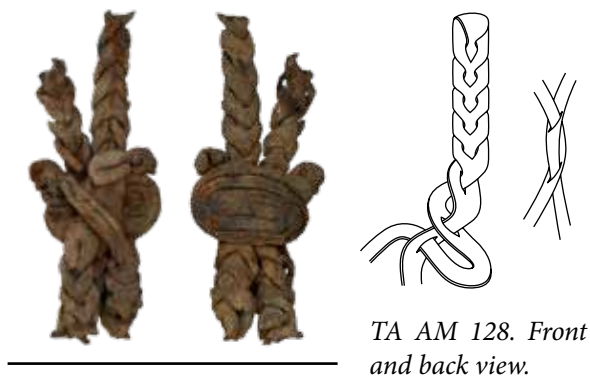


TA AM 116c. Dorsal and 'ventral'.

Cat. No.	Specialist No.	TA AM 128
125	Year	2000
	Registration No.	32747
	Context	Grid #7
	Provenance	AB48
	Measurements	20.0 x 9.7 x 51.0; w one strap: 5.6
	Material	Leather
	Colour	Greyish brown

Description

The attachment between front and back straps, consisting of a coiled strip through which the straps are pulled. The straps consist of two strips on one side of the coil and four on the other, connected by being pulled through slits in the other strip. Note the attachment of the straps at the back.



TA AM 128. Front and back view.

Cat. No.	Specialist No.	TA AM 158
126	Year	1985
	Registration No.	5950 [10/85]
	Context	Workmen's Village
	Provenance	Q12 1610
	Measurements	84.5 x 81.5; t: 4.7
	Material	Leather
	Colour	Brown with a clear beige cross-section

Description

Roughly square piece of sandal(?) that has been re-used as a door pivot, judging by the deep dent with circles caused by the turning movement of the door. Several leather thong running stitches along two edges and roughly lengthwise down the centre.



TA AM 158. Obverse and reverse.

Specialist No.	TA AM 159a-c	Cat. No.
Year	1985	127
Registration No.	6177 [40/85]	
Context	Workmen's Village	
Provenance	P26 1525	
Measurements	(a) l: 75.4; w: 60.3; (b) l: 44.2; w: 24.9; (c) l: 14.7; w: 11.3; t: 2.7	
Material	Leather	
Colour	Light brown	
Description	Three fragments of small-sized sandal, all of which fit together. Front part of a left sandal, including the front strap hole. Along the perimeter are two rows of stitching, the inner one extending only to the front part, the outer one running along the entire perimeter. Secured with sinew in double running stitch (straight stitching). This means that there was originally at least one more sole layer. The stitches of the outer row are severely tightened, resulting in a dented line that marks the stitch row.	



TA AM 159b (left). Dorsal view.
TA AM 159c (right). Ventral view.

TA AM 159a. Dorsal and ventral view.

Cat. No.	Specialist No.	TA AM 160a, b
128	Year	1985
	Registration No.	6177 [40/85]
	Context	Workmen's Village
	Provenance	P26 1525
	Measurements	(a) 15.5 x 31.2 - 79.5 x 280.0; t: 2.6; (b) 7.2 x 27.6 - 18.8 x 84.7 Knot: 27.6 x 13.3 x 38.3
	Material	Leather
	Colour	Light brown
	Remarks	The five fragments of a sandal (TA AM 160a) and the four fragments of strap complex (TA AM 160b) are not numbered separately.

Description

- (a) Folded sandal's sole is missing largest part of the heel and the longitudinal half of the front part. Common model, with a rounded heel, constricted waist, increasing in width towards the front and pre-straps cut from the same sheet of leather. Not sure whether it is a swayed or straight sole. Along the perimeter are stitch holes in pairs in which leather thong stitches (running stitch) are *in situ* in some of them. However, there are also stitch holes across the sole just anterior to the remnants of the pre-strap. The stitch holes suggest at least one more sole layer.
- (b) Fragments of strap complex, including an over-hand knot.



TA AM 160a. Dorsal (and ventral surface of the heel) and ventral view. Top right and left: TA AM 160b. Four pieces of strap complex, including the knot. Photography by B.J. Kemp/A.K. Stevens.

DECORATED LEATHER

(CAT. NO. 129)

Cat. No.	Specialist No.	TA AM 060
129	Year	1980
	Registration No.	?
	Context	Workmen's Village
	Provenance	N16 2
	Measurements	20.2 x 35.0; t: 2.7; t: 9.4 (total, including adhering dirt)
	Material	Leather
	Colour	Brown, green
	Description	Tapering fragment with a partially intact edge on one end. The strip of leather that is secured to it is green and compares well with the green strips seen in the Berlin material. It cannot be established whether there is another layer folded around the foundation or whether there is only one layer of leather, the 'other layer' being the applied green coloured one. Several stitch holes are visible.



TA AM 060. Obverse and reverse. Scale bar is 30 mm.

CLOTHING

(CAT. NO. 130-131)

Cat. No.	Specialist No.	TA AM 008a-bd	(ah) l: 16.8; w: 21.2; t: 4.1 (at fold);
130	Year	2004	(ai) l: 36.3; w: 23.9;
	Registration No.	34148	(aj) l: 21.3; w: 10.8;
	Context	House of Ranefer and adjacent small houses (Grid 12)	(ak) l: 20.3; w: 14.4;
	Provenance	T5 (10466, lower horizon)	(al) l: 24.2; w: 10.4;
	Measurements	(a) l: 64.1; w: 52.9; (b, curled edge) l: 17.3; w: 13.0;	(am) l: 26.4; w: 23.9;
		(b, 'body' part) l: 32.9; w: 20.0;	(an) l: 28.2; w: 24.9;
		(c) l: 29.1; w: 27.7;	(ao) l: 37.2; w: 18.0;
		(d) l: 34.7; w: 38.2;0	(ap) l: 25.1; w: 20.8;
		(e) l: 24.9; w: 28.3;	(aq) l: 19.8; w: 10.6;
		(f) l: 35.3; w: 23.4;	(ar) l: 20.6; w: 16.4;
		(g) l: 39.5; w: 20.4;	(as) l: 23.8; w: 12.9;
		(h) l: 25.1; w: 17.0; t: 5.5 (at fold);	(at) l: 11.6; w: 10.5;
		(i) l: 27.3; w: 8.1;	(au) l: 16.4; w: 14.2;
		(j) l: 14.1; w: 10.6;	(av) l: 19.7; w: 11.8;
		(k) l: 20.3; w: 15.8;	(aw) l: 17.1; w: 8.4;
		(l) l: 18.0; w: 12.9;	(ax) l: 14.0; w: 11.6;
		(m) l: 19.0; w: 13.4;	(ay) l: 19.8; w: 11.1;
		(n) l: 29.3; w: 21.9;	(az) l: 12.8; w: 7.7;
		(o) l: 27.0; w: 18.0; t: 3.8 (at fold);	(ba) l: 11.8; w: 10.1;
		(p) l: 32.2; w: 21.9; t: 4.6 (at fold);	(bb) l: 13.1; w: 11.2;
		(q) l: 34.7; w: 21.2;	(bc) l: 14.3; w: 9.3;
		(r) l: 26.4; w: 29.0; t (at fold): 3.8;	(bd) l: 23.3; w: 20.1
		(s) l: 23.6; w: 13.4;	
		(t) l: 40.2; w: 26.3;	<i>Material</i> Leather
		(u) l: 24.5; w: 19.4;	<i>Colour</i> Greyish brown
		(v) l: 25.5; w: 11.8; t: 4.3 (at fold);	<i>Remarks</i> Briefly discussed by Veldmeijer (2010b).
		(w) l: 32.5; w: 28.6;	
		(x) l: 25.5; w: 14.7;	<i>Description</i>
		(y) l: 17.3; w: 14.7; t: 3.0 (at fold);	Fifty-six fragments of thin leather; some of these numbers actually consist of two or three fragments.
		(z) l: 13.4; w: 8.5;	Most fragments are decorated: sometimes there is a zigzag pattern of cuts with an additional linear row (for example TA AM 008a) or two rows placed zigzag (such as TA AM 008d) whereas other fragments show groups of slits (TA AM 008b for instance) or groups of slits alternated with continuous lines of slits. TA AM 008c has remnants of leather(?) stitches <i>in situ</i> in two slits. Apparently, some slits were used for stitching (the fragment might be part of an edge or seam). Some of the slits are vaguely Z-
		(aa) l: 31.9; w: 15.1;	
		(ab) l: 20.6; w: 14.5;	
		(ac) l: 32.7; w: 33.2;	
		(ad) l: 26.5; w: 15.5; t: 3.4 (at fold);	
		(ae) l: 34.8; w: 16.7;	
		(af) l: 39.9; w: 24.8;	
		(ag) l: 28.5; w: 17.6;	

a

TA AM 008a - p. Obverse and reverse.

b

c

d

e

g

h

f

i

j

k

l

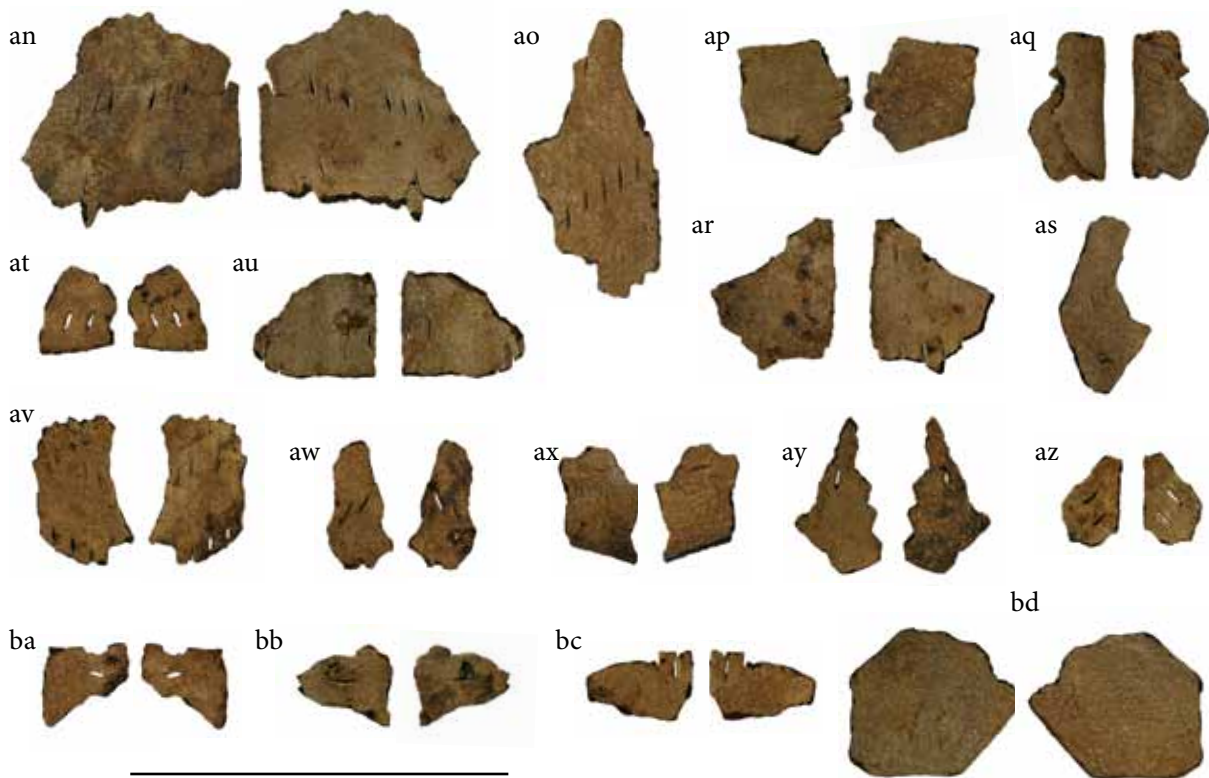
m

n

o

p





TA AM 008an-bd. Obverse and reverse. Note that TA AM 008ao and TA AM 008as are only shown in obverse.

shaped. TA AM 008p shows lines on one surface (arrow) which resemble string, but they are far too small to be string. Microscopic examination did not offer a solution. It might be a feature of the leather. Possibly, TA AM 008q has an original edge. TA AM 008w has remnants of a stitch that resembles sinew string; TA AM 008x has remnants of a stitch as well. Originally, this slit formed a pair with a parallel one in the part now lost. Above and below are pairs of slits too: perhaps a seam? Cf. TA AM 008ac. TA AM 008y & ad are folded fragments with slits on both sides, showing that the fragment was folded after the cuts had been made because the cuts are situated at different positions rather than opposite each other. TA AM 008ac has also pairs of slits, which are comparable to TA AM 008x. Folded with scoring on both sides.

Measurements t (generally): 0.5 - 1.0;
 (a) l: 21.2; w: 14.8;
 (b) l: 46.8; w: 35.2;
 (c) l: 25.6; w: 11.3;
 (d) l: 17.3; w: 13.1;
 (e) l: 53.5; w: 23.3;
 (f) l: 23.5; w: 11.6;
 (g) l: 60.9; w: 28.6; t: 14.8;
 (h) l: 59.6; w: 22.6; t: 24.3;
 (i) l: 82.6; w: 36.1; t: 18.5;
 (j) l: 45.5; w: 25.2; t: 14.5;
 (k) l: 28.5; w: 24.3;
 (l) l: 52.3; w: 14.6; t: 14.5;
 (m) l: 46.0; w: 19.8;
 (n) l: 23.7; w: 20.2; t: 4.8 (at fold);
 (o) l: 35.5; w: 12.8; t: 9.3;
 (p) l: 27.8; w: 27.5;
 (q) l: 29.6; w: 6.9

Cat. No.	Specialist No.	TA AM 009a-q	Material	Leather
131	Year	2002-2004	Colour	Grey on one side but beige to brown on the other
	Registration No.	37061	Remarks	Not illustrated. Several featureless fragments are not described. See also Veldmeijer (2010b).
	Context	House of Ranefer and adjacent small houses (Grid 12)		
	Provenance	U7 (10776)		

Description

Seventeen numbered fragments and numerous small scraps (not numbered) of thin leather. Four fragments are of larger dimensions; these are crumpled and folded. The smaller ones are crumpled. Five fragments (none of the bigger ones) have seams, which are secured with sinew. The descriptions focus on these five.

- (a) Small fragment consisting of a smaller and larger part, in the middle of which runs a seam. Three whip stitches are still *in situ*.
- b) Larger fragment with a seam in the middle dividing the fragment in approximately equal halves. Four almost complete stitches are still *in situ* together with remnants of other stitches.
- (c) A rectangular fragment with remnants of a seam on one edge. Small remnants of the second layer of leather are visible. Several remnants of stitches are still *in situ*.
- (d) Remnants of two stitches *in situ*.
- (e) Rectangular fragment that tapers on one end. Remnants of the second layer are still *in situ* at the seam.

- (f) A triangular fragment with one stitch.
- (g) One of the larger fragments, but without features. It is folded and crumpled. This fragment has a greyish brown colour and although of the same thickness, it might not have belonged to the same object as the previously-described fragments.
- (h) As (g).
- (i) Also one of the larger fragments. The colour of this fragment is comparable to the fragments with the seams.
- (j) As (g) and (h), but smaller. There are three fairly large holes (diameter of 2.8 mm), which might be man-made.
- (k) Almost square fragment, grey at one side and reddish light brown at the other.
- (l) As (g) and (h).
- (n) Small fragment with a curled edge.
- (r) Triangular fragment with one folded edge. The colour is comparable to TA AM 009a-e. Note, however, the resin-like spots at both surfaces (*cf.* TA AM 007).

BAGS

(CAT. NOS. 132-134)

Cat. No.	Specialist No.	TA AM 011a, b
132	Year	2005
	Registration No.	35786
	Context	House of Ranefer and adjacent small houses (Grid 12)
	Provenance	U6 (11024)
	Measurements	(a) l: 24.6; w: 19.8; t: 14.4; (b) l: 39.9; w: 11.3; t: 8.2
	Material	Leather
	Colour	Brown
	Remarks	See also Veldmeijer (2010b).
	Description	
	(a)	Folded and, judging from the constricted appearance, tied, the string of which is now lost. In this it looks like the top of a bag, made of the skin of an animal.
	(b)	Small, thin strip of leather of unknown use. Cf. TA AM 064 (Cat. No. 133).



TA AM 011a & b respectively. Obverse and reverse.



TA AM 064. Obverse and reverse. Scale bar is 30 mm.

Cat. No.	Specialist No.	TA AM 064
133	Year	1985
	Registration No.	19279
	Context	Workmen's Village
	Provenance	P26 1825
	Measurements	12.4 x 15.5 x 39.2; t: 0.8
	Material	Leather, flax
	Colour	Greyish brown
	Description	
		'Knot' made by tucking a tube of leather back into itself. Usually this type of 'knot' is made in the leather from the legs of animals used for water bags. It is likely, however, that here it is made from a length-wise folded strip of leather. Under the top layer, the filler material is tied with zS ₂ flax(?) string.

Provenance	N15 3
Measurements	(a) 110.4 x 145.9; (b) 48.0 x 78.1; (c) 16.0 x 26.0; t: 1.2; d patch: about 60
Material	Leather
Colour	Brown, greyish brown
Description	
(a)	Relatively large, folded fragment with a repair patch that has been worn through as well. The patch is secured with a narrow leather thong in large running stitches. Note that the small leather thongs have a slight 'S'-twist.
(b)	Slightly thicker and roughly L-shaped. At the base it has several stitch holes with leather thong <i>in situ</i> in some of them.
(c)	Scrap. Might have been part of a bag originally, as well as the other fragments.

Cat. No.	Specialist No.	TA AM 069a-c
134	Year	1981
	Registration No.	16023
	Context	Workmen's Village



TA AM 069a-c. Obverse and reverse.

STRAPS, BELTS, CORDAGE ETC.

(CAT. NOS. 135-145)

Cat. No. 135	Specialist No.	TA AM 005a-d
	Year	2002-2004
	Registration No.	34559
	Context	House of Ranefer and adjacent small houses (Grid 12)
	Provenance	10359
	Measurements	(a) l: 134.0; w: 6.0; t: 3.0; (b) l: 74.0; w: 6.5; t: 3.4; (c) l: 52.0; w: 7.4; t: 3.1; (d) l: 33.0; w: 4.9; t: 3.2
	Material	Leather?
	Colour	Dark brown
	Remarks	See also Veldmeijer (2010b).
	Description	Small strips, which might be remnants of straps. The colour of the leather does not seem to be the result of skin processing as it stains when touched and is clearly applied on the surface. The leather is whitish underneath.



TA AM 005a-d.

Cat. No. 136	Specialist No.	TA AM 019
	Year	1993
	Registration No.	26178
	Context	Main City
	Provenance	7983 K80
	Measurements	w: 9.6; l: 67.0; t: 2.6
	Material	Leather
	Colour	Reddish brown
	Remarks	Not illustrated.
	Description	Small strip of rawhide. Fragment of axe lashing?

Material	Leather
Colour	Dark brown, beige, white
Remarks	Not illustrated.
Description	Small strip of leather. Fragment of axe lashing?

Cat. No. 137	Specialist No.	TA AM 020
	Year	1993
	Registration No.	26007
	Context	Main City
	Provenance	8069 L80
	Measurements	w: 8.1; l: 73.0; t: 2.9

Specialist No.	TA AM 026	Cat. No.
Year	1981	138
Registration No.	25174	
Context	Workmen's Village	
Provenance	N15 3	
Measurements	13.4 x 75.0; 12.9 x 75.0; t: 4.1	
Material	Rawhide	
Colour	Greyish, red brown	
Description	Two fragments which seems to have been one originally. No features. Fragment of axe lashing?	

Cat. No.	Specialist No.	TA AM 053
139	Year	1980
	Registration No.	?
	Context	Workmen's Village
	Provenance	L17 5
	Measurements	10.4 x 15.6; t: 2.5
	Material	Leather
	Colour	Brown
	Remarks	Not illustrated. Cf. TA AM 026 (Cat. No. 138).

Description

Small, rectangular but curved fragment. Hair is still attached on one surface.



TA AM 026.

Colour	Light brown, beige
Remarks	Not illustrated. Cf. TA AM 026 (Cat. No. 138).

Description

Small fragment of narrow strip without features. Fragment of axe lashing?

Cat. No.	Specialist No.	TA AM 079
140	Year	1984
	Registration No.	5857
	Context	Workmen's Village
	Provenance	R19 972
	Measurements	7.8 x 10.7 - 9.3 x 35.4; t: 1.9
	Material	Rawhide
	Colour	Greyish brown
	Remarks	Not illustrated. Cf. TA AM 026 (Cat. No. 138).

Description

Three small pieces of featureless, narrow strips.

Specialist No.	TA AM 092	Cat. No.
Year	1985	143
Registration No.	11831	
Context	Workmen's Village	
Provenance	GS8 1571	
Measurements	10.2 x 38.9; t: 2.4	
Material	Rawhide	
Colour	Light brown, beige	
Remarks	Not illustrated. Cf. TA AM 026 (Cat. No. 138).	

Description

Small rectangular fragment. Fragment of axe lashing?

Cat. No.	Specialist No.	TA AM 080
141	Year	1985
	Registration No.	5889
	Context	Workmen's Village
	Provenance	GS8 1362
	Measurements	8.1 x 19.5 - 9.6 x 40.2; t: 2.8
	Material	Rawhide
	Colour	Light brown, beige
	Remarks	Not illustrated. Cf. TA AM 026 (Cat. No. 138).

Description

Three small fragments of narrow strips without features. Fragments of axe lashing?

Specialist No.	TA AM 093	Cat. No.
Year	1985	144
Registration No.	11807	
Context	Workmen's Village	
Provenance	GS8 1508	
Measurements	10.1 x 26.4; t: 2.7	
Material	Rawhide	
Colour	Light brown, beige	
Remarks	Not illustrated. Cf. TA AM 026 (Cat. No. 138).	

Description

Small tapering fragment. Fragment of axe lashing?

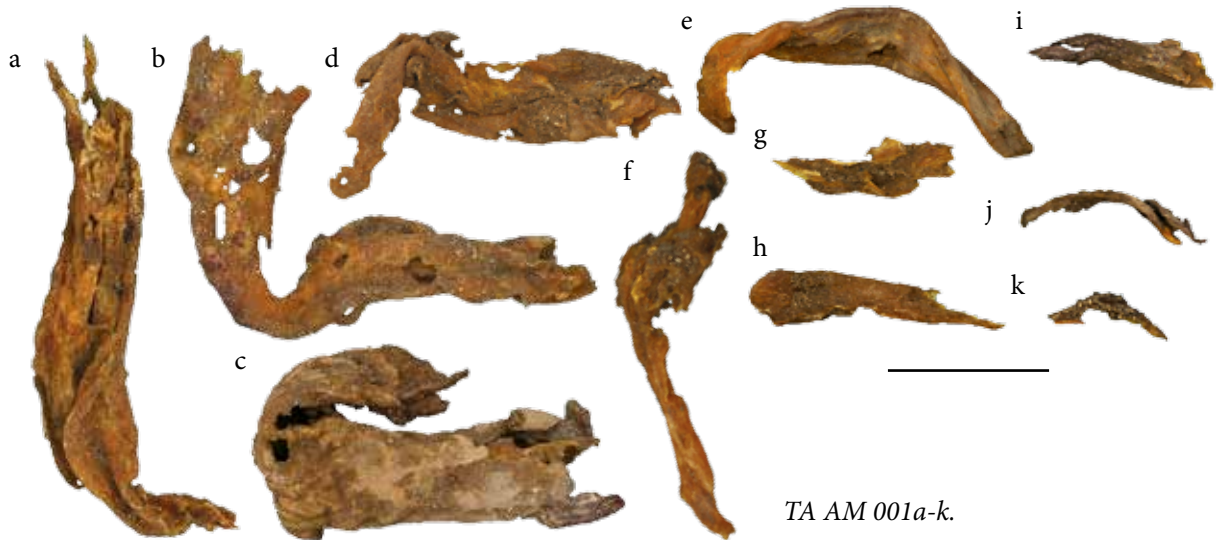
Cat. No.	Specialist No.	TA AM 081
142	Year	1985
	Registration No.	11626
	Context	Workmen's Village
	Provenance	GS8 1707
	Measurements	10.9 x 34.8; t: 3.1
	Material	Rawhide

Cat. No.	<i>Specialist No.</i>	TA AM 116a, b	<i>Colour</i>	Beige, greyish brown
145	<i>Group</i>	TA AM 116a-c	<i>Remarks</i>	(c) See 'Sandals' (Cat. No. 124). (a)
	<i>Year</i>	1981		& (b) Not illustrated. Cf. TA AM
	<i>Registration No.</i>	16021		026 (Cat. No. 138).
	<i>Context</i>	Workmen's Village	<i>Description</i>	
	<i>Provenance</i>	K18 4b	(a)	Two narrow, featureless strips, which might be
	<i>Measurements</i>	(a) 4.8 x 27.5 - 5.8 x 47.0; t: 2.6;		fragments of a strap complex.
		(b) 25.1 x 26.1 - 24.2 x 79.3; t: 3.4	(b)	Three fragments of strap complex(?)
	<i>Material</i>	Leather		

OFFCUTS, WASTE

(CAT. NOS. 146-150)

Cat. No.	Specialist No.	TA AM 001a-k	(h) l: 63.0; w: 12.4; t: 6.2;
146	Year	2002-2004	(i) l: 45.0; w: 9.2; t: 7.5;
	Registration No.	25239	(j) l: 47.0; w: 4.5; t: appr. 3.5;
	Context	House of Ranefer and adjacent small houses (Grid 12)	(k) l: 3.3; w: 4.6; t: appr. 4.0
	Provenance	10485	Material Rawhide
	Measurements	(a) l: 150.0; d: 21.4 - 16.5; (b) l: appr. 145.0; w: 22.0; t: 10.5; (c) l: 162.0; w: 22.4; t: 16.5; (d) l: 150.0; w: 29.5; t: 10.0; (e) l: 127.0; w: 15.8; t: 4.5; (f) l: 110.0; w: 9.8; t: 5.8; (g) l: 60.0; w: 19.7; t: 5.5;	Colour Yellow red brown
			Remarks See also Veldmeijer (2010b).
			Description
			Eleven fragments of waste. All pieces are folded and crumpled to some extent. TA AM 001c & d show cut edges. TA AM 001e seems to be a strip, but this might be coincidence.



Cat. No.	Specialist No.	TA AM 039
147	Year	1981
	Registration No.	16022
	Context	Workmen's Village
	Provenance	L18 12A
	Measurements	w one end: 12.8; w other end: 1.8; l: 70.3; t: 1.1
	Material	Leather
	Colour	Brown
	Description	Small, tapering fragment without features. Offcut.



Cat. No.	Specialist No.	TA AM 065
148	Year	1985
	Registration No.	11540
	Context	Workmen's Village
	Provenance	GS8 1490 S
	Measurements	13.5 x 95.5; t: 1.0
	Material	Leather
	Colour	Light brown
	Description	Small, tapering fragment without features. Offcut.



TA AM 065. Obverse and reverse.

Cat. No.	Specialist No.	TA AM 073
149	Year	1985
	Registration No.	?
	Context	Workmen's Village
	Provenance	GS8 1502 S
	Measurements	7.9 x 66.7 - 8.6 x 62.2; t: 1.6
	Material	Leather
	Colour	Light brown, greyish brown
	Remarks	Not numbered separately.
	Description	Two strips, tapering at both ends. One end of one of the fragments has tapering protrusions due to cutting of the leather. Offcuts.



