Mastaba of Queen Khentkaus III in Abusir

Tomb of the chief physician Shepseskaafankh

The miraculous rise of the Fifth Dynasty

Old Kingdom canopic jars from new perspective
Dear readers,

It has been thirteen years since the first issue of *Prague Egyptological Studies* was published in 2002. Since then it has become an important and wide-selling journal, providing both the scientific and laymen audience with the latest results of our fieldwork and various studies in the field of Czech Egyptology dealing with the civilisations of ancient Egypt and Sudan.

After more than a decade of its existence, we are pleased to launch the first issue of the English edition of *Prague Egyptological Studies*. The English edition is dedicated exclusively to the history, archaeology and language of third millennium BC Egypt. Yet it also aims to include studies dealing with foreign relations during the period. At the same time, we also welcome publications on the latest advances in the study of the environment and studies evaluating the significance of applied sciences. Our principal aim is to accommodate studies concerning either primary research in the field or those that bring up theoretical inquiries of essential importance to the indicated scope and time frame of the journal.

The present issue is devoted to the excavations at Abusir, the principal field of research of the Czech Institute of Egyptology. The individual reports are dedicated to the excavation projects carried out in the pyramid field (Khentkaus III), as well as in the Abusir South area (tomb complex AS 68, the tomb of Shepseskafankh). In addition to these, you will also find more theoretical studies focusing on the “Khentkaus problem,” which analyses the significance and importance of three women bearing the same name during the Fourth and Fifth Dynasties, a study dealing with model beer jars and their typological evolution, an interesting seal with a figure of Bes, and an interpretation of canopic jars bearing significant tokens of past treatment on their bodies.

We trust that the English edition of *Prague Egyptological Studies*, which will be produced once a year, will find a firm place among other Egyptological scholarly journals. We are convinced that a clearly defined profile of this scientific journal will attract not only the attention of many readers but also submissions of significant contributions from the scientific community and thus streamline major advances in the fields of third millennium BC Egypt history, archaeology and the like.

**Miroslav Bárt and Lucie Jirásková**

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Ritual tradition and transfer between shape and meaning – model beer jars in stone and pottery

Katarina Arias Kytnarová – Lucie Jirásková

The Old Kingdom repertory of stone and ceramic vessels introduces assemblages of models and miniatures. Although small-size vessels were already used in earlier periods, the Old Kingdom tombs contained newly defined sets with a specific morphology. There is a difference between the stone and ceramic models and miniatures, and both materials reflect the particular needs of the ancient Egyptians, even though they replace each other in some cases. The stone pieces seem to exhibit completely new groups of vessels within the traditional Early Dynastic repertory of large-size stone vessels, which generally cease to appear in high numbers towards the end of the Third Dynasty.

Compared to the Early Dynastic Period, the types of stone vessels varied slightly whereas the groups remained the same during the Third Dynasty. Besides tens of bowls, it is possible to find cylindrical jars, barrel-shaped jars, squat jars, beakers, and tables. It seems to be the beginning of the Fourth Dynasty that witnessed a sudden change in the production of stone vessels and their distribution. Instead of the large jars, bowls and plates, model-size vessels started to occur within burial apartments of high officials (Reisner 1931: 174). The purpose of the large-size vessels was clearly to express the wealth and prestige of the official during the Third Dynasty. The luxurious material and labour intensive production process emphasized the social status of the owner of the tomb. Although they were made to be containers, they were not used for storage in the burials at that time.

In this respect the model vessels also remained symbolic containers, and fulfilled the desire for a never-ending supply of food for the deceased. The sets seem to have been designed to substitute for all the important contents of the burial chambers with regard to pottery and stone
vessels. Therefore, their typology reflects the original large-size repertory of the burial equipment, rather than follows the line of the previous stone vessel production. In this respect, stone became a medium not only for the stone vessels, such as cylindrical jars, but also for ceramic vessels, such as beer and wine jars (concerning the typology of model stone vessels see Jirásková, in preparation). Unfortunately, although the typology and meaning of various forms of model stone vessels have been discussed several times, they have never been satisfactorily interpreted.²

**Model beer jars in stone**

One of the problematic groups that is widely distributed are tall jars with a slightly flaring foot, shouldered body, and a neck with a wavy collar or a thick tapering rim. These vessels are described in different ways either from the point of view of their shape, or their meaning.³ The authors of the present study focused on the various types of the model jar and its possible shape origins, as well as its presumed contents.

