



ACHAEMENID INFLUENCE ON EGYPTIAN POTTERY: NEW EVIDENCE FROM MEMPHIS

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Yarmolovich, Victoria & Elena Chepel. Achaemenid Influence on Egyptian Pottery: New Evidence from Memphis. – Palarch's Journal of Archaeology of Egypt/Egyptology 16(3) (2019), 1-27. ISSN 1567-214X. 27 pages + 7 figures, 3 tables.

Keywords: Memphis, Kom Tuman, Late Period, Egyptian pottery, Persian pottery, Achaemenids in Egypt, intercultural contacts

ABSTRACT

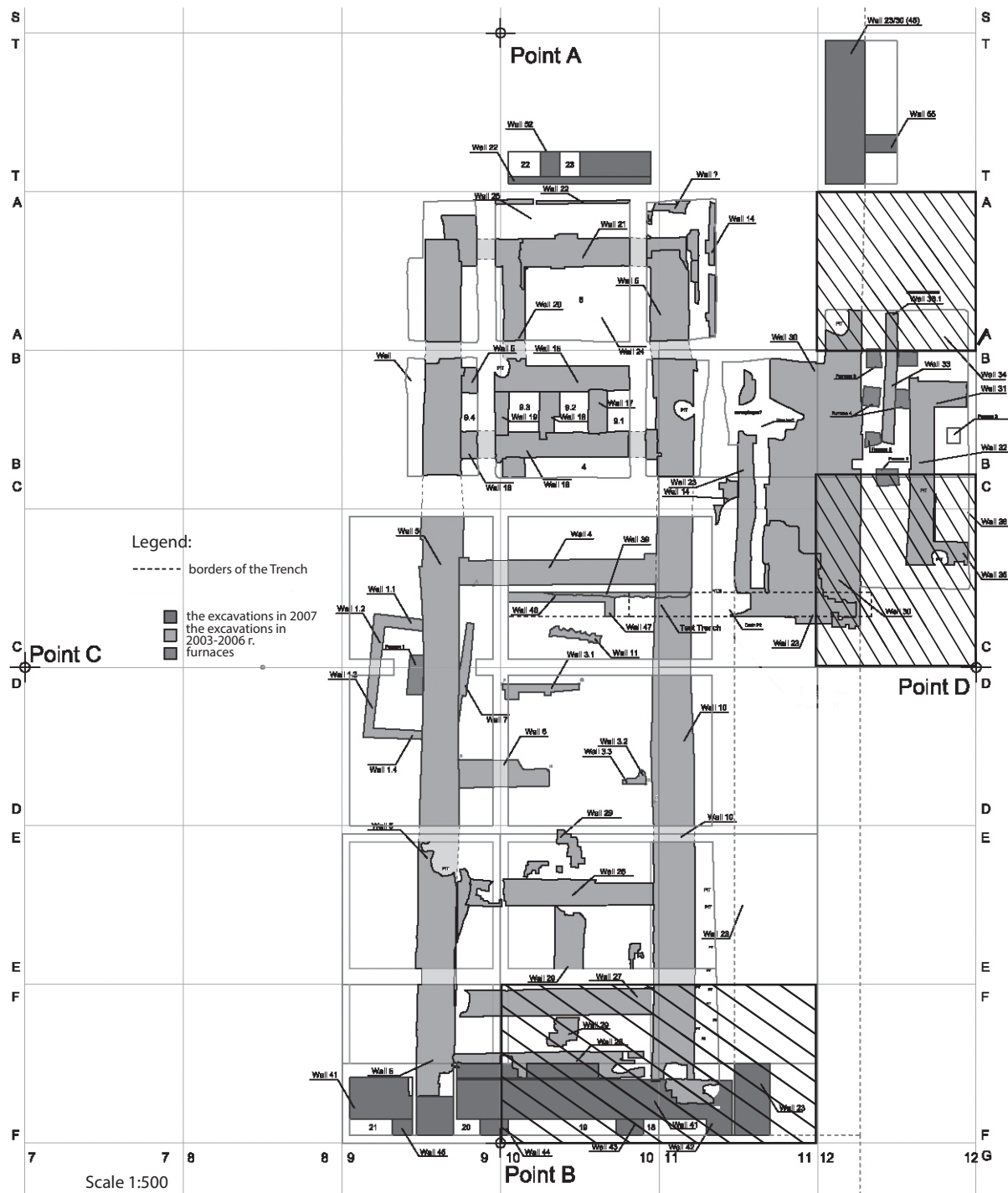
The authors analyse new pottery finds from recent excavations of the Centre for Egyptological Studies (Russian Academy of Sciences [CES RAS]) at Memphis. Three groups of archaeological material present particular interest for our discussion: 14 fragments of high-necked bowls, 33 beakers, and one table amphora. All these vessels were produced using Egyptian clays, but their shapes imitate Persian types. Comparison of these new finds with Near Eastern parallels provides insights into aspects of the political agenda of the Achaemenid rulers of Egypt and the extent of cultural interaction and exchange in the 6th-4th c. BCE. The article includes a catalogue of the new pottery (with detailed descriptions, dates, archaeological contexts, and drawings), and a catalogue of the clays that were used in their production.

This article has been written with the financial support of the Council for grants of the President of the Russian Federation, Project MK 699.2019.6. We would like to thank the directors of the archaeological excavations of the CES RAS in Memphis G.A. Belova and S.V. Ivanov for their support and access to the archaeological material, and the anonymous reviewer for helpful suggestions and comments.

INTRODUCTION

The Centre for Egyptological Studies of the Russian Academy of Sciences has conducted systematic excavations in the northern part of Memphis (Kom Tuman, Kom Dafbabi, and Tell Azizia) since 2001 (Figure 1). The expedition has investigated a military camp on the territory bordering with the palace of the pharaoh Apries (26th Dynasty), as well as administrative buildings of the Late Period (26th-31st Dynasty, 664-332 BCE) in the upper layers, and has found a complex of workshops and a fortification wall (the central part of Kom Tuman, square VII; Belova, 2018; Belova & Ivanov, 2016). Among various objects that have been discovered in Kom Tuman, there are figurines made of different ma-

Figure 1. Kom Tuman. General plan of the central area (Square VII) of the CES RAS excavations (2004-2007). Scale 1:500. Hatching shows some areas where vessels were found.



terials (stone, faience, bronze, clay), arrows, and amulets (Ivanov, 2007; 2015; 2017; 2018), as well as a large number of ceramic vessels, the majority of which can be dated to the Late Period¹ (Yarmolovich, 2015; 2017a; 2017b; 2017c; 2018; 2019). In 2014, the Mission has started the excavation of the area to the north of the central part (so-called “rescue area”, square X).

The archaeological material found during the excavations of the CES RAS confirms the vibrant cosmopolitan landscape of Memphis in the Late Period, as it is known from other archaeological sites of this area and from textual sources (Thompson, 2012: 4; Trigger *et al.*, 1983: 316-318). The earliest finds of the expedition can be dated to the 27th Dynasty, the period of the first Persian domination of Egypt (525-402 BCE). The Persians, under the rule of the Achaemenid dynasty, conquered Egypt in 525 BCE, adding it to their empire, which at its highpoint (ca. 500 BCE) extended to the Caucasus in the north, Bulgaria and Thrace in the west, modern Afghanistan and Pakistan in the east, Arabia in the south, and Libya in the south-east.

Memphis was an important city inhabited by Greeks, Phoenicians, Syrians, Persians, Carians, and other foreigners (Kaplan, 2003; Ray, 1988: 273-275). Although the major part of the city of Memphis remains unexcavated, archaeological investigation of its territory, as well as of associated necropolises, has already revealed many objects that belonged to its multicultural population: cylinder sealings, Aramaic labels (Petrie *et al.*, 1910: pl. XXXIV; Vittmann, 2009: 106-108), seal impressions (Petrie *et al.*, 1910: pl. XXXV, XXXVI, most notable are 22, 24-32, 34, 38-39), terracotta figurines, and stelae depicting foreigners (Mathieson *et al.*, 1995; Petrie *et al.*, 1910: 16-18, pl. XXVIII-XXXIV). One of the most numerous find categories is imported pottery from different regions of Greece, Cyprus and the Levant. These vessels have attracted a great deal of scholarly attention and have been widely studied in many articles (Smoláriková, 2002), as well as published as a part of the archaeological material.² In this paper, we focus on another, less studied, group of finds – ceramic vessels that imitate foreign shapes but were produced in Egypt from local clays. We present a corpus of 51 such vessels from Kom Tuman, with their description and analysis, as well as drawings (Figures 2-6; Appendix 1) and a catalogue of clays from which they were produced (Appendix 2).

Scholars have identified imitations of Greek, Levantine/Phoenician, and Assyrian/Achaemenid shapes among the corpus of Late Period ceramics found throughout Egypt (Defernez & Marchand, 2006; Laemmel, 2008; Malykh, 2018). Among imitated shapes, the most widespread are imitations of Chian, Samian, Lesbian, Attic, Corinthian, Miletian and Clazomenian amphorae, as well as Levantine storage jars (so-called “torpedo”, Malykh, 2018: 185-189). Sometimes the quality of these imitations is so high that scholars question the provenance of a vessel (Aston, 2007: 440; Dupont & Goyon, 1992: 153; Rzeuska, 2008: 419, 449). Pottery that copied Assyrian/Achaemenid shapes is less numerous. Scholars have identified a series of ceramic imitations of metallic situlae (Defernez, 2011: 291-309), Assyrian “Palace ware” (Grataloup, 2012: 181-182), flared-rim bowls (Marchand, 2002: 251), and one imitation of table amphora (Yarmolovich, 2019: 28-29, fig. 3).

1 The dates of the assemblages founded during the excavations on Kom Tuman were determined by Dr. Sabine Laemmel (Cambridge University).

2 For the city of Memphis, see Anthes (1959; 1965) and Petrie (1909; 1910; 1911; 1913; 1915). For the necropolises, see Aston & Aston (2010), French & Bourriau (2018), Kormysheva *et al.* (2015), and Malykh (2018). For imported pottery in other regions of Egypt, see Defernez (2001a; 2001b) (northern Sinai), the Naukratis research project, British Museum (https://www.britishmuseum.org/research/research_projects/all_current_projects/naukratis_the_greeks_in_egypt/naukratis_research_project.aspx), and Daphne (Leclère & Spencer, 2014).

Greek and Levantine/Phoenician imitations can be explained by cultural influences through contacts with foreign settlers in Egypt and through trade (Smoláriková, 2002: 69-70). However, the approach to studying the Achaemenid impact on pottery production should be more complex, since the Persians made Egypt part of their empire in 525 BCE and exercised military and administrative power in the country during this period. Memphis played a special role in the Persian occupation of Egypt, being the administrative centre of the satrapy (province), with the palace of Apries at Kom Tuman serving as the residence of the satrap (Colburn, 2018: 85). The satrap (a provincial governor) ruled from Memphis in the name of the Persian king.

