

REMARKS ON POTTERY PRODUCTION, TECHNOLOGY AND VESSEL USAGE IN EL-ZUMA

Ewa Czyżewska-Zalewska

Polish Centre of Mediterranean Archaeology, University of Warsaw

Abstract: Continuing excavation in the tumuli field in el-Zuma has yielded an extensive pottery assemblage, adding to the material that has already been published in general reports. New types and variants of vessels have been identified. The article presents the new material and discusses production technologies, surface treatment and peculiarities of usage.

Keywords: el-Zuma, pottery, tumuli, Early Makuria, pottery usage, surface treatment, typology

An overall view of the pottery assemblage from the tumuli site of el-Zuma has been presented in a number of general excavation reports (Klimaszewska-Drabot 2010b; Klimaszewska-Drabot and Czyżewska 2012; El-Tayeb and Czyżewska 2011; El-Tayeb, Juszczuk-Futkowska, and Czyżewska 2014). A general typology was established by Edyta Klimaszewska-Drabot (2010b) and the assemblage was discussed by Mahmoud El-Tayeb in the context of pottery development in the Dongola Reach (2012: 91–105). New types and subtypes were distinguished following the study of material from recent excavations. The present article focuses on some noteworthy aspects of pottery production and vessel usage in el-Zuma in greater detail than the earlier publications.

The 2013 season, during which Tumuli 12, 15 and 21 were explored, was notable in terms of the collected pottery evidence (see El-Tayeb, Skowrońska, and Czyżewska 2016). Of particular interest are tumuli 12 and 15, representing Type II tombs with U-shaped burial shaft with five burial chambers (for the architectural details of the graves, see El-Tayeb and Czyżewska 2011: 109–111; Juszczuk 2011: 120–122; El-Tayeb 2012: 9, 61–66; El-Tayeb, Skowrońska, and Czyżewska 2016). Both yielded abundant pottery finds: 40 vessels were recorded in Tumulus 15 and more than 120 in Tumulus 12 [*Fig. 1*]. Tumulus 21, a small tomb of Type III with rectangular burial shaft and only one burial chamber (see El-Tayeb 2010: 474–476; 2012: 9, 66), contained only a few pieces [*Fig. 1*], as was the case

in other tumuli of this type explored earlier (see El-Tayeb and Czyżewska 2011: 110–114; Klimaszewska-Drabot and Czyżewska 2012: 361–362, Fig. 2). More importantly, however, the assemblage presented new types beside the common cups and bowls (altogether over 70 bowls and 25 cups from Tumuli 12 and 15) known from earlier excavations. The tombs were also rich in bottles/beer

jars, demonstrating a varied approach to surface treatment and decoration.

The discussion of pottery production and usage presented in this article is restricted to the finds from the above-mentioned tumuli; the variety and abundance of pottery vessels from el-Zuma is such, however, that it warrants a separate thorough analysis, which will be part of the final monograph of the site.



Fig. 1. Pottery sets from tumuli T.12, T.15 and T.21; only whole and reconstructed vessels illustrated (Photos E. Skowrońska)

REMARKS ON TYPOLOGY

The three main vessel categories from the original corpus presented by Klimaszewska-Drabot (2010b) that have been identified in the new material are as follows:

- group I: cups of four main types (I.1–I.4);
- group II: bowls of three main categories (II.1, II.2, II.4);
- group VII: bottles/beer jars without any subdivision (Klimaszewska-Drabot 2010b: 480–485).

Reexamination of the corpus has resulted in the identification of new types and variants supplementing the original typology:

- cups (group I): type I.4 and variant I.1a;

- bowls (group II): type II.5 not represented earlier on the site; variants II.2.a–d and II.4.a–b;
- beer jars/bottles (group VII): types VII.1–3 with variants a–c in each subtype.

WHEEL-MADE POTTERY

CUPS (Group I)

One variant (I.1a) and one type (I.4) have been added to this category. In all types of cups both the inside and outside surfaces were burnished.

Type I.1 [Fig. 2]

Cups with slightly flattened bases, slightly outflared walls in the upper part, and