TA AM 073. Obverse and reverse.


Cat. No.	Specialist No.	TA AM 075
150	Year	1985
	Registration No.	?
	Context	Workmen's Village
	Provenance	GS8 1500N
	Measurements	30.1 x 73.6; t: 0.7
	Material	Leather
	Colour	Brown
	Description	Triangular scrap without features. Offcut(?)



TA AM 075. Obverse and reverse.

UNIDENTIFIED

(CAT. NOS. 151-232)

Cat. No. 151	<i>Specialist No.</i>	TA AM 002	<i>Description</i> One large folded piece and 10 small pieces of thin leather. The outer layer is greyish brown; the inner is beige, suggesting only surface treatment. Much crumpled and with many holes, which are due to deterioration.	
	<i>Year</i>	2002-2004		
	<i>Registration No.</i>	25238		
	<i>Context</i>	House of Ranefer and adjacent small houses.		
	<i>Provenance</i>	R6 (10665)		
	<i>Measurements</i>	l: 22.8; w: 21.4; t: 2.2		
	<i>Material</i>	Leather		
	<i>Colour</i>	Greyish, dark brown		
	<i>Remarks</i>	Not illustrated. See also Veldmeijer (2010b).		
	<i>Description</i>	Small, triangular piece of thin leather.		
Cat. No. 152	<i>Specialist No.</i>	TA AM 003a, b	<i>Specialist No.</i> TA AM 012 <i>Year</i> 1987 <i>Registration No.</i> 12692 <i>Context</i> TA[...] 87 #1 E6 <i>Provenance</i> 3045 <i>Measurements</i> Outer d: 47.5 x 59.8; inner d: 33.5 x 46.5; h: 46.5; t leather: 2.2 <i>Material</i> Leather <i>Colour</i> Beige brown, brown <i>Remarks</i> Possibly surface treatment? <i>Description</i> Wide coiled strip, one end of which is cut into two narrow extremities, which are pulled through slits in the other end. The exact construction is not clear due to bad preservation.	Cat. No. 154
	<i>Year</i>	2002-2004		
	<i>Registration No.</i>	25240		
	<i>Context</i>	House of Ranefer and adjacent small houses (Grid 12)		
	<i>Provenance</i>	10395		
	<i>Measurements</i>	(a) l: 43.0; w: 28.0, t: 2.3; (b) l: 21.3; w: 15.9; t: 2.1		
	<i>Material</i>	Leather		
	<i>Colour</i>	Beige yellow		
	<i>Remarks</i>	Not illustrated. See also Veldmeijer (2010b).		
	<i>Description</i>	Both fragments show slight curvature.		
Cat. No. 153	<i>Specialist No.</i>	TA AM 010		
	<i>Year</i>	2002-2004		
	<i>Registration No.</i>	25255		
	<i>Context</i>	House of Ranefer and adjacent small houses (Grid 12)		
	<i>Provenance</i>	T6 (10952)		
	<i>Measurements</i>	l: 120.0; w: 76.0		
	<i>Material</i>	Leather		
	<i>Colour</i>	Brown beige		
	<i>Remarks</i>	Not illustrated. Not numbered separately. See also Veldmeijer (2010b).		
	TA AM 012. From above and aside respectively.			
	<i>Specialist No.</i>	TA AM 014	Cat. No. 155	
	<i>Year</i>	1994		
	<i>Registration No.</i>	25090		
	<i>Context</i>	Central City		
	<i>Provenance</i>	8223		
	<i>Measurements</i>	20.8 x 25.4 - 29.3 x 51.4; t: 1.7		

Material Leather
Colour One surface is beige brown; the other surface is greyish brown.
Remarks Not illustrated. Fragments not numbered separately.

Description

Three featureless scraps.

Cat. No. **156**
Specialist No. TA AM 015
Year 1981
Registration No. 25143
Context North City
Provenance 1124 area 2
Measurements (a) l: 100.0; w: 26.1; t: 2.2;
 (b) l: 115.0; w: 26.0; t: 2.2
Material Leather
Colour One surface is beige to white. Red spots on the inner side.
Remarks Not illustrated. Fragments not numbered separately.

Description

Two featureless, rectangular fragments, which do not seem to have been connected.

Cat. No. **157**
Specialist No. TA AM 016
Year 2000
Registration No. 25175
Context Central City
Provenance AG20 9876
Measurements 31.8 x 35.0; t: 1.2
Material Leather
Colour Brown, greyish brown
Description Small, thin L-shaped fragment with elliptical stitch holes on three edges. These are torn on one edge.



TA AM 016. Obverse and reverse. Scale bar is 30 mm.

Cat. No. **158**
Specialist No. TA AM 017
Year 1977
Registration No. 32692
Context Central City

Provenance R32 9172
Measurements l: 53.0; w: 22.0; t: 4.1
Material Leather
Colour Brown, greyish brown

Description

Rectangular, curved fragment. One long edge is original, the other is torn. Stitching of sZ₂(?) flax(?) string is visible on both short edges. Note that stitching continues through the thickness of the torn off long edge.



TA AM 017. Obverse and reverse. Scale bar is 30 mm.

Specialist No. TA AM 018
Year 2000
Registration No. 33282
Context Central City
Provenance AG20 9876
Measurements l: 100; w: 63
Material Leather
Colour Greyish brown

Description

Rounded tapering object, which consists of two layers that are secured with leather thong running stitches at the curved edge. The seam includes a passepoil. The straight edge is open. Remnants of a third layer are visible, but the layer is largely lost.

Specialist No. TA AM 021
Year 1994
Registration No. 26058
Context Main City
Provenance 8993 M80
Measurements 21.7 x 24.0 - 36.8 x 71.5; t: 2.4
Material Leather
Colour Dark brown, beige, red
Remarks Not numbered separately.

Description

Three fragments. The largest is of original width (36.8 mm). Another fragment seems to have been cut off. Note the beige cross-section and the artificial red spots.

Cat. No. **159**

Cat. No. **160**



TA AM 018. Obverse and reverse.

Cat. No.
161

Specialist No. TA AM 022
Year 1982
Registration No. 16042
Context Workmen's Village
Provenance 79 M10
Measurements l: 57.8; w: 18.3; t: 2.8
Material Leather
Colour Greyish brown, beige
Description
Rectangular fragment. One short edge is broken off but the other edge is cut off. Clearly worn due to use.



TA AM 022.
Obverse and
reverse.

Cat. No.
162

Specialist No. TA AM 023
Year 1982
Registration No. 16042
Context Workmen's Village
Provenance 83 M10
Measurements 12.5 x 21.1 - 50.5 x 77.7; t: 1.2
Material Leather
Colour Greyish brown, beige



TA AM 021. Obverse and reverse.



TA AM 023.

Remarks Not numbered separately.

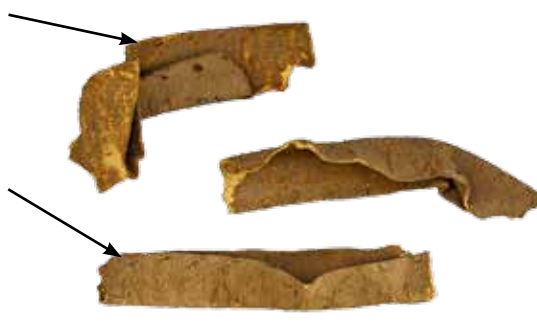
Description

Several scraps of featureless leather. Goatskin, judging by the hairs, which are still *in situ* in some spots.



TA AM 024. Some examples.

Cat. No.	Specialist No.	TA AM 024
163	Year	1982
	Registration No.	16042
	Context	Workmen's Village
	Provenance	75 M10
	Measurements	18.9 x 26.6 - 39.3 x 52.3; t: 1.3
	Material	Leather
	Colour	Brown, greyish brown
	Remarks	Not numbered separately.
	<i>Description</i>	Several scraps of featureless leather.



TA AM 027a-c.

Cat. No.	Specialist No.	TA AM 027a-c
164	Year	1981
	Registration No.	16017
	Context	Workmen's Village
	Provenance	N15 3
	Measurements	11.2 x 64.9 - 9.0 x 68.0; t: 1.0
	Material	Leather
	Colour	Greyish, beige brown
	Remarks	Not numbered separately.
	<i>Description</i>	Three lengthwise folded strips with stitch holes (slits) at the edges (arrows). The stitch holes are orientated at about a 45-degree angle in one fragment. In two other fragments, however, the holes are orientated more horizontally (<i>cf.</i> TA AM 114, Cat. No. 226).

Specialist No.	TA AM 029
Year	1981
Registration No.	16017
Context	Workmen's Village
Provenance	N15 3
Measurements	50.3 x 59.5; t: 0.8
Material	Leather
Colour	Dark brown
Remarks	Not illustrated.
<i>Description</i>	Featureless scrap.

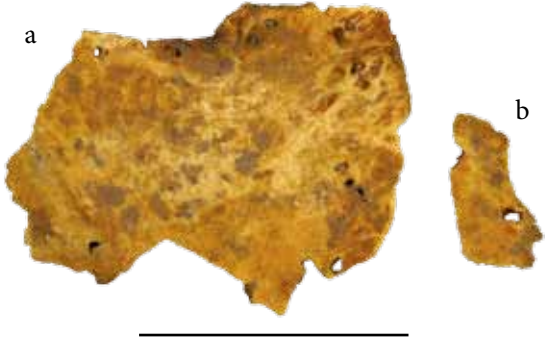
Cat. No.
166

Cat. No.	Specialist No.	TA AM 028
165	Year	1981
	Registration No.	16017
	Context	Workmen's Village
	Provenance	N15 3
	Measurements	22.0 x 26.9 - 9.6 x 143.0; t: 0.8
	Material	Leather
	Colour	Brown, dark brown
	Remarks	Not illustrated. Fragments not numbered separately.
	<i>Description</i>	Four featureless scraps.

Specialist No.	TA AM 030
Year	1981
Registration No.	16019
Context	Workmen's Village
Provenance	K19 1
Measurements	l: 66.0; t: 2.6; 10.2 - 17.6
Material	Leather
Colour	Greyish brown
Remarks	Not illustrated.

Cat. No.
167

Description
Strip, which is folded lengthwise immediately after the torn off end.

Cat. No. 168	<p><i>Specialist No.</i> TA AM 031 <i>Year</i> 1981 <i>Registration No.</i> 16020 <i>Context</i> Workmen's Village <i>Provenance</i> O15 7 <i>Measurements</i> 10.6 x 19.3 - 39.3 x 32.9; t: 2.9 <i>Material</i> Rawhide <i>Colour</i> Brown, yellowish brown <i>Remarks</i> Not illustrated. Fragments not numbered separately. <i>Description</i> Three featureless scraps.</p>	<p><i>Specialist No.</i> TA AM 035a, b <i>Year</i> 1982 <i>Registration No.</i> 25151 <i>Context</i> Workmen's Village <i>Provenance</i> M12 127 <i>Measurements</i> (a) 58.8 x 74.4; (b) 5.8 x 27.7; t: 1.8. <i>Material</i> Leather <i>Colour</i> Beige brown <i>Description</i> Irregularly-shaped fragments with leather thong stitches in pairs along the edge. Note that the original edge is (partly) preserved at two sides.</p>	Cat. No. 172
Cat. No. 169	<p><i>Specialist No.</i> TA AM 032 <i>Year</i> 1981 <i>Registration No.</i> 16022 <i>Context</i> Workmen's Village <i>Provenance</i> K18 5 <i>Measurements</i> 24.2 x 73.7; t: 2.0 <i>Material</i> Leather <i>Colour</i> Light brown <i>Remarks</i> Not illustrated. <i>Description</i> Scrap with one small (stitch?) hole.</p>	 <p>TA AM 035a & b.</p>	
Cat. No. 170	<p><i>Specialist No.</i> TA AM 033 <i>Year</i> 1981 <i>Registration No.</i> 16017 <i>Context</i> Workmen's Village <i>Provenance</i> N15 3 <i>Measurements</i> 19.6 x 36.4 - 41.6 x 119.8; t: 1.5 <i>Material</i> Leather <i>Colour</i> Light brown, brown <i>Remarks</i> Not illustrated/numbered separately. <i>Description</i> Four featureless scraps, one of which is folded.</p>	<p><i>Specialist No.</i> TA AM 036 <i>Year</i> 1979 <i>Registration No.</i> 16014 <i>Context</i> Workmen's Village <i>Provenance</i> LW5 Main Street Section <i>Measurements</i> 38.9 x 41.4; t: 2.0 <i>Material</i> Leather <i>Colour</i> Greyish brown, beige cross-section <i>Remarks</i> Not illustrated. <i>Description</i> Irregularly-shaped, featureless scrap.</p>	Cat. No. 173
Cat. No. 171	<p><i>Specialist No.</i> TA AM 034 <i>Year</i> 1981 <i>Registration No.</i> 16017 <i>Context</i> Workmen's Village <i>Provenance</i> N15 3 <i>Measurements</i> 18.7 x 23.2; t: 3.8 (folded) <i>Material</i> Leather <i>Colour</i> Greyish brown <i>Remarks</i> Not illustrated. <i>Description</i> Featureless scrap, folded.</p>	<p><i>Specialist No.</i> TA AM 037 <i>Year</i> 1979 <i>Registration No.</i> 16015 <i>Context</i> Workmen's Village <i>Provenance</i> LW6 <i>Measurements</i> 33.6 x 65.4; t: 1.1 <i>Material</i> Leather <i>Colour</i> Dark brown <i>Remarks</i> Not illustrated. <i>Description</i> Roughly rectangular, featureless scrap.</p>	Cat. No. 174

Cat. No.	Specialist No.	TA AM 038
175	Year	1979
	Registration No.	16014
	Context	Workmen's Village
	Provenance	LW5 Main Street Section
	Measurements	25.8 x 34.9; t: 3.3
	Material	Leather
	Colour	Greyish brown

Description

Roughly rectangular scrap, with four, evenly-spaced stitch holes in a row. Remnants of leather running stitches *in situ* in two holes. A cut is visible on one edge, but it does not go through the entire thickness.



TA AM 038. Obverse and reverse.

Cat. No.	Specialist No.	TA AM 040
176	Year	1981
	Registration No.	16022
	Context	Workmen's Village
	Provenance	L18 1
	Measurements	37.0 x 34.0; t: 3.6
	Material	Leather(?)
	Colour	Light greyish brown
	Remarks	Not illustrated.

Description

Roughly square, featureless fragment.



TA AM 041. Obverse and reverse.

Cat. No.	Specialist No.	TA AM 041
177	Year	1981
	Registration No.	16022
	Context	Workmen's Village
	Provenance	L18 1
	Measurements	w one end: 32.0; w other end: 17.6 (shortly before pointed end); l: 82.4; t: 1.9
	Material	Leather
	Colour	Brown

Description

Tapering fragment of which the long edges are slightly convex. One side is covered with a textile fabric that is secured on one edge with flax(?) thread. A short row of tiny stitches is situated between the edge and a row of larger stitch holes. The cloth is much worn.

Provenance	S19 291
Measurements	31.9 x 48.4; t total: 7.1
Material	Leather, flax(?)
Colour	Dark grey, brown

Description

Coarse textile fabric that is sandwiched between leather. Only one side is preserved, showing a semi-circular patch of leather. It is secured with flax(?) thread along the curved edge in closely-spaced running stitching(?) The stitch holes along the straight edge are empty.



TA AM 042. Obverse and reverse.

Cat. No.	Specialist No.	TA AM 042
178	Year	1983
	Registration No.	16016
	Context	Workmen's Village

Cat. No. 179	Specialist No.	TA AM 044
	Year	1981
	Registration No.	?
	Context	Workmen's Village
	Provenance	N15 3
	Measurements	w: 45.0; l: 56.8; t total: 2.6
	Material	Leather
	Colour	Brown beige brown
	Description	Fragment with a patch that is attached with leather thong running stitches.



TA AM 044. Obverse and reverse.

Cat. No. 180	Specialist No.	TA AM 045
	Year	1981
	Registration No.	?
	Context	Workmen's Village
	Provenance	N15 3
	Measurements	4.9 x 19.8 - 7.7 x 28.8; t: 1.0
	Material	Leather
	Colour	One surface dark brown, other surface beige
	Remarks	Not illustrated. Fragments not numbered separately.
	Description	Two small featureless scraps. S-spun string associated(?)



TA AM 046. Obverse and reverse. Scale bar is 30 mm.

Cat. No. 181	Specialist No.	TA AM 046
	Year	1985
	Registration No.	21768
	Context	Workmen's Village
	Provenance	G58
	Measurements	14.4 x 37.4; t: 3.6
	Material	Leather
	Colour	Beige
	Description	Oval, rather thick fragment. The long edges run convex towards the tapering end. Likely, the other end was pointed as well, but seems to have broken off. Numerous leather thong stitches visible in various orientations.



TA AM 047. Scale bar is 30 mm.

Material	Leather
Colour	Dark brown, beige
Description	Lengthwise folded strip, which is tied into an S-overhand knot.

Cat. No. 182	Specialist No.	TA AM 047
	Year	1980
	Registration No.	14471
	Context	Woolley's dump
	Provenance	-
	Measurements	17.6 x 9.8 x 21.8

Specialist No.	TA AM 050
Year	1980
Registration No.	?
Context	Workmen's Village
Provenance	N16 2
Measurements	10.2 x 56.0; t: 1.0

Cat. No. 183

Material Leather
Colour Brown
Remarks Not illustrated.
Description
 Rectangular, featureless scrap.

<hr/> Cat. No. 184 <hr/>	<i>Specialist No.</i> TA AM 051 <i>Year</i> 1980 <i>Registration No.</i> ? <i>Context</i> Workmen's Village <i>Provenance</i> L17 dump <i>Measurements</i> 28.8 x 35.4 - 9.4 x 110; t: 1.0 <i>Material</i> Leather <i>Colour</i> Brown, light brown, beige <i>Remarks</i> Not illustrated. Fragments not numbered separately. <i>Description</i> Two featureless scraps.
------------------------------------	--

<hr/> Cat. No. 185 <hr/>	<i>Specialist No.</i> TA AM 052 <i>Year</i> 1980 <i>Registration No.</i> ? <i>Context</i> Workmen's Village <i>Provenance</i> N16 5 <i>Measurements</i> 12.6 x 19.4 - 16.4 x 27.9; t: 1.0 <i>Material</i> Leather <i>Colour</i> Brown <i>Remarks</i> Not illustrated. Fragments not numbered separately. <i>Description</i> Two featureless scraps.
------------------------------------	---

<hr/> Cat. No. 186 <hr/>	<i>Specialist No.</i> TA AM 054 <i>Year</i> 1980 <i>Registration No.</i> ? <i>Context</i> Workmen's Village <i>Provenance</i> N17 17 area 6 <i>Measurements</i> 20.0 x 35.9; t total: 11.0 <i>Material</i> Leather <i>Colour</i> Brown <i>Remarks</i> Not illustrated. <i>Description</i> Crumpled, featureless scrap.
------------------------------------	--

<hr/> Cat. No. 187 <hr/>	<i>Specialist No.</i> TA AM 056 <i>Year</i> 1980 <i>Registration No.</i> ? <i>Context</i> Workmen's Village
------------------------------------	--

Provenance L17 8
Measurements 22.0 x 26.0; t: 5.2
Material Leather
Colour Greyish brown
Remarks Not illustrated.
Description

Roughly square fragment with two rounded edges along which the fragment is folded.

<i>Specialist No.</i> TA AM 057 <i>Year</i> 1980 <i>Registration No.</i> ? <i>Context</i> Workmen's Village <i>Provenance</i> N16 4 <i>Measurements</i> 9.0 x 30.0 - 12.0 x 36.2; t: 1.5 <i>Material</i> Leather <i>Colour</i> Brown <i>Remarks</i> Not illustrated. Fragments not numbered separately.	<hr/> Cat. No. 188 <hr/>
---	------------------------------------

Description
 Four featureless scraps.

<i>Specialist No.</i> TA AM 058 <i>Year</i> 1980 <i>Registration No.</i> ? <i>Context</i> Workmen's Village <i>Provenance</i> M17 7 <i>Measurements</i> 7.7 x 17.1 - 32.0 x 66.9; t: 3.4 <i>Material</i> Leather <i>Colour</i> Greyish brown <i>Remarks</i> Not illustrated. Fragments not numbered separately.	<hr/> Cat. No. 189 <hr/>
---	------------------------------------

Description
 One big and three small featureless scraps. The big one is folded. All heavily encrusted with dirt.

<i>Specialist No.</i> TA AM 059 <i>Year</i> 1980 <i>Registration No.</i> ? <i>Context</i> Workmen's Village <i>Provenance</i> M18 3 <i>Measurements</i> 11.2 x 15.6 x 32.2; t: 0.7 <i>Material</i> Leather <i>Colour</i> Greyish brown <i>Remarks</i> Not illustrated.	<hr/> Cat. No. 190 <hr/>
--	------------------------------------

Description
 Roughly rectangular, heavily crumpled but featureless fragment.

Cat. No.	Specialist No.	TA AM 061
191	Year	1980
	Registration No.	?
	Context	Workmen's Village
	Provenance	L17 4
	Measurements	7.5 x 8.7 - 14.0 x 30.8; t: 1.3
	Material	Leather
	Colour	Brown
	Remarks	Not illustrated. Fragments not numbered separately.

Description

Four featureless scraps.

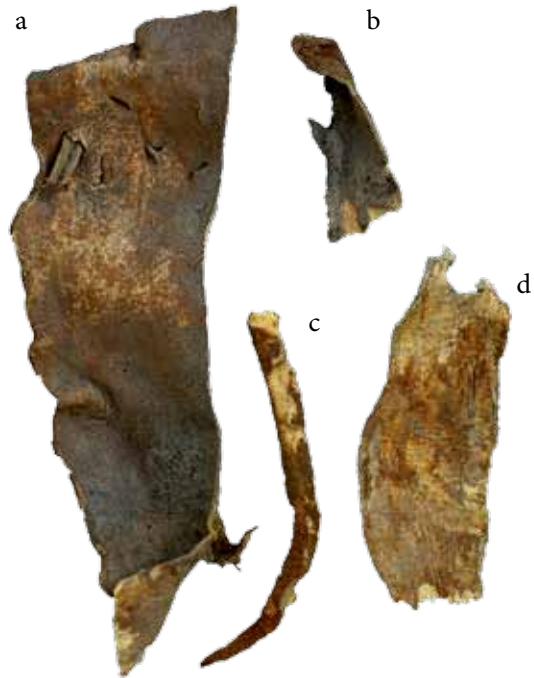


TA AM 063. Some examples.

Cat. No.	Specialist No.	TA AM 062
192	Year	1980
	Registration No.	?
	Context	Workmen's Village
	Provenance	M17 3
	Measurements	12.0 x 12.0 - 14.6 x 19.3; t: 4.8
	Material	Rawhide
	Colour	Reddish brown
	Remarks	Not illustrated. Fragments not numbered separately.

Description

Three featureless scraps.



Cat. No.	Specialist No.	TA AM 063
193	Year	1980
	Registration No.	?
	Context	Workmen's Village
	Provenance	N17 8
	Measurements	20.3 x 26.1 - 115.0 x 210.0; t: 4.8
	Material	Rawhide
	Colour	Greyish brown, beige

Description

15 bigger and numerous smaller fragments of thick rawhide. Featureless.

TA AM 066a-d.

Colour

Light brown, white

Description

TA AM 066a is roughly rectangular but tapers towards one end. Some stitch holes with one large leather thong stitch *in situ*. Other fragments are featureless.

Cat. No.	Specialist No.	TA AM 066a-d
194	Year	1985
	Registration No.	11538
	Context	Workmen's Village
	Provenance	GS8 1491 S
	Measurements	(a) 29.2 x 99.3; t: 1.0; (b) 12.4 x 39.6; (c) 3.2 x 3.7 x 60.0; (d) 18.7 x 54.0
	Material	Leather

Specialist No.	TA AM 067a-d
Year	1985
Registration No.	11538
Context	Workmen's Village
Provenance	GS8 1426
Measurements	(a) 83.7 x 70.5; t: 0.9; (b) 12.6 x 130.0;

Cat. No.
195

(c) 28.2 x 29.5;

(d) 11.0 x 12.7

Material Leather*Colour* Light brown*Description*

- (a) Two extremities, which are cut at right angles.
A leather thong stitch is situated at each tip.
- (b) Strip, tapering at both ends.
- (c) Crumpled piece, with two cuts at one end.
- (d) Scrap without features.



Cat. No.	Specialist No.	TA AM 068
196	Year	1985
	Registration No.	11541
	Context	Workmen's Village
	Provenance	GS8 1431
	Measurements	18.0 x 65.0 - 25.5 x 160.0; t: 1.0
	Material	Leather
	Colour	Dark, beige
	Remarks	Not illustrated. Fragments not numbered separately.

Description

Eight featureless scraps and one triangular piece with several stitch holes, placed seemingly randomly. Different types of leathers, judging from the dark brown to beige colour.

TA AM 067a-d.



TA AM 071. Various views.

Cat. No.	Specialist No.	TA AM 070
197	Year	1985
	Registration No.	11543
	Context	Workmen's Village
	Provenance	GS8 1502N
	Measurements	17.6 x 41.4 - 28.4 x 45.0; t: 0.7
	Material	Leather
	Colour	Dark and light brown
	Remarks	Not illustrated. Fragments not numbered separately.

Description

Two featureless scraps.

Description

Core of vegetable fibre, possibly string, around which a strip of leather is folded. Both ends have been punched, resulting in fairly large (d: 2.5-3.0) holes. Cf. TA AM 098 (Cat. No. 215).

Cat. No.	Specialist No.	TA AM 071
198	Year	1985
	Registration No.	?
	Context	Workmen's Village
	Provenance	GS8 1426
	Measurements	11.0 x 7.7 x 69.8; t: 0.8
	Material	Leather, vegetable fibre
	Colour	Brown

Specialist No. TA AM 072a, b*Year* 1985*Registration No.* 11777*Context* Workmen's Village*Provenance* GS8 1426

Measurements (a) 59.0 x 66.7;
(b) 30.8 x 66.2; t: 3.3

Material Leather*Colour* Yellowish brown, beige*Description*

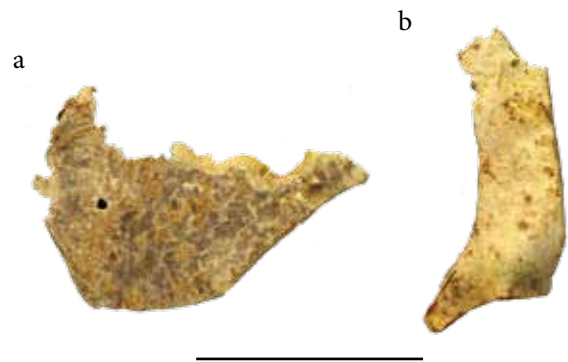
- (a) Tapers at one side, ending slightly pointed. Looks comparable to a sandal's heel.
- (b) Roughly rectangular fragment with a small protrusion at the base. Note the small cut at the start of this protrusion.

*Cat. No.***199**

Cat. No.	Specialist No.	TA AM 074a-d
200	Year	1985
	Registration No.	?
	Context	Workmen's Village
	Provenance	GS8 1490N
	Measurements	(a) 11.8 x 78.3; t: 3.3; (b) 38.7 x 66.2 (folded); t: 0.8; (c) 15.2 x 7.7; (d) 37.6 x 62.2
	Material	Leather
	Colour	Light brown, beige

Description

- (a) At both ends tapering fragment. One intact edge. Might be part of a sandal's sole.
 (b) Folded fragment with one small protrusion in which a slit has been cut lengthwise (arrow).
 (c), (d) Featureless scraps.



