

Remarkable botanical remains from a new foundation deposit in the Hathor shrine of Tuthmosis III at Deir el-Bahari



Abstract: Numerous botanical remains have been found in a recently discovered foundation deposit of Tuthmosis III, in his Hathor shrine at Deir el-Bahari. Identification of 12 plants (cereals, fruits, branches and leaves) is proposed and the exceptional diversity of such finds is considered in relation to the known botanical finds from foundation deposits prior to Tuthmosis III.

Keywords: foundation deposit, Hathor, Tuthmosis III, Deir el-Bahari, fruits, barley, leaves, branches

The disturbed content of the southeastern of two pits recently discovered south of the Hathor Shrine at Deir el Bahari (Beaux, Caban, and Wieczorek 2018, in this volume) contained some botanical remains. The proposed identification of some of this material is discussed here¹ The classes identified include cereals, fruit remains, and leaves and branches.

¹ I am extremely grateful to David Goyder for generously spending time checking specimens in the Kew Herbarium (Royal Botanic Gardens) and discussing identifications. I am also indebted to Mark Nesbitt for his identification of cereals.

Nathalie Beaux

IFAO/Collège de France

CEREALS

Hordeum vulgare [Fig. 1]

<p>Rachis segments and grains of barley (identification confirmed by Mark Nesbitt, Kew Herbarium, Royal Botanic Gardens)</p>	<p>Also found in a foundation deposit from the times of Senusret II at Lahun (Petrie, Brunton, and Murray 1923: 19) and at Deir el-Bahari in the temple of Mentuhotep (Arnold 1981: 57), and the temple of Hatshepsut (Weinstein 1973: 161), as well as the tomb of Senenmut (TT 353) (Dorman 1991: 151)</p>
--	--



Fig. 1. *Hordeum vulgare*: rachis segments and grains of barley

FRUIT REMAINS

Phoenix dactylifera L. [Fig. 2]

<p>Three date seeds (about 2 cm long)</p>	<p>Dates found in many foundation deposits at Deir el-Bahari: – temple of Hatshepsut, foundation deposit 8 (H), MMA excavations, 1926–1927, accession number 27.3.418; foundation deposit E, accession number 25.3.54; – tomb of Senenmut (TT 353) (Dorman 1991: 151)</p>
---	---

Hyphaene thebaica (Del.) Mart. [Fig. 3]

<p>Fragment of doum palm fruit epicarp</p>	<p>Edible fruit. The tree has been depicted since the New Kingdom (Baum 1988 : 110–118). Only one instance of a fruit found in a later foundation deposit at Matmar, temple of Seth, from the time of Ramesses II (Brunton 1948: 63)</p>
--	--