This historical context is essential for our discussion of the new pottery finds from Memphis. The pottery under analysis was produced with local Egyptian clays (Appendix 2). Furthermore, it has no traceable parallels in ancient Egyptian ceramics, and bears morphological features that are typical of the Assyrian and Achaemenid ceramic corpus, as well as silver, bronze, and glass vessels. Among the archaeological material under discussion, we have distinguished three groups of such vessels: beakers with modelled neck or shoulders,³ high-necked bowls, and one table amphora.

ARCHAEOLOGICAL CONTEXT OF THE POTTERY

The vessels studied in this paper were found in the central part of Kom Tuman (41 vessels) and in the so-called “Rescue Area” (9 vessels).⁴ The central part (Square VII; Figure 1) of this area comprises a large complex of workshops where the mission has discovered furnaces for the production of faience paste. In addition, the finds indicate the production of stone and clay figurines (Belova, 2018: 4-9; Belova & Ivanov, 2016: 25-26). Excavations in the rescue area (Square X) have brought to light a large building with several rooms, where various objects have been discovered: loom weights, bronze jewellery, a human (child) grave, as well as numerous clay vessels that include examples of the groups under discussion (Belova, 2018: 10-16).

DESCRIPTION OF VESSELS

Group 1. Beakers with Modelled Neck or Shoulders

Among objects found at Kom Tuman, we have identified 33 vessels that can be assigned to this group (Table 1, numbers 1-33; Figures 2-3). Each of them has a flaring/direct rim, a bulge of various shapes on the neck or shoulders, and a cylindrical/ovoid/bag-shaped body. From parallels also found in Memphis, this type of pottery had a ring/flat base and could be decorated with bands of different colours and ornamental motifs,⁵ as well as with the depiction of the god Bes (Defernez, 2011: 307(a), 316, fig. 1). In several cases, the vessels have lug handles (nos. 13, 14, and 18). Based on the investigation of the Memphite archaeological context and of similar vessels from other sites, this type existed from 6th until 1st c. BCE. Most of the vessels from our corpus can be dated to 6th-4th c. BCE.

Vessels of this shape have been found only in the north of Egypt (from Memphis to the north of Sinai: Tell el Herr, Thonis-Heracleion, Naukratis, Suwa, Saft

³ Various terms are used for this kind of shapes. Aston & Aston (2010: 44 (89), 154 (406, 417), 157 (426)) call these vessels “beakers”, but Defernez (2011: 307) “mugs”.

⁴ Except one vessel (cat. no 36).

⁵ There are only two vessels with bands in our corpus: nos. 9 and 23 (Table 1). Band of different colours: Petrie & Duncan (1906: pl. XXXIVJ (293)); Aston & Aston (2010: pl. 46 (426)). Ornamental motifs: Hudson (2014: 45, fig. 6).

el-Henna, Tell Timai, Tell Mukdam, Saqqara, Giza (eastern necropolis) and city of Memphis) and are not attested in the Late Period assemblages in Middle or Upper Egypt. Some clay beakers of similar shape have been found in Tell el-Herr. Catherine Defernez has already suggested that the prototypes of these beakers could be Achaemenid metal vessel types, for example, situlae. The beakers from Memphis have morphological features and sharp contour of profile that are similar to those of this vessel type (Defernez, 2011: 291-309, fig. 13, 15). Catherine Grataloup has also analysed another group of morphologically similar beakers found in Thonis-Heracleion and has argued that vessels of this type imitate Neo-Assyrian “Palace ware” of 8th-7th c. BCE as well as metal types. In this case the choice of marl clays for production of Egyptian imitations is a crucial feature because the colours of these Egyptian clays resemble the colour of “Palace ware” vessels and metal vases (Grataloup, 2012: 181-182, fig. 8⁶). The colours of Egyptian clays (mainly these vessels have beige, rose, yellow or green surfaces) resemble those of “Palace ware” vessels: beige or reddish/greenish beige, green (Grataloup, 2012: 181).

Group 2. Bowls with High Flaring Neck

Seventeen vessels of this type were recognized in Kom Tuman (Table 1, numbers 34-50, Figures 4-5). Each of them has a flaring rim, high neck, short shoulders, ellipsoid/spherical body, and rounded/flat/ring base. Similar bowls have been found throughout Egypt and also in Sudan: Suwa (Petrie, 1909: pl. XXXIX (F143)), Thonis-Heracleion (Grataloup, 2015: fig. 7.5.9), Tell el-Herr (Defernez, 2001b: 330, pl. LXXII (208); eastern necropolis in Giza (Kormysheva *et al.*, 2018: 114, fig. 57, pl. CXXI-CXXII), Tebtynis (Marchand, 2002: fig. 10(a-c, e)), Kharga oasis (Wuttman *et al.*, 1996: 417-418 (Groupe 1, 16)), and Thebes (Jacquet-Gordon, 2012(a): 320; 2012(b): fig. 133a; Masson, 2016: 153, fig. 7), as well as in Meroe, that is Begarawiya South 3 (Agut-Labordère, 2017: 148; Török, 2011: 107, pl. 102, 136). The bowls are decorated with various bands. The archaeological context allows us to date the Memphite vessels to the period from the last quarter of 6th to the last quarter of 4th c. BCE. This timespan coincides with the dating of the bowls from Giza, Tell el-Herr and the Kharga oasis (Giza: Kormysheva *et al.*, 2018: 114; Tell el-Herr: Defernez, 2001a: 12-14; Kharga oasis: Wuttman *et al.*, 1996: 431). The bowls of this type from Thebes, Tebtynis, Thonis-Heracleion, and Meroe provide evidence that this shape was used by potters until Ptolemaic and Roman periods, which implies an ongoing need for vessels of these shapes (Thebes: Jacquet-Gordon, 2012a: 293; Masson, 2016: 153; Tebtynis: Marchand, 2002: 259, fig. 10(a-c, e); Thonis-Heracleion: Grataloup, 2015: 147-148, 154-155).

Comparison with the ceramic corpus outside Egypt has shown that this type of vessels existed in the territory of the Achaemenid empire as early as approximately 11th c. BCE (Adachi, 1997). They were highly popular in 9th-7th c. BCE (*e.g.*, clay bowl from Nimrud (Metropolitan Museum): Inv. No. 52.23.16, <https://www.metmuseum.org>), which is evidenced by archaeological material, as well as by contemporary visual representations (Curtis, 2013: 71). The production and use of this type continued under the Achaemenid Empire (Briant & Bouchardat, 2005) until at least the second quarter – end of 4th BCE (Lehmann 1996: 92). John Curtis (2013: 71) has pointed out that their shape evolved during the centuries: the Assyrian bowls have sharper carinated shoulders than later Achaemenid bowls that have short roundish shoulders. This observation allows us to suggest that the bowls from our corpus most closely resemble the Achaemenid

6 Further on “Palace ware”, see Hunt (2015).

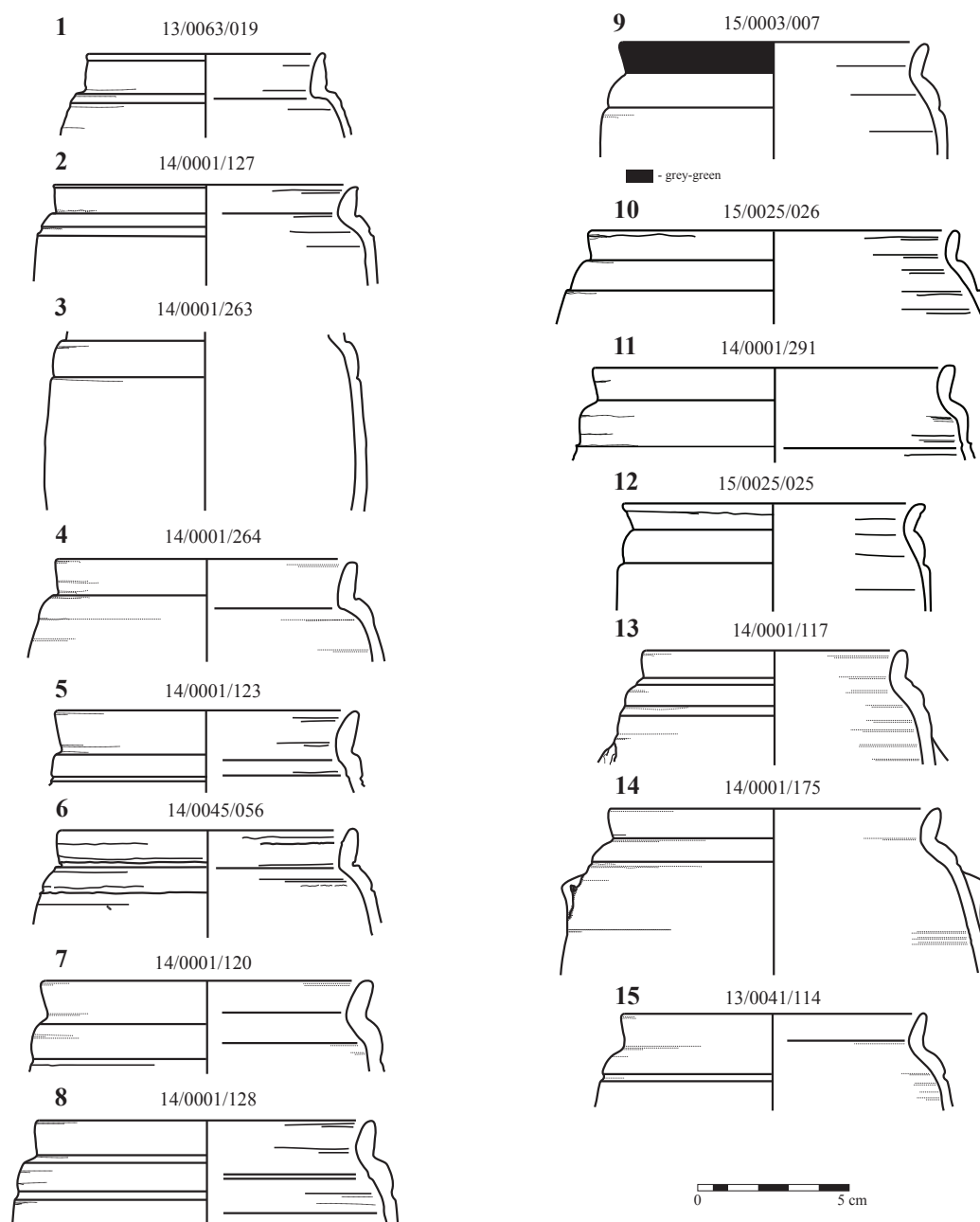


Figure 2. Group 1. Beakers from Kom Tuman. Drawing by V. Yarmolovich, S. Laemmel, H. Tolmacheva and N. Kashaeva. Inking by V. Yarmolovich.

variant. Remarkably, many of the Achaemenid bowls of this type were made of metal or glass and were decorated with precious stones, and hence, were produced for and owned by high-status members of society (Curtis & Tallis, 2005: 120 (no. 116), p. 179 (no. 113, 114)).