When these models were described, they were often distinguished not as various types of the same group, but as completely different jars with a diverse purpose (e.g. Hassan 1948: 27–31). However, it seems that although they differ in minor features, they can be perceived as a single group. Such a group contains all the jars with a thick, tapering or wavy, collared rim and slightly shouldered body. They commonly have a tapering or flaring flat base or, more rarely, a rounded one. All the types represent chronological or stylistic variations as will be shown below.

One of the most important impulses that led the authors of the present study to think of the origins of this particular type of model stone jar and its real meaning came from the tomb of Princess Khekeretnebty (AC 15). Her burial chamber at Abusir was equipped with travertine model jars and bowls, among other objects. There are few examples of inscribed model stone vessels, and Khekeretnebty’s model jars are one of them. The burial apartment was visited by robbers in antiquity, and only an unknown fraction of the original assemblage of model stone vessels remained buried in the chamber. There were four groups of model travertine vessels found, and three of them bear inscriptions in black ink. One group without any inscription is composed of cylindrical jars, while the others are shouldered jars called ‘prt, wine jars with bands representing a stylised net around their bodies called ‘ḥš, and finally model beer jars called ḫḥw njr (Verner – Callender 2002: 36–38; fig. 1). The term ḫḥw is a denomination of a beer jar full of the liquid substance, presumably beer (Balcz 1934: 49–51; Faltings 1998: 223–224).⁴ The adjective njr might denote the quality of the jar, rather than the quality of the beer, unlike the later cases of wine quality being described in this way.⁵

At first sight, the model beer jars of Khekeretnebty do not at all resemble the full-size ceramic beer jars of the period in which the tomb was built, namely the second half of the Fifth Dynasty, and the inscriptions on them could be understood as a misinterpretation of the type caused by the craftsman. Beer jars of that period usually had an ovoid body with either a simple contracted rim or a low neck (see also infra). However, the development of this group of model jars gives evidence for the identification as beer jars. Above all, it is necessary to look for the earliest known examples of this type. These come from the Fourth Dynasty tombs at Giza, mostly dated to the time of Khufu – G 4000, G 4150, G 4140, G 4250 and G 2120.⁶ For instance, the tomb of Hemiunu (G 4000) contained a travertine model beer jar with a separate small model stand (Junker 1929: Abb. 11, nos. 8, 22). This beer jar imitated the shape of large-size beer jars of the Third Dynasty (see infra). The model was carefully made as a real imitation of the original, including a roughly rounded base that naturally required positioning on a low

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**Fig. 2 A model beer jar from the tomb of Neferinpu with a symbolic stand (photo L. Jirásková)**

**Fig. 3 A model beer jar that was found in the burial chamber of Shaft 1 in tomb AS 67 (photo L. Jirásková)**

**Fig. 4 A model beer jar coming from the burial chamber of Nefer (photo L. Jirásková)**

**Fig. 5 A model beer jar from Shaft 2 of AS 67 (photo M. Frouz)**
ring stand. It has a tall rim with an outer rib or collar above the shoulder – a specific feature of the Third to early Fourth Dynasty ceramic beer jars.

Later on, the production of this complicated shape including a separate stand was replaced by a simpler form of a single piece. There are several types of these jars. One of them clearly proves that it was meant to be a jar with a rounded base set into a short stand. These examples have a ledge on the lower part of the body, thus creating the "flaring foot" of the jar; in reality representing a low concave ring stand (fig. 2; e.g. AS 37, G 4520, G 4631, G 7132, G 4610, G 8640, G 8402, LG 52 shaft 107). The other type is without the ledge, and the body smoothly flows into a flaring foot without any division (fig. 3; e.g. AS 47, AS 67, LG 52 shaft 69, G 2353, G 7710 B, G 7442). This could be seen as an organic development of the same type (see also fig. 9). Other examples have a simple slightly convex-shaped body, tapering towards a flaring foot without any division (fig. 4; AS 68d, AC 15, G 4461, G 4733, G 7111, G 2370, Perneb in Saqqara, mastaba F 19 at Abu Rawash).