TA AM 072a, b. Overview.



TA AM 074a-d. Overview.

Cat. No.	Specialist No.	TA AM 076
201	Year	1985
	Registration No.	11625
	Context	Workmen's Village
	Provenance	O26 1383
	Measurements	12.6 x 33.8; t: 0.5
	Material	Leather
	Colour	Brown
	Remarks	Not illustrated. Fragments not numbered separately.

Description

Two featureless scraps.

Cat. No.	Specialist No.	TA AM 077
202	Year	1985
	Registration No.	11545
	Context	Workmen's Village
	Provenance	GS8 1431 N
	Measurements	30.0 x 50.8; t: 0.7
	Material	Leather
	Colour	Brown beige
	Remarks	Not illustrated.

Description

Irregularly-shaped scrap without features.

Measurements 7.7 x 15.0 - 33.0 x 40.9; t: 1.0

Material Leather

Colour Light brown, greyish brown

Remarks Not illustrated. Fragments not numbered separately.

Description

Featureless scraps.

Cat. No.	Specialist No.	TA AM 082
203	Year	1985
	Registration No.	11544
	Context	Workmen's Village
	Provenance	GS8 1500 S

Cat. No.	Specialist No.	TA AM 083
204	Year	1985
	Registration No.	11542
	Context	Workmen's Village
	Provenance	GS8 1491N
	Measurements	5.1 x 37.3; t: 1.5
	Material	Leather
	Colour	Brown
	Remarks	Fragments not numbered separately.

Description

Several scraps. Within one is a remnant of leather thong stitch. Smallest, tapering fragment might be a fragment of a sandal's sole.



TA AM 083.

Measurements 7.7 x 16.4 (only largest fragment has been measured)

Material Leather

Colour Greyish brown

Remarks Not illustrated. Fragments not numbered separately.

Description

Two narrow (approximately 5 mm) strips accidentally twisted Z-wise.

Cat. No.	Specialist No.	TA AM 084
205	Year	1985
	Registration No.	11651
	Context	North City
	Provenance	L18 7
	Measurements	8.7 x 16.7 x 4.2
	Material	Leather
	Colour	Brown
	Remarks	Not illustrated.

Description

Small featureless scrap.

Specialist No. TA AM 089

Year 1985

Registration No. 12133

Context Workmen's Village

Provenance GS8 1576

Measurements 18.0 x 16.3 - 38.4 x 51.4; t: 1.1

Material Leather

Colour Brown

Remarks Not illustrated. Fragments not numbered separately.

Description

Three featureless scraps.

Cat. No.	Specialist No.	TA AM 085
206	Year	1985
	Registration No.	?
	Context	Workmen's Village
	Provenance	GS8 1574
	Measurements	13.4 x 21.7 - 34.0 x 62.7 (folded); t: 0.8
	Material	Leather
	Colour	Brown
	Remarks	Not illustrated. Fragments not numbered separately.

Description

Small featureless scraps. Biggest fragment has a pair of slits (not stitch holes?).

Specialist No. TA AM 090

Year 1985

Registration No. ?

Context Workmen's Village

Provenance GS8 1584

Measurements 9.8 x 24.6 - 24.7 x 33.3; t: 1.1

Material Leather

Colour Brown

Remarks Not illustrated. Fragments not numbered separately.

Description

Two featureless scraps.

Cat. No.	Specialist No.	TA AM 086
207	Year	1985
	Registration No.	?
	Context	Workmen's Village
	Provenance	O26 1373

Cat. No.
208

Cat. No.
209

Cat. No.	Specialist No.	TA AM 091
210	Year	1985
	Registration No.	11648
	Context	Workmen's Village
	Provenance	P26 1716
	Measurements	20.7 x 51.2 - 27.1 x 49.4; t: 2.7
	Material	Leather
	Colour	Reddish brown
	Description	Two featureless scraps with hairs still <i>in situ</i> on one surface.



Cat. No.	Specialist No.	TA AM 094
211	Year	1985
	Registration No.	6235
	Context	Workmen's Village
	Provenance	Q26 1819
	Measurements	22.3 x 18.2 - 40.1 x 89.8; t: 1.5
	Material	Leather
	Colour	Light brown, beige
	Remarks	Not illustrated. Fragments not numbered separately.
	Description	Numerous featureless scraps, some of considerable size (some folded).

TA AM 091.



TA AM 096. Obverse and reverse.



Cat. No.	Specialist No.	TA AM 095
212	Year	1985
	Registration No.	11551
	Context	Workmen's Village
	Provenance	O26 1383
	Measurements	11.0 x 17.3 - 20.1 x 25.6; t (largest fragment): 8.3
	Material	Leather
	Colour	Light brown, beige
	Remarks	Not illustrated. Fragments not numbered separately.
	Description	Two featureless scraps.

TA AM 097. Overview.

Description
Roughly triangular fragment, the point of which is missing. One edge shows remnants of leather thong stitches.

Cat. No.	Specialist No.	TA AM 096
213	Year	1981
	Registration No.	12471
	Context	Workmen's Village
	Provenance	L18 7
	Measurements	19.9 x 47.3; t: 3.3
	Material	Leather
	Colour	Light brown, beige

Specialist No.	TA AM 097
Year	1980
Registration No.	12011
Context	Workmen's Village
Provenance	N16 2
Measurements	8.7 x 47.0; t: 3.4
Material	Leather
Colour	Light brown, beige

Description
Narrow but rather thick strip. It seems that the tapering end was knotted but if so, the construction has lost its coherency.

Cat. No.
214

Cat. No.	Specialist No.	TA AM 098
215	Year	1980
	Registration No.	12012
	Context	Workmen's Village
	Provenance	N16 1
	Measurements	6.5 x 9.8 x 41.5; t: 1.1
	Material	Leather
	Colour	Greyish light brown
	Description	Lengthwise folded strip with a hole in one end. The other end might have had a comparable hole as well: the edge shows signs that a small part has broken off. Cf. TA AM 071 (Cat. No. 198).



TA AM 098. Obverse and reverse. Scale bar is 30 mm.

Cat. No.	Specialist No.	TA AM 100
216	Year	1981
	Registration No.	9361
	Context	Workmen's Village
	Provenance	O16 4
	Measurements	30.3 x 20.8 x 76.0; w strip: 19.2; t strip: 3.7
	Material	Rawhide
	Colour	Reddish, greyish brown
	Description	Z-overhand knot in wide, thick rawhide strip.



TA AM 100. Obverse and reverse. Scale bar is 30 mm.

Cat. No.	Specialist No.	TA AM 101
217	Year	1981
	Registration No.	12472
	Context	Workmen's Village
	Provenance	M19 7
	Measurements	29.3 x 18.1 x 25.5; w strip: 17.2; t: 2.3
	Material	Leather
	Colour	Greyish brown, beige
	Remarks	This specialist number includes several small scraps, which are not described/illustrated.

Description

Z-overhand knot in a strip of leather. Note the hairs *in situ*.



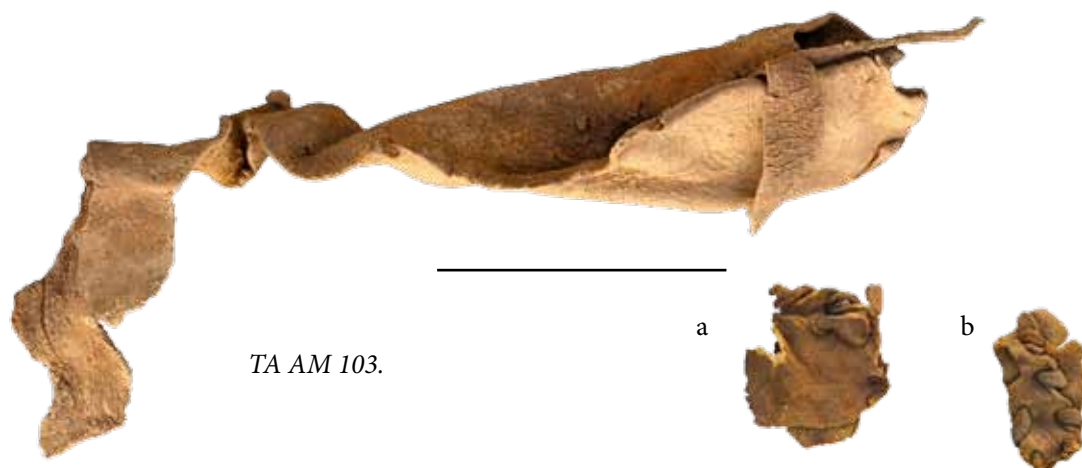
TA AM 101.

Cat. No.	Specialist No.	TA AM 103
218	Year	1985
	Registration No.	?
	Context	Workmen's Village
	Provenance	P26 1820
	Measurements	50.5 x 28.4 x 180.0; t: 1.7

Material Leather
Colour Greyish brown

Description

Folded sheet of leather, one end of which terminates in a narrow (19.2 mm) strip-like extension. At the other end, a tapering strip on one end narrows down to small dimensions on the other end too (w one end 12.1 mm but 2.3 mm at other) and it is pulled through two slits.



TA AM 103.

Cat. No.	Specialist No.	TA AM 104a, b
219	Year	1985
	Registration No.	6285
	Context	Workmen's Village
	Provenance	P26 1820
	Measurements	(a) 27.9 x 24.8; (b) 15.5 x 27.6; t: 5.9
	Material	Leather
	Colour	Brown

Description

- (a) Two fragments, which are secured with leather thong whip stitches. Rather messy piece.
- (b) Seam of two fragments of leather, secured with two rows in whip stitch with leather thongs. Note that the orientation of the whip stitching is mirrored.

TA AM 104a & b.



TA AM 105. Obverse and reverse.



TA AM 106.

Cat. No.	Specialist No.	TA AM 105
220	Year	1981
	Registration No.	3960
	Context	Workmen's Village
	Provenance	L18 7
	Measurements	37.9 x 45.6; t: 5.3
	Material	Leather
	Colour	Greyish, light brown
	Remarks	Featureless scraps not illustrated.

Description

Worn through surface, which is repaired with a circular patch, secured with leather thong whip stitches. The entry includes two small, featureless scraps.

Cat. No.	Specialist No.	TA AM 106
221	Year	1980
	Registration No.	12557
	Context	Workmen's Village

Provenance N16 2
Measurements Isolated yarns: 5.3 x 50.0; more complete skeins (approximate, overall dimensions): 51.0 x 96.0
Material Leather
Colour Dark brown
Remarks Fragile.
Description
 Spun leather strips (S-spun), made into Z₃-strings. One of the fragments is a Z-overhand knot. The entry includes two small fragments of rawhide strap (w: 9.1-12.8).



Cat. No. 222	<i>Specialist No.</i> TA AM 108 <i>Year</i> 1982 <i>Registration No.</i> 19275 <i>Context</i> Workmen's Village <i>Provenance</i> M10 83 <i>Measurements</i> 18.7 x 180.0; t: 1.2 <i>Material</i> Leather <i>Colour</i> Beige, light brown <i>Description</i> Strip of leather, tied at one end into a 'button knot'. The three fragments fit together.
------------------------	---

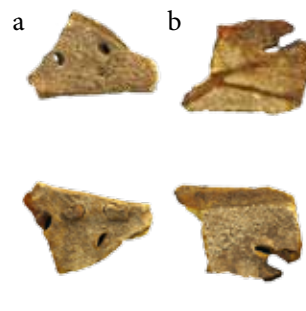
TA AM 108. Obverse and reverse. Right: Reconstruction drawing. Not to scale.

Cat. No. 223	<i>Specialist No.</i> TA AM 109 <i>Year</i> 1981 <i>Registration No.</i> ? <i>Context</i> Workmen's Village <i>Provenance</i> N15 3 <i>Measurements</i> 50.7 x 55.7; t: 3.3 <i>Material</i> Leather <i>Colour</i> Beige, light brown <i>Remarks</i> Not illustrated. <i>Description</i> Roughly rectangular fragment with large stitch holes along the perimeter, some of which still contain remnants of leather thong stitches.
------------------------	---

Description
 Three scraps, the smallest of which fits together with the next-to-smallest one.

<i>Specialist No.</i> TA AM 113a, b <i>Year</i> 1981 <i>Registration No.</i> 16018 <i>Context</i> Workmen's Village <i>Provenance</i> L19, pit N of enclosure wall <i>Measurements</i> (a) 15.5 x 18.4; t: 3.8; (b) 15.7 x 22.0; t: 2.7 <i>Material</i> Leather <i>Colour</i> Beige brown	Cat. No. 225
---	------------------------

Cat. No. 224	<i>Specialist No.</i> TA AM 110 <i>Year</i> 1981 <i>Registration No.</i> 16024 <i>Context</i> Workmen's Village <i>Provenance</i> L18 7 <i>Measurements</i> 5.3 x 28.2 - 31.5 x 145.0; t: 1.9 <i>Material</i> Leather <i>Colour</i> Brown <i>Remarks</i> Not illustrated. Fragments not numbered separately.
------------------------	--



TA AM 113a & b. Obverse and reverse.

Description

- (a) Triangular fragment with two pairs of stitch holes parallel to each other. The outer series contains a leather thong running stitch.
- (b) Roughly rectangular fragment with incised(?) lines on one surface, running diagonally from one corner to the other. One corner seems to have a stitch hole.



TA AM 114. Obverse and reverse.

Cat. No.	Specialist No.	TA AM 114
226	Year	1981
	Registration No.	16017
	Context	Workmen's Village
	Provenance	N15 3
	Measurements	11.5 x 50.5; t: 0.7
	Material	Leather
	Colour	Greyish brown

Description

Strip of lengthwise folded leather, the edges of which show stitch holes at an estimated 45-degree angle (arrow; cf. TA AM 027, Cat. No. 164).



TA AM 115.

Cat. No.	Specialist No.	TA AM 115
227	Year	1981
	Registration No.	16017
	Context	Workmen's Village
	Provenance	N15 3
	Measurements	26.0 x 175.0; t: 1.2
	Material	Leather
	Colour	Brown

Description

Irregularly-shaped fragment with large stitch holes in a row lengthwise down the centre.

Specialist No.	TA AM 161	Cat. No.
Year	1985	229
Registration No.	6205 [40B/85]	
Context	Workmen's Village	
Provenance	P26 1820	
Measurements	16.2 x 19.4 - 17.5 x 26.1	
Material	Leather	
Colour	Greyish light brown	
Remarks	Not illustrated. Fragments not numbered separately.	

Description

Numerous small fragments without features.

Cat. No.	Specialist No.	TA AM 152
228	Year	1993
	Registration No.	18099
	Context	Central City
	Provenance	#3
	Measurements	18.7 x 19.6; t: 2.1
	Material	Leather
	Colour	Brown with a faint greenish tint
	Remarks	Not illustrated.

Description

Featureless scrap.

Specialist No.	TA AM 162a-f	Cat. No.
Year	1985	230
Registration No.	6205 [40B/85]	
Context	Workmen's Village	
Provenance	P26 1820	
Measurements	(a) 61.3 x 44.9; t: 13.0; (b) 51.0 x 71.5; t: 0.9; (c) 24.5 x 36.9; (d) 12.7 x 27.4; (e) 17.0 x 21.3; (f) 19.4 x 24.9	
Material	Leather	
Colour	Light brown, brown	
Remarks	TA AM 162d-f not illustrated.	



TA AM 162a-c. Obverse and reverse. Scale bar is 30 mm. Photography by B.J. Kemp/A.K. Stevens.

Description

- (a) Triangular fragment of two layers, which is folded in the middle. The two layers are secured with leather thong whip stitches on the straight edge; the curved edge is secured with a whip stitch too but the seam is turned inside out.
- (b) Roughly oval, single-layer-fragment with whip stitches on the edges (intact for a quarter; the rest shows only the stitch holes).
- (c) Fragment with a strip that is secured by means of whip stitching on one edge and running stitches on the other.
- (d) - (f) Small featureless fragments.

Provenance

P26 1525

Measurements

Not measured

Material

Leather

Colour

Brown

Remarks

Not described/illustrated.

Description

Numerous small, featureless fragments, with an isolated stitch occasionally.

Specialist No.

TA AM 164a-i

Year

1985

Registration No.

6206 [40A/85]

Context

Workmen's Village

Provenance

P26 1525

Measurements

(a) 47.1 x 45.0; t: 13.1;

(b) 25.6 x 41.0; t: 2.3;

(c) 46.0 x 77.2;

(d) 37.6 x 146.0 (measured as strip);

(e) 22.2 x 41.0;

Cat. No.

232

Cat. No.
231

Specialist No.

TA AM 163

Year

1985

Registration No.

6206 [40A/85]

Context

Workmen's Village

(f) 15.1 x 20.4;
 (g) 31.5 x 60.3;
 (h) 16.3 x 60.2 - 20.7 x 62.2;
 (i) 11.7 x 38.7 - 40.8 x 69.6

Material Leather
Colour Brown
Remarks (b)-(i) Not illustrated.

Description

Many fragments still have hair *in situ*, some black and others beige, yellow brown.

(a) Most important object of the entry and comparable to TA AM 163a (Cat. No. 231): triangular with two straight edges and one curved. Originally, folded, semi-circular fragment. However, because the one straight edge shows four layers, possibly the fragment is made of a circular piece of leather, which is folded twice, resulting in four layers in total. On one edge, these are whip stitched two by two.

(b) Roughly rectangular fragment with two whip stitches on one edge. The fragment consists of two very thin layers.
 (c) Folded, roughly rectangular fragment with whip stitching in a circle.
 (d) Folded, rectangular fragment with stitch holes and the impressions of whip stitching on one end.
 (e) Roughly rectangular fragment with two big whip stitches on one edge.
 (f) Small, roughly square fragment with remnants of several stitches.
 (g) Irregularly-shaped fragment with one folded edge.
 (h) Three fragments of strip which are much thicker and seem to be the strap complex of a sandal. Not sure if it belongs to the other fragments.
 (i) Nine fragments of thin leather.



TA AM 164a. Obverse and reverse.

PART II: CATALOGUE

B. EGYPT EXPLORATION SOCIETY / AMARNA TRUST
1977-PRESENT
CONTINUED: KOM EL-NANA (GRID 7)

CATALOGUE NUMBERS 233-271

FOOTWEAR (CAT. NOS. 233-234)

SANDALS (CAT. NOS. 233-234)

Cat. No.	Specialist No.	TA AM 131a-g	(f) 40.5 x 27.9 x 3.2;	
233	Year	1994	(g) l: 57.0; w: 19.4; t: 6.7	
	Registration No.	32699	Material	Leather
	Provenance	AC51 8412	Colour	Dark brown
	Measurements	(a) l: 160.0; w: 89.7 (widest, intact); t: 7.4; (b) l: 42.8; w: 18.2; t: 1.8; (c) l: 64.2; d: 7.9 x 7.0; d strips: 2.2 x 3.1; (d) l: 48.1; w total: 9.4; d strips: 2.5; (e) l: 27.3; w: 14.4; t: 10.4;	Description	(a) Incomplete front three quarters of a sandal's sole. The sandal is swayed, clearly indicating the left foot by its asymmetry in the longitudinal plane: the lateral front corner curves gently towards the medial front corner, which ends in a far less gently curving big toe area. Heavily



TA AM 131a. Ventral and dorsal view.



TA AM 131b-g. Obverse and reverse.

damaged, the left sandal is missing part of the medial front area. The sole consists of an insole, midsole and treadsole, that are secured along the perimeter as well as with at least six rows of stitching lengthwise down the centre. All stitching is executed in running stitches with narrow leather thongs. The front strap inserts into a rectangular slit (11.6 x 3.9) and appears again through another slit, 21 mm more anteriorly and close to the sandal's front edge. A small part of the front strap is still *in situ* in this slit, showing that the strap is tied in a half knot.

- (b) Fragment of the strap complex. Note the small protrusions on one side suggesting it was the pre-strap (*cf.* TA AM 131g).
- (c) Tube through which two narrow, slightly twisted leather strips are pulled. Remarkably, the tube has not been stitched together along its length; it is a natural tube. Although very narrow, it seems to be the extremity of a small animal. Part of the strap complex: the narrow strips are the same as the ones tied to the pre-straps. The tube may therefore be the connec-

tion between 'back strap' and 'front strap.'

- (d) Two narrow strips with slits that are tied together by means of a third strip accomplished by pulling them through these slits.
- (e) Small folded fragment of strap.
- (f) Small scrap of one of the sole layers.
- (g) Pre-strap with two slits to which the narrow back strap is tied by means of hitching. Note that the pre-strap consists of two layers.

<i>Specialist No.</i>	TA AM 132a-d	<i>Cat. No.</i>
<i>Year</i>	1988	234
<i>Registration No.</i>	9364	
<i>Provenance</i>	AQ13 4068	
<i>Measurements</i>	(a) 75.4 x 82.1; t: 4.5 (folded); t: 2.4 (single); (b) 13.0 x 12.8 x 72.3; (c) 18.4 x 13.2 x 74.6; (d) 9.0 x 18.2 x 2.7 - 11.4 x 14.8 x 20.0	
<i>Material</i>	(a) Leather; (b) - (d) Rawhide	
<i>Colour</i>	Beige, light brown	

Remarks (b) Consists of two small fragments.

Description

(a) Folded piece of sole, with, on one surface, a narrow leather strip sticking out of a hole. Next

to it is a second hole. Possibly, the strip is a sandal's front strap, pulled through two slits.

(b), (c) Cores, wrapped with strips.

(d) Remnants of (b) and/or (c) or comparable.



TA AM 132a. Obverse and reverse.



TA AM 132b-d.

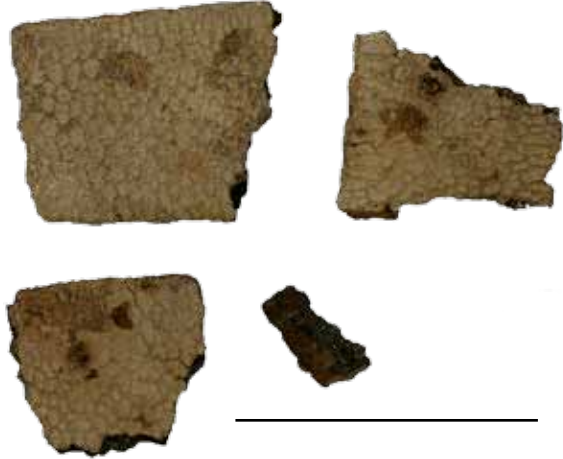
STRAP, BELTS, CORDAGE ETC.

(CAT. NOS. 235-239)

Cat. No.	Specialist No.	TA AM 120
235	Year	1994
	Registration No.	32700
	Provenance	152 7727
	Measurements	29.7 x 33.5 - 35.3 x 46.0; t: 4.8
	Material	Leather
	Colour	Greyish brown
	Remarks	Fragments not numbered separately.

Description

Three fragments, two of which fit together, forming a wide, rectangular object. Might be a piece of a belt.



TA AM 120.

Cat. No.	Specialist No.	TA AM 130
236	Year	1994
	Registration No.	32705
	Provenance	AC51 8579
	Measurements	6.5 x 51.2 x 2.9
	Material	Leather
	Colour	Dark brown, black
	Remarks	Not numbered separately.

Description

Two larger and several small scraps. The larger fragments are made of two strips, repetitively pulled through slits in each other.



TA AM 130. Construction drawing not to scale.

Cat. No.	Specialist No.	TA AM 136
237	Year	1993
	Registration No.	30201
	Provenance	AB35 7662
	Measurements	21.7 x 44.2 x 42.3; w strip: 10.8; t: 3.9
	Material	Leather
	Colour	Dark brown, black

Description

Strip, one end of which is pulled through a large slit that is orientated lengthwise in the other end. Unlikely to be a sandal strap. Perhaps part of a belt?



TA AM 136. Various views.

Cat. No.	Specialist No.	TA AM 146
238	Year	1993
	Registration No.	22469
	Provenance	AB52 7700
	Measurements	66.4 x 82.9; width strip: 25.4; t: 0.9
	Material	Leather
	Colour	Greyish brown
	Description	Wide strip with tranverse slits (approximately 5 mm wide and separated 3-5 mm) in a row lengthwise down the centre. Judging by the indentation at every other slit, it may have had a small strip woven through the slits.



TA AM 146. Obverse and reverse.

Cat. No.	Specialist No.	TA AM 148
239	Year	1993
	Registration No.	30159
	Provenance	Z52 7429
	Measurements	7.9 x 7.7 x 7.5; w strip: 4.2
	Material	Leather
	Colour	Greyish brown
	Description	Two strips of leather are made into a strap-like object by pulling each other through slits (<i>cf.</i> Ta AM 130, Cat. No. 236). Seemingly two of these are secured, at right angles, with equally wide strips, locking them and the 'slit-and-pull' combinations. The exact construction could not be identified without damaging it and was, therefore, refrain from.



TA AM 148. Obverse and reverse.

BOOK COVERS

(CAT. NO. 240)

Cat. No.	Specialist No.	TA AM 124	<i>Description</i> Folded piece with impressed line decoration: one surface of the fold shows an oval pattern whereas the other surface shows horizontal and vertical lines. Nevertheless if the fragment is unfolded it is both part of one decoration scheme. Leather thong running stitches in the fold.
240	Year	1993	
	Registration No.	30096	
	Provenance	Z36 7451	
	Measurements	30.8 x 37.5 (folded); t: 3.1	
	Material	Leather	
	Colour	Greyish, black	
	Remarks	Fragment of book cover; compares well with finds from for example the Coptic monastery Deir el-Bachit (Luxor).	



TA AM 124. Obverse and reverse. Both designs are part of one decoration scheme.

UNIDENTIFIED
(CAT. NOS. 241-271)

Cat. No. 241	<i>Specialist No.</i> TA AM 117 <i>Year</i> 1993 <i>Registration No.</i> 7445 <i>Provenance</i> AA36 <i>Measurements</i> 20.2 x 17.8 x 35.5; t: 1.4 <i>Material</i> Leather <i>Colour</i> Greyish brown, dark brown <i>Remarks</i> Not illustrated. <i>Description</i> Featureless scrap.	<i>Colour</i> Greyish brown, black <i>Remarks</i> Not illustrated. Fragments not numbered separately. <i>Description</i> Eight featureless scraps.	Cat. No. 245
Cat. No. 242	<i>Specialist No.</i> TA AM 118 <i>Year</i> 2000 <i>Registration No.</i> 25171 <i>Provenance</i> AU5 9767 <i>Measurements</i> 9.3 x 15.6 - 18.6 x 21.2; t: 3.0 <i>Material</i> Leather <i>Colour</i> Dark brown <i>Remarks</i> Not illustrated. <i>Description</i> Three featureless fragments.	<i>Specialist No.</i> TA AM 122 <i>Year</i> ? <i>Registration No.</i> 32701 <i>Provenance</i> AC/AD50 8460 <i>Measurements</i> 20.0 x 27.9 x 16.8 - 29.6 x 32.8 x 8.2; t: 1.0 <i>Material</i> Leather <i>Colour</i> Greyish brown, black <i>Remarks</i> Not illustrated. Fragments not numbered separately. <i>Description</i> Numerous featureless scraps.	Cat. No. 246
Cat. No. 243	<i>Specialist No.</i> TA AM 119 <i>Year</i> 1994 <i>Registration No.</i> 32704 <i>Provenance</i> AU51 8412 12 <i>Measurements</i> 10.4 x 10.8 - 10.4 x 16.2 Knot: 14.1 x 11.0 x 22.3; t: 2.6 <i>Material</i> Leather <i>Colour</i> Dark brown <i>Remarks</i> Not illustrated. <i>Description</i> Five featureless fragments.	<i>Specialist No.</i> TA AM 123 <i>Year</i> 1993 <i>Registration No.</i> 30209 <i>Provenance</i> AA37 7441 <i>Measurements</i> 12.8 x 14.8 - 41.4 x 72.3; t: 1.7 <i>Material</i> Leather <i>Colour</i> Brown, black <i>Remarks</i> Not Illustrated. Not numbered separately. <i>Description</i> Fifteen featureless scraps (including a narrow strip).	Cat. No. 247
Cat. No. 244	<i>Specialist No.</i> TA AM 121 <i>Year</i> 2000 <i>Registration No.</i> 32700 <i>Provenance</i> AA48 9850 <i>Measurements</i> 11.3 x 10.0 - 48.5 x 41.3; t: 1.0 <i>Material</i> Leather	<i>Specialist No.</i> TA AM 125 <i>Year</i> 1993 <i>Registration No.</i> 22612 <i>Provenance</i> AB35 7662 <i>Measurements</i> 31.2 x 15.7 x 30.4 <i>Material</i> Leather <i>Colour</i> Brown <i>Remarks</i> Not illustrated. <i>Description</i> Featureless, much crumpled fragment.	