Extraordinarily large numbers of vessels of each type belonging to Groups 1 and 2 have been found at one site in Memphis. At other Egyptian sites, the finds of similarly shaped bowls and beakers have been so far limited to six or fewer vessels (usually only one) per site (see Table 2 and Table 3⁷). The excavation in Kom Tuman, Memphis, thus presents an exceptional case. These large numbers need to be explained, even though we understand that the absence of comparable archaeological material is an *argumentum ex silentio*, and it is possible that in the future more vessels of these types will be discovered at other sites.

⁷ The bowls in Table 3 marked with an asterisk have been dated to the time after the Achaemenid rule, namely to Ptolemaic and Roman periods.

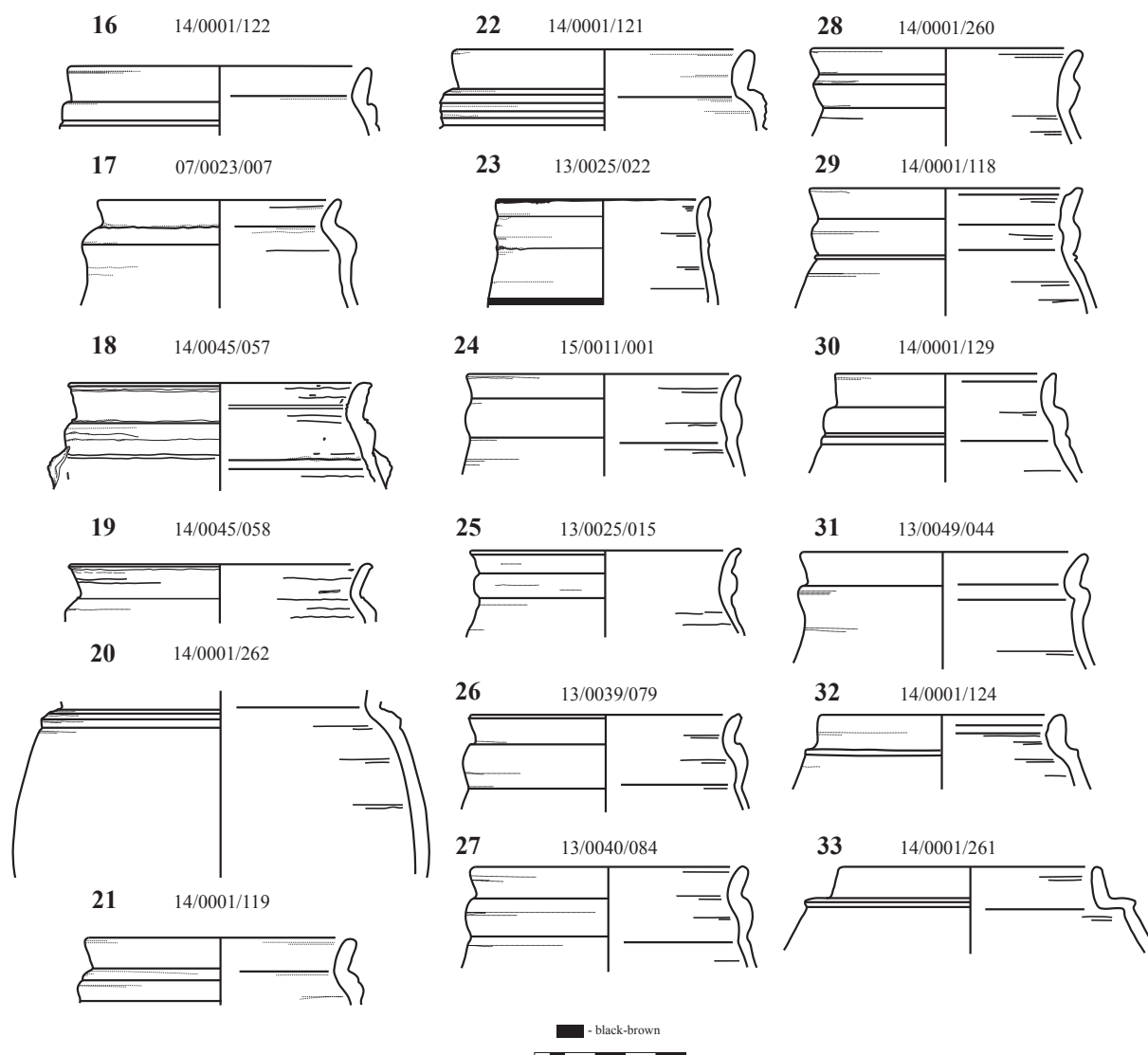


Figure 3. Group 1 (continued).
Beakers from Kom Tuman.
Drawing by V. Yarmolovich,
S. Laemmel, H. Tolmacheva
and N. Kashaeva. Inking by
V. Yarmolovich.

Group 3. Table Amphora

The table amphora has two handles, one of which functions as a spout (Table 1, number 51; Figure 6). This is a characteristic feature of Achaemenid pottery that goes back to ancient Iranian cultures (Curtis & Tallis, 2005: 105). Similar metal and ceramic table amphorae have been found throughout the territory of the Achaemenid Empire (Boardman, 2000: 190, fig. 5.71, 5.72; Lehmann, 1996: taf. 90 (478/1)), and their representations can be seen on reliefs of the palace in Persepolis, the capital of the Achaemenid empire (Figure 7) (second quarter of the 5th c. BCE). In Egypt, apart from the excavations of the CES RAS in Memphis, only one table amphora of this type have been found at Saqqara (Aston & Aston, 2010: 96, pl. 29 (258), 57(90-281)), where it was dated no earlier than second half of 5th c. BCE (Aston & Aston, 2010: 114).

DISCUSSION

The three groups of pottery that we have analysed raise questions about the socio-economic context of their production. Neither the analysis of their production technology, nor the study of their archaeological context allows us to make definitive conclusions about the ethnic or cultural identities of the makers or owners of these vessels. At the same time, pottery remains the most abundant type of

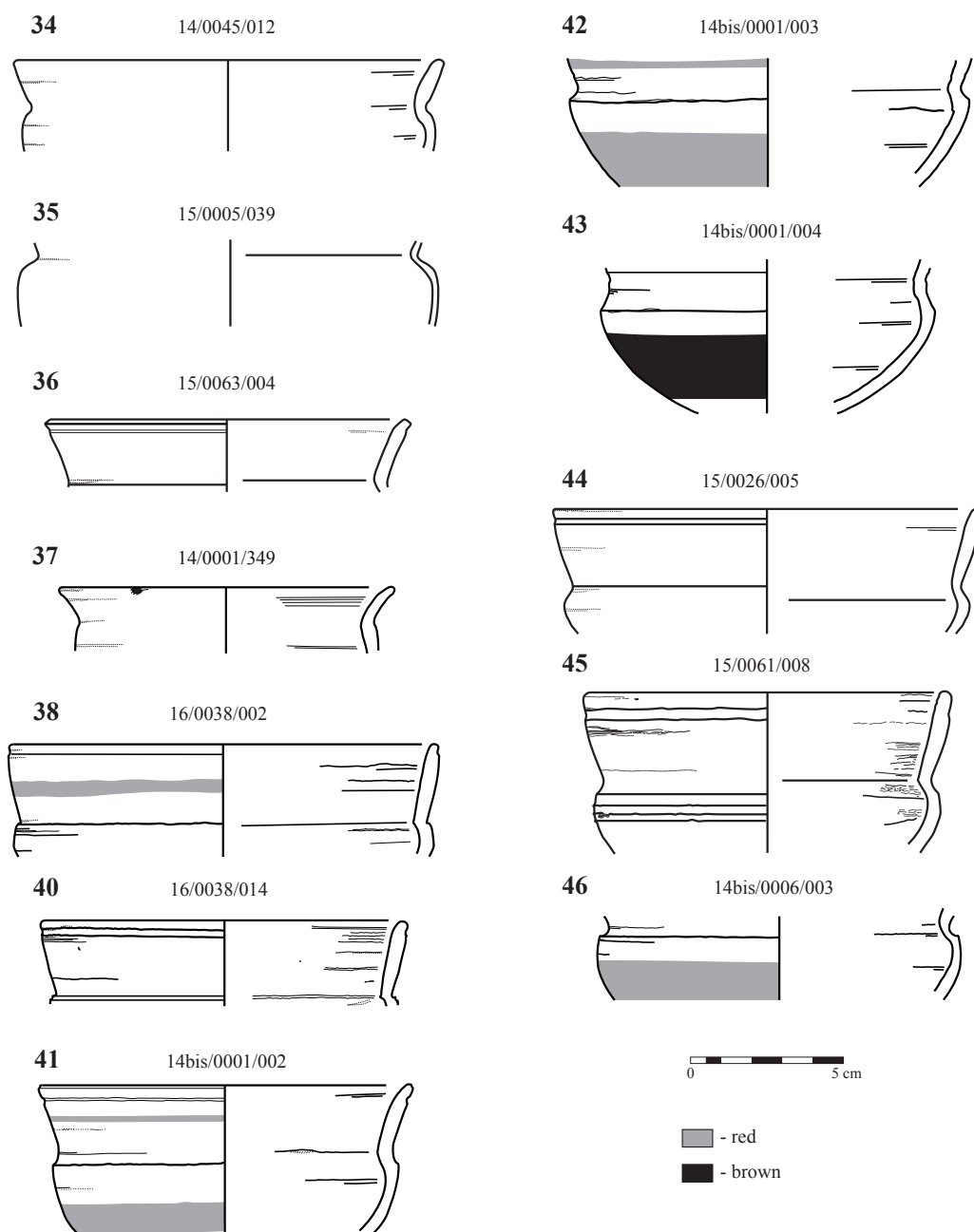


Figure 4. Group 2. Bowls from Kom Tuman. Drawing by V. Yarmolovich, S. Laemmel, H. Tolmacheva. Inking by V. Yarmolovich.

archaeological material in Egypt under the Persian rule, which requires from scholars at least an attempt to interpret the rich evidence that it provides (Wuttman & Marchand 2005: 98-100). We would like, therefore, to discuss several tentative interpretations of the production of the Memphite pottery with Achaemenid prototypes.

