

On the significance of pottery vessels in private burial contexts  
of Early Dynastic Egypt.  
Selected case studies from the necropolis area Operation 4, Helwan

Friederike Junge\*

*RES Antiquitatis 1* (2019): 104-127

**Abstract**

From 1998 up to 2012, an unexplored area affiliated to the Early Dynastic cemetery of Helwan located about twenty kilometres south of Cairo was excavated (Fig. 1–2). This area was called *Operation 4*. It mainly housed private burials from the lower and middle classes of the nearby city of Memphis and dates from 2950 to 2600 B.C. 218 tombs were excavated and are currently being analysed regarding archaeological, architectural, physical anthropological, zoological, and botanical aspects. The ceramic vessels discovered in these tombs form the basis of the present paper. It attempts to exceed the material aspects of pottery vessels to learn more about ideational and practical circumstances leading to the selection, utilization, and deposition of certain objects focussing on *Operation 4* as a case study. For this purpose, particular phenomena were chosen and exemplarily illustrated, partly considering selected similar pieces deriving from contemporary Egyptian cemeteries.

**Keywords:** Pottery vessels, Funerary practice, Early Dynastic Egypt, Memphis.

**Date of submission:** 3/1/2018

**Date of approval:** 19/3/2018

---

\* PhD student at the University of Vienna, Department of Egyptology. Team member of the FWF project "Helwan – a necropolis of ancient Memphis" under the supervision of Prof. Dr. E. Christiana Köhler. E-mail: friederike.junge@univie.ac.at.

# On the significance of pottery vessels in private burial contexts of Early Dynastic Egypt.

## Selected case studies from the necropolis area *Operation 4*, Helwan

Friederike Junge

### ***Introduction***

The Early Dynastic Period of ancient Egypt covers a time span approximately between 3100 and 2700 B.C. and correlates to the First and Second Dynasties respectively the phases Naqada III C–D<sup>1</sup>. That was the time when the Egyptian state with its kingship, elaborated administration, and large-scaled trade developed (Hendrickx 2006, 92, Köhler 2013, 166).

For a long time, the investigation of burial sites of this formative era focused mainly on royal cemeteries at Saqqara in Lower Egypt and Abydos in Upper Egypt. Private burials were usually in a worse state of preservation and appeared inferior compared to their royal counterparts.

Moreover, most private burial sites were excavated in the first half of the 20<sup>th</sup> century. For various reasons, their publications are often incomplete and leave many questions unanswered. More recent excavations of Early Dynastic cemeteries are rare due to looting and the expansion of modern settlements. Therefore, a reinvestigation or even re-excavation of already known sites appeared appropriate. This situation also applied to the cemetery of Helwan (Köhler 2005, 2014). The modern-standard excavations at *Operation 4* generated a considerable amount of data, which allows for more precise insights into the funeral-related practices and beliefs of a certain community about five millennia ago.

As the post-excavation analysis is still in progress, the present paper should be considered as an interim report highlighting several phenomena at *Operation 4*. Many of them have parallels with contemporary burial sites all over Egypt, such as Abu Rawash, Turah and Zawiyet el-Aryan in the great region of Memphis, Tell el-Farkha, Kafr Hassan Dawood and Minshat Abu-Omar in the Delta, and Adaïma in Upper Egypt.

### ***1. The necropolis of Helwan and Operation 4***

The necropolis of Helwan is situated about twenty kilometres south of Cairo along the eastern Nile bank. Originally it covered an area of approximately 100 hectares, but due to the expansion of modern housing, only a small section thereof can be accessed today. After

---

<sup>1</sup> This is a very simplified delineation for it still remains to clarify the chronological transition from Pre- and Protodynastic to Early Dynastic and the subsequent Old Kingdom.

the first minor excavations at the beginning of the 20<sup>th</sup> century, Zaki Saad conducted large-scale research and uncovered more than 10.000 tombs between 1942 and 1954. Unfortunately, most tombs were left unpublished and missing information is irretrievably lost (Saad 1947-1969).

From 1997 to 2012 an Australian mission under the direction of E. Christiana Köhler reinvestigated some known structures at the cemetery of Helwan and conducted new excavations in a hitherto unexplored area which was named *Operation 4*. This sector encompasses 150 by 100 meters and includes 218 tombs dated from the late First to the early Fourth Dynasty which correlates roughly 2950 to 2600 B.C. (Köhler 2005). So far, 150 tombs are completely analysed. The remaining work shall be finished by the end of 2018.

The (re-)investigation of Helwan represents a *major* scientific gain for several reasons:

1. Helwan was apparently the main cemetery for the lower and middle classes of the nearby city and administrative centre Memphis. However, the exact location of this settlement can no longer be ascertained. Probably it was affected by the continuous movement of the Nile river from West to East in the course of time. Therefore, the necropolis of Helwan should be considered as an indispensable source to study the Early Dynastic Memphite society.
2. *Operation 4* and probably also the main part of Helwan comprised a large number of pit tombs whose simple architecture and poor accoutrement point to lower classes. Thus, the cemetery represents a non-elite site and forms a counterpart to the well-attested synchronous Memphite elite burials at Saqqara on the west bank of the Nile.
3. As mentioned above many Early Dynastic burial sites have suffered from uncontrolled excavation, documentation, and publication for different reasons such as a lack of interest and time or different research emphasis and standards. In contrast, *Operation 4* was treated with a broad focus and yet with a very detailed approach. The archaeological documentation involved all available architectural features, grave goods, human remains, animal bones, and plants.

The summarizing outcome of the analysis of the structures and human remains at *Operation 4* reads as follows: the designs range from simple shallow ovoid or rectangular pit tombs to elaborated (deep) subterranean chamber tombs with sloping passages (staircase, ramp, shaft) and separated chambers. The simple type appears about twice as often as the latter. In some cases, remains of mud brick superstructures were also preserved (Köhler 2008, 116, 122). The majority of the graves date to the Second Dynasty (ca. 2900 to 2700 B.C.).<sup>2</sup> Usually, every man, woman, and child received an own tomb. Rarely, also animal burials were documented. The human corpse was usually arranged in a contracted position and mostly situated inside a coffin, but sometimes only wrapped in a sheet or reed mat. Due to a relatively wide range of chronological phases and social classes or groups, the tomb assemblages turn up quite heterogeneous. However, except for some very small burial pits, almost every tomb contained ceramic vessels. Additionally, their original position

---

<sup>2</sup> Final results on the chronology are pending additional information of post-excavation analysis.

could be reconstructed in many cases. Hence *Operation 4* offers exceptional data to demonstrate the potential of ceramic analyses following a socio-cultural approach.

## **2. Pottery vessels in burial contexts**

Burials can give unique insights into certain actions and beliefs of a society as they are discrete archaeological features which are locally and chronologically restricted. Nevertheless, one should keep in mind that they were conducted for a specific purpose and do not necessarily depict and reflect the everyday world.

Regarding the funerary equipment in Early Dynastic Egypt, pottery vessels are particularly valuable scientific sources for several reasons: 1. they usually appear in great numbers, 2. the material is relatively stable, 3. they display production processes, and 4. they usually do not meet the ambitions of plunderers and remain in their original position more often (Orton, Tyers, and Vince 1993, 228).