Cat. No.	Specialist No.	TA AM 126a-d
248	Year	1994
	Registration No.	32489
	Provenance	V51 8877
	Measurements	(a) w max.: 8.0; d: 40.7 x 44.5; t: 2.3; (b) w max.: 9.0; d: 38.5; t: 2.1; (c) w max.: 10.2; d: 36.9; t: 2.0; (d) l: 34.7; w max.: 6.6; t: 2.5
	Material	Leather
	Colour	Black
	Description	Ring-shaped strips of rather hard leather. The holes in the edge seem to be artificial.



TA AM 126a-d.

Cat. No.	Specialist No.	TA AM 127
249	Year	1994
	Registration No.	32703
	Provenance	AF33 8490
	Measurements	18.0 x 10.5 x 49.5; w strip: 9.8 - 11.5
	Material	Leather
	Colour	Greyish brown
	Description	Strip of leather tied into a reef knot, flanked with a half hitch on both sides.

Cat. No.	Specialist No.	TA AM 129
250	Year	1994
	Registration No.	32702
	Provenance	AC51 8588
	Measurements	l: 123.7; w 24.1 - 74.4; t: 1.4
	Material	Leather
	Colour	Light brown
	Remarks	Not illustrated.
	Description	Roughly triangular fragment without features.



TA AM 127. Obverse and reverse.

Cat. No.	Specialist No.	TA AM 133
251	Year	1993
	Registration No.	22641
	Provenance	AB36 7455
	Measurements	60.0 x 68.9; t: 3.5
	Material	Leather
	Colour	Reddish brown
	Remarks	Not illustrated.
	Description	Roughly triangular fragment with one curved edge. Patches of hair on one surface.

Specialist No.	TA AM 134
Year	1993
Registration No.	22616
Provenance	AC50 7706
Measurements	20.2 x 38.1; t: 1.1
Material	Leather
Colour	Greyish brown, black
Remarks	Not illustrated.
Description	Featureless scrap.

Cat. No.
252

Cat. No. 253	<i>Specialist No.</i> Year <i>Registration No.</i> <i>Provenance</i> <i>Measurements</i> <i>Material</i> <i>Colour</i> <i>Remarks</i> <i>Description</i>	TA AM 135 1993 22613 AB35 7662 17.3 x 59.2; t: 1.7 Leather Dark brown Not illustrated. Featureless strip, which tapers at one end.	<i>Specialist No.</i> Year <i>Registration No.</i> <i>Provenance</i> <i>Measurements</i> <i>Material</i> <i>Colour</i> <i>Remarks</i> <i>Description</i>	TA AM 140 1993 22642 AC51 7514 31.4 x 17.7 x 54.8 Leather Light brown, beige Not illustrated. Featureless scrap.	Cat. No. 257
Cat. No. 254	<i>Specialist No.</i> Year <i>Registration No.</i> <i>Provenance</i> <i>Measurements</i> <i>Material</i> <i>Colour</i> <i>Remarks</i> <i>Description</i>	TA AM 137 1993 22619 AD52 7506 15.5 x 39.1 - 31.5 x 87.2; t: 2.0 Leather Light brown Not illustrated. Fragments not numbered separately. Two featureless scraps, one of which is curved.	<i>Specialist No.</i> Year <i>Registration No.</i> <i>Provenance</i> <i>Measurements</i> <i>Material</i> <i>Colour</i> <i>Remarks</i> <i>Description</i>	TA AM 141 1993 22611 AB30 7699 814.5 x 14.6 - 26.0 x 65.0 Leather Reddish, greyish brown Not illustrated. Fragments not numbered separately. Featureless scraps, among which there is one larger fragment that is folded several times.	Cat. No. 258
Cat. No. 255	<i>Specialist No.</i> Year <i>Registration No.</i> <i>Provenance</i> <i>Measurements</i> <i>Material</i> <i>Colour</i> <i>Remarks</i> <i>Description</i>	TA AM 138 1993 22620 Z52 7611 42.0 x 72.3; t: 1.5 Leather Brown Not illustrated. Featureless scrap.	<i>Specialist No.</i> Year <i>Registration No.</i> <i>Provenance</i> <i>Measurements</i> <i>Material</i> <i>Colour</i> <i>Remarks</i> <i>Description</i>	TA AM 142 1993 22615 AC51 7552 6.7 x 23.5 - 7.7 x 36.7; t: 1.1 Leather, mud, goat hair Greyish brown, brown, black Fragments not numbered separately. Several strips with a distinct curving. Might have been wound around the circular but flat piece of mud. This piece of mud has a big hole, but this does not go all the way through. Goat hair string associated.	Cat. No. 259
Cat. No. 256	<i>Specialist No.</i> Year <i>Registration No.</i> <i>Provenance</i> <i>Measurements</i> <i>Material</i> <i>Colour</i> <i>Remarks</i> <i>Description</i>	TA AM 139 1993 22518 AD52 7515 27.3 x 60.9 - 45.8 x 66.3; t: 0.7 Leather Brown Fragments not numbered separately. Two featureless scraps.			

Right: TA AM 142.



Cat. No. 260	Specialist No. TA AM 143 Year 1993 Registration No. 30118 Provenance AB35 7662 Measurements 22.5 x 28.4; t: 1.6 Material Leather Colour Dark brown, black Remarks Not illustrated. Description Featureless scrap.	Description Featureless scraps, except (b) and (c), which have some badly preserved stitching(?)	
Cat. No. 261	Specialist No. TA AM 144 Year 1993 Registration No. 22617 Provenance AD52 7518 Measurements 19.1 x 27.0; t: 3.5 Material Leather Colour Dark brown, black Remarks Not illustrated. Description Featureless scrap.	Specialist No. TA AM 149 Year 1988 Registration No. ? Provenance AR12 4068 Measurements 15.4 x 33.6 - 19.1 x 54.0; t: 1.5 Material Rawhide Colour Yellowish brown Remarks Not illustrated. Fragments not numbered separately. Description Two featureless scraps.	Cat. No. 264
Cat. No. 262	Specialist No. TA AM 145 Year 1993 Registration No. 22609 Provenance AA36 7441 Measurements 12.1 x 20.8 - 38.3 x 59.0 (folded); t: 1.4 Material Leather Colour Greyish brown Remarks Not illustrated. Fragments not numbered separately. Description Numerous featureless scraps.	Specialist No. TA AM 150 Year 1988 Registration No. 45703 Provenance AQ14 4388 4188 Measurements 13.3 x 48.5 - 17.0 x 62.7; t: 1.6 - 3.7 Material Rawhide Colour Yellowish brown Remarks Not illustrated. Fragments not numbered separately. Description Two featureless scraps.	Cat. No. 265
Cat. No. 263	Specialist No. TA AM 147a-d Year 1993 Registration No. 22621 Provenance Z52 7610 Measurements (a) w: 19.3; l: approximately 163; t: 1.2; (b) l: 47.0; w: 14.7; t: 4.5; (c) l: 60.2; w: 12.3; t: 5.2; (d) 13.5 x 23.2 - 41.6 x 72.2; t: 1.1 Material Leather Colour Greyish brown Remarks Not illustrated.	Specialist No. TA AM 151 Year 1993 Registration No. 22610 Provenance AB36 1443 Measurements 28.2 x 61.4 - 35.7 x 61.5; t: 1.5 Material Leather Colour Greyish brown Remarks Not illustrated. Fragments not numbered separately. Description Two roughly rectangular featureless scraps.	Cat. No. 266
		Specialist No. TA AM 153 Year 1989 Registration No. ? Provenance Z30 5523 Measurements 11.0 x 21.3 - 15.5 x 22.1; t: 1.5 Material Leather Colour Greyish brown	Cat. No. 267

Remarks Not illustrated. Fragments not numbered separately.

Description
Seven featureless scraps.

Specialist No. TA AM 156

Year 1993

Registration No. 22614

Provenance AB357586

Measurements ?

Material Leather

Colour Brown

Remarks Not illustrated. Fragments not numbered separately.

Description
Two featureless fragments.

Cat. No.

270

Cat. No.
268

Specialist No. TA AM 154

Year 1989

Registration No. 18100

Provenance Z19 5113

Measurements 2.5 x 40.5 - 20.0 x 60.0; t: 1.0

Material Leather

Colour Greyish brown

Remarks Not illustrated. Fragments not numbered separately.

Description
Two featureless scraps.

Specialist No. TA AM 157a-c

Year 1993

Registration No. 30212

Provenance AC52 7655

Measurements (a) l: 120.0; w: 84.3 - 86.1; t: 4.0;
(b) l: 150.0; w: 205.0; t: 1.4;
(c) 42.0 x 51.8 - 65.0 x 69.7; t: 1.0

Material Leather

Colour Greyish brown, light brown

Description

- (a) Fragment of fairly thick leather. The short edges are both broken off, but the long edges are still intact, indicating the width of the object. One end has a big, heavy repair patch, which is secured with short running stitches of leather thong. Might be part of a sole.
- (b) Roughly triangular fragment, with a row of tiny stitch holes along the straight edge. Looks much like a vamp's tongue.
- (c) Two featureless scraps of upper(?)

Cat. No.

271

Cat. No.
269

Specialist No. TA AM 155

Year 1988

Registration No. 14637

Provenance AQ12 4068

Measurements 26.7 x 25.9 - 8.7 x 105.0; t: 2.4

Material Rawhide

Colour Yellowish brown

Remarks Not illustrated. Fragments not numbered separately.

Description
Featureless. One roughly square and two narrow fragments.

Below: TA AM 157a. Obverse and reverse.





TA AM 157b. Obverse and reverse.



TA AM 157c. Obverse and reverse respectively.

PART II: CATALOGUE

C. EGYPT EXPLORATION SOCIETY
PETRIE (1891-1892) AND THE EXCAVATIONS IN THE
1920S AND 30S

CATALOGUE NUMBERS 272-282

INTRODUCTION

Most of the material recovered by the early Egypt Exploration Society (EES) expeditions has not been studied first hand (yet), except the objects that are currently housed in the Petrie Museum of Egyptian Archaeology University College London (UCL). The reason for this is the fact that the objects have been distributed to collections all over the world, as explained in the introduction of the first part of the present work. Excavation reports usually did not include studies of the leatherwork, so the description of the material in the present catalogue is based on the study of the photographs. For most objects, such as lashing, this suffices, because the objects are not

complicated, often coarse and there are many parallels from the other excavations that provides us with information. However, more delicate and refined objects, such as fragments of decorated leather, suffer much from the lack of first-hand study.

The Amarna Project is keeping a database of the finds of their own excavations but also includes the so-called 'Ruffle/Moignard Index,' which deals with the objects excavated by the EES from 1921-1936 (see for explanation and background information the Amarna website, small finds) The database can be downloaded from the above-mentioned website.

There are several objects that have not been mentioned in the excavation reports and/or have not been illustrated; nor have they been studied first-hand. It is known where some objects went or are; the whereabouts of most, however, are currently unknown. These objects are:

<i>Year</i>	<i>Number</i>	<i>Context</i>	<i>Description</i>	<i>Dimensions (in cm)</i>	<i>Whereabouts</i>
1921	21/25	Main City, House O 49, 22, Area 5	Stitched fragment	18 x 16	?
1921	21/42	Main City, House O 49, 22, Central Room	Binding, knotted fragments	?	?
1921	21/49	Main City, House O 49, 22, Area 8	Piece of thick worked leather with stitch holes; possibly part of sandal	?	San Diego Museum, California (Peet & Woolley, 1923: 174)
1921	21/88	Main City, House 49, 24, Area 9	?	?	?
1921	21/99	Main City, House O 49, 24, Area 13	Circular band of plaited strips	11 x 8 x 3.9	Ashmolean Museum, Oxford (Peet & Woolley, 1923: 173)
1921	21/104	Main City, House N 49, 12, East face	?	?	?
1921	21/155	Main City, House N 50, 30, Area 6	Peet & Woolley (1923: 27): "Leather [sic] binding for securing axe-head to handle"	?	Ashmolean Museum, Oxford (ASH 1921.1130; Peet & Woolley, 1923: 173)
1921	21/327	Main City, House N 49, 18, Area 8	Shoe [sic?] thicker, front part only; untanned yellow	12 x 8	Colorado Museum of Natural History (Peet & Woolley, 1923: 173)

<i>Year</i>	<i>Number</i>	<i>Context</i>	<i>Description</i>	<i>Dimensions (in cm)</i>	<i>Whereabouts</i>
According to Peet & Woolley (1923: 15) "Pieces of sandal". The Amarna Object Database adds that the sole is nearly complete and has stitch holes. One surface has a magenta colour.					
1921	21/418	Main City, House N 49, 15, Area 20a	Peet & Woolley (1923: 23): "Leather [sic] hafting for an axe"	9.3 x 5.4	?
1921	21/483	Main City, House O 49, 23, Area 7	Sandal	?	?
1921	21/486	Main City, House O 49, 23, Area 7	Sandal	?	?
1921	21/494	Main City, House O 49, 23, Area 9	Sandal?	?	Colorado Museum of Natural History (Peet & Woolley, 1923: 173)
According to Peet & Woolley (1923: 17) 21/483, 486 and 494 are "two left sandals, one for a child". Judging by the fact that there are three numbers, they seem to mean 'two left sandals and one for a child.'					
1921	21/495	Main City, House O 49, 23, Area 9	Peet & Woolley (1923: 17) "fragments of leather and thongs." There are three thongs bound together in spiral with a broader thong	?	Colorado Museum of Natural History (Peet & Woolley, 1923: 173)
Although not studied first-hand, it is likely the material is rawhide rather than leather.					
1921	21/499	Main City, House O 49, 23, Area 9	Peet & Woolley (1923: 17) "fragments of leather and thongs"	1.6 x 6.2	Wellesley College Library, Sydney (Peet & Woolley, 1923: 174)
Although not studied first-hand, it is likely the material is rawhide rather than leather.					
1921	21/525	Workmen's Village, Gate St. 11	Threefold leather, bent double	14.8 x 6	San Diego Museum, California (Peet & Woolley, 1923: 174)
1923	23/24	Main City, House P 46, 26	Fragment of leather with edges turned up: sandal?	l: 10	?
1923	23/36	Main City, House P 46, 28, Room 4	Fragments	approximately 13 x 9	?
1923	23/46	Main City, House P 46, 29, Room 7	Portion of leather binding	?	New Zealand
1923	23/71	Main City, House Q 46, 35	Sandal with traces of stitching	?	?
1923	23/126	Main City, House Q 46, 32, Room 2	Shoe [sic?], doubled over	l: 19	Bolton
1923	23/127	Main City, House Q 46, 32, Room 2	Broad (?)belt	w: 10	San Diego Museum, California
1923	23/202	Main City, House Q 44, 1, Room 1	Fragment of band, dyed red, with green leather stitched on	4 x 0.9	Australia/Ashmolean Museum, Oxford [possibly ASH 1924.97]
1923	23/289	Main City, House Q 44, 1, Grounds	Sandal, sole	l: 17	?
1923	23/440	Main City, House Q 44, 5	Sandal, sole	l: 25	Australia
1924	24/515	Main City, House R 44, 2	Fretwork	l: 10	?

<i>Year</i>	<i>Number</i>	<i>Context</i>	<i>Description</i>	<i>Dimensions (in cm)</i>	<i>Whereabouts</i>
1924	24/527	Main City, House R 44, 2	Strap, [?]animal collar	?	?
1924	24/537	Main City, House R 44, 2	Leatherwork, painted	?	Australia
1924	24/662	Main City, House R 45, 15	Sandal	?	?
1924	24/676	Main City, House R 45, 30	Axe lashing	11 x 9	Australia
1924	24/700	Main City, House R 46, 9	Axe lashing	?	?
1924	24/723	Main City, House Q 45, 60	Leatherwork	?	Toledo/Bristol

It is unlikely that this object is one of the three unprovenanced leather objects in Bristol's Museums, Galleries & Archives, City Museum & Art Gallery (personal communication Sue Giles September 2008). The object was sent to the Toledo Museum of Art instead, which, according to Sandra Knudsen, "received many objects from the EES excavations at Amarna in the early 1920's." However, hundreds of these were deaccessioned in 1991 and sold at auction at Sotheby's, NYC, in 1992 and 1993. Only one object was made of leather, which was received as part of two cases of antiquities from the EES office on August 8th, 1924 and described as No. 723, 'coil of leather strap.' "It was assigned TMA accession number 1925.729. Dimensions 3 15/16 in. x 4 7/16 in. This leather coil was lot 310 in the Sotheby's sale of 12 June 1993." Current whereabouts unknown.

1924	24/780	Main City, House Q 46, 49	Axe lashing	5.8 x 4.4	Australia
1924	24/888	Main City, House Q 45, 76	Knotted strap	l: 20	New Zealand
1925	25/24	Main City, House N 49, 48	Stitched piece	?	Ashmolean Museum, Oxford
1925	25/171	North City, central group of houses south of Northern Sanctuary	Strip, twisted	?	USA
1925	25/171	North City, central group of houses south of Northern Sanctuary	Shoes [sic?], coloured	?	USA
1925	25/171	North City, central group of houses south of Northern Sanctuary	Shoes [sic?], large supply of leather for shoes [sic?], some sewn together with soles etc	?	USA
1926	26/132	North Suburb, House V 36, 1	Strap from shoe? [sic?]	7 x 1.5	Toronto (Frankfort & Pendlebury, 1933: 119)
1926	26/275	North Suburb, House V 37, 6	Strip, curled?	?	Toronto (Frankfort & Pendlebury, 1933: 119)

Regarding 26/132 and 26/275, Bill Pratt of the Royal Ontario Museum, Toronto said (personal communication September 2008): "Our catalogue books indicate a single number within quotes – "132", "275", etc. rather than "26/132", "26/275". [Object] "519" in our records refers to a lead ring but we do have 9 leather fragments recorded as "TA 21". These latter objects are not traceable in the Amarna Object Database.

<i>Year</i>	<i>Number</i>	<i>Context</i>	<i>Description</i>	<i>Dimensions (in cm)</i>	<i>Whereabouts</i>
1926	26/305	North Suburb, House V 37, 5	Frankfort & Pendlebury (1933: 12) refer to the object as “leather [sic] binding of an axe”	11 x 7	Brooklyn Museum, New York (Frankfort & Pendlebury, 1933: 118)
1926	26/519	North Suburb, House U 36, 2	Looped piece	?	Toronto (Frankfort & Pendle- bury, 1933: 119)
1930	30/615	North City, House U 25, 1	Sandal	Approximately 12 x 9	Hunterian Museum, Glasgow (Frankfort & Pendlebury, 1933: 119)
According to Sally-Anne Coupar (personal communication September 2008), the leather sandal 21/105 (see below) is the only leather object in the collection.					
1930	30/665	North City, House U 25, 2b	Three fragments, irregularly- shaped; one with two knotted straps	largest: approxi- mately 8.1 x 8.1	?
1931	31/47	North Suburbs, House U 33, 1	Three left-foot sandals	?	?
Distributed to the Wellcome Historical Medical Museum (Frankfort & Pendlebury, 1933: 119). These, however, seem to have been moved to University College London, some time after Sir Henry Wellcome's death (personal communication Christopher Hilton, September 2008), but have not been recognised (yet).					
1931	31/51	North Suburb, House U 33, 3	Sandal; part of sole, double thick- ness	18 x 9	?
1931	31/97	North City, House U 25, 12d	Folded fragment (double thick- ness?), scored?	w: 9	?
1931	31/128	North City, House U 25, 12e	Fragments of various shapes; some red	l max.: 9	?
1931	31/145	North Suburbs, House U 33, 9	Peet & Woolley (1923: 91): “leather fragment”	7 x 3.2	?
According to the Amarna Object Database a fragment of object, but not an offcut; circular element; stone adhering.					
1931	31/146	North Suburb, House U 33, 11	Pair of sandals	?	?
1931	31/223	North Suburbs, House T 33, 6	Frankfort & Pendlebury (1933: 79): “fragment of leather with the original stitching”	?	?
1931	31/391	North City, House U 24, 3	Footwear? Green border	border 2.5 wide	?
1931	31/457	Central City, Small Aten Temple, Pylon I, North Gate	Pendlebury (1951: 103): “Fragment of leather”	l: 11	?
1933	33/65	Central City, ?Gov- ernment Offices, Scattered Houses, North-east, House R 42, 13	Pendlebury (1951: 122): “Fragment of leather with paint and resin”	8.7 x 5.3	?
Possibly, the resin is the deterioration product of the leather (‘melted’). According to the Amarna Object Database it is an irregularly-shaped fragment, which is registered as an artist's palette.					

<i>Year</i>	<i>Number</i>	<i>Context</i>	<i>Description</i>	<i>Dimensions (in cm)</i>	<i>Whereabouts</i>
1933	33/145	Central City, The Foreign Office, Q 42, 7	Pendlebury (1951: 118): "Leather binding of axe"	?	?
1933	33/201	Central City, Government Offices, Scattered Houses, South-west, House Q 42, 28	Pendlebury (1951: 127): "Fragment of leather"	2 x 2.6 - 4.1	?
1933	33/240	Central City, The Clerks' Houses, No. 14	Pendlebury (1951: 123): "Fragment of stitched leather, 7 cm. long"	7 x 1.7	?
According to the Amarna Object Database is it a bundle encircled by stitched length.					
1936	36/158	Central City, House U 43, 1b The Pavilion	Thong and fragments of gilt leather sandal (Pendlebury, 1951: 140)	?	?

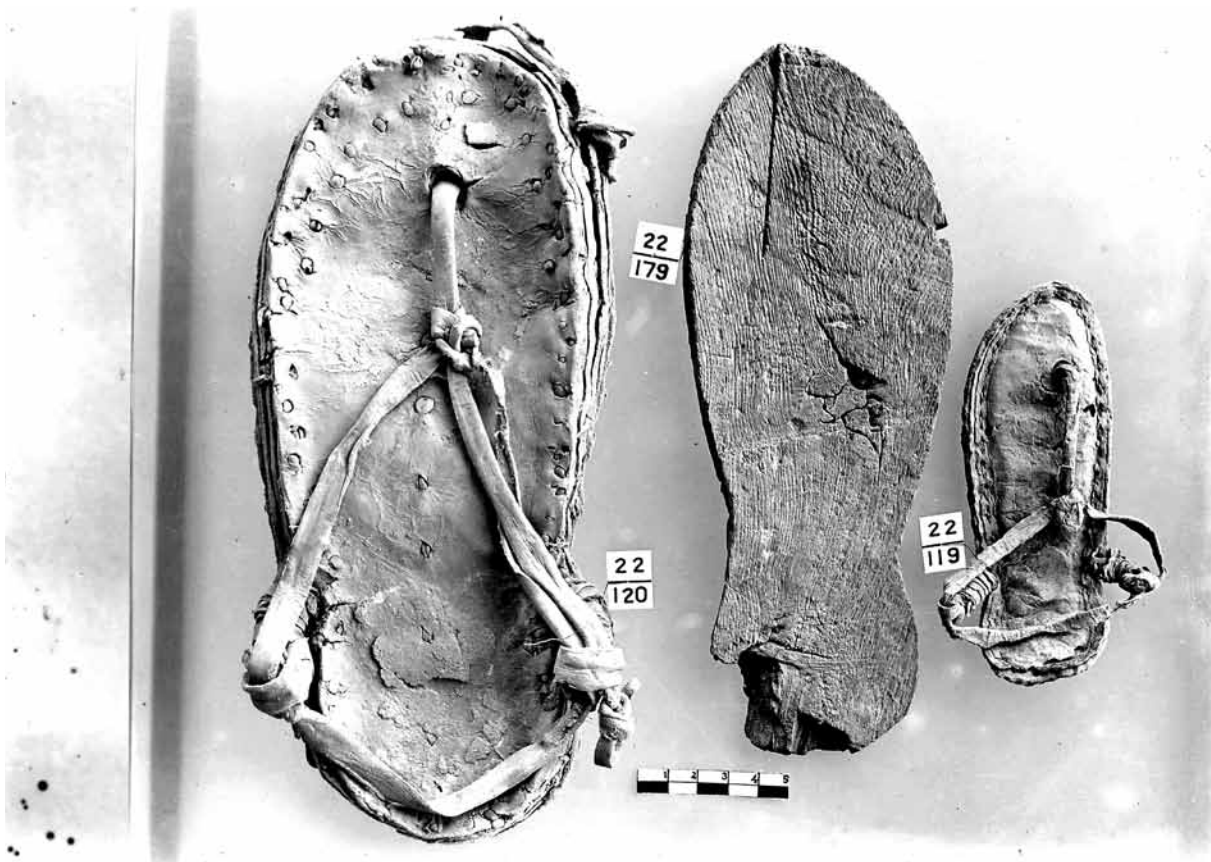
EXPLANATION OF THE CATALOGUE

<u>Cat. No.</u> <u>##</u>	<i>Catalogue number</i>	<i>Remarks</i>	Information on the distribution of the objects can be found here.
	<i>Year</i>	Year of excavation	
	<i>Find No.</i>	Number given by the excavators, consisting of year/number of object.	<i>Description</i> A detailed description based on first-hand study or based on photographs; all other objects are presented in the table.
	<i>Context</i>	The specific place within Amarna where the objects were found. Most of the finds have been registered from houses or other buildings.	
	<i>Measurements</i>	The measurements are used as they occur in the Amarna Object Database; these are all in centimetres unless stated otherwise. Abbreviations: d = diameter; h = height; l = length; t = thickness; w = width.	