First of all, the copying and reproduction of foreign pottery – not only Persian, but also Greek and Syro-Palestinian – may be seen within the context of the increase of ‘natural’ intercultural exchange and the larger number of foreigners who started to settle in Egypt in the Late Period (Kaplan 2003; Smoláriková 2002: 90-98). The foreign shapes could be produced by local Egyptian or foreign potters either for the newly-settled migrant communities in Egypt, or for Egyptians who found foreign shapes functionally or aesthetically attractive. One vivid example of foreign cultural influence, including the influence on tableware and transportation vessels, on a member of the indigenous elite is the tomb of Egyp-

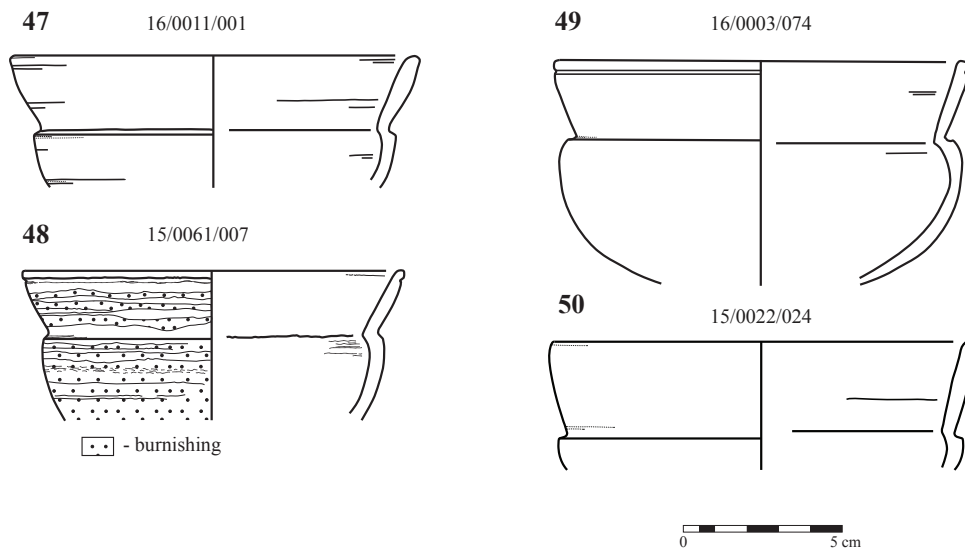


Figure 5. Group 2 (continued). Bowls from Kom Tuman. Drawing by V. Yarmolovich, S. Laemmel, H. Tolmacheva. Inking by V. Yarmolovich.

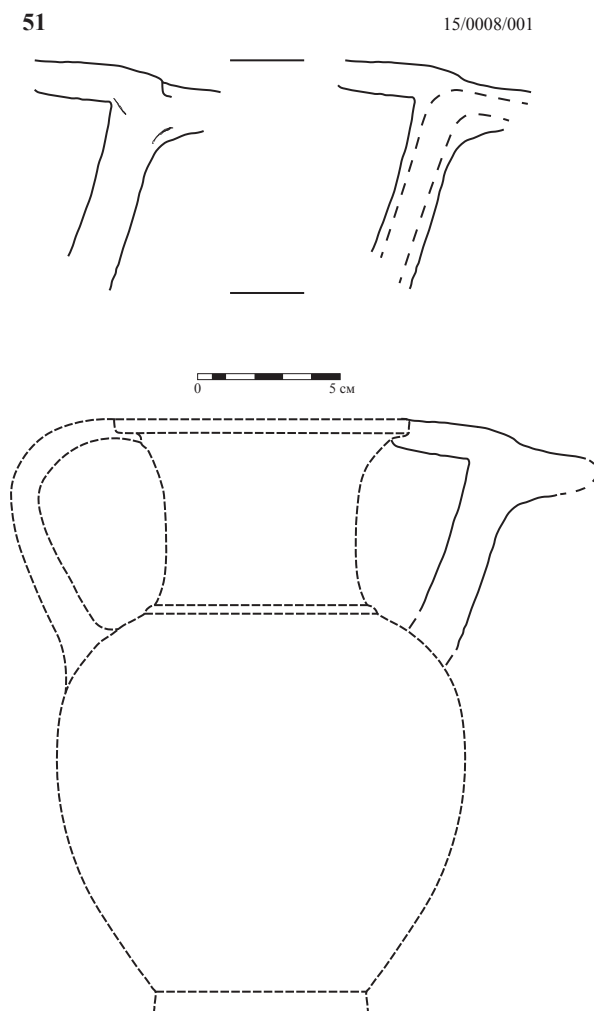


Figure 6. Group 3. Table amphora from Kom Tuman and its proposed reconstruction. The reconstruction is not to scale. Drawing by H. Tolmacheva; inking and reconstruction by V. Yarmolovich. Reconstruction is based on Aston & Aston, 2010: pl. 29 (258).



Figure 7. Representation of table amphorae on the relief of the eastern staircase of the Apadana, Persepolis. Photo: R.A. Orekhov.

tian priest Petosiris in Tuna el-Gebel (late 4th-early 3rd c. BCE, see Nakaten, 1982, Kol. 995, 997, Anm. 11). Its reliefs include various objects (such as rhytons and furniture, Lefebvre, 2007 pl. VIII, XI) styled upon Achaemenid and Greek models (Lefebvre, 2007: pl. VII-IX, XIX). These reliefs, although dated already in the first decades of the Macedonian conquest, reflect the general tendency of cultural mixture which developed in Egypt during the Late Period.

The practical aspect of adopting foreign pottery can be seen in the numerous examples of amphorae of foreign shapes which were produced locally but followed Syro-Palestinian (so-called 'torpedo' amphorae) or Greek prototypes (Malykh, 2018: 181-185). The motivation for their production could be the mere aspect of their convenience in preserving and transporting liquids or even the possibility to increase the price of wine or other product held in an imported-styled amphora that presumably indicated higher quality of the contents. These vessels were found together with imported amphorae of the same types which implies the absence of any ethnically or culturally defined division between the users of imported containers and the users of the locally produced containers.

In the Ptolemaic period, this process of incorporation of foreign, particularly Greek, pottery into the Egyptian ceramic repertoire is even more widely attested, a process that has been termed 'Hellenisation' (Marchand, 2002). Similarly, the earlier evidence of the vessels featuring the Achaemenid shapes points to Persianisation, which started in Egypt one or two centuries earlier, before the Macedonian conquest (Boardman, 2000: 184-186; Defernez, 2011; Grataloup, 2012).⁸ Hellenisation was, therefore, not spontaneous but represents a step in the Egyptian adoption of foreign culture, which was greatly stimulated under Persian rule (Klotz, 2015: 10).

In the case of the Achaemenid models, their inclusion in the Egyptian ceramic repertoire can be explained by the increased prestige and social attractiveness of these objects during Persian rule in Egypt. These vessel-types were associated with the culture of the Persian royal court at Persepolis, which was represented locally through the court of the viceroy of the Persian king – the satrap at Memphis. Throughout the Empire, the satraps' courts recruited their members from local elites, which presented an opportunity for the mixture of cultures. It is hardly surprising that those who prospered under the Persians wanted to associate themselves culturally with the new rule (Dandamaev, 1989, 77-79; Ray, 1988: 272, 282). The Persian garments and jewellery worn by Egyptian officials can be seen on several statues (Klotz, 2015: 9). The practices of feasts and banquets among Egyptian high social strata were also heavily influenced by the Persian culture (Agut-Labordère, 2017: 147-149). Banqueting and feasting were central to Persian culture, epitomising the lifestyle of the imperial court of the Persian king, and must have existed at the level of satrapies as well, since satraps were king's representatives and themselves members of the royal court (Brosius, 2011: 138-139).

The accoutrements of this court culture of banqueting certainly included, among other things, characteristic vessel shapes and decoration. The prestige of the Persian pottery probably extended beyond the elite. This can be seen from the fact that potters were fulfilling the demand for these foreign vessels of higher cost made of metal or glass – the imitation of luxurious objects in cheap mass production is a well-known phenomenon even in the modern world. The cheaper ceramic copies of expensive and fashionable vessels might indicate that their owners could not afford to purchase an imported authentic object and hence belonged to the middle or lower class of Egyptian society.

⁸ On the discussion of the phenomenon of persianisation in broader cultural sense, not limited to material culture, see Brosius (2011).

Since Memphis was the capital of Egypt where the new Persian rulers based the administrative centre (Thompson, 2012: 2), Achaemenid-style pottery was more abundant there than in the rest of the country, especially than in the distant and less politically important Upper Egypt. The Persian satraps presumably brought potters from Persia with them to Memphis in order to ensure that they had access to the table ware that they were used to at home. These Persian potters of course had to use Egyptian materials. At the same time the Persian vessels could easily become known to Egyptians residing in Memphis and the process of their manufacture could have had an impact on Egyptian potters. However, the cultural influence of Persian rule in Egypt was not huge, especially in comparison to the Hellenisation of the subsequent Ptolemaic era. Nevertheless, Egyptian handicrafts, including pottery, experienced Persian influence which lasted even after the end of the Achaemenid rule in Egypt (see above on bowls of Group 2).

We should consider the impact of the Achaemenid imperial agenda in order to explain this influence. From the beginning of the conquest, the Persians made an effort to draw the people of Egypt to their side. In order to achieve this, Cambyses personally took part in Egyptian religious ceremonies and went as far as depicting himself in local costume, kneeling in front of Egyptian gods (Dandamaev, 1989: 76-77). Darius, according to Polyaeus (VII 11.7), paid a large sum of money to find a new Apis, when the sacred bull died, and, according to Diodorus (I 95.4-5) he even studied Egyptian theology and restored the temple of Ptah in Memphis. Inscriptions in Egyptian temples indeed record Darius as a rich donor to the Egyptian gods. Some of the stelae at Saqqara even explicitly call Darius the king of Egypt (Dandamaev, 1989: 145; Vercoutter, 1962: 70-77).

The official ideology implicitly approved of mixed marriages between Persians and Egyptians through the story of Cambyses' alleged descent from the marriage of Cyrus with the daughter of Apries (Athenaeus XIII 10, Ctesias, Persica, frag. 13a, Herodotus III 1-3). It is also known that the Persians admired Egyptian craftsmen and took some of them back to Persia (Henkelman, 2017). Interestingly, archaeological material from other territories conquered by the Achaemenids in Central Asia, Georgia, Azerbaijan, and Asia Minor, includes artifacts that have been crafted locally and were styled upon Achaemenid models. Furthermore, on the Apadana reliefs in Persepolis, there are depictions of foreign delegations bringing gifts to the Persian king from all the corners of the Empire, including vessels that in shapes, form, and style are crafted after Achaemenid objects (see *e.g.* Figure 7 with a table amphora carried by an Armenian tribute bearer; Brosius, 2011: 139-140). We can only speculate how, where and by whom these gifts were manufactured and whether they reflect the historical reality of gift-giving practices. Nevertheless, these reliefs were grandiose artistic statements of the Achaemenid imperial ideology.