Not only the bottom part of the model stone beer jar underwent changes, but also the upper part of the jar was transformed. The original straight or slightly concave-shaped rim gave way to several forms. The most common was an exaggerated curve that created a kind of wavy collar, which resembles a group of the ceramic miniature jars. Other types have a thick straight-sided rim, often tapering towards the orifice (fig. 5; AS 67 Shaft 2, AS 27, G 4530, G 8350). These might evoke the image of the mud stoppers of the beer jars, however, they rather represent a variation of the wavy modelled-rim. If they were the real mud stoppers, there would not be a groove between the stopper and the body of the jar. Moreover, none of the stone model jars is a closed vessel – i.e. with a lid or stopper, although they represent full containers supplying the deceased with refreshment and ointment. There are only a few examples of lids accompanying model jars (G 5080 B, G 7766 B). Though it might not have been the case, the reason for that could be seen in the appearance of the vessels. In fact, beer or wine jars closed with mud stoppers are simple barrel-shaped objects without any interesting detail that would clearly distinguish them (e.g. Faltings 1998: Dok. 16, 24 and 36).

With regard to the above-mentioned changes and variations, one would expect a continuous development of model beer jars from the most elaborate piece of Hemiuun to simple jars without any stand detail or wavy profile of the rim part. However, the opposite is true. The earlier Fourth Dynasty pieces resemble the ceramic large-size beer jars of the early Old Kingdom. From the end of the Fourth Dynasty on through the Fifth Dynasty, the types vary. In some tombs and assemblages, the flaring foot either with or without "stand-ledge" types are to be found; in others, types with a tapering lower part of the body were discovered. Even the upper parts are either wavy collared or tapering flat, indeed. Only the Sixth Dynasty seems to have brought back the types similar to the early Old Kingdom ceramic beer jars (e.g. G 4530 A), but also combined all the above described types.

For instance, several tombs from Abusir South area situated close to each other, and dating to the Nyuserre-Djedkare period, contained model beer jars of all the different types already mentioned. Those of Neferinpu (AS 37) had a wavy rim and flaring lower part with a ledge (Jirásková 2014: Fig. 8.7), Nefer’s (AS 68d) yielded a wavy rim and tapering lower part, as did AS 47 which is situated more to the south. In tomb AS 67, Shaft 1, the assemblage contained model beer jars with wavy rims and smoothed flaring lower parts, while AS 67, Shaft 2, a straight, tapering thick rim with a smoothed, flaring lower part (Jirásková, forthcoming).

Morphological origins in pottery – early beer jars

When analysing the shape of the stone models that were identified as beer jars on the basis of their occurrence in the assemblages and especially the inscription dwjw
preserved on several of them (see supra), there are a few specific large-size vessel types that could have served as a source for their morphology and general shape. Due to the above-mentioned identification as “beer jars” in epigraphic evidence, the most relevant were undoubtedly full size beer jars. However, as was already mentioned earlier, beer jars of the second half of the Fifth Dynasty, in which the tomb of Princess Khekeretnebty was built, do not resemble these stone models at all. Beer jars of that period usually have an ovoid body with a partly pointed base and either a contracted rim or a low neck (see fig. 6). On the other hand, there was a specific type of beer jar exhibiting such a distinctive rim (as seen in these stone models), with an outer ledge and articulated shoulders, dating to the early Old Kingdom, particularly the Third and early Fourth Dynasty. In this period, besides the traditional roughly ovoid-shaped beer jars, there were also types that were markedly different and were not continued in the later Old Kingdom beer jar production. To summarize the most important features, these early so-called collar beer jars had a very slim tapering body with a pointed base and a distinct rim with an outer plastic rib, as well as more or less articulated shoulders (see fig. 7). In the Abusir ceramic classification system, these are designated as type J-1h and so far, they have been found in several tombs in Abusir South, with most examples coming from the tomb of Ity (AS 10; Kytnarová 2009: 72), the tomb of Hetepi (AS 20; Arias Kytnarová 2010: Fig. 2.5.1) and anonymous tomb AS 54 (Arias Kytnarová, forthcoming), all dating to the late Third to early Fourth Dynasties. Tomb AS 54 can be dated more precisely on the basis of a magnesite bowl with the nswt-hwtj name of King Huni on its inner surface (Bárta 2010: 47, Fig. 6; Jirásková 2011: 458), thus providing us with a terminus ad quem or, more likely, post quem.