FOOTWEAR (CAT. NOS. 272-275)

SANDALS (CAT. NOS. 272-275)

Cat. No.	Year	1922	mercial Museum, Philadelphia.
272	Find No.	22/120	However, Schwarz (2000: Cat. C, No. 17) notes that this sandal is in Ostdorf. At time of writing of this catalogue, tracing of the sandal has not been successful.
	Context	Workmen's Village, Main Street, House No. 8, Kitchen and Staircase (possibly found in cupboard)	
	Measurements	l: 26	
	Material	Leather	
	Remarks	Depicted in Peet & Woolley (1923: pl. XX, 2). Peet & Woolley (1923: 79) mention the fragments of a second sandal, but this has not been illustrated. According to the excavators (<i>Ibidem</i> : 173), the sandal was distributed to the Com-	
			<i>Description</i> The left sandal has a rounded heel and constricted waist. From here, the width increases continuously towards the front. This increase is almost equal on both sides, but the lateral side shows a slightly more distinct curvature, making the sole swayed. The sole consists of at least five layers, which are secured with widely-spaced, leather thong running stitches



The sandals 22/120 (left) and 22/119 (right). In the middle a wooden 'shoe pattern', which might have functioned as a mold (cf. Veldmeijer, 2009c). Courtesy of the Egypt Exploration Society.

along the perimeter. A second row of stitches is positioned inwards from the perimeter row, but only at the front part. The sandal has an elaborate strap complex. The front strap is a strip of fairly thick leather, the terminal end of which has a lengthwise-orientated slit. The back strap is attached to it by means of insertion through this slit, but the exact construction cannot be deduced from the photograph. It is equally unclear how the front strap is attached to the soles; most likely, however, it penetrates all sole layers and is secured at the ventral surface of the treadsole. The pre-strap is cut out of one or more sole layers and clad. The end has a slit to which the back and heel straps are tied; again the exact construction cannot be deduced from photograph. It is certain, however, that the back and heel straps consist of one strip of leather, which is knotted in an overhand knot at the medial pre-strap.

Cat. No.	Year	1922
273	Find No.	22/119
	Context	Workmen's Village, Main Street, House No. 8, Kitchen and Staircase (possibly found in a cupboard)
	Measurements	l: 13.5
	Material	Leather
	Remarks	Depicted in Peet & Woolley (1923: pl. XX, 2, see figure at previous page). According to the excavators (<i>Ibidem</i> : 173), the sandal was distributed to the Commercial Museum, Philadelphia. At time of writing of this catalogue, tracing of the sandal has not been successful.

Description

This left child's sandal has a rounded heel, constricted waist and increases in width towards the front. The lateral edge shows a stronger curvature, making the sole swayed. It consists of at least two sole layers, which are secured along the perimeter with running stitches. The stitching, most likely of sinew, includes a decorative (and functional) strip. The pre-straps are cut from the same sheet of leather as the sole, but it is uncertain whether they were cut from one or all layers. The strap complex is comparable to the one described for 22/120. Most likely, the sandal consists of red and green leather. The slightly raised area inside the perimeter stitching suggests the sandal has (shallow?) padding (*cf.* Veldmeijer, 2009c).

Year	1922	Cat. No.
Find No.	22/179	274
Context	Workmen's Village, Long Wall Street, Opposite House No. 7	
Measurements	l: 23	
Material	Wood	
Remarks	Depicted in Peet & Woolley (1923: pl. XX, 2, see figure at previous page). According to the excavators (<i>Ibidem</i> : 173), the object was moved to the Museum in Manchester.	

Description

The heel is damaged, but one can still see the rounded shape, followed by a distinctly constricted waist. The width increases towards the front, starting rather abruptly from the waist onwards. Because the mold is asymmetrical longitudinally, it can be referred to as swayed. Although the object is not a piece of footwear, it might well have served as some sort of mold, used to produce sandals in equal shape and measurements (see for example Veldmeijer, 2009c).

Year	1921	Cat. No.
Find No.	21/105	275
Context	Main City, House N 49, 12, Area 4	
Measurements	Complete one: l: 190; w: 80	
Material	Leather	
Colour	Brown, reddish brown	
Remarks	Peet & Woolley (1923: 21): two leather soles. The find card, however, mentions "three pieces, 2 shoe [sic] soles", which might mean that one of the soles is broken in two. Distributed to the Glasgow Museum (apparently the Hunterian) and the Cincinnati Museum Association (<i>Ibidem</i> : 172-173). Most likely the sandal GLAHM D.1921.135, is one of the two; apparently the other went to Cincinnati (it was not uncommon to send one of a pair to a different place than the other). The description is entered with the assumption that the sandal is, indeed, 21/105.	

Description

The heel of this left sandal is rounded and the waist is constricted. Towards the front, the sandal's width increases continuously. The lateral edge curves rather abruptly towards the big toe; the medial edge runs almost straight to the front. The result is a swayed sandal. A conspicuous feature is the fact that the cutting of the sole layer has been executed rather coarsely, due to which the perimeter is rather angular. Another remarkable feature is the row of

stitches along the medial perimeter, extending almost to the posterior edge, in some of which still remains leather thong stitches. Stitches are also seen in between the straps, which might be a repair. The pre-straps have broken off, but were cut from the same sheet of leather as the sole itself. There is a big, single leather thong stitch at the lateral pre-strap, which might be another repair. A remnant of the front strap is still *in situ* in its slit; it is positioned close to the medial edge.



Sandal 22/105. If this left sandal (GLAHM D.1921.135) is indeed 22/105, the right sandal might have been distributed to Cincinnati. Courtesy of The Hunterian Museum and Art Gallery, University of Glasgow.

DECORATED LEATHER

(CAT. NOS. 276-278)

Cat. No. 276	<p><i>Collection</i> Petrie Museum of Egyptian Archaeology UCL</p> <p><i>Inventory No.</i> UC 35939 (original find no. 30/744)</p> <p><i>Specialist No.</i> UC 35939a-g</p> <p><i>Year</i> Early expeditions?</p> <p><i>Context</i> North City House U 25, 7</p> <p><i>Measurements</i> (a) 54.7 x 133.2; w edge: approximately 22.7; (b) 51.5 x 115.3; w edge: approximately 21.3; (c) 60.4 x 114.1; w edge: approximately 22.5; (d) 49.3 x 55.5; w edge: approximately 25.5; (e) 28.8 x 54.1; w edge: approximately 24.8; (f) 21.1 x 65.0; (g) 16.7 x 47.3</p> <p><i>Material</i> Leather</p> <p><i>Colour</i> Black, dark reddish brown, green, red</p> <p><i>Remarks</i> Originally distributed to Wellcome Historical Medical Museum (Frankfort & Pendlebury, 1933: 119), but in the 1960s moved to the Petrie Museum of Egyptian Archaeology UCL (Christopher Hilton and Stephen Quirke, personal communication September 2008). Several small unnumbered, featureless scraps (not described/illustrated). Note the melting process, resulting in the black, resinous appearance.</p> <p><i>Description</i> The decoration, consisting of sets of partially overlapping strips in different colour, still shows most of the bright green colour; remarkably, most of the red colour has disappeared though patches can still be</p>	<p>seen. From the edge onwards, the decoration consists of one strip that is folded over the edge, onto which follow two sets of overlapping strips, in stair-step fashion. The next set consists also of two overlapping layers, but the top one has an additional, red strip onto which a narrow strip of leather is stitched in zigzag. It cannot be excluded entirely that the lowest of the three strips is folded over the edge of the second, next to which is the narrower, red strip onto which the appliqué work is attached. The zigzag appliqué is secured in the corners with single stitches (<i>cf.</i> text figure 11) that run at the back of the foundation from one corner of the decoration to the other. This set with appliqué work is overlapped with the fourth and last set of two strips. All stitching is done with sinew. Note the resinous condition of the top layer in (c).</p>
	<p><i>Year</i> 1933</p> <p><i>Find No.</i> 33/297</p> <p><i>Context</i> Central City, The Police Barracks, House R 42, 10, from south rooms in the west section</p> <p><i>Measurements</i> ?</p> <p><i>Material</i> Leather</p> <p><i>Remarks</i> Pendlebury (1951: 136) mentions "Fragments of coloured leather collars, &c." No details given, but green and red colour visible. Distributed to the Manchester Museum and the Egyptian Museum, Cairo.</p>	<div style="border-top: 1px solid black; border-bottom: 1px solid black; padding: 2px 0;">Cat. No. 277</div>
	<p><i>Year</i> 1933</p> <p><i>Find No.</i> 33/304</p> <p><i>Context</i> Central City, The Police Barracks, House R 42, 10, from the south rooms in the central court</p> <p><i>Measurements</i> ?</p> <p><i>Material</i> Leather</p> <p><i>Remarks</i> Pendlebury (1951: 136) mentions "Fragments of coloured leather</p>	<div style="border-top: 1px solid black; border-bottom: 1px solid black; padding: 2px 0;">Cat. No. 278</div>

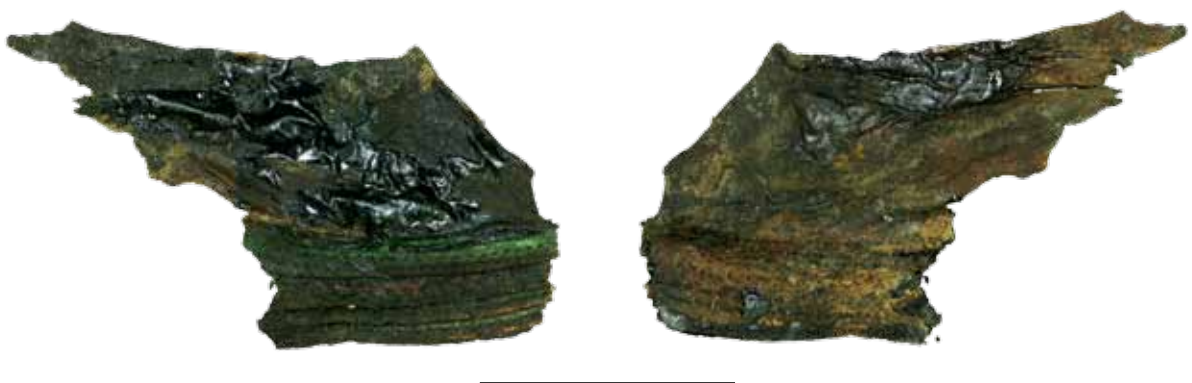
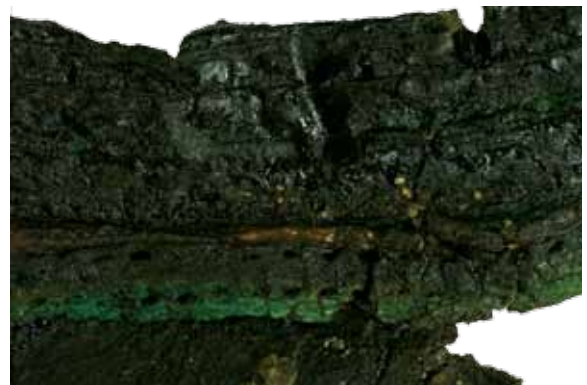
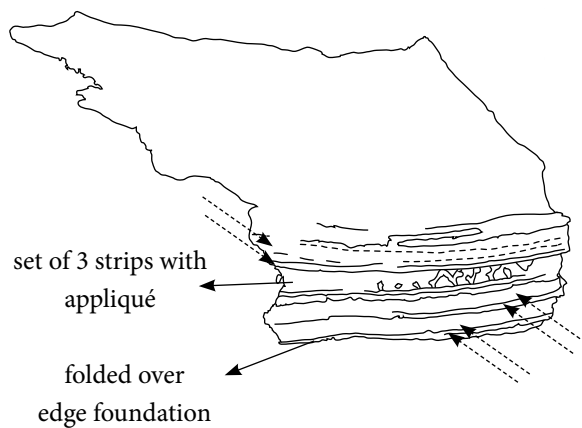


UC 35939a. Obverse and reverse. Top right and right: Details obverse. Much of the colour is still preserved. Note, however, the resinous patch, which is due to the 'melting' of the leather. Bottom and right: Details reverse. The zigzag appliqué work is secured in the corner (cf. text figure 11), the sinew of which runs at the back of the foundation (arrow). Scale bar details is 10 mm. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.





UC 35939b. Obverse and reverse. Right and below right: Details of obverse. The edge with appliqué work, showing colour. Scale bar details is 10 mm. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.



UC 35939c. Obverse and reverse. Courtesy of the Petrie Museum of Egyptian Archaeology UCL. Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching is indicated in dashed lines.



UC 35939c. Detail obverse. The edge with appliqué work, showing colour. Scale bar is 10 mm. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.



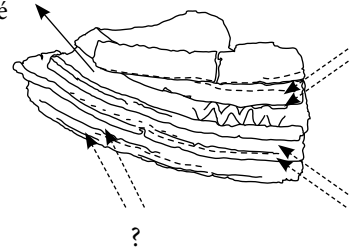
UC 35939c. Detail reverse. The foundation, showing the stitching of the appliqué work. Note the fold around the edge with the first layer of the decoration. Scale bar is 10 mm. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.



UC 35939d. Obverse and reverse. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.



set of 3 strips with appliqué



UC 35939e. Obverse and reverse. Courtesy of the Petrie Museum of Egyptian Archaeology UCL. Line drawing, showing the sets of overlapping layers in stair-step fashion (dashed arrows). Stitching is indicated in dashed lines. Left: Detail of the reverse. Several stitches are still complete. Scale bar is 10 mm. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.



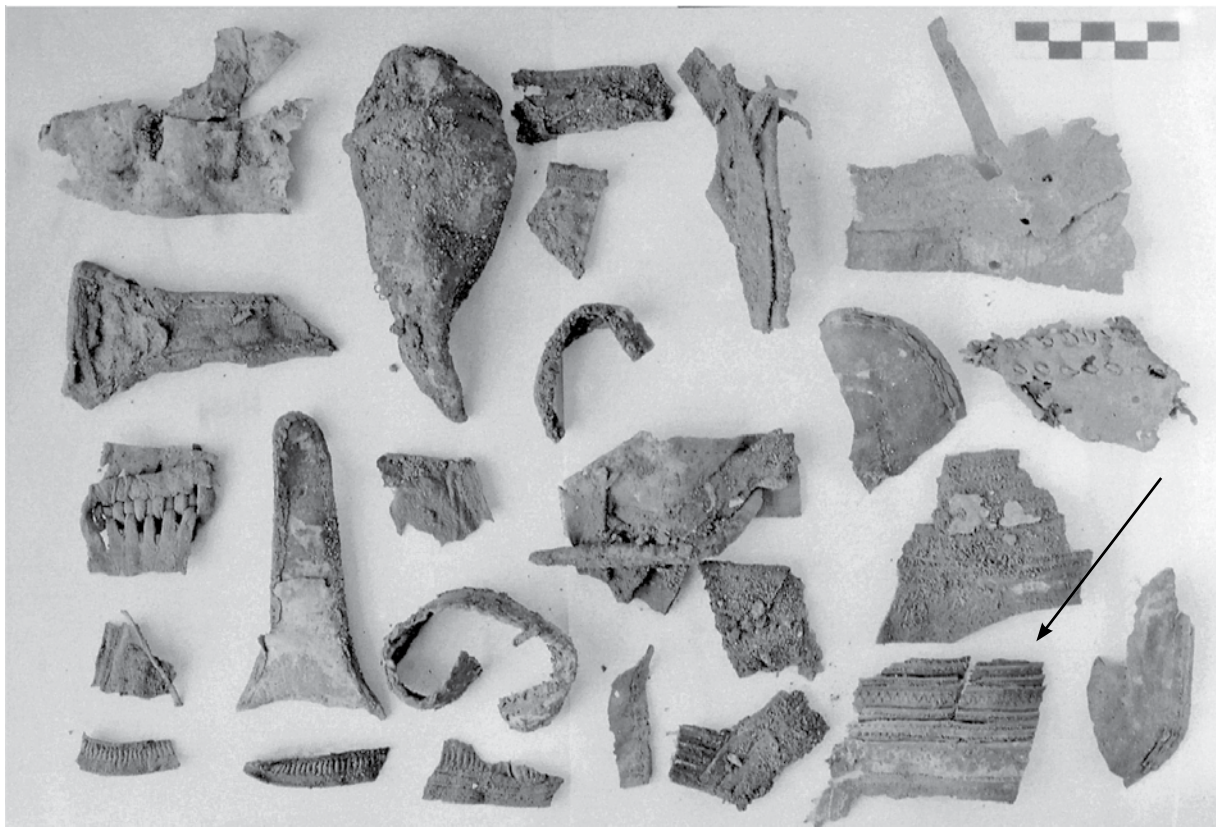
UC 35939f. Obverse and reverse. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.



UC 35939g. Obverse and reverse. Courtesy of the Petrie Museum of Egyptian Archaeology UCL.

collars.” Most likely this refers to the fragment in the photograph marked by the arrow. Indeed, there might be more fragments of coloured, decorated leather in the photograph, but these cannot be identified with certainty. Pendle-

bury, however, does not mention any of the other leather objects, most of which cannot be identified from the rather poor quality photograph. Distributed to the Manchester Museum and the Egyptian Museum, Cairo.



33/304. Only the coloured leather ‘collars’ are mentioned by Pendlebury (arrow). Unfortunately the quality of the photograph is too bad to describe most of the other fragments. Some comments, however, are made about the other numbered fragments. Courtesy of the Egypt Exploration Society.

WEAPONRY

(CAT. NOS. 279-282)

Cat. No.	Year	1926
279	Find No.	26/273
	Context	North Suburbs, House V 37, 6
	Measurements	10 x 8
	Material	Rawhide
	Remarks	Frankfort & Pendlebury (1933: 11): "Leather [sic] binding of axe head." The lashing is illustrated in plate XXXIV, 1. Distributed to Cambridge University Museum of Archaeology and Ethnology (<i>Ibidem</i> : 118).

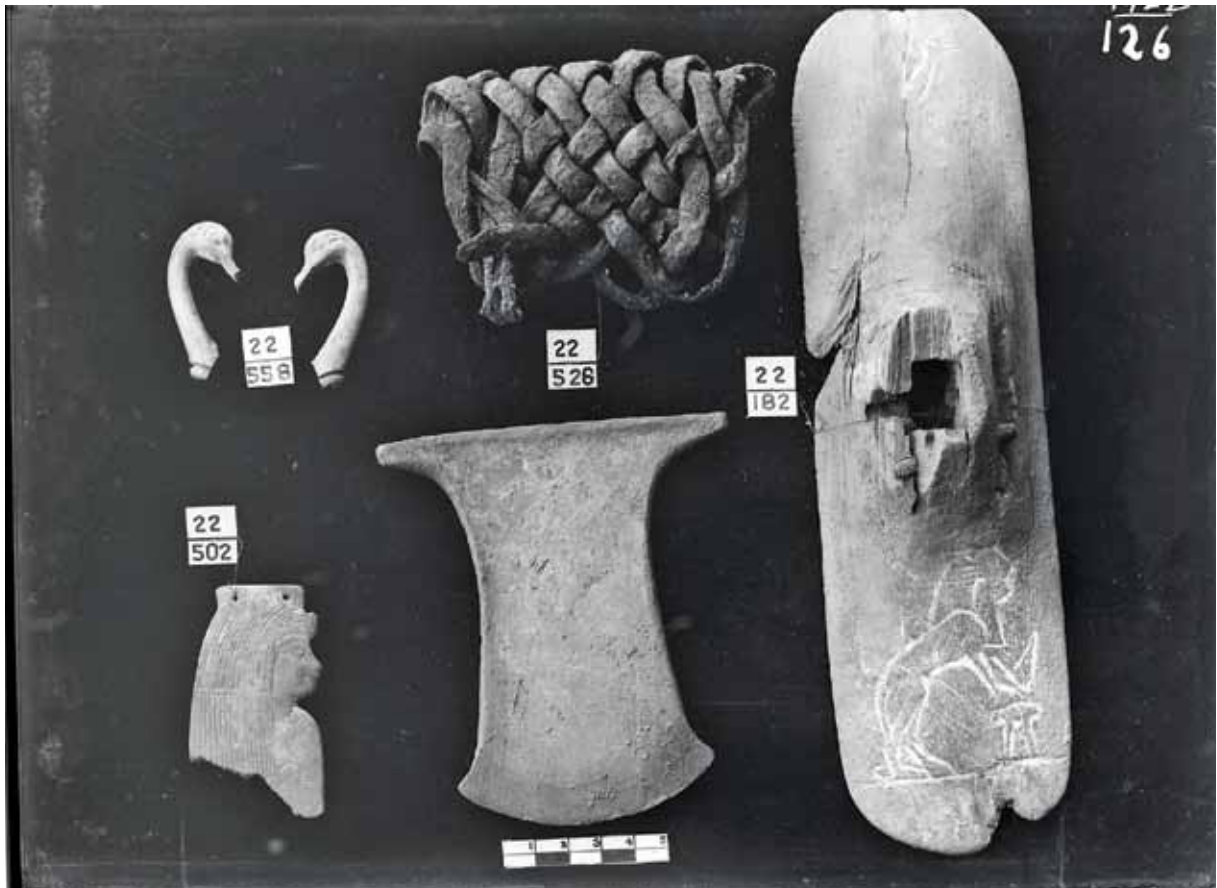
Cat. No.	Year	1931
280	Find No.	31/49
	Context	North Suburbs, House U 33, 1
	Measurements	7.7 x 6.2
	Material	Rawhide
	Remarks	Frankfort & Pendlebury (1933: 72): "Leather [sic] axe-binding". Distributed to the Wellcome Historical Medical Museum (<i>Ibidem</i> : 119).

Cat. No.	Year	1922
281	Find No.	22/526
	Context	Main City, House P 47, 31
	Measurements	12 x 10.5
	Material	Rawhide, bronze
	Remarks	According to Peet & Woolley (1923: 35), the bronze axe and the lashing belong together. Distributed to the Haskell Oriental Museum Chicago (<i>Ibidem</i> : 173).



31/49. Rawhide axe lashing. Courtesy of the Egypt Exploration Society.

Year	1929	Cat. No.
Find No.	29/110	282
Context	North Suburb, House U 36, 42	
Measurements	?	
Material	Rawhide	
Remarks	Frankfort & Pendlebury (1933: 23) refer to the object as "Child's shoe in leather"; it is, however, an incomplete rawhide axe lashing. Whereabouts unknown.	



22/526. Rawhide axe lashing, with the bronze blade found in association. Courtesy of the Egypt Exploration Society.



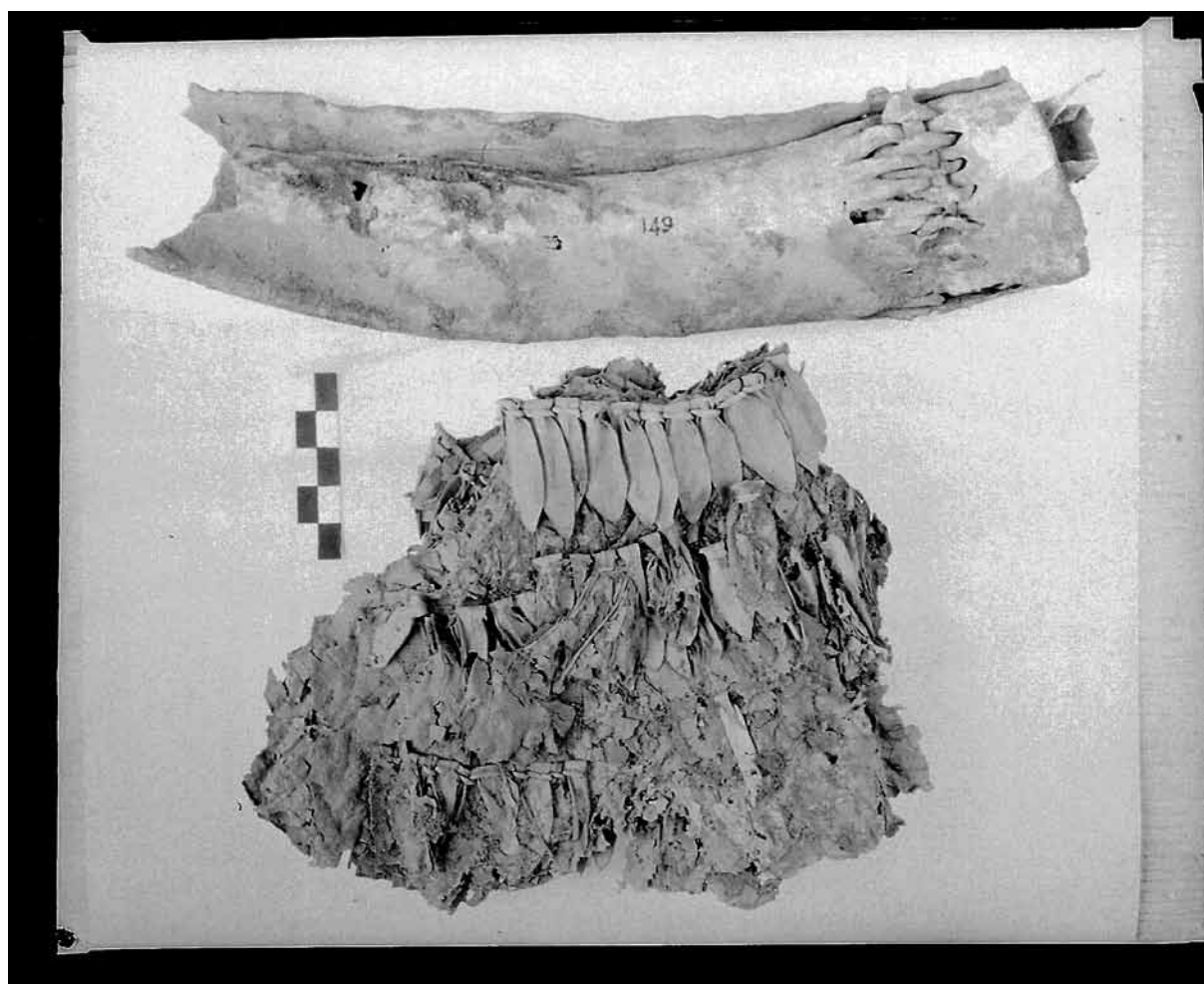
29/110. Rawhide axe lashing. Courtesy of the Egypt Exploration Society.

CLOTHING

(CAT. NO. 283)

Cat. No.	Year	1933
283	Find No.	33/149
	Context	Central City, The Foreign Office, Q 42, 7
	Measurements	Approximately 26 x 6
	Material	Leather
	Remarks	Pendlebury (1951: 118) refers to the object as "Part of leather

apron," but this seems unlikely, as one would expect thinner leather. The object has not been studied first-hand, but the type of fastening is thus far only seen in rawhide objects (*cf.* text figure 11). Distributed to the Egyptian Museum, Cairo (*Ibidem*: 254).



33/149. Leather object (top) referred to by Pendlebury as 'apron'. Courtesy of the Egypt Exploration Society.