The Achaemenid-style royal gifts brought by conquered nations depicted in these reliefs point to the special agenda of the Persian rulers: foreigners should be familiar with Persian material culture in order to please the king and show him their loyalty. It cannot be excluded that through production and circulation of luxury objects on a local level, the Persian king and his administration wanted to lessen the separation between the Persian and local elites in the satrapies and to facilitate the incorporation of the members of the local elite into the Persian imperial system. Taking into consideration all this evidence, professional exchange between Persian and Egyptian craftsmen, and potters in particular, could have been consciously encouraged by the new rulers. Furthermore, adherence to the Persian lifestyle was implicitly expected from anyone who wanted to succeed under Persian rule.

CONCLUSIONS

The analysis of the new archaeological pottery finds from Memphis allows us to conclude that the Near Eastern models were copied in a broad social environment and the imitations were attractive not only for the elite but also for people of lower social status. Furthermore, the reasons for imitation could be both practical and socio-cultural. The spread of imitations of Achaemenid vessels could have been a consequence of the Achaemenids' imperial agenda for the cultural integration of local elites into the Persian court system. The study also shows that the Egyptian culture of the Late Period was already open to innovations and foreign influences which resulted in the powerful Hellenisation and later Romanization of Egyptian pottery.

APPENDIX 1: TYPOLOGY OF VESSELS OF THE MEMPHITE POTTERY

This appendix contains morphological descriptions of vessels from Kom Tuman found during the CES RAS excavations. The closed shapes are marked with the letter “C”, the open shapes are marked with the letter “O”. There are types of vessels which are divided in subtypes according to their shapes (*e.g.* C1.1. and their variants, C1.1.a. and C1.1.b. etc.).

Beakers (C1-3)**C1.1. - direct rim and modelled angular shoulders:**

C1.1.a. - direct rim which has thin rounded bulge, modelled shoulders in shape of rectangular bulge;

C1.1.b. - direct rim which has thin rounded bulge, modelled shoulders with rectangular bulge on them. There could be additional bulge under the first one.

C1.2. - direct rim and modelled rounded shoulders:

C1.2.b. - direct rim (?), modelled shoulders in shape of rounded bulge, cylindrical body.

C1.3. - direct rim and modelled shoulders in shape of rectangular bulge:

C1.3.a. - flaring rim, modelled shoulders in shape of broad rectangular bulge;

C1.3.b. - flaring rim, modelled shoulders in shape of broad accent rectangular bulge, under which, probably, was another one.

C1.4. - flaring rim, modelled shoulders in shape of broad roundish bulge, various shapes of body and bases:

C1.4.a. - flaring rim, modelled shoulders in shape of broad roundish shoulders. There could be another one thin roundish or triangular bulge under broad one;

C1.4.c. - flaring rim with a thin roundish bulge on it, sloping shoulders in shape of broad roundish bulge;

C1.4.d. - flaring rim, modelled shoulders in shape of broad roundish bulge, which is divided into two parts. There are lug-handles on the body;

C1.4.f. - flaring rim, modelled shoulders in shape of roundish bulge which is divided into two parts, and, probably, cylindrical body.

C1.5. - flaring rim, modelled shoulders in shape of triangular bulge, various shapes of body and base:

C1.5.a. - flaring rim, modelled shoulders in shape of triangular bulge. Presumably, there was another roundish bulge;

C1.5.b. - flaring rim, modelled shoulders in shape of broad angular bulge;

C1.5.c. - flaring rim with thin roundish bulge, modelled shoulders in shape of broad angular bulge. There are thin bulge on the upper part of broad one, and two more bulges;

C1.5.d. - flaring rim with thin roundish bulge, modelled shoulders in shape of angular bulge. There is thin triangular bulge on the upper part of the angular bulge.

C1.6. - flaring rim, modelled shoulders in shape of compound bulge:

C1.6.a. - flaring rim, modelled shoulders in shape of angular bulge which is divided into three parts, bag-shaped body. There is another bulge under first one;

- C1.6.b. - flaring rim, modelled shoulders in shape of roundish bulge which is divided into two parts;
- C1.6.c. - flaring rim, modelled shoulders in shape of round bulge which is divided into five parts.
- C2.1. - flaring rim, modelled shoulders in shape of broad roundish bulge:
 - C2.1.a. - flaring rim, modelled shoulders in shape of roundish bulge. There could be additional thin roundish bulge;
 - C2.1.b. - flaring rim with thin roundish bulge, shoulders in shape of broad roundish bulge, bag-shaped or ovoid body, flat base. There could be additional thin roundish bulge.
- C2.2. - flaring rim, modelled shoulders are in shape of broad triangular bulge, ovoid or bag-shaped body, flat base.
- C2.3. - flaring grooved rim, neck in shape of broad roundish bulge. There is thin angular bulge.
- C2.4. - flaring rim, modelled neck in shape of broad roundish bulge which is divided into three parts. This type is included as an analogy on the basis of the vessel from Sakkara (see Aston & Aston, 2010: p. 157, pl. 46 (426)).
- C2.5. - flaring rim, modelled neck in shape of roundish bulge which is perched.
- C3.1. - direct rim, modelled shoulders are in shape of thin bulge:
 - C3.1.a. - a direct rim, shoulders are in shape of thin roundish bulge.
- C3.2. - beakers with a direct rim, shoulders are in shape of triangular bulge.

Bowls (O1)

- O1.1. - flaring rim, short neck, round shoulders:
 - O1.1.a. - flaring rim, short neck, sloping shoulders;
 - O1.1.b. - flaring rim, short concave neck, extremely sloping shoulders.
- O1.2. - flaring rim, high neck, short shoulders with thin bulges;
- O1.3. - flaring rim, high concave neck, short carinated shoulders, ellipsoid or spherical body. There could be groove on the rim:
 - O1.3.a. - flaring rim, high concave neck, carinated or sloping shoulders, ellipsoid or spherical body. There could be groove on the rim;
 - O1.3.b. - probably, high neck, carinated concave shoulders, ellipsoid body;
 - O1.3.c. - flaring rim, high straight neck, carinated concave shoulders, spheric body.
- O1.4. - flaring rim, high neck, carinated short shoulders, probably, ellipsoid body.

APPENDIX 2: CATALOGUE OF CLAY FABRICS

The fabric descriptions were made with a 10x hand lens during the work on the site. The visual analysis comprises description of the texture, hardness, porosity, size and quantity of inclusions, as well as colour of break and surfaces.⁹

MI.1 - extremely fine, dense marl clay containing scarce fine vegetable temper.

The section of vessels can be homogeneous (light beige or pink), bipartite (pink and greenish white) or zones (pink core with light beige outer zones; light beige core with light pink outer zones).

This fabric is found in shapes C1.2.b., C1.3.b., C1.4.a., and O1.1.b.

MI.2 - extremely fine, dense marl clay containing scarce mineral inclusions (sand quartz, limestone, black mineral particles). The section can be uniform pink (5YR 8/4), bipartite (cream and beige, or light beige and pink) or zoned (pink core with light beige outer zones):

MI.2a - scarce quantity of fine black mineral particles. Some vessels made of this clay fabric have signs of vitrification;

MI.2d - scarce quantity of fine limestone;

MI.2f - scarce quantity of fine black mineral particles and mica;

MI.2g - scarce quantity of fine red mineral particles.

This fabric is found in shapes C1.1.b., C1.3.a., C2.1.a., C2.2., O1.1.a., O1.2., and O1.3.b.

MI.3 - extremely fine dense marl fabric with scarce quantity of mineral or vegetable temper. The section is homogeneous (10R 8/4, pink or light pink) or zoned (dark pink core with light beige outer zones; light pinkish beige core with light beige outer zones):

MI.3a - scarce quantity of fine black mineral particles and vegetable temper;

MI.3b - scarce quantity of fine limestone and round sand quartz, occasionally common fine vegetable temper;

MI.3c - sandy, scarce quantity of fine red mineral particles and mica, common fine vegetable temper;

MI.3d - scarce quantity of fine sand quartz, common fine vegetable temper;

MI.3f - scarce quantity of fine black mineral particles, limestone and vegetable temper.

This fabric is found in shapes C1.4.a., C1.4.f., C1.5.a., C1.6.b., C1.6.c., C2.3., and C2.5.

MII.1 - fine, dense or medium dense marl clays that contains various mineral inclusions. The section can be homogeneous (pinkish, beige, light red, salmon, light green; 2.5YR 6/8, 2.5Y 8/2 (a little bit lighter)), bipartite (2.5YR 8/4 and 7.5YR 8/3) or zoned (the core is 2.5YR 8/4, the outer zones are 10R 8/3):

MII.1b - scarce or common quantity of fine black mineral particles and/or red mineral particles, scattered fine mica;

MII.1c - common fine black mineral particles, scattered common fine or medium red mineral particles of different shapes. Some particles have a blurred contour. There are sandy examples of this fabric;

⁹ The colour descriptions are made using the Munsell, Soil Color Charts (New Windsor, 2000).

MII.1d - scattered fine sand quartz, common fine black mineral particles.

Some samples contain a scarce quantity of coarse light brown clay;

MII.1g - scattered medium sand quartz and fine red mineral particles;

MII.1h - common fine white mineral particles, scattered fine black mineral particles;

MII.1j - common fine round sand quartz.

This fabric is found in shapes C1.4.c., C2.1.b., O1.2., O1.3.a., O1.3.c., and O1.4.

MII.2 - fine and medium-fine dense marl clays with various mineral inclusions (sand quartz, limestone, mica, light beige and red clays, black and red mineral particles) and vegetable temper. The break can be homogeneous (light pink to dark pink, dark beige and light red) or bipartite (light pink and light beige):

MII.2b - fine dense marl clay with scattered fine black mineral particles and vegetable temper;

MII.2c - fine dense marl clay with scattered fine and medium red mineral particles, fine vegetable temper. It also contains light beige clay;

MII.2f - medium-fine dense marl clay with scattered or common fine black mineral particles and/or angular sand quartz, fine vegetable temper, scarce quantity of particles of red clay;

MII.2g - fine dense marl clay, sandy, contains scattered medium vegetable temper and round sand quartz;

MII.2h - fine dense marl clay with common fine red and black mineral particles, a scarce quantity of fine vegetable temper;

MII.2j - medium-fine dense marl clay with scattered fine sand quartz, common fine black mineral particles and scattered vegetable temper.