There are numerous attestations of this early Old Kingdom type of collar beer jars, with most known examples coming from the wider area of the Memphite necropolis. These include numerous examples from the extensive cemetery in Helwan (e.g. Köhler 2014: fig. 79, nos. 9–12, fig. 106, no. 2, fig. 133, nos. 3–6, fig. 145, nos. 1, 8 and 9, etc.), more than 300 vessels found in the ceramic deposit in the North temple of the Step pyramid of Netherikhet (Firth – Quibell 1935: pls. XXV and CII, nos. 18 and 20), several jars from the early Fourth Dynasty tomb of Netjeraperuf in Dahshur (Alexanian 1999: pp. 132–134, Abb. 54, M28–39), from the area of the Red Pyramid in Dahshur (Faltings 1989: Abb. 5e and Abb. 8e; Köpp 2009: 68, Abb. 6, Z 501), from Meidum (Petrie – Mackay – Wainwright 1910: pl. XXVI, no. 63) and the early cemetery and settlement in Giza (Reisner 1942: fig. 285, 13–10–38; Kromer 1972: Taf. 3.6, 3.8, 15.1–2; Kromer 1978: Taf. 20.3). The production of these early beer jars is not limited to the Memphite necropolis, and they were also found in the levels of the late Second Dynasty and Third Dynasty settlement on Elephanta (Seidlmaier 1996: Abb. 4, upper right corner; Raue 1999: 181–82, Abb. 36.7, 38.3 and 39.12) and in the Third/early Fourth Dynasty layers of the settlement in Buto (Von der Way 1989: 295, Abb. 9.1; Köhler 1998: 17, Taf. 14.1–5). These settlement attestations are important due to their well-documented stratigraphy, providing us with precise dating based on the epigraphic data (e.g. Seidlmaier 1996: Abb. 3; Raue 1999: 183, Abb. 38.3 and 39.12).

The time span of the wide-spread use of these early beer jars is so far limited to the Third to early Fourth Dynasty. In the cases where a few sherds were found in later tombs in Abusir South, these are usually from mixed or disturbed contexts of unreliable origin and are very likely intrusive. Complete or almost complete vessels came as a rule only
from primary contexts. They are undoubtedly identified as beer jars on the basis of their material, namely a rough fabric such as Nile silt B2 and C, very basic surface treatment with dimpled finger marks on the rough exterior or, less commonly, being covered with a thin layer of mud; and a general low quality of make, such as being handmade and having soft to medium hard sherds fired at low temperatures, resulting in clearly zoned sherd profiles. The extent of variability in the exact shape of these early beer jars is notable and can also be seen in the diversity of their copies made in stone. All the early J-Ih beer jars have very distinctive rim and shoulder formation. The rib (or collar) is usually positioned in the middle of the rim and can vary from rounded to angular or pointed. Similarly, the shape of the shoulders is diverse, either smooth-rounded or sharply articulated. The bodies are usually very slender, tapering towards the bottom and have sharply pointed bases. The exact shape of the rim, outer rib and shoulder is the most distinct feature and is generally considered as a basis for chronological studies (see also Arias Kytnarová, forthcoming). In Abusir, a development could also be observed in the general shape of the body. While older examples show a more ovoid (and slightly larger) body with the greatest diameter on the upper body, the later forms have a very slim body with a maximum diameter at the articulated shoulder. In other words, the jars developed from wider early forms to taller and slimmer later forms. The early jars have a partly pointed base while the later ones (such as the examples from tomb AS 54) have a very sharp pointed base. Another feature that is well documented in the limited amount of beer jars from Abusir is the shape of the rim, with a development from contracted to almost straight ones. In other sites, shapes vary greatly; for example, the vessels from Elephantine have an almost tubular elongated body with a rounded base and only very slight rib under the rim, unlike our highly profiled and articulated shapes from Abusir. Such morphological variability is also reflected in the stone models, where the position of the plastic rib, its sharpness, the articulation of the shoulder and the shape of the body include all the above-mentioned variants, attested in large-sized beer jars of this type.