Fig. 2. *Phoenix dactylifera* L.: date seeds

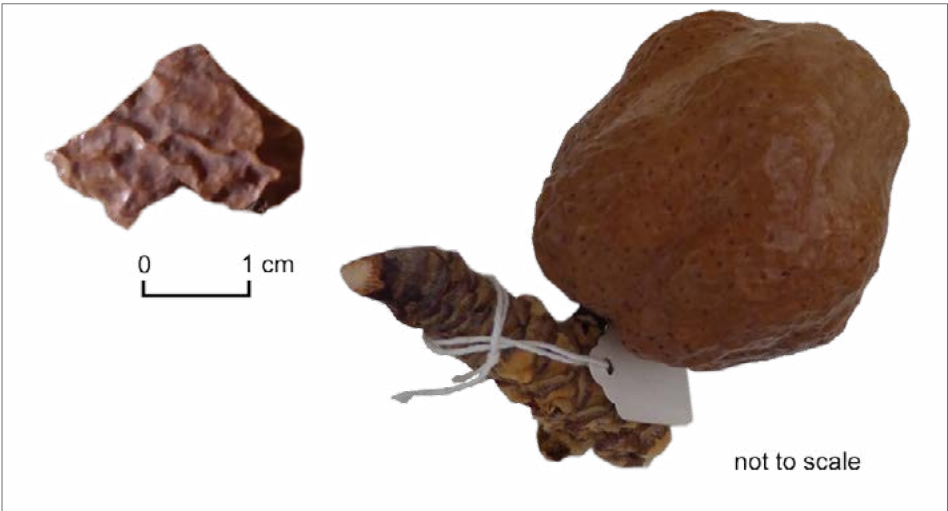


Fig. 3. *Hyphaene thebaica* (Del.) Mart.: left, fragment of doum palm fruit epicarp; right, doum palm fruit (No. 3028 collected by F.N. Hepper in Abu Simbel, courtesy of the Trustees of the Royal Botanic Gardens, Kew)

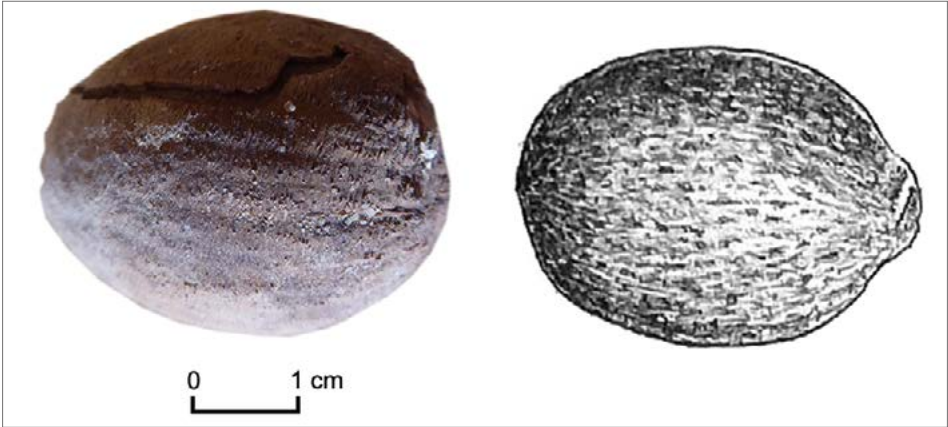


Fig. 4. *Hyphaene thebaica* (Del.) Mart. or *Medemia argun* Württemb. Ex. Mart.: left, seed; right, *Medemia argun* Württemb. Ex. Mart.: fruit with all epicarp removed (Boulos 2005: Pl. 31)



Fig. 5. *Mimusops laurifolia* (Forssk.) Friis: left, persea seeds; right, fruit with seed (No. 850 collected by Schweinfurth in Yemen, courtesy of the Trustees of the Royal Botanic Gardens, Kew)

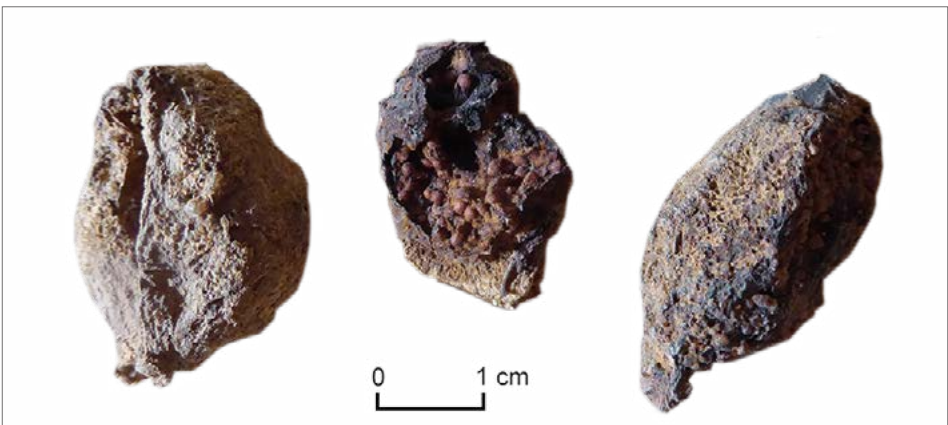


Fig. 6. *Ficus carica* L.: dried figs

***Hyphaene thebaica* (Del.) Mart. or *Medemia argun* Württemb. Ex. Mart. [Fig. 4]**

Seed (3 cm x 3.6 cm).
 For *Hyphaene thebaica*: "seed ovoid-globose, 3–4 x 2.5–4 cm" (Boulos 2005: 106), but for *Medemia argun*: "seed broadly ellipsoid, 3 x 2.5 cm" (Boulos 2005: 108). The size of the seed probably fits better with *Hyphaene thebaica*, the general shape with *Medemia argun*.