By analysing and contextualizing pottery vessels, we can learn more about the object itself but also about the relationship between items and human beings, since objects are involved in activities performed by a society, a group or a sole individual. Therefore, the manufacturing, usage, adaptation, reuse, deposition or discarding of objects point to certain aspects of social, economic, political, ideological, and religious identities (Hahn 2005, 40-45, Stevenson 2009, 159-164).

Burials do not only reveal information about the deceased but also and foremost about the living, who planned and performed the funeral. Regarding pottery vessels, in particular, features like fabric, shape, traces of production, surface treatment, residues, and contents can provide information about manufacturing processes and techniques, functional levels, commercial relationships, trading routes, as well as spatial and chronological transformations. This information, in turn, helps to understand the ideational and practical circumstances which led to the selection, utilization, and deposition of particular objects. As every object fulfilled diverse functions and held various potential meanings depending on the constellation of social actors and situations, it can tell a lot about the concepts of a society or an individual, about their routines and characteristics (Bourdieu 1987, 101, Parker Pearson 2003, 5-10, Stevenson 2009, 160-161).

In the first place, the reconstruction of the interrelations between objects and humans requires the clarification of the depositional processes. This, in fact, poses a challenge because the objects could have ended up in the tomb intentionally, coincidentally or accidentally at any time. Intended depositions include grave goods which were either in a new condition, explicitly produced for funerary purposes, or reused objects of daily life. Concurrent objects are considered as items which were not directly associated with the burial and might have been forgotten as transport devices, tools or illuminants. The archaeological record also comprises accidental depositions which were caused by plundering, secondary burials or natural processes (Budka 2011, 187-90).

Accordingly, the examination of the functionality and significance of pottery vessels in burial contexts is based on intended and concurrent objects.

Grave goods were not solely located inside the burial chamber near the corpse, but also in preceding chambers or corridors, within the descent fill, at the surface level, and inside the superstructure. Therefore, they can easily be confused with concurrent left-overs, which were not intended to be in the tomb. Such an ambiguity, for instance, is shown by the following case. Beneath the coffin in the pit tomb Op4/152, there was a plate fragment with rounded edges. The wear pattern points to the fact that the sherd had been used for digging. Since the tomb was well-preserved and the sherd was most likely in a primary position, it had been rather used by the tomb builders and was not connected to robbers' activities. Nevertheless, it remains open whether the plate fragment had been forgotten and deposited by chance or whether it had been intentionally located beneath the coffin.

Other funeral-related vessels are connected with singular or repeated actions of the bereaved in the tombs' surroundings. These may in particular include feasting and offering activities. The identification of such objects is usually challenging since they were deposited at above-ground levels and strongly affected by various natural and artificial transformation processes (Guksch 1995, 13-18, O'Shea 1984, 24-25).

One such example was found within the superstructure of the large subterranean chamber tomb Op4/88. It contained amongst others several fragments of large plates and a quite tall pot stand. Kytarová (2015, 3) proposed that in Old Kingdom tombs pot stands were occasionally combined with large, flat plates to create an elevated tray and present something, most likely offerings, in a more prominent position. Therefore, the deposit in tomb Op4/88 possibly points to recurrent activities outside the tomb in means of creating a permanent location for offering and commemoration. Such a need is also indicated by several funerary relief slabs which were found in the cemetery of Helwan and depicted early designs of offering scenes (Köhler and Jones 2009, 51-56).

To distinguish funeral-related objects on the surface from random and displaced finds, it is necessary to establish certain assumptions. In this regard, Seiler (2005, 50-51) listed a series of criteria for pottery which was related to above-ground activities. She states that the vessels in question accumulate at a close range of the tomb and are approximately synchronous to the burial. In addition, it should be possible to almost completely reconstruct broken vessels, and the number of sherds should not point to stray findings.

After the depositional processes have been clarified, the findings need to be contextualized by further criteria. Aspects of identity may be extrapolated from the following characteristics: the topography and chronology of the particular necropolis; the internal structure of a cemetery; the spatial distribution of tombs and their accoutrement; the structure of the tomb implying architectural features and measurements; the burial itself, i.e. the orientation and position of the body, sex and age; the furnishing of the tomb; the decoration of walls; the container for the corpse and so on; and finally the assemblage of grave goods in general, which includes the category, the number, and the distribution of finds. For instance, vessels made of stone or copper could have replaced pottery containers and the other way around. Thus, the mere absence or presence of a certain material does not reveal anything.

The interaction and entanglement of the mentioned criteria will be discussed in detail below. Six phenomena from *Operation 4* were chosen and subdivided into two main categories at three instances. The first category deals primarily with questions of spatial distribution and the likely thoughtful arrangement of pottery vessels, whereas the second rather focusses on functional issues.

### **2.1 Spatial distribution**

Regarding the equipment of a tomb, not only the selection, the quantity, and the types of artefacts should be noted but also how they were combined and positioned. Just as the corpse, also the grave goods were apparently subject to special rules or preferences of orientation and can point to the identity of the deceased as well as of the bereaved (Stevenson 2009, 130).

The funeral was a social event with a certain significance for every participant – no matter if dead or alive. On the one hand, the living performed the burial for the deceased himself to ensure his rebirth and afterlife existence. The defunct received a manifest and permanent “accommodation” provided with food, drink, dishes, clothes, tools, bodily ornaments and all other necessary means which were believed to last eternally. On the other hand, the funeral also fulfilled functions for the affiliated survivors. The bereaved received a medium to cope with their grief, to reaffirm religious concepts and to show certain social status and a position of power within the group or community. Thus, the utilization of space and the presentation of artefacts could reflect religious necessities as well as social conventions (Stevenson 2009, 161–64).

At *Operation 4* many phenomena indicate that pottery vessels were not placed by chance but were deliberately chosen and arranged. Below there are three specifically illustrating instances which will be discussed in detail.

#### **2.1.1 Accumulation and separation**

The pottery assemblages at *Operation 4* reveal a broad spectrum of jars, bowls, plates, and special shapes which can largely be assigned in chronological order. Very common forms are tall, slender wine jars, various rough plates and bowls, polished red tableware, bread moulds, and different kinds of beer jars with restricted shoulder and mouth or collared rims (beer jar types 2 to 4). Most of them were made of the standard Early Dynastic Nile silt fabric. It appears that almost every tomb was equipped at least with one of such a vessel.

By analysing the assemblages of well-preserved and partially disturbed tombs, one can recognize recurring arrangements. For instance, accumulations of jars were put on the floor or at the ledge of burial pits and chambers in an upright position in-line along one of the walls. Plates and bowls were often located separately. Such arrangements are already sufficiently known from many other cemeteries, including Early Dynastic sites like Minshat Abu Omar (Kroeper and Wildung 2000), Tell el-Farkha (Chłodnicki, Ciałowicz, and Mączyńska 2012), Turah (Junker 1912), and Abu Rawash (Klasens 1957).

At *Operation 4* distinct examples of vessel separation can be observed in the area of a decayed coffin on the floor of three simple pit tombs which comprised only a small number of vessels. These are the tombs Op4/12, Op4/14, and Op4/23.