If we accept the theory that these stone model jars uncovered in the tomb of Khekeretnetbty, that were inscribed and identified as dw/jw (deceased); and are indeed copies of the earlier ceramic beer jars, there are still a few problematic issues. One of them is the question of why did the stone-vessel carvers of the Fifth Dynasty use such an old beer jar type instead of the “classical” ovoid beer jar with either contracted aperture or a low neck that was wide-spread in the course of the Fifth Dynasty? However, it is important to stress the fact that at the time when such model stone vessels first appeared (in the beginning of the Fourth Dynasty), large-sized collar beer jars were still in use. This is the case of the above-mentioned vessels from the period of Snefru, found in the surroundings of the Red Pyramid or the tombs related to it (Falttings 1989: Abb. 5e and Abb. 8e; Köpp 2009: 68, Abb. 6, Z 501; Alexianian 1999: 132–34, Abb. 54, M28–39) or his pyramid in Meidum (Petrie – Mackay – Wainwright 1910: pl. XXVI, no. 63). In the course of the later Fourth and Fifth Dynasty, despite the fact that full size ceramic beer jars developed into ovoid shapes, the shape of model “beer jars” made in stone remained the same, thus reflecting a probable intentional archaism, similar to the so called wine jar stone models. Moreover, the original rim shape imitating the early Old Kingdom beer jars could have been changed to resemble the later beer jars more closely. The thick, wavy or tapering rim in some of the examples then might have emulated a styled mud stopper.

Other possible shape origins

While discussing the possible morphological origins of the above-mentioned model stone vessels with highly modelled rims, we also have to include other, in our opinion, less feasible options. The search for the large-size vessels that might have served as an archetype is important, as these indicate their intended function, even in the derived purpose to serve in the funerary cult. Therefore, it is relevant to examine whether they were modelled on beer jars, wine jars or even other jars, as their inclusion amongst the burial goods in the burial chambers was not accidental.

Besides the above-mentioned early Old Kingdom collar beer jars, there were also much finer ceramic jars with a similarly shaped rim with an outer rib, generally known as fine “collar jars”. Their exact identification is very broad and both miniatures and large-size vessels are included in this group by some scholars, despite their evidently different functions (see Reisner – Smith 1955: Figs. 88, 101). They differ from the early beer jars in being made from much finer fabrics such as Nile silt B1 and being either well-smoothed or covered with a red slip; also in having much smaller sizes, with a maximum height of 18 cm. They are undoubtedly morphologically connected to the collar beer jars, but they appear later and their development continues for a longer time period. We find them throughout the Fourth Dynasty, with a limited amount of examples also coming from the settlements in Giza (Wodzińska 2007: 288, AB3, Fig. 11.9).

First, the large-size examples shall be explored. These come both in variants with a flat base and a pointed base, and so far, only very few vessels have been found in full profile, with a high degree of shape variability. Besides the existence of a collar, they have very few similar features, and they do not seem to represent a well-established “standardized” ceramic type. In most cases, they are preserved only as rim fragments, thus not allowing a detailed morphological study. The oldest fully preserved example has the most diverse shape, with a wide neck, shouldered low body and a pointed base (Reisner – Smith 1955: Fig. 88, 13-11-26). It comes from the tomb of Princess Meretites (G 4140), who was a possible daughter of Khufu and is thus dated to the middle or late Fourth Dynasty (Callender 2004: 125–26; Jánosi 2002: 340; Manuelian 1998: 122). Another complete collar jar is more similar to the stone model vessels, with a tall wide neck, articulated shoulders and a pointed base; it comes from tomb G 4440, dated to the time span of the mid-Fourth to the early Fifth Dynasty (Reisner – Smith 1955: Fig. 101, 13-11-101; Porter – Moss 1974: 128). The only fully preserved collar jar with a flat base is of a later date,
namely the Fifth Dynasty, and was uncovered in the tomb of NensedjerkaI (G 4631 A; Reisner – Smith 1955: Fig. 101, 14-1-47B). It is much taller, with a height of 28 cm and has a wide open neck with a spindle-shaped body; the base is very narrow, with a diameter of only 3 cm; therefore, different from the already discussed stone vessel models. To conclude, each of the fully preserved examples is different from the others and none fully resembles stone vessel models. Another reason why these collar jars are not seen as a direct source for the shape of the model stone jars is the presence of the repeated ḏḥwḫw identification mentioned above. Finally, most importantly, all these ceramic examples are later in date than the oldest stone models with such a shape and, therefore, could not serve as a prototype for them. Hence, while this theory is still possible from the point of yet undiscovered finds, the present authors consider it unlikely.