CONCORDANCES

CONCORDANCE BY SPECIALIST NUMBER

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
21/104	table Cat. Part I, C	unidentified	24/888	table Cat. Part I, C	straps, etc.
21/155	table Cat. Part I, C	weaponry	25/171	table Cat. Part I, C	straps, etc.
21/25	table Cat. Part I, C	unidentified	25/171	table Cat. Part I, C	unidentified
21/327	table Cat. Part I, C	unidentified	25/171	table Cat. Part I, C	unidentified
21/418	table Cat. Part I, C	weaponry	25/24	table Cat. Part I, C	unidentified
21/42	table Cat. Part I, C	straps, etc.	26/132	table Cat. Part I, C	unidentified
21/483	table Cat. Part I, C	weaponry	26/273	279	weaponry
21/486	table Cat. Part I, C	sandals	26/275	table Cat. Part I, C	straps, etc.
21/49	table Cat. Part I, C	unidentified	26/305	table Cat. Part I, C	weaponry
21/494	table Cat. Part I, C	sandals	26/519	table Cat. Part I, C	unidentified
21/495	table Cat. Part I, C	unidentified	29/110	282	weaponry
21/499	table Cat. Part I, C	unidentified	30/615	table Cat. Part I, C	sandals
21/525	table Cat. Part I, C	unidentified	30/665	table Cat. Part I, C	unidentified
21/88	table Cat. Part I, C	unidentified	30/744	276	dec. leather
21/99	table Cat. Part I, C	unidentified	31/128	table Cat. Part I, C	unidentified
22/105	275	sandals	31/145	table Cat. Part I, C	unidentified
22/119	273	sandals	31/146	table Cat. Part I, C	sandals
22/119	274	sandals	31/223	table Cat. Part I, C	unidentified
22/120	272	sandals	31/391	table Cat. Part I, C	unidentified
22/526	281	weaponry	31/457	table Cat. Part I, C	unidentified
23/126	table Cat. Part I, C	unidentified	31/47	table Cat. Part I, C	sandals
23/127	table Cat. Part I, C	straps, etc.	31/49	280	weaponry
23/202	table Cat. Part I, C	unidentified	31/51	table Cat. Part I, C	sandals
23/24	table Cat. Part I, C	unidentified	31/97	table Cat. Part I, C	unidentified
23/289	table Cat. Part I, C	sandals	33/145	table Cat. Part I, C	weaponry
23/36	table Cat. Part I, C	unidentified	33/149	283	clothing
23/440	table Cat. Part I, C	sandals	33/201	table Cat. Part I, C	unidentified
23/46	table Cat. Part I, C	straps, etc.	33/240	table Cat. Part I, C	unidentified
23/71	table Cat. Part I, C	sandals	33/297	277	dec. leather
24/515	table Cat. Part I, C	unidentified	33/304	278	dec. leather
24/527	table Cat. Part I, C	straps, etc.	33/65	table Cat. Part I, C	unidentified
24/537	table Cat. Part I, C	unidentified	36/158	table Cat. Part I, C	sandals
24/662	table Cat. Part I, C	sandals	ÄM AM 001	50	weaponry
24/676	table Cat. Part I, C	weaponry	ÄM AM 002	1	sandals
24/700	table Cat. Part I, C	weaponry	ÄM AM 003	82	unidentified
24/723	table Cat. Part I, C	unidentified	ÄM AM 004a	51	weaponry
24/780	table Cat. Part I, C	weaponry	ÄM AM 004b	51	weaponry

Concordances

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
ÄM AM 005	52	weaponry	ÄM AM 020d	8	sandals
ÄM AM 006a	2	sandals	ÄM AM 020e	8	sandals
ÄM AM 006b	83	unidentified	ÄM AM 020f	91	unidentified
ÄM AM 006c	2	sandals	ÄM AM 020g	91	unidentified
ÄM AM 006d	83	unidentified	ÄM AM 020h	8	sandals
ÄM AM 007	84	unidentified	ÄM AM 020i	8	sandals
ÄM AM 008a	65	straps, etc.	ÄM AM 020j	91	unidentified
ÄM AM 008b	3	sandals	ÄM AM 020k	91	unidentified
ÄM AM 008c	3	sandals	ÄM AM 020l	8	sandals
ÄM AM 008d	85	unidentified	ÄM AM 020m	91	unidentified
ÄM AM 008e	85	unidentified	ÄM AM 020n	78	offcuts, waste
ÄM AM 009	4	sandals	ÄM AM 021	92	unidentified
ÄM AM 010	5	sandals	ÄM AM 022a	70	straps, etc.
ÄM AM 011	63	bags	ÄM AM 022b	93	unidentified
ÄM AM 012a	66	straps, etc.	ÄM AM 023	9	sandals
ÄM AM 012b	66	straps, etc.	ÄM AM 024	94	unidentified
ÄM AM 013a	67	straps, etc.	ÄM AM 025	10	sandals
ÄM AM 013b	31	dec. leather	ÄM AM 026a	32	dec. leather
ÄM AM 013c	31	dec. leather	ÄM AM 026b	32	dec. leather
ÄM AM 013d	31	dec. leather	ÄM AM 026c	32	dec. leather
ÄM AM 013e	67	straps, etc.	ÄM AM 026d	32	dec. leather
ÄM AM 014a	6	sandals	ÄM AM 026e	32	dec. leather
ÄM AM 014b	6	sandals	ÄM AM 026f	32	dec. leather
ÄM AM 014c	86	unidentified	ÄM AM 026g	32	dec. leather
ÄM AM 014d	6	sandals	ÄM AM 026h	32	dec. leather
ÄM AM 015	87	unidentified	ÄM AM 027a	11	sandals
ÄM AM 016a	88	unidentified	ÄM AM 027b	11	sandals
ÄM AM 016b	68	straps, etc.	ÄM AM 027c	11	sandals
ÄM AM 016c	88	unidentified	ÄM AM 028a	95	unidentified
ÄM AM 017a	7	sandals	ÄM AM 028b	12	sandals
ÄM AM 017b	7	sandals	ÄM AM 029	71	straps, etc.
ÄM AM 017c	89	unidentified	ÄM AM 030a	13	sandals
ÄM AM 017d	7	sandals	ÄM AM 030b	13	sandals
ÄM AM 017e	89	unidentified	ÄM AM 030c	96	unidentified
ÄM AM 017f	89	unidentified	ÄM AM 030d	13	sandals
ÄM AM 017g	89	unidentified	ÄM AM 030e	13	sandals
ÄM AM 017h	7	sandals	ÄM AM 030f	13	sandals
ÄM AM 017i	7	sandals	ÄM AM 030g	96	unidentified
ÄM AM 018a	90	unidentified	ÄM AM 030h	53	weaponry
ÄM AM 018b	64	bags	ÄM AM 030i	13	sandals
ÄM AM 018c	64	bags	ÄM AM 030j	72	straps, etc.
ÄM AM 019	69	straps, etc.	ÄM AM 030k	33	dec. leather
ÄM AM 020a	91	unidentified	ÄM AM 030l	33	dec. leather
ÄM AM 020b	91	unidentified	ÄM AM 031a	34	dec. leather
ÄM AM 020c	8	sandals	ÄM AM 031b	34	dec. leather

Concordances

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
ÄM AM 031c	97	unidentified	ÄM AM 041d	62	clothing
ÄM AM 031d	97	unidentified	ÄM AM 041e	62	clothing
ÄM AM 031e	34	dec. leather	ÄM AM 042a	100	unidentified
ÄM AM 031f	34	dec. leather	ÄM AM 042b	100	unidentified
ÄM AM 031g	34	dec. leather	ÄM AM 042c	100	unidentified
ÄM AM 032a	35	dec. leather	ÄM AM 042d	100	unidentified
ÄM AM 032b	35	dec. leather	ÄM AM 042e	100	unidentified
ÄM AM 032c	35	dec. leather	ÄM AM 042f	100	unidentified
ÄM AM 032d	35	dec. leather	ÄM AM 042g	100	unidentified
ÄM AM 032e	35	dec. leather	ÄM AM 043a	74	straps, etc.
ÄM AM 032f	35	dec. leather	ÄM AM 043b	74	straps, etc.
ÄM AM 032g	35	dec. leather	ÄM AM 043c	74	straps, etc.
ÄM AM 033	14	sandals	ÄM AM 043d	74	straps, etc.
ÄM AM 034	36	dec. leather	ÄM AM 044	80	offcuts, waste
ÄM AM 035	37	dec. leather	ÄM AM 045a	101	unidentified
ÄM AM 036a	15	sandals	ÄM AM 045b	101	unidentified
ÄM AM 036b	15	sandals	ÄM AM 045c	101	unidentified
ÄM AM 036c	15	sandals	ÄM AM 045d	101	unidentified
ÄM AM 036d	15	sandals	ÄM AM 045e	101	unidentified
ÄM AM 036e	15	sandals	ÄM AM 046a	17	sandals
ÄM AM 036f	15	sandals	ÄM AM 046b	17	sandals
ÄM AM 036g	15	sandals	ÄM AM 046c	17	sandals
ÄM AM 036h	15	sandals	ÄM AM 047a	81	offcuts, waste
ÄM AM 036i	15	sandals	ÄM AM 048a	30	shoes
ÄM AM 036j	15	sandals	ÄM AM 048b	30	shoes
ÄM AM 036k	15	sandals	ÄM AM 048c	30	shoes
ÄM AM 036l	15	sandals	ÄM AM 048d	30	shoes
ÄM AM 036m	15	sandals	ÄM AM 048e	30	shoes
ÄM AM 036n	61	clothing	ÄM AM 048f	30	shoes
ÄM AM 037a	16	sandals	ÄM AM 048g	30	shoes
ÄM AM 037b	16	sandals	ÄM AM 048h	30	shoes
ÄM AM 037c	16	sandals	ÄM AM 048i	30	shoes
ÄM AM 038a	54	weaponry	ÄM AM 048j	30	shoes
ÄM AM 038b	54	weaponry	ÄM AM 048k	30	shoes
ÄM AM 039a	73	straps, etc.	ÄM AM 048l	30	shoes
ÄM AM 039b	98	unidentified	ÄM AM 048m	30	shoes
ÄM AM 039c	98	unidentified	ÄM AM 048n	30	shoes
ÄM AM 040a	99	unidentified	ÄM AM 048o	30	shoes
ÄM AM 040b	99	unidentified	ÄM AM 048p	30	shoes
ÄM AM 040c	99	unidentified	ÄM AM 048q	30	shoes
ÄM AM 040d	99	unidentified	ÄM AM 048r	30	shoes
ÄM AM 040e	99	unidentified	ÄM AM 048s	30	shoes
ÄM AM 041a	62	clothing	ÄM AM 048t	30	shoes
ÄM AM 041b	62	clothing	ÄM AM 049a	102	unidentified
ÄM AM 041c	62	clothing	ÄM AM 049b	55	weaponry

Concordances

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
ÄM AM 049c	75	straps, etc.	ÄM AM 067b	106	unidentified
ÄM AM 049d	75	straps, etc.	ÄM AM 067c	106	unidentified
ÄM AM 049e	102	unidentified	ÄM AM 067d	106	unidentified
ÄM AM 050	103	unidentified	ÄM AM 067e	106	unidentified
ÄM AM 051	56	weaponry	ÄM AM 068a	27	sandals
ÄM AM 052	57	weaponry	ÄM AM 068b	27	sandals
ÄM AM 053	38	dec. leather	ÄM AM 068c	40	dec. leather
ÄM AM 054a	18	sandals	ÄM AM 068d	107	unidentified
ÄM AM 054b	76	straps, etc.	ÄM AM 068e	107	unidentified
ÄM AM 054c	18	sandals	ÄM AM 068f	27	sandals
ÄM AM 054d	18	sandals	ÄM AM 068g	27	sandals
ÄM AM 054e	18	sandals	ÄM AM 069a	108	unidentified
ÄM AM 055	58	weaponry	ÄM AM 069b	28	sandals
ÄM AM 056a	19	sandals	ÄM AM 069c	108	unidentified
ÄM AM 056b	19	sandals	ÄM AM 069d	28	sandals
ÄM AM 056c	19	sandals	ÄM AM 069e	108	unidentified
ÄM AM 056d	19	sandals	ÄM AM 069f	77	straps, etc.
ÄM AM 056e	19	sandals	ÄM AM 069g	28	sandals
ÄM AM 056f	19	sandals	ÄM AM 070	109	unidentified
ÄM AM 056g	19	sandals	ÄM AM 071a	29	sandals
ÄM AM 056h	19	sandals	ÄM AM 071b	29	sandals
ÄM AM 056i	19	sandals	ÄM AM 071c	29	sandals
ÄM AM 056j	19	sandals	ÄM AM 072a	41	dec. leather
ÄM AM 056k	19	sandals	ÄM AM 072b	41	dec. leather
ÄM AM 056l	19	sandals	ÄM AM 072c	41	dec. leather
ÄM AM 056m	19	sandals	ÄM AM 072d	41	dec. leather
ÄM AM 057	59	weaponry	ÄM AM 072e	41	dec. leather
ÄM AM 058a	20	sandals	ÄM AM 072f	41	dec. leather
ÄM AM 058b	20	sandals	ÄM AM 073a	42	dec. leather
ÄM AM 059	21	sandals	ÄM AM 073b	42	dec. leather
ÄM AM 060	22	sandals	ÄM AM 073c	42	dec. leather
ÄM AM 061a	23	sandals	ÄM AM 073d	42	dec. leather
ÄM AM 061b	23	sandals	ÄM AM 073e	42	dec. leather
ÄM AM 062a	60	weaponry	ÄM AM 073f	42	dec. leather
ÄM AM 062b	104	unidentified	ÄM AM 074a	43	dec. leather
ÄM AM 062c	104	unidentified	ÄM AM 074b	43	dec. leather
ÄM AM 063	105	unidentified	ÄM AM 074c	43	dec. leather
ÄM AM 064a	24	sandals	ÄM AM 075	44	dec. leather
ÄM AM 064b	24	sandals	ÄM AM 076a	45	dec. leather
ÄM AM 065a	25	sandals	ÄM AM 076aa	45	dec. leather
ÄM AM 065b	25	sandals	ÄM AM 076ab	45	dec. leather
ÄM AM 065c	39	dec. leather	ÄM AM 076ac	45	dec. leather
ÄM AM 066a	26	sandals	ÄM AM 076b	45	dec. leather
ÄM AM 066b	26	sandals	ÄM AM 076c	45	dec. leather
ÄM AM 067a	106	unidentified	ÄM AM 076d	45	dec. leather

Concordances

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
ÄM AM 076e	45	dec. leather	not numbered	79	offcuts, waste
ÄM AM 076f	45	dec. leather	not numbered	81	offcuts, waste
ÄM AM 076g	45	dec. leather	TA AM 001	146	offcuts, waste
ÄM AM 076h	45	dec. leather	TA AM 002	151	unidentified
ÄM AM 076i	45	dec. leather	TA AM 003a	152	unidentified
ÄM AM 076j	45	dec. leather	TA AM 003b	152	unidentified
ÄM AM 076k	45	dec. leather	TA AM 004a	110	sandals
ÄM AM 076l	45	dec. leather	TA AM 004b	110	sandals
ÄM AM 076m	45	dec. leather	TA AM 005a	135	straps, etc.
ÄM AM 076n	45	dec. leather	TA AM 005b	135	straps, etc.
ÄM AM 076o	45	dec. leather	TA AM 005c	135	straps, etc.
ÄM AM 076p	45	dec. leather	TA AM 005d	135	straps, etc.
ÄM AM 076q	45	dec. leather	TA AM 006	111	sandals
ÄM AM 076r	45	dec. leather	TA AM 007a	110	sandals
ÄM AM 076s	45	dec. leather	TA AM 007b	110	sandals
ÄM AM 076t	45	dec. leather	TA AM 007c	110	sandals
ÄM AM 076u	45	dec. leather	TA AM 007d	110	sandals
ÄM AM 076v	45	dec. leather	TA AM 007e	110	sandals
ÄM AM 076w	45	dec. leather	TA AM 007f	110	sandals
ÄM AM 076x	45	dec. leather	TA AM 007g	110	sandals
ÄM AM 076y	45	dec. leather	TA AM 007h	110	sandals
ÄM AM 076z	45	dec. leather	TA AM 007i	110	sandals
ÄM AM 077	46	dec. leather	TA AM 008a	130	clothing
ÄM AM 078a	47	dec. leather	TA AM 008aa	130	clothing
ÄM AM 078b	47	dec. leather	TA AM 008ab	130	clothing
ÄM AM 078c	47	dec. leather	TA AM 008ac	130	clothing
ÄM AM 078d	47	dec. leather	TA AM 008ad	130	clothing
ÄM AM 078e	47	dec. leather	TA AM 008ae	130	clothing
ÄM AM 078f	47	dec. leather	TA AM 008af	130	clothing
ÄM AM 078g	47	dec. leather	TA AM 008ag	130	clothing
ÄM AM 078h	47	dec. leather	TA AM 008ah	130	clothing
ÄM AM 078i	47	dec. leather	TA AM 008ai	130	clothing
ÄM AM 078j	47	dec. leather	TA AM 008aj	130	clothing
ÄM AM 078k	47	dec. leather	TA AM 008ak	130	clothing
ÄM AM 078l	47	dec. leather	TA AM 008al	130	clothing
ÄM AM 078m	47	dec. leather	TA AM 008am	130	clothing
ÄM AM 078n	47	dec. leather	TA AM 008an	130	clothing
ÄM AM 078o	47	dec. leather	TA AM 008ao	130	clothing
ÄM AM 078p	47	dec. leather	TA AM 008ap	130	clothing
ÄM AM 078q	47	dec. leather	TA AM 008aq	130	clothing
ÄM AM 078r	47	dec. leather	TA AM 008ar	130	clothing
ÄM AM 078s	47	dec. leather	TA AM 008as	130	clothing
ÄM AM 078t	47	dec. leather	TA AM 008at	130	clothing
ÄM AM 079	48	dec. leather	TA AM 008au	130	clothing
not numbered	49	dec. leather	TA AM 008av	130	clothing

Concordances

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
TA AM 008aw	130	clothing	TA AM 009m	131	dec. leather
TA AM 008ax	130	clothing	TA AM 009n	131	dec. leather
TA AM 008ay	130	clothing	TA AM 009o	131	dec. leather
TA AM 008az	130	clothing	TA AM 009p	131	dec. leather
TA AM 008b	130	clothing	TA AM 009q	131	dec. leather
TA AM 008ba	130	clothing	TA AM 010	153	unidentified
TA AM 008bb	130	clothing	TA AM 011a	132	bags
TA AM 008bc	130	clothing	TA AM 011b	132	bags
TA AM 008bd	130	clothing	TA AM 012	154	unidentified
TA AM 008c	130	clothing	TA AM 013	112	sandals
TA AM 008d	130	clothing	TA AM 014	155	unidentified
TA AM 008e	130	clothing	TA AM 015	156	unidentified
TA AM 008f	130	clothing	TA AM 016	157	unidentified
TA AM 008g	130	clothing	TA AM 017	158	unidentified
TA AM 008h	130	clothing	TA AM 018	159	unidentified
TA AM 008i	130	clothing	TA AM 019	136	straps, etc.
TA AM 008j	130	clothing	TA AM 020	137	straps, etc.
TA AM 008k	130	clothing	TA AM 021	160	unidentified
TA AM 008l	130	clothing	TA AM 022	161	unidentified
TA AM 008m	130	clothing	TA AM 023	162	unidentified
TA AM 008n	130	clothing	TA AM 024	163	unidentified
TA AM 008o	130	clothing	TA AM 025a	113	sandals
TA AM 008p	130	clothing	TA AM 025b	113	sandals
TA AM 008q	130	clothing	TA AM 026	138	straps, etc.
TA AM 008r	130	clothing	TA AM 027a	164	unidentified
TA AM 008s	130	clothing	TA AM 027b	164	unidentified
TA AM 008t	130	clothing	TA AM 027c	164	unidentified
TA AM 008u	130	clothing	TA AM 028	165	unidentified
TA AM 008v	130	clothing	TA AM 029	166	unidentified
TA AM 008w	130	clothing	TA AM 030	167	unidentified
TA AM 008x	130	clothing	TA AM 031	168	unidentified
TA AM 008y	130	clothing	TA AM 032	169	unidentified
TA AM 008z	130	clothing	TA AM 033	170	unidentified
TA AM 009a	131	dec. leather	TA AM 034	171	unidentified
TA AM 009b	131	dec. leather	TA AM 035a	172	unidentified
TA AM 009c	131	dec. leather	TA AM 035b	172	unidentified
TA AM 009d	131	dec. leather	TA AM 036	173	unidentified
TA AM 009e	131	dec. leather	TA AM 037	174	unidentified
TA AM 009f	131	dec. leather	TA AM 038	175	unidentified
TA AM 009g	131	dec. leather	TA AM 039	147	offcuts, waste
TA AM 009h	131	dec. leather	TA AM 040	176	unidentified
TA AM 009i	131	dec. leather	TA AM 041	177	unidentified
TA AM 009j	131	dec. leather	TA AM 042	178	unidentified
TA AM 009k	131	dec. leather	TA AM 043a	114	sandals
TA AM 009l	131	dec. leather	TA AM 043b	114	sandals

Concordances

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
TA AM 043c	114	sandals	TA AM 075	150	offcuts, waste
TA AM 043d	114	sandals	TA AM 076	201	unidentified
TA AM 044	179	unidentified	TA AM 077	202	unidentified
TA AM 045	180	unidentified	TA AM 078	118	sandals
TA AM 046	181	unidentified	TA AM 079	140	straps, etc.
TA AM 047	182	unidentified	TA AM 080	141	straps, etc.
TA AM 048	115	sandals	TA AM 081	142	straps, etc.
TA AM 049	116	sandals	TA AM 082	203	unidentified
TA AM 050	183	unidentified	TA AM 083	204	unidentified
TA AM 051	184	unidentified	TA AM 084	205	unidentified
TA AM 052	185	unidentified	TA AM 085	206	unidentified
TA AM 053	139	straps, etc.	TA AM 086	207	unidentified
TA AM 054	186	unidentified	TA AM 089	208	unidentified
TA AM 055	117	sandals	TA AM 090	209	unidentified
TA AM 056	187	unidentified	TA AM 091	210	unidentified
TA AM 057	188	unidentified	TA AM 092	143	straps, etc.
TA AM 058	189	unidentified	TA AM 093	144	straps, etc.
TA AM 059	190	unidentified	TA AM 094	211	unidentified
TA AM 060	129	clothing	TA AM 095	212	unidentified
TA AM 061	191	unidentified	TA AM 096	213	unidentified
TA AM 062	192	unidentified	TA AM 097	214	unidentified
TA AM 063	193	unidentified	TA AM 098	215	unidentified
TA AM 064	133	bags	TA AM 099	119	sandals
TA AM 065	148	offcuts, waste	TA AM 100	216	unidentified
TA AM 066a	194	unidentified	TA AM 101	217	unidentified
TA AM 066b	194	unidentified	TA AM 102	120	sandals
TA AM 066c	194	unidentified	TA AM 103	218	unidentified
TA AM 066d	194	unidentified	TA AM 104a	219	unidentified
TA AM 067a	195	unidentified	TA AM 104b	219	unidentified
TA AM 067b	195	unidentified	TA AM 105	220	unidentified
TA AM 067c	195	unidentified	TA AM 106	221	unidentified
TA AM 067d	195	unidentified	TA AM 107	121	sandals
TA AM 068	196	unidentified	TA AM 108	222	unidentified
TA AM 069a	134	bags	TA AM 109	223	unidentified
TA AM 069b	134	bags	TA AM 110	224	unidentified
TA AM 069c	134	bags	TA AM 111	122	sandals
TA AM 070	197	unidentified	TA AM 112	123	sandals
TA AM 071	198	unidentified	TA AM 113a	225	unidentified
TA AM 072a	199	unidentified	TA AM 113b	225	unidentified
TA AM 072b	199	unidentified	TA AM 114	226	unidentified
TA AM 073	149	offcuts, waste	TA AM 115	227	unidentified
TA AM 074a	200	unidentified	TA AM 116a	145	straps, etc.
TA AM 074b	200	unidentified	TA AM 116b	145	straps, etc.
TA AM 074c	200	unidentified	TA AM 116c	124	sandals
TA AM 074d	200	unidentified	TA AM 117	241	unidentified

Concordances

<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>	<i>Specialist Number</i>	<i>Catalogue Number</i>	<i>Description</i>
TA AM 118	242	unidentified	TA AM 148	239	straps, etc.
TA AM 119	243	unidentified	TA AM 149	264	unidentified
TA AM 120	235	straps, etc.	TA AM 150	265	unidentified
TA AM 121	244	unidentified	TA AM 151	266	unidentified
TA AM 122	245	unidentified	TA AM 152	228	unidentified
TA AM 123	246	unidentified	TA AM 153	267	unidentified
TA AM 124	240	book covers	TA AM 154	268	unidentified
TA AM 125	247	unidentified	TA AM 155	269	unidentified
TA AM 126a	248	unidentified	TA AM 156	270	unidentified
TA AM 126b	248	unidentified	TA AM 157a	271	unidentified
TA AM 126c	248	unidentified	TA AM 157b	271	unidentified
TA AM 126d	248	unidentified	TA AM 157c	271	unidentified
TA AM 127	249	unidentified	TA AM 157d	271	unidentified
TA AM 128	125	sandals	TA AM 158	126	sandals
TA AM 129	250	unidentified	TA AM 159a	127	sandals
TA AM 130	236	straps, etc.	TA AM 159b	127	sandals
TA AM 131a	233	sandals	TA AM 159c	127	sandals
TA AM 131b	233	sandals	TA AM 160a	128	sandals
TA AM 131c	233	sandals	TA AM 160b	128	sandals
TA AM 131d	233	sandals	TA AM 161	229	unidentified
TA AM 131e	233	sandals	TA AM 162a	230	unidentified
TA AM 131f	233	sandals	TA AM 162b	230	unidentified
TA AM 131g	233	sandals	TA AM 162c	230	unidentified
TA AM 132a	234	sandals	TA AM 162d	230	unidentified
TA AM 132b	234	sandals	TA AM 162e	230	unidentified
TA AM 132c	234	sandals	TA AM 162f	230	unidentified
TA AM 132d	234	sandals	TA AM 163	231	unidentified
TA AM 133	251	unidentified	TA AM 164a	232	unidentified
TA AM 134	252	unidentified	TA AM 164b	232	unidentified
TA AM 135	253	unidentified	TA AM 164c	232	unidentified
TA AM 136	237	straps, etc.	TA AM 164d	232	unidentified
TA AM 137	254	unidentified	TA AM 164e	232	unidentified
TA AM 138	255	unidentified	TA AM 164f	232	unidentified
TA AM 139	256	unidentified	TA AM 164g	232	unidentified
TA AM 140	257	unidentified	TA AM 164h	232	unidentified
TA AM 141	258	unidentified	TA AM 164i	232	unidentified
TA AM 142	259	unidentified			
TA AM 143	260	unidentified			
TA AM 144	261	unidentified			
TA AM 145	262	unidentified			
TA AM 146	238	straps, etc.			
TA AM 147a	263	unidentified			
TA AM 147b	263	unidentified			
TA AM 147c	263	unidentified			
TA AM 147d	263	unidentified			

