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# GRANARY MODELS FROM TELL EL-FARKHA

Models of grain silos found in Tell el-Farkha during the 2006 season belong to a limited group of artifacts made of clay and stone, which are found on many Egyptian sites from Early Dynastic to the Late Period, in mortuary context as well as in the settlement layers.

Five items found in Tell el-Farkha comes from the Eastern Kom and they are clearly related with grave No. 50. Its superstructure constructed of a massive, very compact cover of light sand and mud bricks in a very regular rectangular shape, preserved to the height of ca. 90 cm. was oriented along the N-S axis and measured 4,92 m x 2,36 m. Between the superstructure and the top of the substructure the 40 cm of break was clearly visible. In this layer the deposit of the granary models was found. The slightly dislocated to the east underground part of the tomb consisted of two mud-brick-lined chambers. The north chamber was 1.5 m long, 0.86 m wide and 0.79 m deep and the southern chamber was 1.25 m long, 1.2 m wide and 0.92 m deep. In both chambers 37 pottery vessels and 11 stone vessels ("Egyptian alabaster" and sandstone) were found as well as decorated seal impressions, faience bead, a fragment of a rattle, ceramic counter and a faience fragment of an unidentified object. The very weak preserved bones belonged to an adult man, who was resting tightly contracted on his left side, the head pointing to the north. The grave No. 50 as well as the granary models are dated to the second half of the Dynasty 1<sup>1</sup>.

The nearest analogies to the models found in Tell el-Farkha are known from the area of Upper Egypt. Two very similar objects, made of clay however without

<sup>&</sup>lt;sup>1</sup> Chłodnicki at al., Eastern Kom at Tell el-Farkha. Excavations in 2006-2007 (in print).

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Fig.1. Granary models from Tell el-Farkha (sequence as in the catalogue – left to right).

Phot. Robert Słaboński

the side holes were found in the tomb of Den in Abydos<sup>2</sup>. They are less carefully constructed than the models found in Tell el-Farkha. The dating of the four pottery objects found by W.M.F. Petrie also in Abydos in the so-called "subsidiary" tombs is more difficult<sup>3</sup>. Two of them are very similar to the shape of objects from Tell el-Farkha. Two objects of the said four have two holes in the side walls. The third item is heavily damaged and has a one visible hole. The fourth item has no lateral holes and thus is quite similar to the objects from the grave of Den. The discussed items should be dated to the reign of Dynasty 1.

Another interesting, similarly dated clay object comes also from Petrie's excavations in Abydos. A set of four models of granaries found with stand probably symbolizes the type of fence surrounding the silos has the same dating. The cut-marked square holes are clearly visible on the side walls of the models<sup>4</sup>.

The next three, a slightly younger objects made of "Egyptian alabaster", were found in the underground gallery at the Saqqara pyramid of Djoser and they are dated to the reign of Dynasty 3<sup>5</sup>. Two of them have two holes in the side walls each and horizontal lines that suggest functioning of the silos levels

<sup>&</sup>lt;sup>2</sup> G. Dreyer et al., Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof. 3./4. Vorbericht, MDAIK 46 (1990), p. 53-89.

<sup>&</sup>lt;sup>3</sup> Petrie W. M. F. , *Tombs of the Courtiers and Oxyrhynkhos*, BSAE XXVIII, London 1925, pl. VII.

<sup>&</sup>lt;sup>4</sup> Petrie W. M. F., as above, pl. VIII.

<sup>&</sup>lt;sup>5</sup> Firth C. M., Quibell J. E., The Step Pyramid I, Cairo 1936, p.130-136.

or kinds of floors. The third model has no holes. On one of the items the kind of the "neck" can be noticed as well as on the one found in Abydos<sup>6</sup>.

A little later examples come from Dynasties 4 and 5. Made of clay, dated to Dynasty 4, item discovered in the grave No. 285 at El-Kab has a distinct type of "neck" and rim but no side holes<sup>7</sup>. Also the two "alabaster" objects from the Qau cemetery dated to Dynasty 5 have a distinctively marked "neck". One of them has also a carved symbolic doors and at the bottom of the object a decorative rope-pattern is visible<sup>8</sup>.

As examples of objects belonging to the reported group, however, dated for much later periods we can stressed the item found on Hu cemetery which belong to the Second Intermediate Period<sup>9</sup>. It represents a type of inverse grain silo model with a cut square and with fitting to this hole separate closing component. The object can be probably specified as a granary-shaped ceramic lamp.

Another category of cereal silos models dating for the Archaic Period are spindle-shaped objects without side holes but often with a kind of line in most wide part or in the upper part of the object<sup>10</sup>. The object from the grave No. 15.h.5 located in Turah, now in the collection of the Cracow Archaeological Museum can be a good example<sup>11</sup>. Several vessels of this type comes also from recent excavations at Tell el-Farkha site (Eastern Delta, author is a member of the expedition crew).

Described examples clearly demonstrate the existence of over-chronologic group of objects that can be interpreted as models of cereal granaries. Certainly the relics from Tell el-Farkha belong to this group. They symbolize the very important element of the Egyptian economy – a construction probably made of clay and organic material used as a grain storage<sup>12</sup>. The hole at the top of the silos was used to filling the facility with a grain and the holes placed on the side walls to the cereal absorption. Such structures could be both relatively low or high. The height of those constructions are suggested by a multi-lines

<sup>&</sup>lt;sup>6</sup> El-Khouli A., Egyptian Stone Vessels. Predynastic Period to Dynasty III, Mainz 1978, p. 325.

<sup>&</sup>lt;sup>7</sup> Quibell J. E., *El-Kab*, London 1897, pl. XII/26.