The probably intact pit tomb Op4/23 (Köhler 2014, 251–252) dated in the late Naqada III period, contained the corpse of an adult of indeterminate sex and two pottery vessels within the remains of a wooden coffin. The deceased was placed along the eastern longitudinal side of the coffin with its head in the south facing west. Along the western side of the coffin, one bowl was positioned in front of the deceased's head and one jar next to his feet (Fig. 3). The bowl (P01-26) was made of medium fine marl clay with none or only a few inclusions. It was red-slipped and streaky polished on the interior and upper exterior surface. Conversely, the jar (P01-25) was made of medium coarse Nile silt, wet smoothed and without any coating. Thus, both vessels varied considerably in the way of making, though there are striking similarities regarding their dimensions. The jar's height is 17 cm which correlates with the bowl's rim diameter. The bowl's height is 9.5 cm which again correlates with the jar's maximum diameter of 9 cm.

Another arrangement of two vessels at the floor of a burial pit occurred in the well-preserved pit tomb Op4/12 dated in the Naqada III period (Köhler 2014, 207–208). A child aged between five and seven years placed in south-north-direction received a pottery bowl close to its feet and a stone bowl in front of its face at the western side of an organic wooden container. Both bowls had similar shapes with flat bases, convex bodies and dimensions of 4.8–5.3 cm height and 12.5–14 cm rim diameter. The ceramic bowl (P01-69) was made of medium coarse wet smoothed and red-slipped Nile silt and formed a visual color contrast to the whitish limestone bowl (S01-7).

The intact pit tomb Op4/14 (Köhler 2014, 211–214) dating back to early Naqada IIID contained the burial of an infant with its head in the south, just as the human in tomb Op4/12. Although in tomb Op4/14 three stone vessels were located within the outlines of a decayed coffin, only two of them were visible from above. Just as in tomb Op4/23 and Op4/12, one dish was placed near the head and one next to the feet of the deceased. Furthermore, a small jar lay hidden underneath the infant's skull. The visible dishes had similar rim diameters of 14.5 cm and 15 cm but differed distinctly in material and shape. The dish near the head (S01-10) was made of dark siltstone, and its walls were about 1 cm thick. The other vessel (S01-11) consisted of pale calcite and had a thickness of the wall up to 3 cm. The latter was turned upside down. This contrast in arrangement and color created a distinct spatial separation.

In summary, all instances occurred in simple pit tombs dated late in the Naqada III period, which housed the burials of children as well as adults and were equipped with two visible, distinctly separated vessels inside the former coffin. The properties of the mentioned vessels seem rather variable as their material and shape differ noticeably – albeit the placement of a certain shape, viz. a bowl or dish, in front of the face appears to be related. However, the main focus might have been on adequately using space and presenting the few but essential grave goods in an appropriate manner.



### **2.1.2 Bread mould fragments**

Bread moulds were common grave goods at *Operation 4* and were recorded from the superstructures up to the interior of a coffin, though their placement was restricted by the considerable size of such a whole vessel. For example, some completely preserved and reconstructed bread moulds at *Operation 4* exhibit rim diameters up to 40 cm and heights up to 30 cm (Köhler 2014, 166, 199). Accordingly, an equipping with a whole bread mould takes up a large part of a tomb.

However, in some instances at *Operation 4* shallow and narrow pit tombs were provided with bread moulds by breaking the complete vessel and depositing only fragments of it. A clear primary and intentional deposition of bread mould fragments could be observed in three simple pit tombs, namely Op4/142 (Fig. 4), Op4/151, and Op4/200. In these cases, very small sized rim sherds, which could be easily held in a human's fist, lay within or under the deceased's right hand, which in turn was placed in front of the face pointing to the mouth. The tombs Op4/151 and Op4/200 were small shallow pits with hardly any further grave goods. The rectangular pit tomb Op4/142 was somewhat deeper, but also short of equipment.

The occupant in tomb Op4/200 was a subadult of unknown sex. The others were male adults aged between twenty to forty years old at death. In accordance, the occurrence of the bread mould fragments in question is not a matter of age, but rather of wealth and social status<sup>3</sup> which is probably also reflected in the burial size, the architecture, and the accoutrement. Hence, it is likely that the tombs derived from relatively low-income families.

By equipping the deceased with bread mould fragments, the relatives ensured an unlimited and always recurring food supply, which represents an essential feature of the Egyptian idea of the afterlife (Grajetzki 2003, 6), while causing as little costs as possible. One could transport and deposit a fragment easier and closer to the corpse than a whole vessel. At the same time, the function of a bread mould remains preserved in the fragment, and the notion of feeding is emphasized by imitating the gesture of grasping food and raising a hand to the mouth. In this regard, the fragment poses as a *pars pro toto* for a whole functional bread mould, which in turn is recognized as a container to bake and store bread – one of the main basic foodstuffs in ancient Egypt. Based on this one could conclude that such vessels which were connected to the consumption of food in principal did not have to hold food or drink literally but could have been even understood as a symbol of supply.

### **2.1.3 Reversed bowls**

Most bowls at *Operation 4* deriving from a primary context were arranged in a more or less upright position. However, on occasion, some bowls appear to have been deliberately deposited upside down. Regarding the reversal of vessels, a distinction between two different contexts emerges. Firstly, they can occur on top of jars applied as a kind of a lid.

---

<sup>3</sup> The phenomenon could also be deduced from the deceased's sex as in two out of three cases the deceased was male and in the remaining case the sex was indeterminate. Though the selection of data sets is too little to make a general statement.



These bowls presumably served for a different purpose than originally intended. This kind of reversal is proven at some Early Dynastic burial sites apart from *Operation 4*. Vivid examples can be found amongst others in the tombs 126 and 156 at Minshat Abu Omar (Kroeper and Wildung 2000, 75-75, 119).

Secondly, reversed bowls were placed solely on the floor – either at aboveground level or inside the pit or burial chamber, often in close vicinity to the deceased's body. Such an arrangement is only rarely attested at Early Dynastic burial sites, but when so, the reversed bowls show several similar physical characteristics.

At *Operation 4* two out of 218 tombs display a reversed bowl most likely in its original position, namely Op4/168 and Op4/28.

The pit tomb Op4/168 dated in Naqada IIID2 housed a mature male aged older than forty-six years with his head north facing west. Behind his back ran a raised ledge along the eastern pit wall. On this ledge, there were four beer jars in a row leaning against the wall. They were followed by a reversed bowl (P08-61) in the south-eastern corner of the pit, close to the deceased's feet.

Op4/28 is a large rectangular pit tomb with interior ledges along the eastern and western restriction walls dated to the phase Naqada IIID. This tomb had been disturbed and plundered several times and was intruded by a secondary burial in the upper fill. The primary burial of a probable male adult at the age of forty to forty-four years old was found in a semi-articulated state of preservation due to plundering. The human remains were located in the south-eastern corner of the pit inside a wooden coffin which was surrounded by a large wooden compartment. Alongside this compartment's western restriction, there were several intact vessels and large cattle bones found, which had obviously not been affected by the looting activities (Köhler 2014, 261-64, Fig. 98:5). At the centre of this accumulation and probably at the same height as the deceased's feet stood a reversed bowl (P01-64, Fig. 5-6).