CONCORDANCE BY CATALOGUE NUMBER

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
1	ÄM AM 002	sandal	15	ÄM AM 036d	sandals
2	ÄM AM 006a	sandals	15	ÄM AM 036e	sandals
2	ÄM AM 006c	sandals	15	ÄM AM 036f	sandals
3	ÄM AM 008b	sandals	15	ÄM AM 036g	sandals
3	ÄM AM 008c	sandals	15	ÄM AM 036h	sandals
4	ÄM AM 009	sandals	15	ÄM AM 036i	sandals
5	ÄM AM 010	sandals	15	ÄM AM 036j	sandals
6	ÄM AM 014a	sandals	15	ÄM AM 036k	sandals
6	ÄM AM 014b	sandals	15	ÄM AM 036l	sandals
6	ÄM AM 014d	sandals	15	ÄM AM 036m	sandals
7	ÄM AM 017a	sandals	16	ÄM AM 037a	sandals
7	ÄM AM 017b	sandals	16	ÄM AM 037b	sandals
7	ÄM AM 017d	sandals	16	ÄM AM 037c	sandals
7	ÄM AM 017h	sandals	17	ÄM AM 046a	sandals
7	ÄM AM 017i	sandals	17	ÄM AM 046b	sandals
8	ÄM AM 020c	sandals	17	ÄM AM 046c	sandals
8	ÄM AM 020d	sandals	18	ÄM AM 054a	sandals
8	ÄM AM 020e	sandals	18	ÄM AM 054c	sandals
8	ÄM AM 020h	sandals	18	ÄM AM 054d	sandals
8	ÄM AM 020i	sandals	18	ÄM AM 054e	sandals
8	ÄM AM 020l	sandals	19	ÄM AM 056a	sandals
9	ÄM AM 023	sandals	19	ÄM AM 056b	sandals
10	ÄM AM 025	sandals	19	ÄM AM 056c	sandals
11	ÄM AM 027a	sandals	19	ÄM AM 056d	sandals
11	ÄM AM 027b	sandals	19	ÄM AM 056e	sandals
11	ÄM AM 027c	sandals	19	ÄM AM 056f	sandals
12	ÄM AM 028b	sandals	19	ÄM AM 056g	sandals
13	ÄM AM 030a	sandals	19	ÄM AM 056h	sandals
13	ÄM AM 030b	sandals	19	ÄM AM 056i	sandals
13	ÄM AM 030d	sandals	19	ÄM AM 056j	sandals
13	ÄM AM 030e	sandals	19	ÄM AM 056k	sandals
13	ÄM AM 030f	sandals	19	ÄM AM 056l	sandals
13	ÄM AM 030i	sandals	19	ÄM AM 056m	sandals
14	ÄM AM 033	sandals	20	ÄM AM 058a	sandals
15	ÄM AM 036a	sandals	20	ÄM AM 058b	sandals
15	ÄM AM 036b	sandals	21	ÄM AM 059	sandals
15	ÄM AM 036c	sandals	22	ÄM AM 060	sandals

Concordances

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
23	ÄM AM 061a	sandals	32	ÄM AM 026e	dec. leather
23	ÄM AM 061b	sandals	32	ÄM AM 026f	dec. leather
24	ÄM AM 064a	sandals	32	ÄM AM 026g	dec. leather
24	ÄM AM 064b	sandals	32	ÄM AM 026h	dec. leather
25	ÄM AM 065a	sandals	33	ÄM AM 030k	dec. leather
25	ÄM AM 065b	sandals	33	ÄM AM 030l	dec. leather
26	ÄM AM 066a	sandals	34	ÄM AM 031a	dec. leather
26	ÄM AM 066b	sandals	34	ÄM AM 031b	dec. leather
27	ÄM AM 068a	sandals	34	ÄM AM 031e	dec. leather
27	ÄM AM 068b	sandals	34	ÄM AM 031f	dec. leather
27	ÄM AM 068f	sandals	34	ÄM AM 031g	dec. leather
27	ÄM AM 068g	sandals	35	ÄM AM 032a	dec. leather
28	ÄM AM 069b	sandals	35	ÄM AM 032b	dec. leather
28	ÄM AM 069d	sandals	35	ÄM AM 032c	dec. leather
28	ÄM AM 069g	sandals	35	ÄM AM 032d	dec. leather
29	ÄM AM 071a	sandals	35	ÄM AM 032e	dec. leather
29	ÄM AM 071b	sandals	35	ÄM AM 032f	dec. leather
29	ÄM AM 071c	sandals	35	ÄM AM 032g	dec. leather
30	ÄM AM 048a	shoes	36	ÄM AM 034	dec. leather
30	ÄM AM 048b	shoes	37	ÄM AM 035	dec. leather
30	ÄM AM 048c	shoes	38	ÄM AM 053	dec. leather
30	ÄM AM 048d	shoes	39	ÄM AM 065c	dec. leather
30	ÄM AM 048e	shoes	40	ÄM AM 068c	dec. leather
30	ÄM AM 048f	shoes	41	ÄM AM 072a	dec. leather
30	ÄM AM 048g	shoes	41	ÄM AM 072b	dec. leather
30	ÄM AM 048h	shoes	41	ÄM AM 072c	dec. leather
30	ÄM AM 048i	shoes	41	ÄM AM 072d	dec. leather
30	ÄM AM 048j	shoes	41	ÄM AM 072e	dec. leather
30	ÄM AM 048k	shoes	41	ÄM AM 072f	dec. leather
30	ÄM AM 048l	shoes	42	ÄM AM 073a	dec. leather
30	ÄM AM 048m	shoes	42	ÄM AM 073b	dec. leather
30	ÄM AM 048n	shoes	42	ÄM AM 073c	dec. leather
30	ÄM AM 048o	shoes	42	ÄM AM 073d	dec. leather
30	ÄM AM 048p	shoes	42	ÄM AM 073e	dec. leather
30	ÄM AM 048q	shoes	42	ÄM AM 073f	dec. leather
30	ÄM AM 048r	shoes	43	ÄM AM 074a	dec. leather
30	ÄM AM 048s	shoes	43	ÄM AM 074b	dec. leather
30	ÄM AM 048t	shoes	43	ÄM AM 074c	dec. leather
31	ÄM AM 013b	dec. leather	44	ÄM AM 075	dec. leather
31	ÄM AM 013c	dec. leather	45	ÄM AM 076a	dec. leather
31	ÄM AM 013d	dec. leather	45	ÄM AM 076b	dec. leather
32	ÄM AM 026a	dec. leather	45	ÄM AM 076c	dec. leather
32	ÄM AM 026b	dec. leather	45	ÄM AM 076d	dec. leather
32	ÄM AM 026c	dec. leather	45	ÄM AM 076e	dec. leather
32	ÄM AM 026d	dec. leather	45	ÄM AM 076f	dec. leather

Concordances

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
45	ÄM AM 076g	dec. leather	49	not numbered	dec. leather
45	ÄM AM 076h	dec. leather	50	ÄM AM 001	weaponry
45	ÄM AM 076i	dec. leather	51	ÄM AM 004a	weaponry
45	ÄM AM 076j	dec. leather	51	ÄM AM 004b	weaponry
45	ÄM AM 076k	dec. leather	52	ÄM AM 005	weaponry
45	ÄM AM 076l	dec. leather	53	ÄM AM 030h	weaponry
45	ÄM AM 076m	dec. leather	54	ÄM AM 038a	weaponry
45	ÄM AM 076n	dec. leather	54	ÄM AM 038b	weaponry
45	ÄM AM 076o	dec. leather	55	ÄM AM 049b	weaponry
45	ÄM AM 076p	dec. leather	56	ÄM AM 051	weaponry
45	ÄM AM 076q	dec. leather	57	ÄM AM 052	weaponry
45	ÄM AM 076r	dec. leather	58	ÄM AM 055	weaponry
45	ÄM AM 076s	dec. leather	59	ÄM AM 057	weaponry
45	ÄM AM 076t	dec. leather	60	ÄM AM 062a	weaponry
45	ÄM AM 076u	dec. leather	61	ÄM AM 036n	clothing
45	ÄM AM 076v	dec. leather	62	ÄM AM 041a	clothing
45	ÄM AM 076w	dec. leather	62	ÄM AM 041b	clothing
45	ÄM AM 076x	dec. leather	62	ÄM AM 041c	clothing
45	ÄM AM 076y	dec. leather	62	ÄM AM 041d	clothing
45	ÄM AM 076z	dec. leather	62	ÄM AM 041e	clothing
45	ÄM AM 076aa	dec. leather	63	ÄM AM 011	bags
45	ÄM AM 076ab	dec. leather	64	ÄM AM 018b	bags
45	ÄM AM 076ac	dec. leather	64	ÄM AM 018c	bags
46	ÄM AM 077	dec. leather	65	ÄM AM 008a	straps, etc.
47	ÄM AM 078a	dec. leather	66	ÄM AM 012a	straps, etc.
47	ÄM AM 078b	dec. leather	66	ÄM AM 012b	straps, etc.
47	ÄM AM 078c	dec. leather	67	ÄM AM 013a	straps, etc.
47	ÄM AM 078d	dec. leather	67	ÄM AM 013e	straps, etc.
47	ÄM AM 078e	dec. leather	68	ÄM AM 016b	straps, etc.
47	ÄM AM 078f	dec. leather	69	ÄM AM 019	straps, etc.
47	ÄM AM 078g	dec. leather	70	ÄM AM 022a	straps, etc.
47	ÄM AM 078h	dec. leather	71	ÄM AM 029	straps, etc.
47	ÄM AM 078i	dec. leather	72	ÄM AM 030j	straps, etc.
47	ÄM AM 078j	dec. leather	73	ÄM AM 039a	straps, etc.
47	ÄM AM 078k	dec. leather	74	ÄM AM 043a	straps, etc.
47	ÄM AM 078l	dec. leather	74	ÄM AM 043b	straps, etc.
47	ÄM AM 078m	dec. leather	74	ÄM AM 043c	straps, etc.
47	ÄM AM 078n	dec. leather	74	ÄM AM 043d	straps, etc.
47	ÄM AM 078o	dec. leather	75	ÄM AM 049c	straps, etc.
47	ÄM AM 078p	dec. leather	75	ÄM AM 049d	straps, etc.
47	ÄM AM 078q	dec. leather	76	ÄM AM 054b	straps, etc.
47	ÄM AM 078r	dec. leather	77	ÄM AM 069f	straps, etc.
47	ÄM AM 078s	dec. leather	78	ÄM AM 020n	offcuts, waste
47	ÄM AM 078t	dec. leather	79	not numbered	offcuts, waste
48	ÄM AM 079	dec. leather	80	ÄM AM 044	offcuts, waste

Concordances

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
81	ÄM AM 047a	offcuts, waste	100	ÄM AM 042g	unidentified
81	not numbered	offcuts, waste	101	ÄM AM 045a	unidentified
82	ÄM AM 003	unidentified	101	ÄM AM 045b	unidentified
83	ÄM AM 006b	unidentified	101	ÄM AM 045c	unidentified
83	ÄM AM 006d	unidentified	101	ÄM AM 045d	unidentified
84	ÄM AM 007	unidentified	101	ÄM AM 045e	unidentified
85	ÄM AM 008d	unidentified	102	ÄM AM 049a	unidentified
85	ÄM AM 008e	unidentified	102	ÄM AM 049e	unidentified
86	ÄM AM 014c	unidentified	103	ÄM AM 050	unidentified
87	ÄM AM 015	unidentified	104	ÄM AM 062b	unidentified
88	ÄM AM 016a	unidentified	104	ÄM AM 062c	unidentified
88	ÄM AM 016c	unidentified	105	ÄM AM 063	unidentified
89	ÄM AM 017c	unidentified	106	ÄM AM 067a	unidentified
89	ÄM AM 017e	unidentified	106	ÄM AM 067b	unidentified
89	ÄM AM 017f	unidentified	106	ÄM AM 067c	unidentified
89	ÄM AM 017g	unidentified	106	ÄM AM 067d	unidentified
90	ÄM AM 018a	unidentified	106	ÄM AM 067e	unidentified
91	ÄM AM 020a	unidentified	107	ÄM AM 068d	unidentified
91	ÄM AM 020b	unidentified	107	ÄM AM 068e	unidentified
91	ÄM AM 020f	unidentified	108	ÄM AM 069a	unidentified
91	ÄM AM 020g	unidentified	108	ÄM AM 069c	unidentified
91	ÄM AM 020j	unidentified	108	ÄM AM 069e	unidentified
91	ÄM AM 020k	unidentified	109	ÄM AM 070	unidentified
91	ÄM AM 020m	unidentified	110	TA AM 004a	sandals
92	ÄM AM 021	unidentified	110	TA AM 004b	sandals
93	ÄM AM 022b	unidentified	110	TA AM 007a	sandals
94	ÄM AM 024	unidentified	110	TA AM 007b	sandals
95	ÄM AM 028a	unidentified	110	TA AM 007c	sandals
96	ÄM AM 030c	unidentified	110	TA AM 007d	sandals
96	ÄM AM 030g	unidentified	110	TA AM 007e	sandals
97	ÄM AM 031c	unidentified	110	TA AM 007f	sandals
97	ÄM AM 031d	unidentified	110	TA AM 007g	sandals
98	ÄM AM 039b	unidentified	110	TA AM 007h	sandals
98	ÄM AM 039c	unidentified	110	TA AM 007i	sandals
99	ÄM AM 040a	unidentified	111	TA AM 006	sandals
99	ÄM AM 040b	unidentified	112	TA AM 013	sandals
99	ÄM AM 040c	unidentified	113	TA AM 025a	sandals
99	ÄM AM 040d	unidentified	113	TA AM 025b	sandals
99	ÄM AM 040e	unidentified	114	TA AM 043a	sandals
100	ÄM AM 042a	unidentified	114	TA AM 043b	sandals
100	ÄM AM 042b	unidentified	114	TA AM 043c	sandals
100	ÄM AM 042c	unidentified	114	TA AM 043d	sandals
100	ÄM AM 042d	unidentified	115	TA AM 048	sandals
100	ÄM AM 042e	unidentified	116	TA AM 049	sandals
100	ÄM AM 042f	unidentified	117	TA AM 055	sandals

Concordances

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
118	TA AM 078	sandals	130	TA AM 008ae	clothing
119	TA AM 099	sandals	130	TA AM 008af	clothing
120	TA AM 102	sandals	130	TA AM 008ag	clothing
121	TA AM 107	sandals	130	TA AM 008ah	clothing
122	TA AM 111	sandals	130	TA AM 008ai	clothing
123	TA AM 112	sandals	130	TA AM 008aj	clothing
124	TA AM 116c	sandals	130	TA AM 008ak	clothing
125	TA AM 128	sandals	130	TA AM 008al	clothing
126	TA AM 158	sandals	130	TA AM 008am	clothing
127	TA AM 159a	sandals	130	TA AM 008an	clothing
127	TA AM 159b	sandals	130	TA AM 008ao	clothing
127	TA AM 159c	sandals	130	TA AM 008ap	clothing
128	TA AM 160a	sandals	130	TA AM 008aq	clothing
128	TA AM 160b	sandals	130	TA AM 008ar	clothing
129	TA AM 060	clothing	130	TA AM 008as	clothing
130	TA AM 008a	clothing	130	TA AM 008at	clothing
130	TA AM 008b	clothing	130	TA AM 008au	clothing
130	TA AM 008c	clothing	130	TA AM 008av	clothing
130	TA AM 008d	clothing	130	TA AM 008aw	clothing
130	TA AM 008e	clothing	130	TA AM 008ax	clothing
130	TA AM 008f	clothing	130	TA AM 008ay	clothing
130	TA AM 008g	clothing	130	TA AM 008az	clothing
130	TA AM 008h	clothing	130	TA AM 008ba	clothing
130	TA AM 008i	clothing	130	TA AM 008bb	clothing
130	TA AM 008j	clothing	130	TA AM 008bc	clothing
130	TA AM 008k	clothing	130	TA AM 008bd	clothing
130	TA AM 008l	clothing	131	TA AM 009a	dec. leather
130	TA AM 008m	clothing	131	TA AM 009b	dec. leather
130	TA AM 008n	clothing	131	TA AM 009c	dec. leather
130	TA AM 008o	clothing	131	TA AM 009d	dec. leather
130	TA AM 008p	clothing	131	TA AM 009e	dec. leather
130	TA AM 008q	clothing	131	TA AM 009f	dec. leather
130	TA AM 008r	clothing	131	TA AM 009g	dec. leather
130	TA AM 008s	clothing	131	TA AM 009h	dec. leather
130	TA AM 008t	clothing	131	TA AM 009i	dec. leather
130	TA AM 008u	clothing	131	TA AM 009j	dec. leather
130	TA AM 008v	clothing	131	TA AM 009k	dec. leather
130	TA AM 008w	clothing	131	TA AM 009l	dec. leather
130	TA AM 008x	clothing	131	TA AM 009m	dec. leather
130	TA AM 008y	clothing	131	TA AM 009n	dec. leather
130	TA AM 008z	clothing	131	TA AM 009o	dec. leather
130	TA AM 008aa	clothing	131	TA AM 009p	dec. leather
130	TA AM 008ab	clothing	131	TA AM 009q	dec. leather
130	TA AM 008ac	clothing	132	TA AM 011a	bags
130	TA AM 008ad	clothing	132	TA AM 011b	bags

Concordances

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
133	TA AM 064	bags	169	TA AM 032	unidentified
134	TA AM 069a	bags	170	TA AM 033	unidentified
134	TA AM 069b	bags	171	TA AM 034	unidentified
134	TA AM 069c	bags	172	TA AM 035a	unidentified
135	TA AM 005a	straps, etc.	172	TA AM 035b	unidentified
135	TA AM 005b	straps, etc.	173	TA AM 036	unidentified
135	TA AM 005c	straps, etc.	174	TA AM 037	unidentified
135	TA AM 005d	straps, etc.	175	TA AM 038	unidentified
136	TA AM 019	straps, etc.	176	TA AM 040	unidentified
137	TA AM 020	straps, etc.	177	TA AM 041	unidentified
138	TA AM 026	straps, etc.	178	TA AM 042	unidentified
139	TA AM 053	straps, etc.	179	TA AM 044	unidentified
140	TA AM 079	straps, etc.	180	TA AM 045	unidentified
141	TA AM 080	straps, etc.	181	TA AM 046	unidentified
142	TA AM 081	straps, etc.	182	TA AM 047	unidentified
143	TA AM 092	straps, etc.	183	TA AM 050	unidentified
144	TA AM 093	straps, etc.	184	TA AM 051	unidentified
145	TA AM 116a	straps, etc.	185	TA AM 052	unidentified
145	TA AM 116b	straps, etc.	186	TA AM 054	unidentified
146	TA AM 001	off cuts, waste	187	TA AM 056	unidentified
147	TA AM 039	off cuts, waste	188	TA AM 057	unidentified
148	TA AM 065	off cuts, waste	189	TA AM 058	unidentified
149	TA AM 073	off cuts, waste	190	TA AM 059	unidentified
150	TA AM 075	off cuts, waste	191	TA AM 061	unidentified
151	TA AM 002	unidentified	192	TA AM 062	unidentified
152	TA AM 003a	unidentified	193	TA AM 063	unidentified
152	TA AM 003b	unidentified	194	TA AM 066a	unidentified
153	TA AM 010	unidentified	194	TA AM 066b	unidentified
154	TA AM 012	unidentified	194	TA AM 066c	unidentified
155	TA AM 014	unidentified	194	TA AM 066d	unidentified
156	TA AM 015	unidentified	195	TA AM 067a	unidentified
157	TA AM 016	unidentified	195	TA AM 067b	unidentified
158	TA AM 017	unidentified	195	TA AM 067c	unidentified
159	TA AM 018	unidentified	195	TA AM 067d	unidentified
160	TA AM 021	unidentified	196	TA AM 068	unidentified
161	TA AM 022	unidentified	197	TA AM 070	unidentified
162	TA AM 023	unidentified	198	TA AM 071	unidentified
163	TA AM 024	unidentified	199	TA AM 072a	unidentified
164	TA AM 027a	unidentified	199	TA AM 072b	unidentified
164	TA AM 027b	unidentified	200	TA AM 074a	unidentified
164	TA AM 027c	unidentified	200	TA AM 074b	unidentified
165	TA AM 028	unidentified	200	TA AM 074c	unidentified
166	TA AM 029	unidentified	200	TA AM 074d	unidentified
167	TA AM 030	unidentified	201	TA AM 076	unidentified
168	TA AM 031	unidentified	202	TA AM 077	unidentified

Concordances

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
203	TA AM 082	unidentified	233	TA AM 131a	sandals
204	TA AM 083	unidentified	233	TA AM 131b	sandals
205	TA AM 084	unidentified	233	TA AM 131c	sandals
206	TA AM 085	unidentified	233	TA AM 131d	sandals
207	TA AM 086	unidentified	233	TA AM 131e	sandals
208	TA AM 089	unidentified	233	TA AM 131f	sandals
209	TA AM 090	unidentified	233	TA AM 131g	sandals
210	TA AM 091	unidentified	234	TA AM 132a	sandals
211	TA AM 094	unidentified	234	TA AM 132b	sandals
212	TA AM 095	unidentified	234	TA AM 132c	sandals
213	TA AM 096	unidentified	234	TA AM 132d	sandals
214	TA AM 097	unidentified	235	TA AM 120	straps, etc.
215	TA AM 098	unidentified	236	TA AM 130	straps, etc.
216	TA AM 100	unidentified	237	TA AM 136	straps, etc.
217	TA AM 101	unidentified	238	TA AM 146	straps, etc.
218	TA AM 103	unidentified	239	TA AM 148	straps, etc.
219	TA AM 104a	unidentified	240	TA AM 124	book covers
219	TA AM 104b	unidentified	241	TA AM 117	unidentified
220	TA AM 105	unidentified	242	TA AM 118	unidentified
221	TA AM 106	unidentified	243	TA AM 119	unidentified
222	TA AM 108	unidentified	244	TA AM 121	unidentified
223	TA AM 109	unidentified	245	TA AM 122	unidentified
224	TA AM 110	unidentified	246	TA AM 123	unidentified
225	TA AM 113a	unidentified	247	TA AM 125	unidentified
225	TA AM 113b	unidentified	248	TA AM 126a	unidentified
226	TA AM 114	unidentified	248	TA AM 126b	unidentified
227	TA AM 115	unidentified	248	TA AM 126c	unidentified
228	TA AM 152	unidentified	248	TA AM 126d	unidentified
229	TA AM 161	unidentified	249	TA AM 127	unidentified
230	TA AM 162a	unidentified	250	TA AM 129	unidentified
230	TA AM 162b	unidentified	251	TA AM 133	unidentified
230	TA AM 162c	unidentified	252	TA AM 134	unidentified
230	TA AM 162d	unidentified	253	TA AM 135	unidentified
230	TA AM 162e	unidentified	254	TA AM 137	unidentified
230	TA AM 162f	unidentified	255	TA AM 138	unidentified
231	TA AM 163	unidentified	256	TA AM 139	unidentified
232	TA AM 164a	unidentified	257	TA AM 140	unidentified
232	TA AM 164b	unidentified	258	TA AM 141	unidentified
232	TA AM 164c	unidentified	259	TA AM 142	unidentified
232	TA AM 164d	unidentified	260	TA AM 143	unidentified
232	TA AM 164e	unidentified	261	TA AM 144	unidentified
232	TA AM 164f	unidentified	262	TA AM 145	unidentified
232	TA AM 164g	unidentified	263	TA AM 147a	unidentified
232	TA AM 164h	unidentified	263	TA AM 147b	unidentified
232	TA AM 164i	unidentified	263	TA AM 147c	unidentified

Concordances

<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>
263	TA AM 147d	unidentified	table Cat. Part I, C	23/202	unidentified
264	TA AM 149	unidentified	table Cat. Part I, C	23/289	sandals
265	TA AM 150	unidentified	table Cat. Part I, C	23/440	sandals
266	TA AM 151	unidentified	table Cat. Part I, C	24/515	unidentified
267	TA AM 153	unidentified	table Cat. Part I, C	24/527	straps, etc.
268	TA AM 154	unidentified	table Cat. Part I, C	24/537	unidentified
269	TA AM 155	unidentified	table Cat. Part I, C	24/662	sandals
270	TA AM 156	unidentified	table Cat. Part I, C	24/676	weaponry
271	TA AM 157a	unidentified	table Cat. Part I, C	24/700	weaponry
271	TA AM 157b	unidentified	table Cat. Part I, C	24/723	unidentified
271	TA AM 157c	unidentified	table Cat. Part I, C	24/780	weaponry
271	TA AM 157d	unidentified	table Cat. Part I, C	24/888	straps, etc.
272	22/120	sandals	table Cat. Part I, C	25/24	unidentified
273	22/119	sandals	table Cat. Part I, C	25/171	straps, etc.
274	22/119	sandals	table Cat. Part I, C	25/171	unidentified
275	22/105	sandals	table Cat. Part I, C	25/171	unidentified
276	30/744	dec. leather	table Cat. Part I, C	26/132	unidentified
277	33/297	dec. leather	table Cat. Part I, C	26/275	straps, etc.
278	33/304	dec. leather	table Cat. Part I, C	26/305	weaponry
279	26/273	weaponry	table Cat. Part I, C	26/519	unidentified
280	31/49	weaponry	table Cat. Part I, C	30/615	sandals
281	22/526	weaponry	table Cat. Part I, C	30/665	unidentified
282	29/110	weaponry	table Cat. Part I, C	31/47	sandals
283	33/149	clothing	table Cat. Part I, C	31/51	sandals
table Cat. Part I, C	21/25	unidentified	table Cat. Part I, C	31/97	unidentified
table Cat. Part I, C	21/42	straps, etc.	table Cat. Part I, C	31/128	unidentified
table Cat. Part I, C	21/49	unidentified	table Cat. Part I, C	31/145	unidentified
table Cat. Part I, C	21/88	unidentified	table Cat. Part I, C	31/146	sandals
table Cat. Part I, C	21/99	unidentified	table Cat. Part I, C	31/223	unidentified
table Cat. Part I, C	21/104	unidentified	table Cat. Part I, C	31/391	unidentified
table Cat. Part I, C	21/155	weaponry	table Cat. Part I, C	31/457	unidentified
table Cat. Part I, C	21/327	unidentified	table Cat. Part I, C	33/65	unidentified
table Cat. Part I, C	21/418	weaponry	table Cat. Part I, C	33/145	weaponry
table Cat. Part I, C	21/483	weaponry	table Cat. Part I, C	33/201	unidentified
table Cat. Part I, C	21/486	sandals	table Cat. Part I, C	33/240	unidentified
table Cat. Part I, C	21/494	sandals	table Cat. Part I, C	36/158	sandals
table Cat. Part I, C	21/495	unidentified			
table Cat. Part I, C	21/499	unidentified			
table Cat. Part I, C	21/525	unidentified			
table Cat. Part I, C	23/24	unidentified			
table Cat. Part I, C	23/36	unidentified			
table Cat. Part I, C	23/46	straps, etc.			
table Cat. Part I, C	23/71	sandals			
table Cat. Part I, C	23/126	unidentified			
table Cat. Part I, C	23/127	straps, etc.			