The ceramic miniatures identified as “collar jars” are yet another possibility, but these appear roughly at the same time as stone models of the same shape and, therefore, also could not serve as their formal inspiration. Whether their shape is based on full-size collar beer jars, as in the case of the stone versions, remains to be solved satisfactorily. It is certain that some of them, such as two miniature “collar jars” from anonymous tomb G 4340 dating to the middle or late Fourth Dynasty, are almost exact copies of the early large-size beer jars discussed above, with their plastic rib on the lower rim and ovoid body (Reisner – Smith 1955: Fig. 88, 13-10-27, 13-10-38). They resemble the early stone model beer jar with a stand that was found in the tomb of Hemiuu not only in the body shape, but also due to the presence of small ring stands that were once used to hold them in an upright position and were found in the same context (Reisner – Smith 1955: Fig. 131, 13-10-48). Most of the other ceramic miniature jars with a collar are similar but not identical to their stone versions. It is notable that the oldest examples, such as those from tombs G 4540, G 4640 and G 7560 (Reisner – Smith 1955: Fig. 101), come from the cemetery surrounding the pyramid of Khufu and none are older than the middle of the Fourth Dynasty. It is, therefore, more likely that they were actually inspired by the stone models rather than vice versa, and they probably replaced them among tomb goods as a cheaper and more available version.

There are only a few examples of model stone vessels that copied the ceramic beer jars in every detail. A particularly well-formed one comes from the burial chamber of Queen Hetepheres I in Giza, dated to the reign of Khufu. This comparatively large vessel imitates the shape of a ceramic beer jar with a rib and articulated shoulder, positioned on a low ring stand (Reisner – Smith 1955: Fig. 44, Pl. 42a, second from the right in the lower row). The jar and stand are already combined as a single vessel and thus point to a further development and simplification that can be traced in the smaller stone models. More examples of very detailed imitations of ceramic beer jars in stone come from burial shaft G 7440 Z (tomb G 7442), which is dated to the late Fourth Dynasty or Fifth Dynasty. There is not much evidence to be studied, and therefore precise dating is not possible. However, concerning the corpus of model stone vessels from the Fourth Dynasty, it is clear that stone and ceramic model vessels were both placed in the burial chambers and were probably understood as the same pieces that could have substituted for each other. The travertine pieces seem to be a luxurious version of the ceramic models. Such a situation changed during the Fifth Dynasty, and model jars or miniatures made in pottery are only rarely to be found in burial apartments.

Interestingly, stone and pottery were not an exclusive medium for model beer jars. Exactly the same shape of stone model beer jars that are common during the Fifth Dynasty is to be found within the repertory of copper model vessels (Radwan 1983: Taf. 26). In this respect they were inspired by the model stone vessels, as they appeared much later, and actually replaced the stone pieces in the burial chambers of the late Old Kingdom officials. Therefore, it appears that the material used for model jars changed during the history of the Old Kingdom and can

Fig. 8 Examples of miniaturized beer jars from the cemetery of Abusir South, dating to the second half of the Fifth Dynasty (drawing K. Arias Kytanová, L. Váňková)
be quite easily followed. Whereas the Fourth Dynasty repertory used both pottery and stone, but mostly pottery, the Fifth Dynasty officials preferred stone, and the Sixth Dynasty gave way to a large use of copper pieces.

**Miniaturized beer jars in ceramics**

Besides searching for the morphological origin of the shape of the stone vessel models identified as “beer jars” from the tomb of Princess Khekeretnebty, it is also important to mention rough miniatures of beer jars made in pottery that appear in this time period, namely the second half of the Fifth Dynasty. Due to their low numbers, these are not widely known and discussed in publications, and although they were found also in other sites of the Memphite necropolis, they are sometimes not identified as possible miniaturized versions of beer jars.

