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# Basketry accessories: footwear, bags and fans in ancient Egypt

N.M.N. El Hadidi [a,*], R. Hamdy [b]

[a] Conservation Department, Faculty of Archaeology, Cairo University, Giza, Egypt
[b] The Herbarium, Botany Department, Faculty of Science, Cairo University, Giza, Egypt

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ABSTRACT

Ancient Egyptians had —by the New Kingdom— developed many basket making and matting techniques. These techniques were not only used for making all types and sizes of baskets and mats, but were also adopted for making other accessories such as bags, fans and different types of footwear, that seem to have been heavily used. Materials and techniques of nine objects consisting of 2 sandals, 2 shoes, 2 bags, 2 fans and a model of a mat at the Agricultural Museum in Giza were carefully studied.

In some cases the object was made of one plant, but in other cases more than one plant were identified. The materials used for making the different objects were identified using light microscope. Four plant materials were identified in the studied objects; *Hyphaene thebaica* Mart., *Phoenix dactylifera* L., *Cyperus papyrus* L. and *Desmostachya bipinnata* (L.) Stapf., in addition to a gypsum layer in one of the sandals. Five different techniques were used in making the different objects; both bags were made using the twining technique. The soles of the sandals were made using either a plaiting or sewing technique. Cordage was used in the manufacture in some of the objects. The fans were made using the binding and sewing technique.



## 1. Introduction

Plant materials have found many uses in ancient Egypt, and they are often linked to basketry objects that were either used in every day life and/or placed in the tombs of the deceased. The techniques, materials, sizes and uses of the basketry objects varied according to user/owner and purpose of use. The term basketry does not only refer to baskets, plates and mats, even though they were the most common items found in tombs. Basketry objects also include either cheap or luxurious accessories such as sandals, shoes, bags and fans. It may be difficult to imagine that highly sophisticated luxurious, yet fragile objects were intended for everyday use, but evidence of wear and tear is clear in many cases.

In the last two decades a growing interest of basketry materials or objects made of plant materials has been noticed. A lot of research has been published in the field of footwear, but it is obvious that there is still a lot of work to be done. In Veldmeijer's research (Veldmeijer, 2006–2010), which is part of the Ancient Egyptian Footwear project, a lot of collected data has been discussed and analyzed. The technology and terminology in this research follows Veldmeijer's research in footwear and Ryan and Hansen, 1987.

Not a lot of research has studied in depth either the deterioration of basketry objects that were found in dry burial conditions or the applicable conservation and treatment methods of basketry objects. Therefore the aim of this study is to examine and determine the plant species used in the manufacturing technique adopted in chosen objects exhibited at the Agricultural Museum in Giza, Egypt, as a preliminary step towards finding a method for treating such fragile material.

Nine objects, which consisted of two sandals nos. 2317 and 2601, two shoes nos. 2595 and 2596, two fans nos. 648 and 4367, one model of a mat no. 1954 and two bags nos. 396 and 1475 were chosen for this study.

The only problem with most of the objects found at the Agricultural museum is that the registers do not have sufficient information on the history of the excavation sites, from which the objects came from. That is due to the fact that some of the objects were bought from bazaars or were given as presents from excavations in the years between 1933 and 1935. We cannot blame the museum registers for lack of information, because as mentioned by Ryan and Hansen (1987: 2) "different times or eras had certain archaeological philosophies". That of course makes it very difficult to estimate whether the objects were found in funerary, domestic or garbage context. It is also difficult to confirm that the objects dated in the registers as "New

* Corresponding author.
*E-mail addresses:* nelhadidi@gmail.com (N.M.N. El Hadidi), rimhamdy@yahoo.com (R. Hamdy).