Another such case was detected in the Early Dynastic pit tomb Z90 at Zawiyet el-Aryan (Dunham 1978, 6); a Memphite necropolis six kilometres south of Giza. Similar to tomb Op4/168 the reversed bowl was found in the south-eastern corner of the burial pit, which in this case is the assumed head's direction. However, it cannot be said with certainty if the bowl was still in a primary position since the tomb had been apparently disturbed and the documentation does not provide detailed information in this regard.

An earlier and slightly different arrangement of a reversed bowl was uncovered at the site of Adaïma in Upper Egypt. The intact tomb 68 (Crubézy, Janin, and Midant-Reynes 2002, 161-164) dated to the sub-phase Naqada IIIA1 accommodated an adult female aged between twenty-five to forty-five with her head south facing to the west. In this case, the bowl was placed in front of the woman's chest and covered her bent forearms.

While those three<sup>4</sup> sites differ considerably in date and location, the reversed vessels themselves show distinct similarities. The bowls are characterized by oblique to convex

---

<sup>4</sup> Another reversed bowl was located in tomb no. 4 on top of Kom E at Tell el Farkha, but it is not published yet. Therefore it seems that the observation of reversed bowls at the floor of tombs is consistent all over Egypt from the Delta to Upper Egypt covering a time span of more than 300 years.

bodies, flattened bases and nearly the same dimensions (Table 1). Their proportional index of the maximum diameter to height ranges between 1.71 and 2.25. This index forms a mathematical system to describe and classify shape types in a neutral way. It is useful to compare vessels in their wide diversity of spatial and chronological distribution (Karstens 1994, 272). Though for now, it needs to be clarified if the proportions of the reversed bowls actually form a pattern in comparison to other bowl types in a broader local and chronological context.

Regarding the intention of placing bowls upside down, there could have been multiple reasons. They may have covered and thus secured something beneath. For example, such a function could be ascribed to vessels in two tombs at Minshat Abu Omar. Tomb 404 contained a large ceramic bowl of 7 cm height and 35.2 cm rim diameter which was turned upside down and covered a small stone bowl of 2.4 cm height and 6.2 cm rim diameter (Kroeper and Wildung 2000, 110). In tomb 886 five vessels were piled over the deceased's head. At the bottom, there was a ceramic bowl of 19.1 cm rim diameter, followed by a large ceramic bowl of 32.5 cm rim diameter, a small calcite jar and two calcite bowls of 18.4 cm and 19.1 cm rim diameter (Kroeper and Wildung 2000, 124). Though the drawings and the description provide no clear information on whether all vessels were reversed or not. Only the reversal of the uppermost bowl is definite.

By a different approach, reversed vessels, especially if they were not stacked on top of one another, could constitute an intended counterpart to properly disposed vessels as a metaphor of emptiness after pouring or redistributing their content in the course of the burial. Also, the reversal could have been intended to reinforce the opposite to the normality of everyday life and to illustrate the separation of the realm of the dead from the world of the living (Parker Person 2003, 26).

| Site                  | Dating         | Bowl shape   | Clay             | Height in cm | Rim Diameter in cm | Varia                     |
|-----------------------|----------------|--|------------------|--------------|--------------------|---------------------------|
| Adaïma, No. 68        | Naqada IIIA1   | flat base, oblique to convex body, slightly inverted rim | Calcareous paste | 9.6          | 21.6               | No slip                   |
| Zawiyet el-Aryan, Z90 | Naqada IIIC-D  | retracted base, concave to oblique body, angular rim     | Alluvial silt    | 10           | 19                 | Red slip                  |
| Helwan Op4/28         | Naqada IIID1-2 | lentoid to flattened base,                               | Alluvial silt    | 12.3         | 21                 | Red slip, mostly tempered |

|                 |             |  |               |     |      |                |
|-----------------|-------------|--|---------------|-----|------|----------------|
|                 |             | oblique to convex body, direct rim                 |               |     |      | with limestone |
| Helwan, Op4/168 | Naqada IID2 | flattened base, oblique to convex body, direct rim | Alluvial silt | 9.6 | 20.7 | Red slip       |

Table 1. Features of reversed bowls sorted chronologically

## 2.2 Function and meaning

As mentioned above objects can be regarded as communicative indicators for human activities and identities, though their spectrum of meanings depends on situative perspectives and personal knowledge which must remain partially incomprehensible to an outsider.

Nevertheless, objects are constitutive components of a burial concerning religious beliefs, funerary practices, and social contexts. They were involved in funerary activities for various reasons and served different purposes.

When examining the function of a vessel one should take into account that it's flexible and variable throughout its whole use-life. The appearance of pottery containers may point to a certain intended function<sup>5</sup>, but it not necessarily reflects the actual usage. Therefore, additional features, such as traces of use, remains of content, archaeological contexts, and the association with other artefacts, should be considered.

Below follow three different examples of functional analysis: firstly, grain silos whose intended and actual function was deduced by shape analogies and contents; secondly, bowls which exhibit distinct soot stains as traces of use, and lastly, beer jars, whose detailed location, arrangement and contents point to feasting activities.

### 2.2.1 Grain silos

The tomb Op4/28 comprised two almost identical containers which were interpreted as miniature grain silos after comparison with archaeological and pictorial evidence of corresponding Egyptian storage structures (Köhler 2014, 262, Fig. 96:6–9).

Though the pit tomb Op4/28 had been plundered and affected via several tunnels and pits, certain parts appear to be preserved in an original condition. These include the northern ledge where the grain silos were found. They were located at the centre of the ledge and

<sup>5</sup> Features like shape, size, fabric, and the surface treatment can affect the physical properties and technical capacities which in turn confine a certain usage. Particular vessel functions in Early Dynastic burial contexts can also be deduced from comparison with later pictorial and textual evidence.

were accompanied by beer jars, plates, and animal bones. One silo (P01-49) was still in an upright position and sealed with a lid (Fig. 7). The second silo (P01-48) was broken but could be reconstructed completely. Both containers were made of medium coarse Nile silt. While the vessels' bodies were roughly wet smoothed, their exterior bases exhibit the impressions of coiled ropes. The containers had a cylindrical body of 36 cm height and 8.5 cm rim diameter, and a properly manufactured lid of 9.5 cm and 10 cm maximum diameter, respectively. The sealed grain silo (P01-49) contained a mixture of chaff and dirt.

Similar containers have been discovered all over Egypt from the Early Dynastic period onwards. They occur in different sizes and are made of varying materials such as unfired clay, ceramic and stone. For instance, recent excavations at the Eastern Kom at Tell el-Farkha, which is located in the eastern Nile Delta, unearthed Early Dynastic granaries from funerary contexts as well as from the settlement. Tomb 50 at Tell el-Farkha contained five granary models made of unfired clay and measuring between 9.7 cm and 10.7 cm in height. They have a cylindrical body with a more or less rectangular hole in the lower part, an aperture on top and no lids (Kołodziejczyk 2009).

On the top of the Eastern Kom, circular and rectangular structures were located which probably date to the Second Dynasty and which were apparently related to farming and storage purposes. There was an intact ceramic silo of almost 1 m height in addition to other large storage jars and a huge number of bread mould fragments. The silo resembles the clay models from tomb 50 but is about ten times taller (Chłodnicki, Ciałowicz, and Mączyńska 2012, 30).