<sup>&</sup>lt;sup>8</sup> Brunon G., *Qau and Badari*, London 1927, pl. XXVIII/156-157.

<sup>&</sup>lt;sup>9</sup> Petrie W.M.F., *Diospolis Parva: the cemeteries of Abadiyeh and Hu*. London 1901.

<sup>&</sup>lt;sup>10</sup> Petrie W.M.F., *Corpus of Proto-Dynastic Pottery*, London 1953, pl. XVII/70l,o,m,n,p,-72-d,g.

<sup>&</sup>lt;sup>11</sup> Śliwa J., *Granary Models and Related Objects In Egyptian Tombs of the Archaic Period*, Etudes et Travaux XII, 1983, p. 33-36.

<sup>&</sup>lt;sup>12</sup> Murray M. A., *Cereal Production and Processing* [in:] Nicholson P.T., Shaw I., *Ancient Egyptian Materials and Technology*, Cambridge 2000, p. 505-535.

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separating the different levels at the further openings are marked. The storage structures were probably surrounded by protective ring-fences. Such information may be proved by the examples of models from Abydos mentioned above. A wooden ladder (well-known from iconography - for example wooden label from Abydos<sup>13</sup>) used to facilitation of the access to the hole on the top and holes on the upper floors of the silo was an important additional element<sup>14</sup>. It is important to mention the significant role of this structural element in the architecture and the economy of Egypt<sup>15</sup> and the unusual relationship between the granary models and both sepulchral and settlement architecture. The mastaba No.3038 (Mastaba of Nebetka) originating from the reign of Anjib can be stressed as the most interesting example of this relationship. In one of its stores nine round granary models arranged on the type of benches, partially embedded in the wall were found<sup>16</sup>. Another traces of the circular structures of this type from the settlement layers dated for the Archaic Period are known from several sites. The most interesting examples were discovered in Abydos. They can be interpreted as a very important part of houses not only as a storage facility but also as an element which provides to highlighting the wealth and social role and position of the inhabitants<sup>17</sup>. Interesting examples of silos relics come from Tell el-Farkha as well<sup>18</sup>. The question of the granary models functions as a votive goods or toys is still partially unknown. Is worth to mention that even today in the primitive tribal communities on the areas of Africa and Asia, the usage of this type of construction for the storage of cereals is still noticeable<sup>19</sup>.

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<sup>&</sup>lt;sup>13</sup> Rostem O. R., *Modern Granaries as Relics of Ancient Building*, ASAE 57, Le Caire 1962, p. 99-105.

<sup>&</sup>lt;sup>14</sup> Petrie W.M.F., Royal Tombs, II, pl. V/10.

<sup>&</sup>lt;sup>15</sup> Emery W. B., Archaic Egypt, Middlesex 1961, p. 238-239.

<sup>&</sup>lt;sup>16</sup> Ciałowicz K.M., *Początki cywilizacji egipskiej*, Warszawa-Kraków 1999, p. 274-276.

<sup>&</sup>lt;sup>17</sup> Adams M.D., Household Silos, Granary Models and Domestic Economy in Ancient Egypt [in:] Hawass Z. (ed.), The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Connor, vol. I, CASAE 36: 1-23, 2007.

<sup>&</sup>lt;sup>18</sup> Chłodnicki M. et al., *Polish Excavations at Tell el-Farkha (Ghazala) in the Nile Delta. Preliminary report 2002-2003*, Archeologia LV, 2004: 47-74.

<sup>&</sup>lt;sup>19</sup> FAO – AGSE, African experience in the improvement of post-harvest technique, based on the workshop help in Accra, Ghana 4 - 8 July 1994, Rome 1998.

## Catalogue

All items are made of Nile silt with an addition of sand and organic temper. All the models are very well preserved.

1. Inv. No.: E06/31

Cylindrical shape, flat base with a diameter of 4.0cm, height 9.7cm. In the lower part of the side wall the rectangular hole with rounded corners measuring 1.5x1.5 cm is visible. Upper part slightly convex, in the central position a round opening with a diameter of 1.4cm is situated.

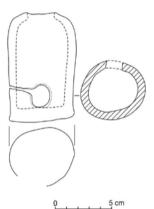


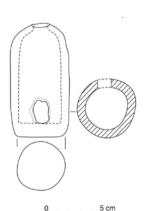
Cylindrical shape, flat base with a diameter of 5.7cm, height 9.5cm. In the lower part of the side wall a rectangular hole with rounded corners measuring 1.7x1.9cm is visible. Upper part slightly convex, in the central position a round opening with a diameter of 1.5cm is situated.

#### 3. Inv. No.: E06/33

Cylindrical shape, flat base with a diameter of 4.3cm, height 10.0cm. In the lower part of the side wall a rectangular hole with rounded corners measuring 1.5x2cm is situated. Upper part slightly convex, in the central position a round opening with a diameter of 1.6cm is visible.



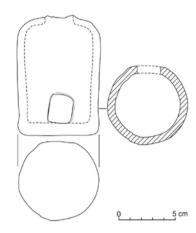




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## 4. Inv. No.: E06/34

Cylindrical shape, flat base with a diameter of 7.0cm, height 10.2cm. In the lower part of the side wall a rectangular hole with rounded corners measuring 2.0x2.4cm is visible. Upper part slightly convex, in the central position a round opening with a diameter of 2.3cm is situated.



### 5. Inv. No.: E06/35

Cylindrical shape, flat base with a diameter of 7.1cm, height 10.7cm. In the lower part of the side wall a rectangular hole with rounded corners measuring 1.7x2.2cm is situated. Upper part slightly convex, in the central position a round opening with a diameter of 2.1cm is visible.