In Abusir South, we had several examples of rough, hand-made and larger-sized miniature jars that are very different from the classical wheel-made ceramic miniature vessel production. Among these, several types were able to be observed, among which the most common one is so-called type MJ-1, which was identified by the present author as a model of a beer jar. Examples of this type were found in limited numbers in some Fifth Dynasty structures of Abusir South, such as the courtyard of Princess Sheretnebty (AS 68) and her rock-cut tomb (AS 68c), the tomb of Nefer (AS 68d) and the tomb of Shepseskafankh (AS 39). One complete example and a rim of yet another were also uncovered in the Fifth Dynasty tomb of Prince Werkaure (Arias Kytnarová 2014b: Figs. 4.99, 4.96, 50/AC26/08, 93/AC26/09). Although these are not always identical, they share the main features, such as an ovoid body with a partly pointed or sharply pointed base and a low neck (see fig. 8). They are relatively large, with heights of up to 12 cm. When compared to full size beer jars, these can be seen as direct copies of Abusir type J-1b, namely beer jars with an ovoid body, pointed base and low neck (see also fig. 7).16

There are a few examples of possible miniaturized beer jars of the Sixth Dynasty, but they are slightly different in shape and reflect the development in large-size vessels. In the cemetery of Saqqara West, there were lumps of roughly ovoid clay that were identified as miniature beer jars (Rzeuska 2006: Pl. 193). There were also other miniature vessels that could be seen as models of beer jars, although they are not identified as such (Rzeuska 2006: Pl. 162, nos. 832, 833). They are distinguished from other miniatures in being hand-made and of different material (Marl C1). Judging from the examples from Abusir South, it can be presumed that these are also models of beer jars. They have a distinctive thimble-shaped body that can be seen as reflecting the shape of regular-sized beer jars of the Sixth to Eighth Dynasty, e.g. from Qau (Brunton 1928: Pl. LXXXVII, nos. 77C, 77D). Outside of the Memphite necropolis, a few examples of miniaturized beer jars were also uncovered in the late Old Kingdom cemetery of Akhmim (Hope – McFarlane 2006: Fig. 16, A6–A9). Their shapes include thimble-shaped and long, tubular bodies, again directly copying the large-size beer jars from the same site (Hope – McFarlane 2006: Figs. 4–7).

**Ritual context and function of stone model jars**

Stone model beer jars must be interpreted as a part of the assemblages of model stone vessels, as they never occur alone (at least in the Memphite area). Their importance and meaning was connected with other groups of model stone vessels. As this class of vessel is mostly found in
burial chambers (except for the royal mortuary temples), its purpose was connected with the burial equipment and the afterlife. Since they substituted for the large-size ceramic beer jars and were meant as their substitutes in case of need. They were thought of as providers of nourishment for the deceased.

The authors of this paper have tried to suggest the possible morphological origins of a specific group of stone miniature vessels in the hope that such identification would also enlighten us as to their function and ritual meaning in the burial chamber of the deceased. Stone miniature vessels do not represent an accidental array of vessels but rather a more or less strictly given set of certain groups, such as models of wine jars, *ptj jars and other vessels (Jirásková, in preparation). In this respect, inclusion of model beer jars is very logical and in correspondence with the ancient Egyptian way of thinking. The epigraphic evidence found on some of the stone models confirms this theory.

It has to be stressed that while various issues have been discussed briefly in this paper, they have to be strictly differentiated. The early stone models that can be seen as direct copies of full-size early Old Kingdom beer jars positioned on a low ring stand slowly became simplified and certain morphological details, such as a clear division between the jar and the stand, were reduced, resulting in a smoothed, flaring base or tapering, lower part of the body, respectively (see fig. 9). During the course of the Fifth Dynasty the knowledge of the exact shape of these archaic beer jars was almost lost, seen in the simple shape of the bases without any further modelling. However, the original functional identification of the vessel was still noted by the craftsmen, as can be seen in the epigraphic evidence describing them as *djwjr. The Sixth Dynasty model beer jars show the greatest variety of types, which may lead to the conclusion that their original function had been forgotten, and the sets of model jars remained a tradition without the earlier connotation. The end of the Sixth Dynasty proves such an interpretation, as the sets from the reign of Pepy II are represented by masses of roughly shaped bowls and hardly distinguishable jars (e.g. 136/11/2002 in Jirásková, forthcoming).

On the other hand, miniaturized beer jars imitating the contemporary large-size pieces made of pottery appear in the course of the Fifth Dynasty. So far, none of them have been found in a burial chamber. The ones from Saqqara West were all found in contexts connected to funerary rites, such as deposits of pottery in the so called ritual shafts (Rzeuska 2006: 496). The examples from Abusir South are even more varied – some of them came from burial shafts (such as at least three different examples from the shaft of the presumed husband of Princess Sheretneby in tomb AS 68c). However, most of them came from disturbed or secondary contexts, making their interpretation difficult. Their occurrence in places connected to ritual activity, such as open courtyards or in corridors immediately next to the main chapels, would suggest that they were used in the subsequent cult rather than during the burial itself.