Comparing the granaries at Helwan and Tell el-Farkha, there is not only a difference in size but also in the number of apertures. The silos at Tell el-Farkha explicitly imitate the design of their counterparts in real life with an aperture at the top and one on the side in order to fill in or remove the grain. Yet, in finding there were no lids or seals attached. The silos in tomb 50 were very small and made of unfired clay which makes a storage function unlikely. They were rather mere models of the building. The silos in *Operation 4* on the other hand, could actually have stored grain as they were sealed and still held an organic content distinctly related to cereals, i.e. chaff.

Summing up, in funerary contexts the downsized ceramic and clay silos could have contained grain or inedible plant parts, as it seems to apply to the intact container in Op4/28 at Helwan, or they occurred as empty models like those from tomb 50 at Tell el-Farkha. In either case, they presumably were considered just as functional as their real correspondents. The deceased did not only receive prepared food and drink but the ingredients for the production of basic Egyptian foods, namely beer and bread, making him wealthier and more independent in the afterlife.

### **2.2.2 Bowls with distinct soot marks**

Several tombs in *Operation 4* contained small and medium sized bowls which exhibit distinct soot marks at the rim plus on the interior base and lower surface. Their size and the distribution of soot stains point to a fire source inside the vessels which is why they are

usually interpreted as lamps or incense burners (Rzeuska 2006, 474, Seiler 2005, 48). In contrast, cooking ware generally has a larger capacity and predominantly shows soot stains on the exterior body and base (Orton, Tyers and Vince 1993, 222–223).

The bowls considered here differ distinctly in typological and technological aspects. The proportional index of rim diameter to height ranges between 1.74 and 4.2, which is reflected in a deep and restricted or a shallow and everted shape (Fig. 8). Besides this, the surface treatment and coating are not consistent. The only thing all bowls have in common is that they were made of the standard Nile silt fabric. Even the distribution and intensity of the soot stains differ. They are probably to be ascribed to different vessel shapes and the quantity and efficacy of the used fuels.

However, considering the archaeological record, certain similarities can be detected. Till now six bowls with interior soot marks were found in a primary position. In each case, one bowl was located on the floor of a simple pit tomb or inside a subterranean chamber tomb (Table 2). In three cases the bowl was directly associated with the burial. These are the two pit tombs Op4/105 and Op4/11 (Köhler 2014, 197–205), and the small shaft tomb Op4/96. Two bowls were placed in the southern part of the burial chamber close to the deceased's feet. The bowl in tomb Op4/68 was found in the burial chamber's lower fill, but its exact deposition cannot be determined anymore due to partial plundering. In the remaining two cases, tomb Op4/173 and Op4/94, the soot-stained bowls stood in an antechamber and a passage leading to the burial chamber, respectively.

One crucial question relates to when exactly those bowls were used. They could have functioned as lamps and incense burners<sup>6</sup> earlier in a household as well as during the funerary process. Considering that the six bowls in *Operation 4* had been placed inside or in front of the burial chamber, they might be linked to the inhumation of the deceased's body and the blocking of the subterranean structure.

In case of the simple and shallow structures of those pit tombs in question, probably no lamps were required to illuminate the underground darkness. They may have been part of a presentation of grave goods spreading odour rather than light. Stevenson (2009, 143) remarked that burial pits and chambers might have been left open for a certain time span, during which the community of the bereaved performed actions in the burial surroundings, and that it was possible to view the deceased and the arranged grave goods for some time. Regarding the deeper and more complex chamber tombs Op4/173 and Op4/94, a practical need of lamps is far more convincing. They could have been used while furnishing and blocking the subterranean structure and may have been left behind afterwards. Albeit if we assume that funerals have also been taking place during the twilight hours or even at night, the need of illuminants would not depend on the tomb's architecture.<sup>7</sup>

Following another approach, bowls with soot stains could be considered as remnants of ritual activities associated with different stations of the funeral ceremony. Findings in Old Kingdom tombs at Dahshur suggest that pottery containers were used to burn offerings while underground passages, as well as above-ground areas, were being locked. Especially

---

<sup>6</sup> Though the bowls in *Operation 4* were not associated with the remains of incense.

<sup>7</sup> Thanks go to E. Christiana Köhler for bringing this possibility to my attention.

at the transition to the burial chamber deposits were found which point to censuring, pouring, libation and ritual washing (Alexanian 1998, 11–12). This would especially match the tombs Op4/94 and Op4/173 in *Operation 4*.

| <b>Tomb</b>  | <b>Pot-Number</b> | <b>Location</b>   | <b>Tomb Date</b>      |
|--|-------------------|---|-----------------------|
| Op4/96<br>Small shaft tomb                         | P05-27            | Floor of the burial chamber, the northern part  | Naqada IIID           |
| Op4/105<br>Pit tomb                                | P05-47            | Burial chamber, near deceased's feet at the southern part of the chamber                      | Naqada IIIC-D         |
| Op4/11<br>Pit tomb with interior ledges            | P00-60            | Undisturbed pit fill above coffin, leaning against the southern tomb wall (direction of feet) | Naqada IIID           |
| Op4/68<br>Subterranean chamber tomb with staircase | P03-23            | Lower fill of burial chamber  | Naqada IIID2–3        |
| Op4/173<br>Subterranean chamber tomb               | n/a               | In front of the door blocking leading to the burial chamber                                   | Naqada IIID2          |
| Op4/94<br>Subterranean chamber tomb with staircase | P05-17            | Antechamber deposit   | Probably Naqada IIID3 |

Table 2: Bowls with soot mark sorted by location

### **2.2.3 Beer jars and feasting**

As mentioned before, the excavation and documentation of *Operation 4* also considered upper layers and even endeavoured to identify funerary objects apart from grave goods inside the burial chamber. Such identification is mostly problematic because the upper fill generally contains large amounts of broken pottery vessels usually deriving from displaced material in consequence of robbery and plundering. Hence, for the most part, it is not traceable whether objects were placed deliberately or by chance.

Nevertheless, regarding *Operation 4*, it was possible to recognize and reconstruct the primary position of some pottery vessels which were connected to the original burial, but were not placed in the lower parts of the tomb like the burial chamber or antechamber, but in the upper fill, the descent, at the top of the staircase, and within the superstructure, which indicates a placement at the end of the funeral.

Several tombs in *Operation 4* revealed jars and bowls in the upper layers containing ashes, plant material and bones – an observation also attested at other burial sites (Rzeuska 2006,

455–468). These findings could be interpreted as evidence for feasting. In a few cases, the jars also contained ceramic sherds which were partially burnt.

The descent of tomb Op4/148 comprised at least 13 complete beer jars holding what could be the remains of a feasting meal and potsherds (Fig. 9). The latter were mostly small burnt body fragments, which were not classifiable anymore. Larger fragments with intact surfaces derived mainly from beer jars, polished red bowls, and bread moulds. Therefore, the sherds represent fine, medium and coarse wares and cover the main functional groups of vessels, i.e. storage, processing (preparation) and transfer (serving, consumption) of food (Rice 2005, 208–211).

Some of the sherds were theoretically large enough to partially cover the aperture of the corresponding beer jar and serve as a kind of lid. Other findings from *Operation 4* show that one or more fragments actually could have been used as support for a final mud sealing. Therefore, it is possible that some large-sized fragments ended up inside the jars by chance. Contrarily, the small, burnt pieces must have been intentional pot contents.