This fabric is found in shapes C1.3.b., C1.4.a., C1.4.d., C2.1.b., O1.2., and O1.3.b.

MII.3 - medium-dense, fine and medium-fine marl clay with scattered medium black mineral particles. Sometimes within the paste small air holes are present. The colour of the break is homogeneous light beige or beige:

MII.3a - scattered medium black mineral particles. Sometimes there are round air-holes.

MII.3b - abundant fine limestone, scarce quantity of fine red and black mineral particles;

MII.3c - common medium particles of red clay, scattered fine black mineral particles.

This fabric is found in shapes C1.5.c., C1.6.a., C3.2. and O1.3.a.

MII.4 - fine dense marl clay which contained common fine vegetable particles.

The section is homogeneous green colour.

This fabric is found in only one shape O1.1.a.

MIV.1 - medium dense medium-fine marl clay with common fine black mineral particles, scattered sub-round dark sand quartz and medium vegetable particles. The section is homogeneous dark pink colour.

This fabric is found in only one shape C3.1.a.

MV - fine dense marl clay without visible inclusions. It fires to homogeneous colour (10YR 8/3).

This fabric is found in only one shape C1.5.d.

No.	Inv. No.	Place of find	Dating of assemblage ¹	Type of shape	Type of fabric	Surface treatment	Dimensions		
							Rim	Base	Body (max.)
1	13/0063/019	Square VII. C12, area of workshops, wall 32, building 4	Late 6th-3rd quarter of 5th c. BCE	C1.1.a.	-	Wet-smoothing	7.8	–	–
2	14/0001/127	Square VII. ABC14, surface layer, area of workshops	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C1.1.b.	MI.2a	Wet-smoothing, light-coloured layer	10	–	–
3	14/0001/263	Same	Same	C1.2.b	MI.1	Wet-smoothing	–	–	10.6
4	14/0001/264	Same	Same	C1.3.a.	MI.2a	Wet-smoothing, light-coloured layer	9.8	-	-
5	14/0001/123	Same	Same	C 1.3.b.	MI.1	Wet-smoothing, light-coloured layer	9.8	-	-
6	14/0045/056	Square VII. B14, from cleaning walls in central area of B14	Persian period but going into the 4th c. BCE, with Roman intrusions. Older fragments were also recorded	C1.3.b.	MII.2f	Uncoated	10	-	-
7	14/0001/120	Square VII. ABC14, surface layer, area of workshops	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C1.4.a.	MII.2c	Wet-smoothed, white slip	10.7	–	–
8	14/0001/128	Same	Same	C1.4.a.	MII.2c	Wet-smoothing, light-coloured layer	11	–	–
9	15/0003/007	Square VII. A12, area of workshops, compact layer of surface turab	Mostly Late Period, but clearly going into the 4th c. BCE	C1.4.a.	-	Uncoated, black band on the rim ²	9.8	–	–
10	15/0025/026	Square VII. A12, area of workshops, surface layer	3rd quarter of 5th c.-ca. 300 BCE	C1.4.a.	MI.1	Wet-smoothing, light-coloured layer	12	–	–
11	14/0001/291	Square VII. ABC14, surface layer, area of workshops	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C1.4.a.	MI.3a	Wet-smoothing, white slip	12	-	-

No.	Inv. No.	Place of find	Dating of assemblage ¹	Type of shape	Type of fabric	Surface treatment	Dimensions		
							Rim	Base	Body (max.)
12	15/0025/025	Square VII. A12, area of workshops, surface layer	3rd quarter of 5th c.-ca. 300 BCE	C1.4.c.	MII.1j	Wet-smoothing, light-coloured layer	10	–	–
13	14/0001/117	Square VII. ABC14, surface layer, area of workshops	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C1.4.d.	MII.2j	Wet-smoothing, light-coloured layer	8.5	–	–
14	14/0001/175	Same	Same	C1.4.f.	MI.3b	Wet-smoothing, light-coloured layer. Lug-handles on the body	11	–	–
15	13/0041/114	Square VII. B13, area of workshops, filling between Walls 31 and 34	Some late 6th-5th c. BCE elements are also present. Ptolemaic period ware is evidenced.	C1.4.f.	-	Smoothing, white slip	9.9	–	–
16	14/0001/122	Square VII. ABC14, area of workshops, surface layer	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C1.5.a.	MI.3a	Wet-smoothing, light-coloured layer	8.5	–	–
17	07/0023/007	Square VII. F10-F11, to the south from Wall 41, to the west from Wall 42, building 6, room 20	5th c. BCE	C1.5.b.	-	Uncoated ³	7.9	–	–
18	14/0045/057	Square VII. B14, from cleaning walls in central area of B14	Persian period but going into the 4th c. BCE, with Roman intrusions. Older fragments were also recorded	C1.5.c.	MII.3c	Uncoated. Lug-handles on the body	9.9	-	-
19	14/0045/058	Same	Same	C1.5.d.	MV	Uncoated	10	-	-
20	14/0001/262	Square VII. ABC14, area of workshops, surface layer	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C1.6.a.	MII.3b	Wet-smoothing	12 ⁴	–	–
21	14/0001/119	Same	Same	C1.6.b.	MI.3f	Wet-smoothing, light-coloured layer	8.8	–	–

No.	Inv. No.	Place of find	Dating of assemblage ¹	Type of shape	Type of fabric	Surface treatment	Dimensions		
							Rim	Base	Body (max.)
22	14/0001/121	Same	Same	C1.6.c.	MI.3a	Wet-smoothing, light-coloured layer	9.6	–	–
23	13/0025/022	Square VII. ABC13, area of workshops, surface layer	Mainly mid-5th to early 4th c. BCE with clear Ptolemaic component and few Roman intrusions	C2.1.a.	-	Uncoated, narrow black bands on outside and inside of the rim, and on the body ⁵	7	–	–
24	15/0011/001	Square VII. B13, area of workshops, in profile 80 and neighboring spaces (Wall 31), from cleaning process of profile	5th c. BCE	C2.1.a.	MI.2a	Wet-smoothing, light-coloured layer	9	–	–
25	13/0025/015	Square VII. ABC13, area of workshops, surface layer	Mainly mid-5th to early 4th c. BCE with clear Ptolemaic component and few Roman intrusions	C2.1.b.	MII.1d	Wet-smoothing, uncoated	9	–	–
26	13/0039/079	Square VII. C13, area of workshops, from disturbed robbers' redim in west part of square	5th-4th c. BCE	C2.1.b.	-	Wet-smoothing	8.3	–	–
27	13/0040/084	Square VII. B13, area of workshops, lower layer of robbers' redim and loose debris	Mostly mid-5th to early 4th c. BCE but with conspicuous Ptolemaic fragments and few Roman pieces	C2.1.b.	MII.2f	Wet-smoothing	9	–	–
28	14/0001/260	Square VII. ABC14, area of workshops, surface layer	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C2.2.	MI.2g	Wet-smoothing, uncoated	9	–	–
29	14/0001/118	Same	Same	C2.3.	MI.3d	Eroded	8.7	–	–
30	14/0001/129	Same	Same	C2.3.	MI.3b	Wet-smoothing, light-coloured layer	7.2	–	–
31	13/0049/044	Square VII. B13, area of workshops	Mid-5th to mid-4th c. BCE, with some Ptolemaic components	C2.5.	MI.3c	Wet-smoothing, light-coloured layer	9.4	–	–

No.	Inv. No.	Place of find	Dating of assemblage ¹	Type of shape	Type of fabric	Surface treatment	Dimensions		
							Rim	Base	Body (max.)
32	14/0001/124	Square VII. ABC14, area of workshops, surface layer	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	C3.1.a.	MIV.1	Wet-smoothing, light-coloured layer	8	-	-
33	14/0001/261	Same	Same	C3.2.	MII.3a	Wet-smoothing, uncoated	8.5	-	-
34	14/0045/012	Square VII. B14, from cleaning walls in central area of B14	Persian period but going into the 4th c. BCE, with Roman intrusions. Older fragments were also recorded	O1.1.a.	MI.2d	Wet-smoothing, light-coloured layer on the exterior	14	-	13.5
35	15/0005/039	Square X.F2-G2, in lower layer of surface turab	Mainly 4th c. BCE to early Roman with residual sherds of the 5th c. BCE	O1.1.a.	MII.4	Light-coloured layer, burnished	-	-	13.8
36	15/0063/004	The authors do not have a description of the context	4th c. BCE date to early Ptolemaic	O1.1.a.	MI.2f	Wet-smoothing, uncoated	11.5	-	-
37	14/0001/349	Square VII. ABC14, area of workshops, surface layer	Mid-5th-end of 4th or 3rd c. BCE/1st part of 3rd c. BCE. Contains a few elements as late as 2nd-1st c. BCE, and early Roman period	O1.1.b.	MII.1g	Wet-smoothing, uncoated	11	-	10
38	16/0038/002	Square VII. C12, floor 268, trench 1	Mostly 5th c. BCE, few sherds of the middle to late 4th c. BCE	O1.2.	MI.2a	Uncoated, high quality burnishing. Narrow red band is on the rim	14	-	13.7
39	16/0038 (not drawn)	Same	Same	O1.2.	MII.1c	Uncoated, high quality burnishing	14	-	-
40	16/0038/014	Same	Same	O1.2.	MII.2g	Wet-smoothing, uncoated	12	-	-
41	14bis/0001/002	Square X.B6-B7. In layer of robbers' debris and surface turab	Mainly late 5th to late 4th c. BCE, but some elements are undeniably late and as late as the 2nd-early 1st c. BCE	O1.3.a.	MII.1h	Light-coloured layer, burnished. Narrow red band is on the rim, wide red band is on the lower part of the body. Both bands are bands	-	-	13
42	14bis/0001/003	Same	Same	O1.3.a.	MII.1h	Wet-smoothing, uncoated. Narrow(?) red band is on the rim, wide red band is on the lower part of the body. Both bands are burnished. Small dab is on the shoulder	-	-	13