The lines of development of stone, ceramic and copper model vessels show several breaks as well as a slow transformation that appeared during the Old Kingdom and presumably reflected social changes. The stone model beer jars give good evidence for these trends since their origins were connected morphologically with their large-size ceramic archetype. During the time span of the terminal Fourth and the Fifth Dynasty the shapes slowly developed until the mix of shapes and the spread of variations in the early Sixth Dynasty and the loss of their meaning towards the reign of Pepy II. The appearance of rough miniature ceramic beer jars, imitating the contemporary large-size pieces, supports the interpretation of the slow process of forgetting the past importance of the individual stone model jars.

Notes:

1 For the difference between model and miniature vessels see Allen (2006).
2 Three major works on model stone vessels, their typology and possible interpretation have been published so far (Junker 1929: 108–112; Hassan 1948: 27–31; Reisner 1931: 130–201).
4 Balz (1934: 51) refers to examples of wine jars denoted as *dwjwr, but the case of Khekeretneby supports the interpretation of the studied shape as beer jars, for the wine jar with a stylised net around its body is inscribed as *bšt in the assemblage (Verner – Callender 2002: 36–38).
5 In the period of the New Kingdom, it was customary to inscribe vessels containing wine with various information concerning its quality and origins. In such cases, good wine is inscribed as *nfr while higher quality is identified as *nfr *nfr ("twice good"). For details, see e.g. Wahlberg (2012: 31–33).
7 AS 37 (Jirásková 2014: Fig. 8.7); G 4520 http://www.gizapyramids.org/view/objects/ lineWidth=1003/5/title-asc?t:state:flow=869076d8-b21e-45fd-8423-a804e7c363db; G 4631 http://www.gizapyramids.org/view/ objects/ lineWidth=1003/9/title-asc?t:state:flow=b19d136cc2-4963-918e-20f099e80631; G 7132 http://www.gizapyramids.org/media/view/Sites/1523/85257?t:state:flow=c82cedfa-4358-4278-9b12-7538568d44f8; G 4610 http://www.gizapyramids.org/view/ objects/ lineWidth=1003/10/title-asc?t:state:flow=48082665-6043-43e7-95ff-1bf9b9ace388; G 8640 (Hassan 1941: Fig. 123–124); G 8402 (Hassan 1941: Fig. 201–207); LG 52 shaft 107 http://www.gizapyramids.org/media/view/Sites/2229/38474?title-asc?state:flow=0a971de-0966-4c03-b3f8-ebababa77b7.


For a fuller list of attestations, see Arias Kytnarová (2010: 27) and Arias Kytnarová (forthcoming).

13 From Abusir South, we can name examples of fully preserved jars from Corridors 1 and 2 and the cruciform chapel in the anonymous tomb AS 54 as well as burial chambers or different layers of burial shafts in the tomb of Ity and the tomb of Hetepi (Arias Kytnarová, forthcoming).

14 http://www.gizapyramids.org/view/objects/jasment/search/swg%277442%27/0?state:flow=2348d92-7b9c-449f-a87b-ee9971b3fa4d.

15 For a size comparison between small miniature jars (types MC-2 and MC-3) and larger “miniaturized” jars (type MJ-1), see e.g. Arias Kytnarová (2014b: Fig. 4.96).

16 For examples from a well-dated primary context, namely the undisturbed burial chamber of priest Neferinpu (AS 37), see Arias Kytnarová (2014a: Fig. 7.10).

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Abstract:
Recent research of vessels made in stone and pottery, undertaken by the present authors, proves the existence of a strong interconnection and transfer of shapes between these two materials. The aim of this paper is to follow one particular group of vessels, namely that of beer jars, and their possible models in stone and ceramic. These miniatures or models represent an example of ideological transformation and at the same time ritual tradition in the meaning and function of such vessels. Such morphological influence was often transferable but could later lead to an independent development of a new type.

The authors herein discuss the paths of formal inspiration, the process of changes and the influence on the examples of regular large-size beer jars made in pottery and compare them to ceramic and stone model beer jars. The article introduces the source of inspiration for the model vessels, their purpose, and further evolution during the course of the Old Kingdom.

Old Kingdom – model – miniature – beer jar – pottery – stone vessels

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