A similar composition of pot contents could be observed in several burial shafts of Old Kingdom tombs at West Saqqara. A considerable amount of intact, sealed beer jars had been filled with ashes, burnt remains of partially edible plants, charcoal, very fragmented and burnt bones, as well as sherds mainly deriving of red-slipped bowls (Rzeuska 2006, 469). It is worth noting that the jars themselves both in *Operation 4* and West Saqqara exhibited no secondary burning marks or any other traces of fire.

In both cases, a conceivable scenario might have been as follows: the community of bereaved brought vessels with food and drink to the funerary site, which they then consumed at any time during the burial. When they had finished their meal, they destroyed the vessels, partly burnt them and put them into the intact beer jars which again were deposited in the descent. Rzeuska (2009, 474) supposed that food offerings and ceramic vessels were burnt on a pyre during the funeral and “[...] the remaining ashes, remains of unburnt plants and pieces of pots were carefully collected and put into jars, after which the jars were tightly sealed.” The jars in *Operation 4* also contained sherds without any traces of fire. They may have been broken deliberately or accidentally and picked up afterwards. Interestingly none of the larger unburnt fragments collected from the contents of the 13 beer jars in tomb Op4/148 could be refitted to reconstruct whole vessels. Thus, one may ask where the missing pieces ended up. They may have been handed to the feasting community or were just left somewhere on the ground.

### **Conclusion**

The cases outlined here illustrate the large scope of vessel functions and meanings as well as the entanglement of pottery vessels, humans, and burial practices. It is obvious that funerary ceramic containers were not exclusively aligned with the deceased’s needs and preferences but also formed an active constituent for the living community of the bereaved.

In *Operation 4* vessel functions seem to have been primarily connected with nutritional aspects including the production, preparation, storage, and serving of beer, wine, meat,



legumes, fruits, bread, grain, etc. Beyond that several pottery vessels served purposes other than mere sustenance.

As mentioned above they could have served as lamps and incense burners or were reused for coverage. Pot stands combined with large, flat plates could have served as offering tables. Additionally, broken vessels sometimes also functioned as digging tools which are evident by wear patterns. Whereas such utilization is mostly observed in disturbed, i.e. plundered, contexts and connected to robbers' activity, it occasionally also seems to apply to the tomb builders.

The spatial distribution of pottery vessels can be ascribed to sequences of activity and usage as well as social concepts. It has been suggested that the closer an object is placed to the body, the stronger it is connected to the deceased and therefore rather should be recognized as a possession of the buried person than as a gift of the mourners (Crubézy, Janin, and Midant-Reynes 2002, 473). In contrast, the spatial distribution of grave goods could be caused by societal conventions or individual preferences. For instance, if we call to mind the vessel separation mentioned before (see the heading 2.1.1), a superordinate convention regarding the arrangement seems likely, whereas the vessels' design could have been chosen for individual reasons.

In any case, several grave goods were selected and placed with great attention to detail. It is therefore quite convincing to assume that lower tomb parts were left open and accessible to the bereaved for a while.

Regarding the traces of usage of funerary ceramic vessels new and used pieces equally ended up in a tomb. Thereby the particular time of usage cannot be determined precisely in most cases. The mentioned bowls with soot marks could have been used at any time before the burial, but at the latest during the inhumation as they were situated in the lower parts of a tomb. As those bowls potentially spent light or odoriferous substances they would have been in any case valuable in a dark earthy tomb pit. Additionally, they could have served to define different burial stages from equipping the tomb with the corpse and grave goods via locking diverse passages to finally backfilling and closing the whole structure.

The beer jars deriving from the descent fill of tomb Op4/148 were certainly buried after the inhumation and most likely also after performing a funerary meal and other feasting activities. The funeral congregation might have consumed food and drink, while the tomb was not completely backfilled. After finishing their meal, feasting remains were burnt, swept up and filled into intact jars which were again discarded in the upper levels of the tomb.

By acting like that the bereaved on the one hand could have intended to leave behind everything which was connected to the burial, including their grief but also a certain fear or aversion related to the death. It has been suggested that goods which had been used within the funeral ceremony might have been considered as polluted and therefore had to be removed from everyday life by placing them with the deceased (Parker Pearson 2003, 24). The mere burning of objects as offerings additionally could have enabled the deceased to take part in the feasting as well.

Altogether it became obvious that the significance of pottery vessels should not be underestimated regarding the investigation of past life-realities and living conditions. Solely by highlighting a few occurrences at *Operation 4* it was possible to catch a glimpse of identities, religious beliefs and funerary customs of an urban population in the Memphite area some 5000 years ago. Further progress towards the examination of findings in *Operation 4* offers the opportunity of increasingly better and more comprehensive knowledge and understanding of the Early Dynastic society in the near future.

### **Acknowledgments**

The author is grateful to all who donated their time, work, support and funds to the Helwan Project. Thanks go to the Ministry of State of Antiquities (MSA) and the Supreme Council of Antiquities (SCA) for their permission and support.

Excavations and post-excavation analyses were funded by the Macquarie University, the Australian Research Council, the Institute for Bioarchaeology, the Brennan Foundation, the University of Vienna, the Austrian Science Fund (FWF, project-no. P27123-G21), and private donations.

Special thanks go to all members of the Helwan team for their longstanding work and the project supervisor E. Christiana Köhler for allowing me to use the Helwan material as well as for her help and advice.

Photographs and drawings are courtesy of the Helwan Project.