Fruits of the *Medemia argun* have been found on ancient Egyptian sites (Germer 1985: 235–236), but not in foundation deposits.

***Mimusops laurifolia* (Forssk.) Friis [Fig. 5]**

Three orange-brown-colored perseas seeds (about 2.3 cm long)

Fruits, leaves and branches commonly found in monuments and tombs since the Old Kingdom (Baum 1988: 88). Fruit never found in other foundation deposits (although garlands of perseas are mentioned in a Senenmut foundation deposit by Dorman (1991: 151, 152, note 441) and the leaves of perseas in a foundation deposit from the Temple of Hatsheput (Weinstein 1973: 158). Note that the tree was planted in front of the Temple of Hatsheput at Deir el-Bahari (Naville 1908: 20, Pl. 169).

***Ficus carica* L. [Fig. 6]**

Three dried dark purple figs (between 3–4 cm long)

Figs (not specified whether *carica* or *sycomorus*) found in foundation deposits at Deir el-Bahari:
 – temple of Mentuhotep (Arnold 1981: 51, 53, 54, 57);
 – temple of Hatsheput, foundation deposit 7, 8, 9 (G, H, I), MMA excavations, 1926–1927, accession number 27.3.415;
 – tomb of Senenmut (TT 353) (Dorman 1991: 151).

Ziziphus spina-christi (L.) Willd. [Fig. 7]

<p>11 small round jujube fruits with one seed each (1 cm diameter)</p>	<p>Many jujube fruits found in foundation deposits at Deir el-Bahari: – temple of Mentuhotep (Arnold 1981: 51, 53, 54, 57); – temple of Hatshepsut (MMA excavations, 1926–1927: foundation deposit 7, 8, 9 (G, H, I), accession number 27.3.414; foundation deposit 7–9 (G–I), accession number 27.3.416); – tomb of Senenmut (TT 353), foundation deposit, accession number 27.3.504 (Dorman 1991: 151)</p>
--	---

Balanites aegyptiaca Del. [Fig. 8]

<p>Middle-sized beige-colored kernels of oval shape, woody and with small hole at top and large opening on the side (3.7 cm x 1.8 cm)</p>	<p>Kernels found in the excavation of Old and Middle Kingdom sites also have holes. The samples in the collection of the New York Metropolitan of Art Museum are described as “pits from a <i>Balanites</i> tree with a hole caused by a rodent”. They were found in the debris in the southwestern corner of Perneb’s tomb (reign of Isesi-Unis Fifth Dynasty) (Accession numbers 14.7.111, 14.7.114, 14.7.117, 14.7.118, 14.7.123, 14.7.124, 14.7.141). Also found in the rubbish, Middle Kingdom, Upper Egypt, Thebes, Khokha, Tomb MMA 828 (H 4), MMA excavations, 1915 (Accession numbers (15.10.81, 15.10.82, 15.10.83, 15.10.85, 15.10.87). One single instance of a <i>Balanites aegyptiaca</i> kernel found later in a foundation deposit (No. 3) in KV22 (Amenhotep II) (Weinstein 1973: 212).</p>
---	--

Punica granatum L. [Fig. 9]

<p>Fragment of a hard dark red dried rind of pomegranate</p>	<p>Fruit already found in Dehuty’s tomb (Queen Hatshepsut’s butler); flowers and leaves discovered, as well as a vase in the shape of a pomegranate, in the tomb of Tutankhamon (Hepper 2009: 62–63), but never in a foundation deposit.</p>
--	--