CONCORDANCE BY DESCRIPTION

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
bags	63	ÄM AM 011	clothing	130	TA AM 008u
bags	64	ÄM AM 018b	clothing	130	TA AM 008v
bags	64	ÄM AM 018c	clothing	130	TA AM 008w
bags	132	TA AM 011a	clothing	130	TA AM 008x
bags	132	TA AM 011b	clothing	130	TA AM 008y
bags	133	TA AM 064	clothing	130	TA AM 008z
bags	134	TA AM 069a	clothing	130	TA AM 008aa
bags	134	TA AM 069b	clothing	130	TA AM 008ab
bags	134	TA AM 069c	clothing	130	TA AM 008ac
book covers	240	TA AM 124	clothing	130	TA AM 008ad
clothing	61	ÄM AM 036n	clothing	130	TA AM 008ae
clothing	62	ÄM AM 041a	clothing	130	TA AM 008af
clothing	62	ÄM AM 041b	clothing	130	TA AM 008ag
clothing	62	ÄM AM 041c	clothing	130	TA AM 008ah
clothing	62	ÄM AM 041d	clothing	130	TA AM 008ai
clothing	62	ÄM AM 041e	clothing	130	TA AM 008aj
clothing	129	TA AM 060	clothing	130	TA AM 008ak
clothing	130	TA AM 008a	clothing	130	TA AM 008al
clothing	130	TA AM 008b	clothing	130	TA AM 008am
clothing	130	TA AM 008c	clothing	130	TA AM 008an
clothing	130	TA AM 008d	clothing	130	TA AM 008ao
clothing	130	TA AM 008e	clothing	130	TA AM 008ap
clothing	130	TA AM 008f	clothing	130	TA AM 008aq
clothing	130	TA AM 008g	clothing	130	TA AM 008ar
clothing	130	TA AM 008h	clothing	130	TA AM 008as
clothing	130	TA AM 008i	clothing	130	TA AM 008at
clothing	130	TA AM 008j	clothing	130	TA AM 008au
clothing	130	TA AM 008k	clothing	130	TA AM 008av
clothing	130	TA AM 008l	clothing	130	TA AM 008aw
clothing	130	TA AM 008m	clothing	130	TA AM 008ax
clothing	130	TA AM 008n	clothing	130	TA AM 008ay
clothing	130	TA AM 008o	clothing	130	TA AM 008az
clothing	130	TA AM 008p	clothing	130	TA AM 008ba
clothing	130	TA AM 008q	clothing	130	TA AM 008bb
clothing	130	TA AM 008r	clothing	130	TA AM 008bc
clothing	130	TA AM 008s	clothing	130	TA AM 008bd
clothing	130	TA AM 008t	clothing	283	33/149

Concordances

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
dec. leather	31	ÄM AM 013b	dec. leather	44	ÄM AM 075
dec. leather	31	ÄM AM 013c	dec. leather	45	ÄM AM 076a
dec. leather	31	ÄM AM 013d	dec. leather	45	ÄM AM 076b
dec. leather	32	ÄM AM 026a	dec. leather	45	ÄM AM 076c
dec. leather	32	ÄM AM 026b	dec. leather	45	ÄM AM 076d
dec. leather	32	ÄM AM 026c	dec. leather	45	ÄM AM 076e
dec. leather	32	ÄM AM 026d	dec. leather	45	ÄM AM 076f
dec. leather	32	ÄM AM 026e	dec. leather	45	ÄM AM 076g
dec. leather	32	ÄM AM 026f	dec. leather	45	ÄM AM 076h
dec. leather	32	ÄM AM 026g	dec. leather	45	ÄM AM 076i
dec. leather	32	ÄM AM 026h	dec. leather	45	ÄM AM 076j
dec. leather	33	ÄM AM 030k	dec. leather	45	ÄM AM 076k
dec. leather	33	ÄM AM 030l	dec. leather	45	ÄM AM 076l
dec. leather	34	ÄM AM 031a	dec. leather	45	ÄM AM 076m
dec. leather	34	ÄM AM 031b	dec. leather	45	ÄM AM 076n
dec. leather	34	ÄM AM 031e	dec. leather	45	ÄM AM 076o
dec. leather	34	ÄM AM 031f	dec. leather	45	ÄM AM 076p
dec. leather	34	ÄM AM 031g	dec. leather	45	ÄM AM 076q
dec. leather	35	ÄM AM 032a	dec. leather	45	ÄM AM 076r
dec. leather	35	ÄM AM 032b	dec. leather	45	ÄM AM 076s
dec. leather	35	ÄM AM 032c	dec. leather	45	ÄM AM 076t
dec. leather	35	ÄM AM 032d	dec. leather	45	ÄM AM 076u
dec. leather	35	ÄM AM 032e	dec. leather	45	ÄM AM 076v
dec. leather	35	ÄM AM 032f	dec. leather	45	ÄM AM 076w
dec. leather	35	ÄM AM 032g	dec. leather	45	ÄM AM 076x
dec. leather	36	ÄM AM 034	dec. leather	45	ÄM AM 076y
dec. leather	37	ÄM AM 035	dec. leather	45	ÄM AM 076z
dec. leather	38	ÄM AM 053	dec. leather	45	ÄM AM 076aa
dec. leather	39	ÄM AM 065c	dec. leather	45	ÄM AM 076ab
dec. leather	40	ÄM AM 068c	dec. leather	45	ÄM AM 076ac
dec. leather	41	ÄM AM 072a	dec. leather	46	ÄM AM 077
dec. leather	41	ÄM AM 072b	dec. leather	47	ÄM AM 078a
dec. leather	41	ÄM AM 072c	dec. leather	47	ÄM AM 078b
dec. leather	41	ÄM AM 072d	dec. leather	47	ÄM AM 078c
dec. leather	41	ÄM AM 072e	dec. leather	47	ÄM AM 078d
dec. leather	41	ÄM AM 072f	dec. leather	47	ÄM AM 078e
dec. leather	42	ÄM AM 073a	dec. leather	47	ÄM AM 078f
dec. leather	42	ÄM AM 073b	dec. leather	47	ÄM AM 078g
dec. leather	42	ÄM AM 073c	dec. leather	47	ÄM AM 078h
dec. leather	42	ÄM AM 073d	dec. leather	47	ÄM AM 078i
dec. leather	42	ÄM AM 073e	dec. leather	47	ÄM AM 078j
dec. leather	42	ÄM AM 073f	dec. leather	47	ÄM AM 078k
dec. leather	43	ÄM AM 074a	dec. leather	47	ÄM AM 078l
dec. leather	43	ÄM AM 074b	dec. leather	47	ÄM AM 078m
dec. leather	43	ÄM AM 074c	dec. leather	47	ÄM AM 078n

Concordances

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
dec. leather	47	ÄM AM 078o	sandals	6	ÄM AM 014a
dec. leather	47	ÄM AM 078p	sandals	6	ÄM AM 014b
dec. leather	47	ÄM AM 078q	sandals	6	ÄM AM 014d
dec. leather	47	ÄM AM 078r	sandals	7	ÄM AM 017a
dec. leather	47	ÄM AM 078s	sandals	7	ÄM AM 017b
dec. leather	47	ÄM AM 078t	sandals	7	ÄM AM 017d
dec. leather	48	ÄM AM 079	sandals	7	ÄM AM 017h
dec. leather	49	not numbered	sandals	7	ÄM AM 017i
dec. leather	131	TA AM 009a	sandals	8	ÄM AM 020c
dec. leather	131	TA AM 009b	sandals	8	ÄM AM 020d
dec. leather	131	TA AM 009c	sandals	8	ÄM AM 020e
dec. leather	131	TA AM 009d	sandals	8	ÄM AM 020h
dec. leather	131	TA AM 009e	sandals	8	ÄM AM 020i
dec. leather	131	TA AM 009f	sandals	8	ÄM AM 020l
dec. leather	131	TA AM 009g	sandals	9	ÄM AM 023
dec. leather	131	TA AM 009h	sandals	10	ÄM AM 025
dec. leather	131	TA AM 009i	sandals	11	ÄM AM 027a
dec. leather	131	TA AM 009j	sandals	11	ÄM AM 027b
dec. leather	131	TA AM 009k	sandals	11	ÄM AM 027c
dec. leather	131	TA AM 009l	sandals	12	ÄM AM 028b
dec. leather	131	TA AM 009m	sandals	13	ÄM AM 030a
dec. leather	131	TA AM 009n	sandals	13	ÄM AM 030b
dec. leather	131	TA AM 009o	sandals	13	ÄM AM 030d
dec. leather	131	TA AM 009p	sandals	13	ÄM AM 030e
dec. leather	131	TA AM 009q	sandals	13	ÄM AM 030f
dec. leather	276	30/744	sandals	13	ÄM AM 030i
dec. leather	277	33/297	sandals	14	ÄM AM 033
dec. leather	278	33/304	sandals	15	ÄM AM 036a
offcuts, waste	78	ÄM AM 020n	sandals	15	ÄM AM 036b
offcuts, waste	79	not numbered	sandals	15	ÄM AM 036c
offcuts, waste	80	ÄM AM 044	sandals	15	ÄM AM 036d
offcuts, waste	81	ÄM AM 047a	sandals	15	ÄM AM 036e
offcuts, waste	81	not numbered	sandals	15	ÄM AM 036f
offcuts, waste	146	TA AM 001	sandals	15	ÄM AM 036g
offcuts, waste	147	TA AM 039	sandals	15	ÄM AM 036h
offcuts, waste	148	TA AM 065	sandals	15	ÄM AM 036i
offcuts, waste	149	TA AM 073	sandals	15	ÄM AM 036j
offcuts, waste	150	TA AM 075	sandals	15	ÄM AM 036k
sandals	1	ÄM AM 002	sandals	15	ÄM AM 036l
sandals	2	ÄM AM 006a	sandals	15	ÄM AM 036m
sandals	2	ÄM AM 006c	sandals	16	ÄM AM 037a
sandals	3	ÄM AM 008b	sandals	16	ÄM AM 037b
sandals	3	ÄM AM 008c	sandals	16	ÄM AM 037c
sandals	4	ÄM AM 009	sandals	17	ÄM AM 046a
sandals	5	ÄM AM 010	sandals	17	ÄM AM 046b

Concordances

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
sandals	17	ÄM AM 046c	sandals	110	TA AM 007d
sandals	18	ÄM AM 054a	sandals	110	TA AM 007e
sandals	18	ÄM AM 054c	sandals	110	TA AM 007f
sandals	18	ÄM AM 054d	sandals	110	TA AM 007g
sandals	18	ÄM AM 054e	sandals	110	TA AM 007h
sandals	19	ÄM AM 056a	sandals	110	TA AM 007i
sandals	19	ÄM AM 056b	sandals	111	TA AM 006
sandals	19	ÄM AM 056c	sandals	112	TA AM 013
sandals	19	ÄM AM 056d	sandals	113	TA AM 025a
sandals	19	ÄM AM 056e	sandals	113	TA AM 025b
sandals	19	ÄM AM 056f	sandals	114	TA AM 043a
sandals	19	ÄM AM 056g	sandals	114	TA AM 043b
sandals	19	ÄM AM 056h	sandals	114	TA AM 043c
sandals	19	ÄM AM 056i	sandals	114	TA AM 043d
sandals	19	ÄM AM 056j	sandals	115	TA AM 048
sandals	19	ÄM AM 056k	sandals	116	TA AM 049
sandals	19	ÄM AM 056l	sandals	117	TA AM 055
sandals	19	ÄM AM 056m	sandals	118	TA AM 078
sandals	20	ÄM AM 058a	sandals	119	TA AM 099
sandals	20	ÄM AM 058b	sandals	120	TA AM 102
sandals	21	ÄM AM 059	sandals	121	TA AM 107
sandals	22	ÄM AM 060	sandals	122	TA AM 111
sandals	23	ÄM AM 061a	sandals	123	TA AM 112
sandals	23	ÄM AM 061b	sandals	124	TA AM 116c
sandals	24	ÄM AM 064a	sandals	125	TA AM 128
sandals	24	ÄM AM 064b	sandals	126	TA AM 158
sandals	25	ÄM AM 065a	sandals	127	TA AM 159a
sandals	25	ÄM AM 065b	sandals	127	TA AM 159b
sandals	26	ÄM AM 066a	sandals	127	TA AM 159c
sandals	26	ÄM AM 066b	sandals	128	TA AM 160a
sandals	27	ÄM AM 068a	sandals	128	TA AM 160b
sandals	27	ÄM AM 068b	sandals	233	TA AM 131a
sandals	27	ÄM AM 068f	sandals	233	TA AM 131b
sandals	27	ÄM AM 068g	sandals	233	TA AM 131c
sandals	28	ÄM AM 069b	sandals	233	TA AM 131d
sandals	28	ÄM AM 069d	sandals	233	TA AM 131e
sandals	28	ÄM AM 069g	sandals	233	TA AM 131f
sandals	29	ÄM AM 071a	sandals	233	TA AM 131g
sandals	29	ÄM AM 071b	sandals	234	TA AM 132a
sandals	29	ÄM AM 071c	sandals	234	TA AM 132b
sandals	110	TA AM 004a	sandals	234	TA AM 132c
sandals	110	TA AM 004b	sandals	234	TA AM 132d
sandals	110	TA AM 007a	sandals	272	22/120
sandals	110	TA AM 007b	sandals	273	22/119
sandals	110	TA AM 007c	sandals	274	22/119

Concordances

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
sandals	275	22/105	straps, etc.	74	ÄM AM 043c
sandals	table Cat. Part I, C	21/486	straps, etc.	74	ÄM AM 043d
sandals	table Cat. Part I, C	21/494	straps, etc.	75	ÄM AM 049c
sandals	table Cat. Part I, C	23/71	straps, etc.	75	ÄM AM 049d
sandals	table Cat. Part I, C	23/289	straps, etc.	76	ÄM AM 054b
sandals	table Cat. Part I, C	23/440	straps, etc.	77	ÄM AM 069f
sandals	table Cat. Part I, C	24/662	straps, etc.	135	TA AM 005a
sandals	table Cat. Part I, C	30/615	straps, etc.	135	TA AM 005b
sandals	table Cat. Part I, C	31/47	straps, etc.	135	TA AM 005c
sandals	table Cat. Part I, C	31/51	straps, etc.	135	TA AM 005d
sandals	table Cat. Part I, C	31/146	straps, etc.	136	TA AM 019
sandals	table Cat. Part I, C	36/158	straps, etc.	137	TA AM 020
shoes	30	ÄM AM 048a	straps, etc.	138	TA AM 026
shoes	30	ÄM AM 048b	straps, etc.	139	TA AM 053
shoes	30	ÄM AM 048c	straps, etc.	140	TA AM 079
shoes	30	ÄM AM 048d	straps, etc.	141	TA AM 080
shoes	30	ÄM AM 048e	straps, etc.	142	TA AM 081
shoes	30	ÄM AM 048f	straps, etc.	143	TA AM 092
shoes	30	ÄM AM 048g	straps, etc.	144	TA AM 093
shoes	30	ÄM AM 048h	straps, etc.	145	TA AM 116a
shoes	30	ÄM AM 048i	straps, etc.	145	TA AM 116b
shoes	30	ÄM AM 048j	straps, etc.	235	TA AM 120
shoes	30	ÄM AM 048k	straps, etc.	236	TA AM 130
shoes	30	ÄM AM 048l	straps, etc.	237	TA AM 136
shoes	30	ÄM AM 048m	straps, etc.	238	TA AM 146
shoes	30	ÄM AM 048n	straps, etc.	239	TA AM 148
shoes	30	ÄM AM 048o	straps, etc.	table Cat. Part I, C	21/42
shoes	30	ÄM AM 048p	straps, etc.	table Cat. Part I, C	23/46
shoes	30	ÄM AM 048q	straps, etc.	table Cat. Part I, C	23/127
shoes	30	ÄM AM 048r	straps, etc.	table Cat. Part I, C	24/527
shoes	30	ÄM AM 048s	straps, etc.	table Cat. Part I, C	24/888
shoes	30	ÄM AM 048t	straps, etc.	table Cat. Part I, C	25/171
straps, etc.	65	ÄM AM 008a	straps, etc.	table Cat. Part I, C	26/275
straps, etc.	66	ÄM AM 012a	unidentified	82	ÄM AM 003
straps, etc.	66	ÄM AM 012b	unidentified	83	ÄM AM 006b
straps, etc.	67	ÄM AM 013a	unidentified	83	ÄM AM 006d
straps, etc.	67	ÄM AM 013e	unidentified	84	ÄM AM 007
straps, etc.	68	ÄM AM 016b	unidentified	85	ÄM AM 008d
straps, etc.	69	ÄM AM 019	unidentified	85	ÄM AM 008e
straps, etc.	70	ÄM AM 022a	unidentified	86	ÄM AM 014c
straps, etc.	71	ÄM AM 029	unidentified	87	ÄM AM 015
straps, etc.	72	ÄM AM 030j	unidentified	88	ÄM AM 016a
straps, etc.	73	ÄM AM 039a	unidentified	88	ÄM AM 016c
straps, etc.	74	ÄM AM 043a	unidentified	89	ÄM AM 017c
straps, etc.	74	ÄM AM 043b	unidentified	89	ÄM AM 017e

Concordances

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
unidentified	89	ÄM AM 017f	unidentified	106	ÄM AM 067c
unidentified	89	ÄM AM 017g	unidentified	106	ÄM AM 067d
unidentified	90	ÄM AM 018a	unidentified	106	ÄM AM 067e
unidentified	91	ÄM AM 020a	unidentified	107	ÄM AM 068d
unidentified	91	ÄM AM 020b	unidentified	107	ÄM AM 068e
unidentified	91	ÄM AM 020f	unidentified	108	ÄM AM 069a
unidentified	91	ÄM AM 020g	unidentified	108	ÄM AM 069c
unidentified	91	ÄM AM 020j	unidentified	108	ÄM AM 069e
unidentified	91	ÄM AM 020k	unidentified	109	ÄM AM 070
unidentified	91	ÄM AM 020m	unidentified	151	TA AM 002
unidentified	92	ÄM AM 021	unidentified	152	TA AM 003a
unidentified	93	ÄM AM 022b	unidentified	152	TA AM 003b
unidentified	94	ÄM AM 024	unidentified	153	TA AM 010
unidentified	95	ÄM AM 028a	unidentified	154	TA AM 012
unidentified	96	ÄM AM 030c	unidentified	155	TA AM 014
unidentified	96	ÄM AM 030g	unidentified	156	TA AM 015
unidentified	97	ÄM AM 031c	unidentified	157	TA AM 016
unidentified	97	ÄM AM 031d	unidentified	158	TA AM 017
unidentified	98	ÄM AM 039b	unidentified	159	TA AM 018
unidentified	98	ÄM AM 039c	unidentified	160	TA AM 021
unidentified	99	ÄM AM 040a	unidentified	161	TA AM 022
unidentified	99	ÄM AM 040b	unidentified	162	TA AM 023
unidentified	99	ÄM AM 040c	unidentified	163	TA AM 024
unidentified	99	ÄM AM 040d	unidentified	164	TA AM 027a
unidentified	99	ÄM AM 040e	unidentified	164	TA AM 027b
unidentified	100	ÄM AM 042a	unidentified	164	TA AM 027c
unidentified	100	ÄM AM 042b	unidentified	165	TA AM 028
unidentified	100	ÄM AM 042c	unidentified	166	TA AM 029
unidentified	100	ÄM AM 042d	unidentified	167	TA AM 030
unidentified	100	ÄM AM 042e	unidentified	168	TA AM 031
unidentified	100	ÄM AM 042f	unidentified	169	TA AM 032
unidentified	100	ÄM AM 042g	unidentified	170	TA AM 033
unidentified	101	ÄM AM 045a	unidentified	171	TA AM 034
unidentified	101	ÄM AM 045b	unidentified	172	TA AM 035a
unidentified	101	ÄM AM 045c	unidentified	172	TA AM 035b
unidentified	101	ÄM AM 045d	unidentified	173	TA AM 036
unidentified	101	ÄM AM 045e	unidentified	174	TA AM 037
unidentified	102	ÄM AM 049a	unidentified	175	TA AM 038
unidentified	102	ÄM AM 049e	unidentified	176	TA AM 040
unidentified	103	ÄM AM 050	unidentified	177	TA AM 041
unidentified	104	ÄM AM 062b	unidentified	178	TA AM 042
unidentified	104	ÄM AM 062c	unidentified	179	TA AM 044
unidentified	105	ÄM AM 063	unidentified	180	TA AM 045
unidentified	106	ÄM AM 067a	unidentified	181	TA AM 046
unidentified	106	ÄM AM 067b	unidentified	182	TA AM 047

Concordances

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
unidentified	183	TA AM 050	unidentified	218	TA AM 103
unidentified	184	TA AM 051	unidentified	219	TA AM 104a
unidentified	185	TA AM 052	unidentified	219	TA AM 104b
unidentified	186	TA AM 054	unidentified	220	TA AM 105
unidentified	187	TA AM 056	unidentified	221	TA AM 106
unidentified	188	TA AM 057	unidentified	222	TA AM 108
unidentified	189	TA AM 058	unidentified	223	TA AM 109
unidentified	190	TA AM 059	unidentified	224	TA AM 110
unidentified	191	TA AM 061	unidentified	225	TA AM 113a
unidentified	192	TA AM 062	unidentified	225	TA AM 113b
unidentified	193	TA AM 063	unidentified	226	TA AM 114
unidentified	194	TA AM 066a	unidentified	227	TA AM 115
unidentified	194	TA AM 066b	unidentified	228	TA AM 152
unidentified	194	TA AM 066c	unidentified	229	TA AM 161
unidentified	194	TA AM 066d	unidentified	230	TA AM 162a
unidentified	195	TA AM 067a	unidentified	230	TA AM 162b
unidentified	195	TA AM 067b	unidentified	230	TA AM 162c
unidentified	195	TA AM 067c	unidentified	230	TA AM 162d
unidentified	195	TA AM 067d	unidentified	230	TA AM 162e
unidentified	196	TA AM 068	unidentified	230	TA AM 162f
unidentified	197	TA AM 070	unidentified	231	TA AM 163
unidentified	198	TA AM 071	unidentified	232	TA AM 164a
unidentified	199	TA AM 072a	unidentified	232	TA AM 164b
unidentified	199	TA AM 072b	unidentified	232	TA AM 164c
unidentified	200	TA AM 074a	unidentified	232	TA AM 164d
unidentified	200	TA AM 074b	unidentified	232	TA AM 164e
unidentified	200	TA AM 074c	unidentified	232	TA AM 164f
unidentified	200	TA AM 074d	unidentified	232	TA AM 164g
unidentified	201	TA AM 076	unidentified	232	TA AM 164h
unidentified	202	TA AM 077	unidentified	232	TA AM 164i
unidentified	203	TA AM 082	unidentified	241	TA AM 117
unidentified	204	TA AM 083	unidentified	242	TA AM 118
unidentified	205	TA AM 084	unidentified	243	TA AM 119
unidentified	206	TA AM 085	unidentified	244	TA AM 121
unidentified	207	TA AM 086	unidentified	245	TA AM 122
unidentified	208	TA AM 089	unidentified	246	TA AM 123
unidentified	209	TA AM 090	unidentified	247	TA AM 125
unidentified	210	TA AM 091	unidentified	248	TA AM 126a
unidentified	211	TA AM 094	unidentified	248	TA AM 126b
unidentified	212	TA AM 095	unidentified	248	TA AM 126c
unidentified	213	TA AM 096	unidentified	248	TA AM 126d
unidentified	214	TA AM 097	unidentified	249	TA AM 127
unidentified	215	TA AM 098	unidentified	250	TA AM 129
unidentified	216	TA AM 100	unidentified	251	TA AM 133
unidentified	217	TA AM 101	unidentified	252	TA AM 134

Concordances

<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>	<i>Description</i>	<i>Catalogue Number</i>	<i>Specialist Number</i>
unidentified	253	TA AM 135	unidentified	table Cat. Part I, C	26/519
unidentified	254	TA AM 137	unidentified	table Cat. Part I, C	30/665
unidentified	255	TA AM 138	unidentified	table Cat. Part I, C	31/97
unidentified	256	TA AM 139	unidentified	table Cat. Part I, C	31/128
unidentified	257	TA AM 140	unidentified	table Cat. Part I, C	31/145
unidentified	258	TA AM 141	unidentified	table Cat. Part I, C	31/223
unidentified	259	TA AM 142	unidentified	table Cat. Part I, C	31/391
unidentified	260	TA AM 143	unidentified	table Cat. Part I, C	31/457
unidentified	261	TA AM 144	unidentified	table Cat. Part I, C	33/65
unidentified	262	TA AM 145	unidentified	table Cat. Part I, C	33/201
unidentified	263	TA AM 147a	unidentified	table Cat. Part I, C	33/240
unidentified	263	TA AM 147b	weaponry	50	ÄM AM 001
unidentified	263	TA AM 147c	weaponry	51	ÄM AM 004a
unidentified	263	TA AM 147d	weaponry	51	ÄM AM 004b
unidentified	264	TA AM 149	weaponry	52	ÄM AM 005
unidentified	265	TA AM 150	weaponry	53	ÄM AM 030h
unidentified	266	TA AM 151	weaponry	54	ÄM AM 038a
unidentified	267	TA AM 153	weaponry	54	ÄM AM 038b
unidentified	268	TA AM 154	weaponry	55	ÄM AM 049b
unidentified	269	TA AM 155	weaponry	56	ÄM AM 051
unidentified	270	TA AM 156	weaponry	57	ÄM AM 052
unidentified	271	TA AM 157a	weaponry	58	ÄM AM 055
unidentified	271	TA AM 157b	weaponry	59	ÄM AM 057
unidentified	271	TA AM 157c	weaponry	60	ÄM AM 062a
unidentified	271	TA AM 157d	weaponry	279	26/273
unidentified	table Cat. Part I, C	21/25	weaponry	280	31/49
unidentified	table Cat. Part I, C	21/49	weaponry	281	22/526
unidentified	table Cat. Part I, C	21/88	weaponry	282	29/110
unidentified	table Cat. Part I, C	21/99	weaponry	table Cat. Part I, C	21/155
unidentified	table Cat. Part I, C	21/104	weaponry	table Cat. Part I, C	21/418
unidentified	table Cat. Part I, C	21/327	weaponry	table Cat. Part I, C	21/483
unidentified	table Cat. Part I, C	21/495	weaponry	table Cat. Part I, C	24/676
unidentified	table Cat. Part I, C	21/499	weaponry	table Cat. Part I, C	24/700
unidentified	table Cat. Part I, C	21/525	weaponry	table Cat. Part I, C	24/780
unidentified	table Cat. Part I, C	23/24	weaponry	table Cat. Part I, C	26/305
unidentified	table Cat. Part I, C	23/36	weaponry	table Cat. Part I, C	33/145
unidentified	table Cat. Part I, C	23/126			
unidentified	table Cat. Part I, C	23/202			
unidentified	table Cat. Part I, C	24/515			
unidentified	table Cat. Part I, C	24/537			
unidentified	table Cat. Part I, C	24/723			
unidentified	table Cat. Part I, C	25/24			
unidentified	table Cat. Part I, C	25/171			
unidentified	table Cat. Part I, C	25/171			
unidentified	table Cat. Part I, C	26/132			

AMARNA'S LEATHERWORK

AMARNA'S LEATHERWORK

PART I. PRELIMINARY ANALYSIS AND CATALOGUE

The ancient Egyptian city of Tell el-Amarna (or Amarna, ancient Akhetaten) was the short-lived capital built by the controversial Pharaoh Akhenaten, probably the father of the famous Tutankhamun, and abandoned shortly after his death (c. 1336 BCE). It is one of the few Pharaonic cities to have been thoroughly excavated and is a rich source of information about the daily life of the ancient Egyptians.

This volume, the first of two, presents the leatherwork excavated at the site by these various expeditions. The book consists of two parts: the catalogue and the preliminary analysis. The former presents the detailed description of the objects (among which chariot leather and footwear), accompanied by colour photographs and, where necessary, line- and construction drawings. The latter includes an explanation of the Amarna Leatherwork Project as well as preliminary interpretations of the finds.

André J. Veldmeijer (assistant director for Egyptology at the Netherlands Flemish Institute Cairo) studied archaeology at Leiden University (The Netherlands) and received his PhD from Utrecht University (The Netherlands). He has worked in Egypt since 1995 as a leather, footwear and cordage specialist for various missions (including Amarna, Berenike, Dra' Abu el-Naga, Elephantine, Hierakonpolis and Qasr Ibrim) and has also worked in several collections all over the world. Veldmeijer is the director of two ongoing research projects: Ancient Egyptian Leatherwork Project (including the Egyptian Museum Chariot Project) and Ancient Egyptian Footwear Project (www.leatherandshoes.nl) and is one of the founders and current chairman of the PalArch Foundation (www.PalArch.nl).

Sidestone Press

Bestelnummer: SSP67280004



693162832

ISBN: 978-90-8890-075-4



9 789088 900754 >