No.	Inv. No.	Place of find	Dating of assemblage ¹	Type of shape	Type of fabric	Surface treatment	Dimensions		
							Rim	Base	Body (max.)
43	14bis/0001/004	Same	Same	O1.3.a.	MII.1h	Uncoated, burnishing. Wide reddish brown band on the lower part of the body. Burnished.	-	-	ca. 16.8
44	15/0026/005	Square X.G2, filling of Room 200	5th to 1st c. BCE	O1.3.a.	MII.3a	Uncoated, burnishing	13.9	-	ca. 14
45	15/0061/008	Square X.F2-G2, in compact layer of brick material/turab	Early 5th to mid-4th c. BCE, fair amount of early Ptolemaic	O1.3.a.	MII.1b	White slip, burnished	12	-	11.4
46	14bis/0006/003	Square X.B6-B7. Layer under turab.	Mainly late 5th-4th c. BCE, including some early Roman sherds	O1.3.b.	MII.2h	Uncoated, burnishing. Wide red band is on the lower part of the body. Burnished.	-	-	ca. 11-12
47	16/0011/001	Square VII. C12, from cleaning profiles from all layers complete height, Trench 1	Mainly 5th c. BCE with few elements going into the 4th c. BCE; also OK and NK intrusions	O1.3.b.	MI.2a	Light-coloured layer, high quality burnished	13	-	11.4
48	15/0061/007	Square X.F2-G2, in compact layer of brick material/turab	Early 5th to mid-4th c. BCE, fair amount of early Ptolemaic	O1.3.b.	MII.2b	Uncoated, burnished	12	-	10.8
49	16/0003/074	Square X.F3, loose surface turab and robbers' pits	Mostly late Persian to early Ptolemaic (4th c. BCE)	O1.3.c.	MII.1c	Uncoated, high quality burnishing	13	-	12.7
50	15/0022/024	Square VII. A12, compact layer of brick debris and turab (whole area) along east side of Wall 30	3rd quarter of 5th c. BCE to about 300 BCE	O1.4.	MII.1h	Wet-smoothing, light-coloured layer	ca. 13	-	-
51	15/0008/001	Square VII. A12, debris/sediments	4th c. BCE, but some fragments are late Ptolemaic and early Roman	Table amphora	- ⁶	-	-	-	-

Table 1. The catalogue of pottery from Kom Tuman (see also Appendices 1-2).

¹ The dating of assemblages was done by Dr. S. Laemmel; ² The description of surface treatment was done by Dr. S. Laemmel; ³ Determined by Dr. S. Laemmel; ⁴ Diameter under the bulge; ⁵ The description was done by Dr. S. Laemmel; ⁶ The authors did not have opportunity to study fabric and surface treatment of this vessel.

Site	Number of vessels found	Publication
Thonis-Heracleion, Delta	6	Grataloup (2012: 183-184, fig. 4)
Tell el Herr, Northern Sinai	4 (of which 2 have an open shape which is different from Group 1. This shape, however, can be also identified as Achaemenid imitation)	Defernez (2011: 307, 309-310, fig. 1, 9, 10, 12)
Saqqara, area near the mastaba of Akhetetep, Memphite region	1	Lecuyot (2009: 260, pl. II (3))
Saqqara, the Upper necropolis, Memphite region	1	Rzeuska (2008: 432-433, 532 (cat. No 6))
Saqqara, the New Kingdom necropolis, Memphite region	5	Aston & Aston (2010: 44 (89), 154 (406, 417), 157 (426), pl. 12 (89), 45 (406), 46 (417, 426))
Giza, the eastern necropolis	1	S.E. Malykh (Institute for Oriental Studies of the Russian Academy of Sciences), personal communication
Suwa, Delta	1	Petrie & Duncan (1906: 48, pl. XXXIXJ (293))
Naukratis, Delta	1	Leonard (1997: 156-157 (18))
Saft el-Henna, Delta	1	Bourriau (1981: 169 (Cat. No 172))
Thmuis, Delta	1	Hudson (2014: 35, 45 (III.15))
Tell el-Muqdam, Delta	1	Redmount & Friedman (1995: 63-64, fig. 5)

Table 2. Beakers of Achaemenid style found in Egyptian sites, Kom-Tuman excluded.

Site	Number of vessels found	Publication
Suwa, Delta	1	Petrie (1909: pl. XXXIX (F143))
Thonis-Heracleion, Delta	1	Grataloup (2015: fig. 7.5.9)
Tell el-Herr, North Sinai	1	Defernez (2001b: 330, pl. LXXII (208))
Eastern necropolis in Giza	1	Kormysheva <i>et al.</i> (2018: 114, fig. 57, pl. CXXI-CXXII)
Oasis Kharga	1	Wuttman <i>et al.</i> (1996: 417-418 (Groupe 1, 16))
Treasury of Thutmose I, Karnak, Thebes*	1	Jacquet-Gordon (2012a: 293)
The Priests' quarter, Karnak, Thebes*	1	Masson (2016: 153)
Tebtynis, Fayum Oasis*	4	Marchand (2002: 259, fig. 10 (a-c, e))
Thonis-Heracleion, Delta*	2	Grataloup (2015: 147-148, 154-155)

Table 3. Bowls of Achaemenid style found in Egyptian sites, Kom-Tuman excluded.

BIBLIOGRAPHY

- Adachi, T. 1997. The Fine Carinated Bowl in the Iron Age. – *Bulletin of the Ancient Orient Museum* XVIII: 41-55.
- Agut-Labordère, D. 2017. Persianism through Persianization: The Case of Ptolemaic Egypt. In: Strootman, R., & M.J. Versluys. Eds. *Persianism in Antiquity*. – Stuttgart, Franz Steiner Verlag: 147-162.
- Anthes, R. 1959. *Mit Rahineh 1955*. – Philadelphia, The University Museum, University of Pennsylvania.
- Anthes, R. 1965. *Mit Rahineh 1956*. – Philadelphia, The University Museum, University of Pennsylvania.
- Arnold, D. & J. Bourriau. 1993. *An Introduction to Ancient Egyptian Pottery*. – Mainz am Rhein, Philipp von Zabern.
- Aston, D.A. 2007. Amphorae, Storage Jars and Kegs from Elephantine. A Brief Survey of Vessels from the Eighth – Seventh Centuries BC to the Seventh – Eighth Centuries AD. – *Cahier de la céramique égyptienne* 8/2: 419-445.
- Aston, D.A. & B.G. Aston. 2010. Late Period Pottery from the New Kingdom Necropolis at Saqqâra. *Egypt Exploration Society-National Museum of Antiquities, Leiden, Excavations 1975-1995*. – London/Leiden, Commercial Colour Press Ltd.
- Belova, G.A. 2018. Preliminary Report on Excavations in Memphis (Kom Tuman) in 2018. – *Egypt and Neighbouring countries. Online Journal* 2: 1-22. <http://www.enc-journal.com/images/contributions/2018-2/2-1-belova.pdf>
- Belova, G.A. & S.V. Ivanov. 2016. Kom Tuman. Season 2016. – *Egypt and Neighbouring Countries. Online Journal* 4: 23-30. <http://www.enc-journal.com/images/contributions/2016-4/4-2-belova-ivanov.pdf>
- Boardman, J. 2000. *Persia and the West. An Archaeological Investigation of the Genesis of Achaemenid Art*. – London, Thames & Hudson.
- Bourriau, J. 1981. *Umm el-Ga'ab: Pottery from the Nile Valley before the Arab Conquest*. – Cambridge, Cambridge University Press.
- Briant, P. & R. Boucharlat. 2005. *L'archéologie de l'empire achéménide: Nouvelles recherches*. – Paris, Éditions de Boccard.
- Brosius, M. 2011. Keeping up with the Persians: Between Cultural Identity and Persianization in the Achaemenid Period. In: Gruen E.S. Ed. *Cultural Identity in the Ancient Mediterranean*. – Los Angeles, Getty Publications: 135-149.
- Colburn, H.P. 2018. Contact Points: Memphis, Naukratis, and the Greek East. In: Spier, J., T. Potts, T. Cole & S.E. Cole. Eds. *Beyond the Nile: Egypt and the Classical World*. – Los Angeles, The J. Paul Getty Museum: 84-90.
- Curtis, J. 2013. *An Examination of Late Assyrian Metalwork with Special Reference to Nimrud*. – Oxford, Oxbow Books.
- Curtis, J. & N. Tallis. 2005. *Forgotten Empire. The World of Ancient Persia*. – London, The British Museum Press.
- Dandamaev, M.A. 1989. *A Political History of the Achaemenid Empire*. – Leiden/New York, Brill.
- Defernez, C. 2001a. *La céramique d'époque perse à Tell el-Herr. Étude chronotypologique et comparative. Tome 1*. – Lille, Université Charles de Gaulle.
- Defernez, C. 2001b. *La céramique d'époque perse à Tell el-Herr. Étude chronotypologique et comparative. Tome 2*. – Lille, Université Charles de Gaulle.
- Defernez, C. 2011. Four Bes vases from Tell el-Herr (North-Sinai): Analytical Description and Correlation with the Goldsmith's Art of Achaemenid Tradition. In: Aston, D., B. Bader, C. Gallorini, P. Nicholson & S. Buckingham.