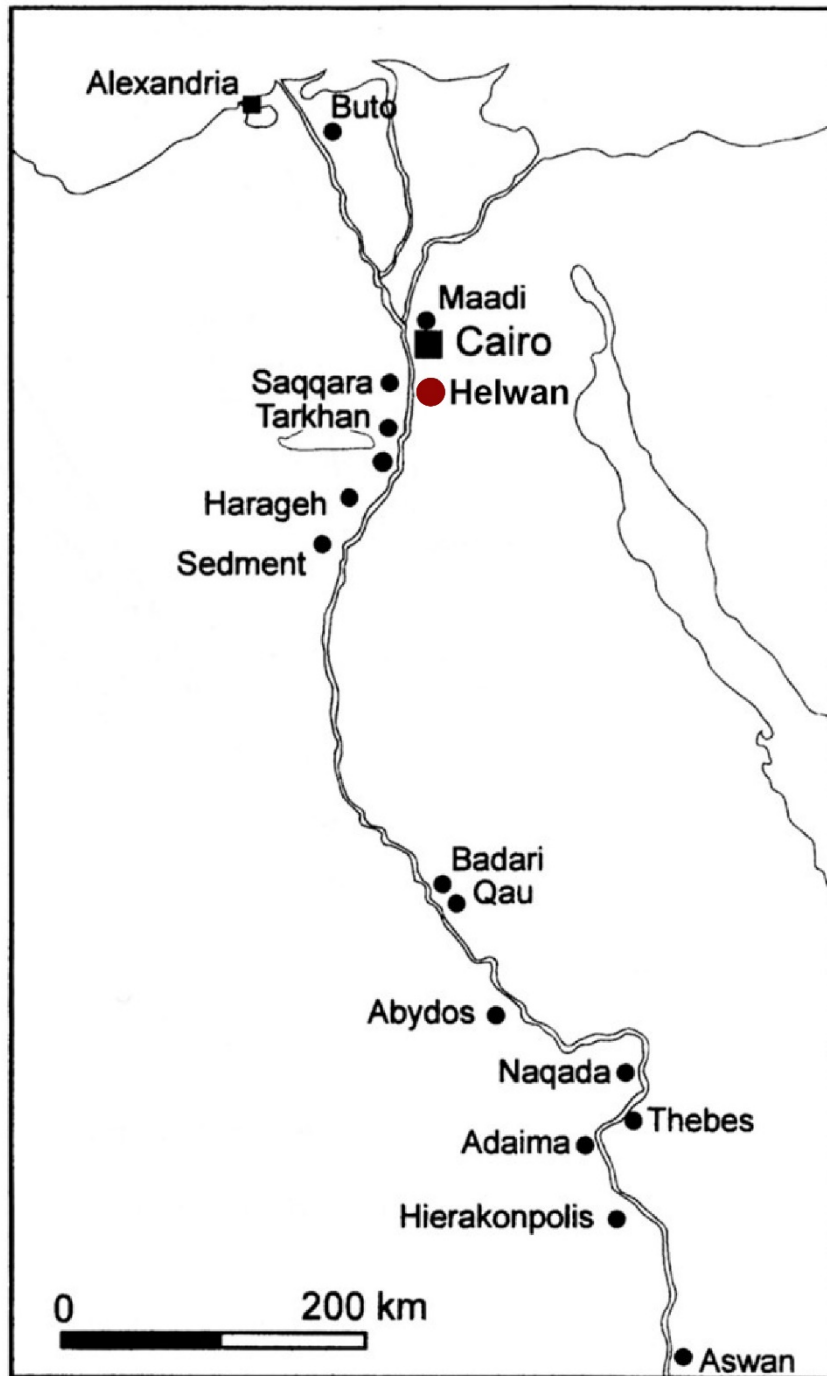


Fig.1: Map of Egypt

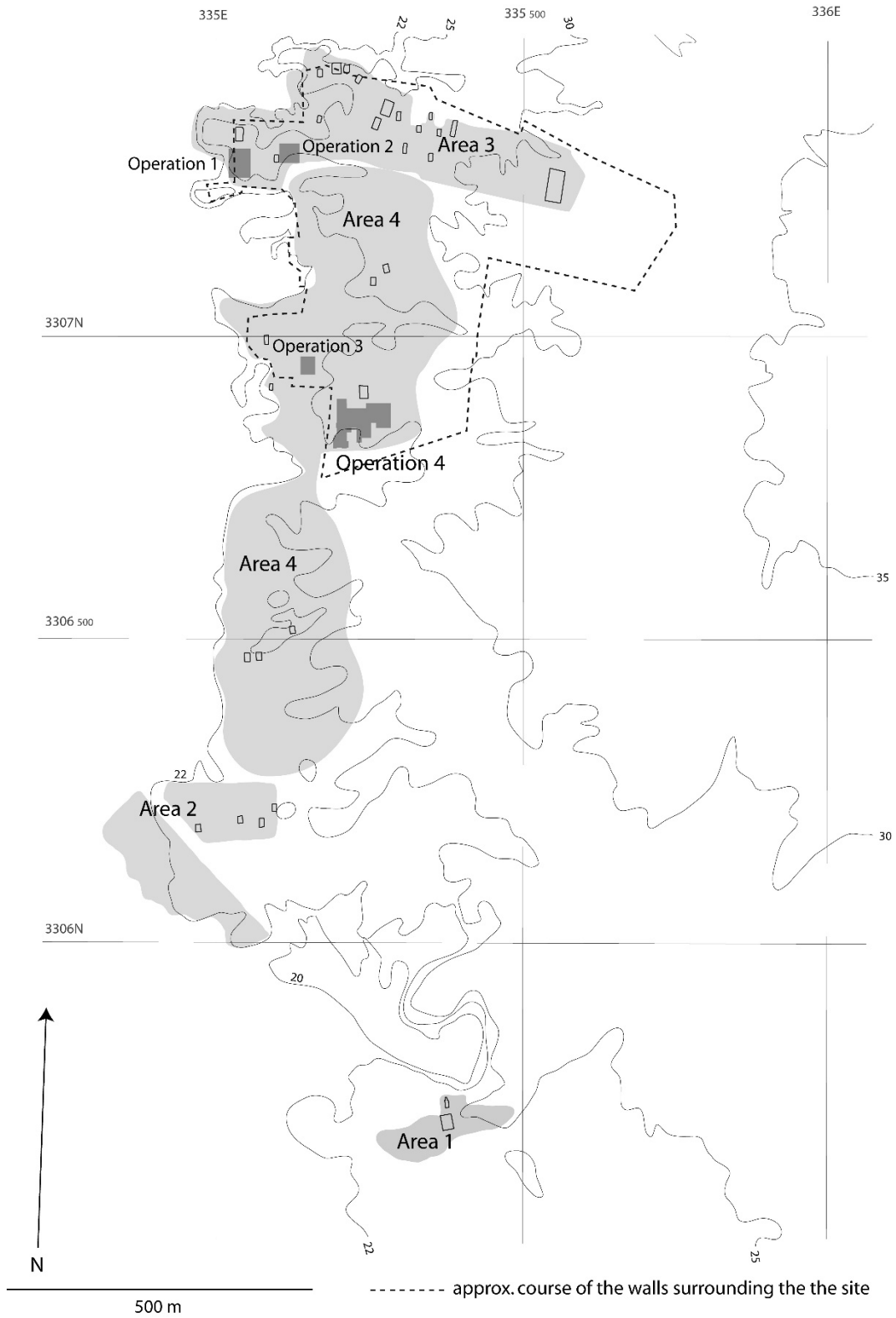


Fig.2: Map of the cemetery at Helwan



Fig.3: Burial in tomb Op4/23

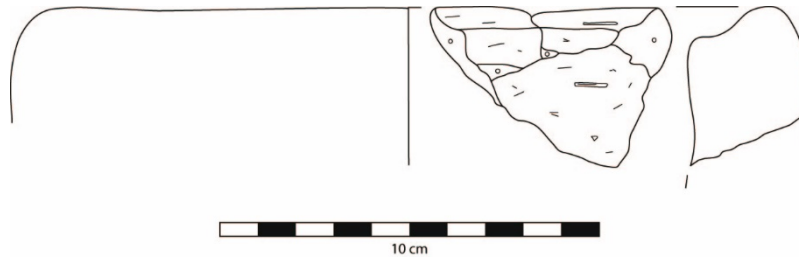


Fig.4: Bread mould fragment found in tomb Op4/142





Fig.5: Burial inside a wooden compartment in tomb Op4/28

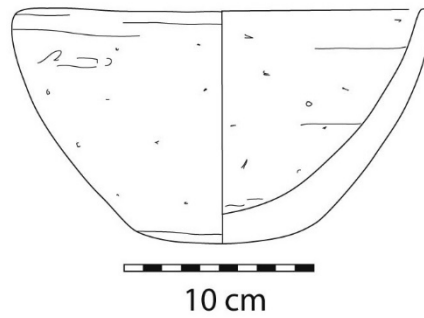


Fig.6: Bowl PO1-64 from tomb Op4/28



Fig.7: Storage container PO1-49 *in situ*, tomb Op4/28



Fig.8: Bowl with soot stains P00-60 from tomb Op4/11





Fig.9: Intact beer jars in the upper fill of tomb Op4/148

## References

- Alexanian, Nicole. 1998. Ritualrelikte an Mastabagräbern des Alten Reiches. In *Stationen. Beiträge zur Kulturgeschichte Ägyptens; Rainer Stadelmann gewidmet*, ed. by Heike Guksch and Daniel Polz, 3-22. Mainz am Rhein: Philipp von Zabern.
- Budka, Julia. 2011. Fundmaterial aus Gräbern: Möglichkeiten und Grenzen der archäologischen Interpretation und didaktische Vermittlung. In *Methodik und Didaktik in der Ägyptologie. Herausforderungen eines kulturwissenschaftlichen Paradigmenwechsels in den Altertumswissenschaften*, ed. by Alexandra Verbovsek, Burkhard Backes and Catherine Jones, 185-204. München [et al.]: Fink.
- Bourdieu, Pierre. 1987. *Sozialer Sinn. Kritik der theoretischen Vernunft*. Frankfurt am Main: Suhrkamp.
- Chłodnicki, Marek, Krzysztof M. Ciałowicz, and Agnieszka Mączyńska. 2012. *Tell el-Farkha I. Excavations 1998–2011*. Poznań [et al.]: Poznań Archaeological Museum.
- Crubézy, Éric, Thierry Janin, and Béatrix Midant-Reynes. 2002. *Adaïma 2. La nécropole prédynastique*. Cairo: Institut Français d'Archéologie Orientale.
- Dunham, Dows. 1978. *Zawiyet el-Aryan. The cemeteries adjacent to the Layer Pyramid*. Boston: Museum of Fine Arts.
- Guksch, Heike. 1995. Über den Umgang mit Gräbern. In *Thebanische Beamtennekropolen. Neue Perspektiven archäologischer Forschung. Internationales Symposium Heidelberg 9.-13.6.1993*, ed. by Jan Assmann, 13-24. Heidelberg: Heidelberger Orientverlag.
- Grajetzki, Wolfram. 2003. *Burial customs in ancient Egypt – Life in death for rich and poor*. London: Duckworth.
- Hahn, Hans Peter. 2005. *Materielle Kultur. Eine Einführung*. Berlin: Dietrich Reimer Verlag.
- Hendrickx, Stan. 2006. Predynastic – Early Dynastic Chronology. In *Ancient Egyptian Chronology. Handbook of Oriental studies. Section 1, the Near and Middle East, 83*, ed. by Erik Hornung, Rolf Krauss and David Warburton, 55-93. Leiden [et al.]: Brill.
- Junker, Hermann. 1912. *Bericht über die Grabungen der Kaiserl. Akademie der Wissenschaften in Wien auf dem Friedhof in Turah. Winter 1909–1910*. Wien: Hölder.
- Karstens, Karsten. 1994. *Allgemeine Systematik der einfachen Gefäßformen*. München [et al.]: Profil Verlag.
- Klasens, Adolf. 1957. The excavations of the Leiden Museum of Antiquities of Abu-Roash. Report of the first season: 1957. *Oudheidkundige mededelingen uit het Rijksmuseum van Oudheden te Leiden* 38: 58-68.