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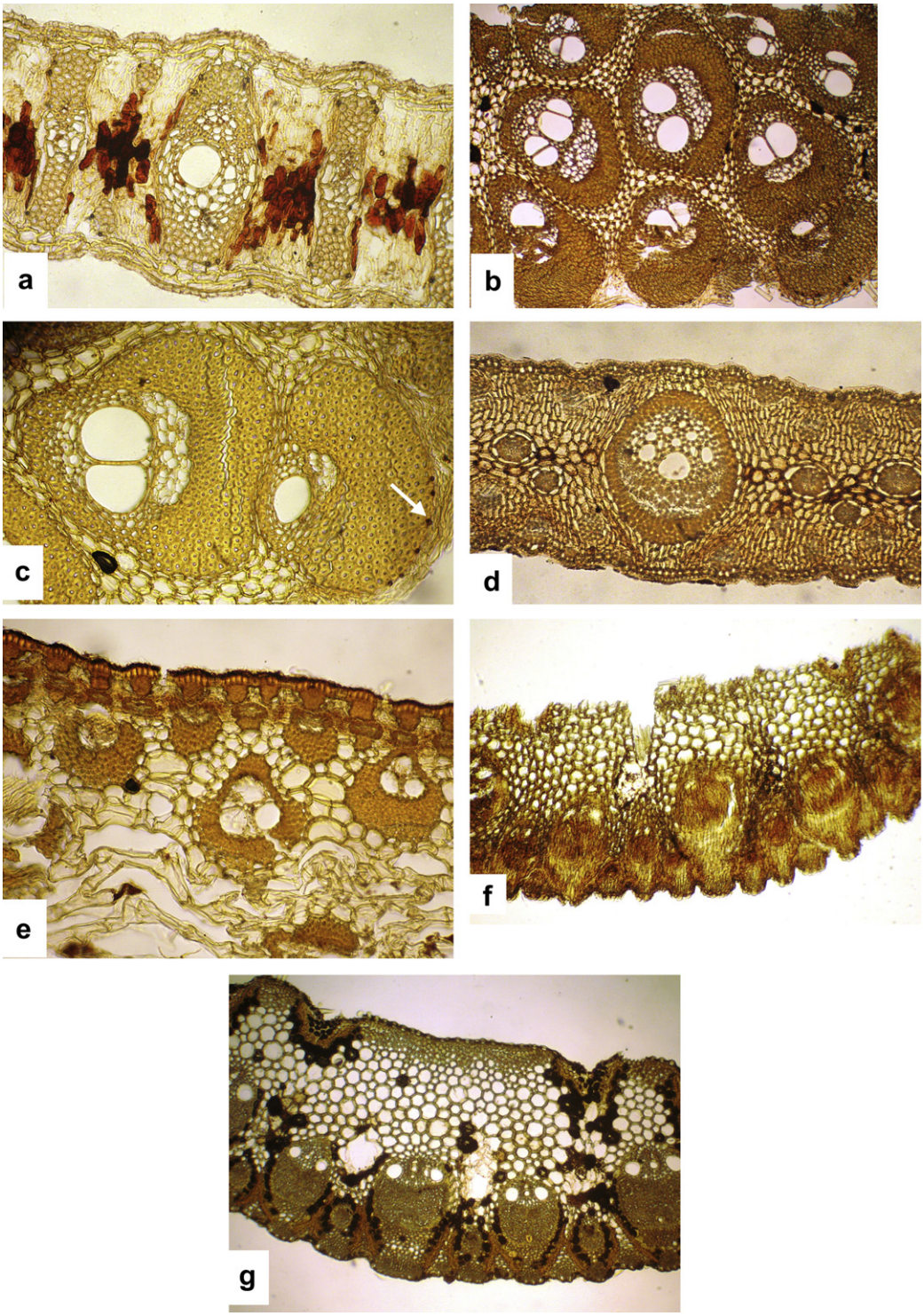


**Fig. 1.** Identified plants in objects. T.S (x 32) in: a) *H. thebaica* lamina (no. 2601); b) *H. thebaica* petiole (no. 648); c) *H. thebaica* petiole showing peltate hairs (no. 1475); d) *P. dactylifera* lamina (no. 1475); e) *Cyperus papyrus* culm (no. 2317); f) *D. bipinnata* leaf in very fragile state (Ancient, no. 396); g) *D. bipinnata* leaf (Modern for comparison).

Kingdom" were actually found in the New Kingdom deposits of Deir El Medineh or were found in deposits that date back to later periods, but this is beyond the scope of this research.

## 2. Materials and methods

All nine objects are in a very fragile state, and even though their archaeological and historic details are unknown and may remain so for a long time, the materials and techniques needed for making them are of major importance as part of their documentation prior to their treatment and conservation in the near future.

For plant identification samples were either taken from detached parts from the chosen objects or from crumbling materials lying around the object. Thin sections (30–50 μm) of each specimen, which had been prepared at the Botany Department labs in Ain Shams University, were examined by light microscopy for details of