- Eds. *Under the Potter's Tree. Studies on Ancient Egypt Presented to Janine Bourriau on the Occasion of her 70th Birthday.* – Leuven/Paris/Walpole, MA, Peeters: 287-323.
- Defernez, C. & S. Marchand. 2006. Imitations égyptiennes de conteneurs d'origine égéenne et levantine (VI-e s. - II-e s. av. J.-C.). In: Mathieu B., D. Meeks & M. Wissa. Eds. *L'apport de l'Égypte à l'histoire des techniques.* – Cairo, Institut français d'archéologie orientale: 63-99.
- Dupont, P. & J.C. Goyon. 1992. Amphores grecques archaïques de Gurna: à propos d'une publications récente. In: Zaccane, G.M. & T.R. Negro. Eds. *Sesto Congresso internazionale di egittologia. Atti. 1.* – Turin, Comitato Organizzativo del Congresso: 153-166.
- Grataloup, C. 2012. Céramiques calcaires d'époque perse et des dernières dynasties indigènes à Thônis-Héracléion. – *Égypte nilotique et méditerranéenne* 5: 167-194.
- Grataloup, C. 2015. Thonis-Heracleion Pottery of the Late Period: Tradition and Influences. In: Robinson, D. & F. Goddio. Eds. *Thonis-Heracleion in Context.* – Oxford, Oxford Centre for Maritime Archaeology, School of Archaeology, 2015: 137-160.
- French P. & J. Bourriau. 2018. *The Anubieion at Saqqara IV: Pottery of the Late Dynastic Period with Comparative Material from the Sacred Animal Necropolis.* – London/Leiden, Egypt Exploration Society.
- Henkelman, W.F.M. 2017. Anhang: Egyptians in the Persepolis Archives. In: Wasmuth, M. Ed. *Ägypto-Persische Herrscher- und Herrschaftspräsentation in der Achämenidenzeit.* – Stuttgart, Franz Steiner Verlag: 276-302, 386-394.
- Hudson, N. 2014. Preliminary Report on the Pottery at Tell Timai (Thmuis). In: Marchand, S. Ed. *Bulletin de Liaison de la Céramique Égyptienne* 24. – Cairo, Institut français d'archéologie orientale: 15-49.
- Hunt, A.M.W. 2015. *Palace Ware Across the Neo-Assyrian Imperial Landscape. Social Value and Semiotic Meaning.* – Leiden/Boston, Brill.
- Ivanov, S.V. 2007. Anthropomorphic Figurines Found at Kom Tuman (Memphis). In: Barta, M., F. Coppens. & J. Krejč. Eds. *Abusir and Saqqara in the Year 2005.* – Prague, Czech University in Prague: 32-41.
- Ivanov, S.V. 2015. Offerings and Crocodiles at Pottery Offering Trays from Memphis. In: Ivanov, S.V. & H.G. Tolmacheva. Eds. *And the Earth is Joyous... Essays in Honour of Galina A. Belova.* – Moscow, Centre for Egyptological Studies: 115-127.
- Ivanov, S.V. 2017. An "Unusual" Terracotta from Memphis. In: Belova, G.A., S.V. Ivanov & H.G. Tolmacheva. Eds. *Egyptian and Mediterranean Culture in Ancient and Medieval Times 2. Papers in Memory of Tatiana Savelieva.* – Moscow, Centre for Egyptological Studies: 25-34. (in Russian)
- Ivanov, S.V. 2018. 'Unusual' Terracottas from Memphis II. A Figurine of a Cat. – *Egypt and Neighbouring Countries. Online Journal* 4: 12-22 (in Russian). <http://www.enc-journal.com/images/contributions/2018-4/4-2-ivanov.pdf>
- Jacquet-Gordon, H. 2012. Karnak-Nord X. Le Trésor de Thoutmosis Ier. La céramique. 1. Texte. – Cairo, Institut français d'archéologie orientale.
- Jacquet-Gordon, H. 2012. Karnak-Nord X. Le Trésor de Thoutmosis Ier. La céramique. 2. Figures et planches. – Cairo, Institut français d'archéologie orientale.
- Kaplan, P. 2003. Cross-Cultural Contacts Among Mercenary Communities in Saite and Persian Egypt. – *Mediterranean Historical Review* 18: 1-31.
- Klotz, D. 2015. Persian Period. In: Wendrich, W., J. Dieleman, E. Frood, W. Grajetzki & J. Baines. Eds. *UCLA Encyclopedia of Egyptology.* – Los Angeles. <https://escholarship.org/uc/item/04j8t49v>

- Kormysheva, E., S. Malykh, M. Lebedev & S. Vetokhov. 2015. Giza Eastern Necropolis III. Tombs of Tjenty II, Khufuhotep, and Anonymous Tombs GE 17, GE 18, GE 47, GE 48, and GE 49. – Moscow, Institute of Oriental Studies RAS.
- Kormysheva, E., S. Malykh, M. Lebedev & S. Vetokhov. 2018. Giza Eastern Necropolis IV. Tombs of Perseneb, Ipy, and Anonymous Tombs GE 23, GE 40, GE 56, GE 57, and GE 58. – Moscow, Institute of Oriental Studies RAS.
- Laemmel, S. 2008. Memphis Kom Tuman (RIEC Mission). Imported fabrics. Spring 2008. Unpublished Material of the CES RAS Expedition to Memphis.
- Leclère, F. & J. Spencer. Tell Dafana Reconsidered: The Archaeology of an Egyptian Frontier Town. – London, British Museum Publications.
- Lefebvre, M.G. 2007. Le Tombeau de Petosiris. II. Textes. III. Vocabulaire et Planches. – Cairo, Institut français d'archéologie orientale.
- Lehmann, G. 1996. Untersuchungen zur späten Eisenzeit in Syrien und Libanon. Stratigraphie und Keramikformen zwischen ca. 720 bis 300 v.Chr. – Münster, Ugarit-Verlag.
- Leonard, A.Jr. 1997. Ancient Naukratis. Excavations at a Greek Emporium in Egypt. Part I: The Excavations at Kom Ge'if. – Atlanta, GA, Scholar Press.
- Malykh, S.E. 2018. Phoenician and Greek Amphorae in the Memphis Region in the Late Period: Why so Much? In: Chegodaev, M.A. & N.V. Lavrentyeva. Eds. – *Aegyptiaca Rossica* 6: 180-197 (in Russian).
- Marchand, S. 2002. Le maintien de la tradition pharaonique pour les productions des céramiques datées de l'époque ptolémaïque en Égypte. In: Blondé F., P. Ballet & J.-F. Eds. Salles. Céramiques hellénistiques et romaines, productions et diffusion en Méditerranée orientale (Chypre, Égypte et côte syro-palestinienne). Actes du colloque tenu à la Maison de l'Orient méditerranéen Jean Pouilloux du 2 au 4 mars 2000. – Lyon, Maison de l'Orient et de la Méditerranée Jean Pouilloux: 247-261.
- Masson, A. 2016. Ptolemaic Ceramics of the Theban Region between Tradition, Imitation and Innovation: The Priests' Quarter as a Study Case. – *Cahier de la céramique égyptienne* 10: 149-164.
- Mathieson I., E. Bettles, S. Davies & H.S. Smith. 1995. A Stela of the Persian Period from Saqqara. – *The Journal of Egyptian Archaeology* 81: 23-41.
- Nakaten S. 1982. Petosiris. In Helck, W., E. Otto & W. Westendorf. *Lexikon der Ägyptologie*. Band IV. Megiddo - Pyramiden. – Wiesbaden, Otto Harrassowitz: 995-997.
- Petrie, W.M.F. & J.G. Duncan. 1906. Hyksos and Israelite Cities – London, School of Archaeology in Egypt, University College.
- Petrie, W.M.F. 1909. The Palace of Apries (Memphis II). – London, School of Archaeology in Egypt, University College.
- Petrie, W.M.F., E. Mackay & G. Wainwright. 1910. Meydum and Memphis (III). – London, School of Archaeology in Egypt, University College.
- Petrie, W.M.F. 1911. Roman Portraits and Memphis (IV). – London, School of Archaeology in Egypt, University College.
- Petrie, W.M.F. 1913. Tarkhan I and Memphis V. – London, School of Archaeology in Egypt, University College.
- Petrie, W.M.F. 1915. Riqqeh and Memphis VI. – London, School of Archaeology in Egypt, University College.
- Ray, J.D. 1988. Egypt 525-404 B.C. In: Boardman, J., N.G.L. Hammond, D.M. Lewis & M. Ostwald. Eds. *The Cambridge Ancient History*. Second Edition. Vol. IV. Persia, Greece and the Western Mediterranean c. 525 to 479 B.C. – Cambridge, Cambridge University Press: 254-286.

- Redmount, C.A. & R.F. Friedman. 1997. Tales of a Delta Site: The 1995 Field Season at Tell el-Muqdam. – *Journal of the American Research Center in Egypt* 34: 57-83.
- Rzeuska, T.I. 2008. The Pottery. In: Myśliwiec, K. Ed. Saqqara III. The Upper Necropolis. Part II. – Warsaw, Neriton: 417-451.
- Smoláriková, K. 2002. Greek Imports in Egypt. *Graeco-Egyptian Relations During the First Millennium B.C.* – Prague, Charles University in Prague.
- Thompson, D.J. 2012. *Memphis under the Ptolemies.* – Princeton, Princeton University Press.
- Török, L. 2011. Hellenizing Art in Ancient Nubia 300 BC - AD 250 and its Egyptian Models. A Study in "Accumulation". – Leiden/Boston, Brill.
- Trigger, B.G., B.J. Kemp, D. O'Connor & A.B. Lloyd, 1983. *Ancient Egypt: A Social History.* – Cambridge, Cambridge University Press.
- Vercoutter, J. 1962. *Textes biographiques du Sérapéum de Memphis.* – Paris, Champion.
- Vittmann, G. 2009. Rupture and Continuity. On priests and officials in Egypt during the Persian period. In: Briant, P. & M. Chauveau. Eds. *Organisation des pouvoir et contacts culturel dans les pays de l'empire achéménide.* – Paris, Éditions de Boccard: 89-121.
- Wuttmann, M., B. Bousquet, M. Chaveau, P. Dils, S. Marchand, A. Schweitzer & L. Volay. 1996. Premier rapport préliminaire des travaux sur le site de 'Ayn Manawir (oasis Kharga). – *Le Bulletin de l'Institut français d'archéologie orientale* 96: 385-451.
- Wuttmann, M. & S. Marchand. 2005. Égypte. In: Briant, P. & R. Bouchardat. Eds. *L'archéologie de l'empire achéménide: Nouvelles recherches.* – Paris, Éditions de Boccard: 97-128.
- Yarmolovich, V.I. 2015. Dating the Bes Vessels from the CES RAS Excavations at Kom Tuman. In: Ivanov, S.V. & H.G. Tolmacheva. Eds. *And the Earth is Joyous... Essays in Honour of Galina A. Belova.* – Moscow, Centre for Egyptological Studies: 389-394.
- Yarmolovich, V.I. 2017a. Figure Vessel in Shape of a Rooster from Kom Tuman (Egypt): Technological and Iconographical Study. – *Egypt and Neighbouring Countries. Online Journal* 3: 34-51 (in Russian). <http://www.enc-journal.com/images/contributions/2017-3/3-3-yarmolovich.pdf>.
- Yarmolovich, V.I. 2017b. Typology of Ancient Egyptian Bes-Vessels from Memphis (Based on Pottery from the CES RAS Archaeological Excavations). In: Belova, G.A., S.V. Ivanov & H.G. Tolmacheva. Eds. *Egyptian and Mediterranean Culture in Ancient and Medieval Times 2. Papers in Memory of Tatiana Savelieva.* – Moscow, Centre for Egyptological Studies: 144-174 (in Russian).
- Yarmolovich, V.I. 2017c. Ancient Egyptian Fine Ware of Late and Ptolemaic Periods: Morphology and Persian Influence. – *Vostok (Oriens)* 5: 52-71 (in Russian).
- Yarmolovich, V.I. 2018. Preliminary Report on Fine Ware Pottery from Memphis (Seasons 2014-2016, 2018). – *Egypt and Neighbouring Countries. Online Journal* 2: 1-7. <http://www.enc-journal.com/images/contributions/2018-2/2-7-yarmolovich.pdf>
- Yarmolovich, V.I. 2019. Foreign Influence on Ancient Egyptian Pottery of the Late and Ptolemaic Periods (on the Pottery Bowls from Memphis). – *Vostok (Oriens)* 3: 22-36 (in Russian).

Submitted: 14 October 2019

Published: 18 December 2019

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