- Köhler, E. Christiana. 2005. *Helwan I. Excavations in the Early Dynastic cemetery. 1. Season 1997/98*. Heidelberg: Heidelberger Orientverlag.
- Köhler, E. Christiana. 2008. The Helwan Cemetery. *Archeo-Nil* 18: 113–130.
- Köhler, E. Christiana, and Jana Jones. *Helwan II. The Early Dynastic and Old Kingdom funerary relief slabs*. Rahden: Verlag Marie Leidorf.
- Köhler, E. Christiana. 2013. Early Dynastic Egyptian chronologies. In *Radiocarbon and the chronologies of ancient Egypt*, ed. by Andrew J. Shortland and Christopher Bronk Ramsay, 165-171. Oxford: Oxbow Books.
- Köhler, E. Christiana. 2014. *Helwan III. Excavations in Operation 4. Tombs 1–50*. Rahden: Verlag Marie Leidorf.

- Kołodziejczyk, Piotr. 2009. Granary models from Tell el-Farkha. *Studies in ancient art and civilization* 13: 49-54.
- Kroeper, Karla, and Dietrich Wildung. 2000. *Minshat Abu Omar II. Ein vor- und frühgeschichtlicher Friedhof im Nildelta*. Gräber 115–204. Mainz: Philipp von Zabern.
- Kytnarová, Katarína Arias. 2015. Burial shafts and chambers of Nefer and Neferhathor in tomb 86d. A comparative evaluation of the ceramic finds. *Prague Egyptological Studies* 15: 3-14.
- Orton, Clive, Paul Tyers, and Alan Vince. 1993. *Pottery in archaeology*. Cambridge: Cambridge University Press.
- O'Shea, John M. 1984. *Mortuary variability. An archaeological investigation*. Orlando: Academic Press.
- Parker Pearson, Michael. 2003. *The archaeology of death and burial*. Thrupp [et al.]: Sutton Publishing.
- Rice, Prudence M. 2015. *Pottery analysis. A sourcebook*. Chicago: Univ. of Chicago Press.
- Rzeuska, Teodozja I. 2006. *Saqqara II. Pottery of the late Old Kingdom. Funerary Pottery and burial customs*. Warsaw: Neriton.
- Rzeuska, Teodozja I. 2013. Dinner is served. Remarks on Middle Kingdom cooking pots from Elephantine. In *Functional aspects of Egyptian ceramics in their archaeological context. Proceedings of a conference held at the McDonald Institute for archaeological research, Cambridge, July 24<sup>th</sup> – July 25<sup>th</sup>, 2009*, ed. by Bettina Bader and Mary F. Ownby, 73-97. Leuven [et al.]: Peeters.
- Saad, Zaki Youssef. 1947. *Royal excavations at Saqqara and Helwan (1941 - 1945)*. Cairo: Institut Français d'Archéologie Orientale.
- Saad, Zaki Youssef. 1951. *Royal Excavations at Helwan (1945-47)*. Cairo: Institut Français d'Archéologie Orientale.
- Saad, Zaki Youssef. 1957. *Ceiling Stelae in Second Dynasty Tombs from the Excavations at Helwan*. Cairo: Institut Français d'Archéologie Orientale.
- Saad, Zaki Youssef. 1969. *The Excavations at Helwan. Art and Civilization in the First and Second Egyptian Dynasties*. Oklahoma: University of Oklahoma Press.
- Seiler, Anne. 2005. *Tradition & Wandel. Die Keramik als Spiegel der Kulturentwicklung Thebens in der Zweiten Zwischenzeit*. Mainz am Rhein: Philipp von Zabern.
- Stevenson, Alice. 2009. *The predynastic Egyptian cemetery of el-Gerzeh. Social identities and mortuary practices*. Leuven [u.a.]: Peeters.