Fig. 7. *Ziziphus spina-christi* (L.) Willd.: left, jujube fruits; right, jujube fruit (No. 58 collected in Egypt, courtesy of the Trustees of the Royal Botanic Gardens, Kew)



Fig. 8. *Balanites aegyptiaca* Del.: left, kernels; right, dried fruit (No. 8254 collected in Yemen, courtesy of the Trustees of the Royal Botanic Gardens, Kew)



Fig. 9. *Punica granatum* L.: fragment of a dried pomegranate rind

LEAVES AND BRANCHES

Ficus sycomorus L. [Fig. 10]

<p>Ovate leaves and twisted thin branches with many bipartite buds and segment of leaf (identification David Goyder)</p>	<p>Bundles of branches were found in a foundation deposit of Senenmut's tomb (Dorman 1991: 152, note 441, Pl. 93h). This tree was also planted in front of the temple of Mentuhotep II at Deir el-Bahari (Arnold 1979: 21–23).</p>
--	--

Salix sp. (*subserrata* Willd. ?) [Fig. 11]

<p>Long and thin leaves twisted in the drying process</p>	<p>Wreaths of leaves and branches found in tombs. Wreaths of willow as well as bundles of branches were carried in Hathor feasts (Keimer 1931: 197–206, Pls I–II). Never found in a foundation deposit.</p>
---	---

Acacia sp. (*nilotica* Del.?) [Fig. 12]

<p>Thorny small branch (identification David Goyder)</p>	<p>Never found in a foundation deposit.</p>
--	---



Fig. 10. *Ficus sycomorus* L.: left, leaf and branch with bipartite buds and segment of leaf; right, branch with leaves and a bud (collected in Egypt, courtesy of the Trustees of the Royal Botanic Gardens, Kew)



Fig 11. *Salix* sp. (*subserata* Willd.?): left, twisted dried leaf; right, leaves (No. 6847 collected in Fayum, courtesy of the Trustees of the Royal Botanic Gardens, Kew)



Fig. 12. *Acacia* sp. (*nilotica* Del.?): left, thorny branch; right, thorny branch (collected in Luxor, courtesy of the Trustees of the Royal Botanic Gardens, Kew)

CONCLUSION

It is remarkable that foundation deposits from Deir el-Bahari are particularly rich in botanical remains:² Figs, jujubes, raisins and barley were found in the foundation deposits of the temple of Mentuhotep II (Arnold 1979: 51, 53, 54, 57). A number of botanical remains, namely raisins, dates, jujubes, figs, barley and leaves of persea were found in different foundation deposits from the Temple of Hatshepsut (Weinstein 1973: 157–159, 161), as well as in the foundation deposits of Senenmut's tomb, where bundles of branches of sycamore and persea were also found.

No botanical remains were ever found (or recorded) from the many foundation deposits of Tuthmosis III, either at Deir el-Bahari or elsewhere, at least judging by the published material.

A newly discovered Tuthmosis III foundation deposit from his Hathor shrine at Deir el-Bahari yielded several well known plants that were widely appreciated in ancient Egyptian everyday life. Actually, all (but the barley, of course) are mentioned in the list of trees from the tomb of Ineni (Baum 1988).³

Of the 12 kinds of botanical remains identified here, five were attested earlier in foundation deposits, that is, figs, jujubes, dates and barley, as well as sycamore leaves. But most of the finds (seven), that is, fruits of pomegranate, persea,

doum palm, *Medemia argun* palm, *Balanites aegyptiaca*, leaves and branches of *Salix* and *Acacia* do not seem to be attested in other foundation deposits. It should be noted nonetheless that the deposit was disturbed in recent times and that there is always a possibility that some of the remains are not original (from the times of Tuthmosis III), but intruded.

Botanical remains are rarely reported from foundation deposits either because there were none or because they were unfortunately disregarded by the excavators. When mentioned, these finds are seldom accurately described or named, sometimes just labeled as “food, fruit, seed, grain”. Therefore, a close study of what has already been found may reveal more than what is now known. It is also possible that inside many foundation deposits remains were simply not preserved, and in this respect, the dry context of the foundation deposits at Deir el-Bahari might explain the great number of finds from that site. Yet, the exceptional diversity of this new foundation deposit, with 12 identified kinds of botanical remains, may also be due to its consecration to a monument dedicated to the goddess Hathor. It certainly adds significant information to our knowledge of the botanical content of foundation deposits.

2 “Whether by accident or otherwise, none of these offerings are known from deposits outside the Theban area” (Weinstein 1973: 135). The only apparent exception, previous to the time of Tuthmosis III, are the finds from Lahun, described as “barley, seeds, fruit with skin and a large kernel”(?) (Petrie, Brunton, and Murray 1923: 19).

3 For the *Acacia*, Nathalie Baum actually identifies another species, *Acacia tortilis* (Forsf.) Hayne (for ksbt) (Baum 1988: 154–162).

Dr. Nathalie Beaux

Associate researcher
 IFAO/ Collège de France
 nathbeauxgrimal@aol.com

How to cite this article: Beaux, N. (2018). Remarkable botanical remains from a new foundation deposit in the Hathor Shrine of Tuthmosis III at Deir el-Bahari. In Z. E. Szafranski (Ed.), *Deir el-Bahari studies 2. Polish Archaeology in the Mediterranean 27/2* (pp. 71–81). Warsaw: University of Warsaw Press
<https://doi.org/10.5604/01.3001.0013.3197>

References

- Arnold, D. (1979). *The Temple of Mentuhotep at Deir el Bahari* [=Publications of the Metropolitan Museum of Art Egyptian Expedition 21]. New York: Metropolitan Museum of Art
- Arnold, D. (1981). *Der Tempel des Königs Mentuhotep von Deir el-Bahari III. Die königlichen Beigaben* [=AV 23]. Mainz am Rhein: Philipp von Zabern
- Baum, N. (1988). *Arbres et arbustes de l'Égypte ancienne: la liste de la tombe thébaine d'Ineni (no. 81)* [=OLA 31]. Leuven: Departement Oriëntalistiek
- Beaux, N., Caban, M., and Wieczorek, D.F. (2018). A new double foundation deposit in the Hathor Shrine of Tuthmosis III at Deir el-Bahari. In Z.E. Szafranski (ed.), *Deir el-Bahari Studies II* [=PAM 27/2] (pp. 51–70). Warsaw: Warsaw University Press
- Boulos, L. (2005). *Flora of Egypt IV. Monocotyledons (Alismataceae-Orchidaceae)*. Cairo: Al Hadara Publications
- Brunton, G. (1948). *Matmar*. London: B. Quaritch
- Dorman, P. (1991). *The tombs of Senenmut: The architecture and decoration of tombs 71 and 353* [=Publications of the Metropolitan Museum of Art Egyptian Expedition 24]. New York: Metropolitan Museum of Art
- Germer, R. (1985). *Flora des pharaonischen Ägypten* [=SDAIK 14]. Mainz am Rhein: Philipp von Zabern
- Hepper, F.N. (2009). *Pharaoh's flowers: The botanical treasures of Tutankhamun* (2nd ed.). Chicago: KWS Publishers
- Keimer, L. (1931). L'arbre *tjeret* est-il réellement le saule égyptien (*Salix safsaf* Forsk.)? *BIFAO*, 31, 177–237
- Naville, E. (1908). *The Temple of Deir el Bahari VI. The Lower Terrace* [=MEEF 29]. London: Egypt Exploration Fund
- Petrie, W.M.F., Brunton, G., and Murray, M.A. (1923). *Lahun II* [=BSAE 20]. London: B. Quaritch
- Weinstein, J.M. (1973). *Foundation deposits in Ancient Egypt* (unpubl. Ph.D. diss.). University of Pennsylvania