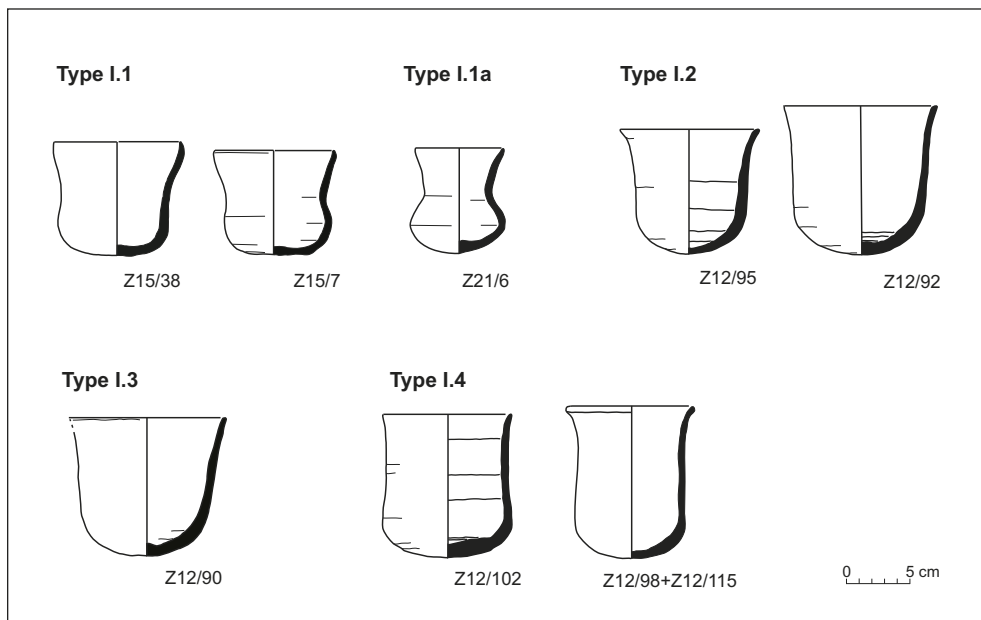


Fig. 2. Cups (group I)

(Drawing E. Czyżewska-Zalewska; digitizing E. Czyżewska-Zalewska, Z. Kowarska)

unmodeled straight or tapered-in rims, usually rounded or pointed (Klimaszewska-Drabot 2010b: 480, Fig. 1).

Variant I.1a (new) [Fig. 2]

Calyx-shaped cup. This variant is defined by more outflared walls. The profile is more curved resembling the letter S. Maximum body diameter is roughly equal to the rim diameter or bigger. Rims are unmodeled, but always outflared.

Type I.2 [Fig. 2]

Tulip-shaped cups with slightly rounded bases and almost vertical walls, outflared close to the rim (the profile of the walls is straight, without the S-shaped curve, as in variant I.1a). Rims are unmodeled and outflared, usually rounded (Klimaszewska-Drabot 2010b: 480, Fig. 1).

Type I.3

Cups similar to type I.2 but with straight outflared walls (without the S-shaped curve). Rims are unmodeled and straight, usually rounded (Klimaszewska-Drabot 2010b: 480, Fig. 1).

Type I.4 (new) [Fig. 2]

Slender cups with vertical (straight or slightly concave) walls and unmodeled outflared rims, which are either rounded or pointed. Base is usually rounded.

BOWLS (Group II)

Types II.1 and II.2, represented below, were slipped and burnished both inside and outside. Types II.4 and II.5 were slipped and polished on both surfaces.

Type II.1 [Fig. 3]

Ledge-rimmed bowls. Deep, heavy, large-sized bowls with flat, slightly turned

out rims (Klimaszewska-Drabot 2010b: 481, Fig. 1; El-Tayeb 2012: 95–96).

Type II.2 (new variants)

Small and middle-sized hemispherical or conical bowls with rounded or flattened bases, sometimes deformed. Straight walls, slightly turned in or straight in the upper part. Rims are unmodeled and flat, rounded or pointed (Klimaszewska-Drabot 2010b: 481).

Four new variants were distinguished:

Variant II.2a [Fig. 3]

Bowls of more conical shape with slightly flattened bases and tapering walls in the upper part. The body diameter is at its largest near the lip and exceeds the rim diameter. Rims are unmodeled and rounded, pointed or flat.

Variant II.2b [Fig. 3]

Hemispherical bowls deeper than those of variant II.2a. Walls slightly tapered, but the point of the maximum body diameter lies more or less at mid-height of the vessel, that is, lower than in variant II.2a. Rims are unmodeled and rounded, pointed or flat.

Variant II.2c [Fig. 3]

Hemispherical, fairly shallow bowls with straight walls. Rims unmodeled and rounded, pointed or sometimes flat, but straight. Maximum body diameter more or less equal to the rim diameter.

Variant II.2d [Fig. 3]

Hemispherical bowls, similar to variant II.2c, but deeper. Walls straight and taller than in variant II.2c. Rims unmodelled and rounded, flat or pointed, but straight. Maximum body diameter is more or less equal to the rim diameter, as seen in variant II.2c.

Type II.4 (new variants) [Fig. 3]

Bowls of more conical shape with rounded bases. Walls taper in in the

upper part of the vessel, as in variant II.2a. Decoration of horizontal grooves below the rim. Klimaszewska-Drabot's typology included bowls with painted

decoration as well as grooves in this type (Klimaszewska-Drabot 2010b: 481). Examples without painted decoration were also found (Klimaszewska-Drabot

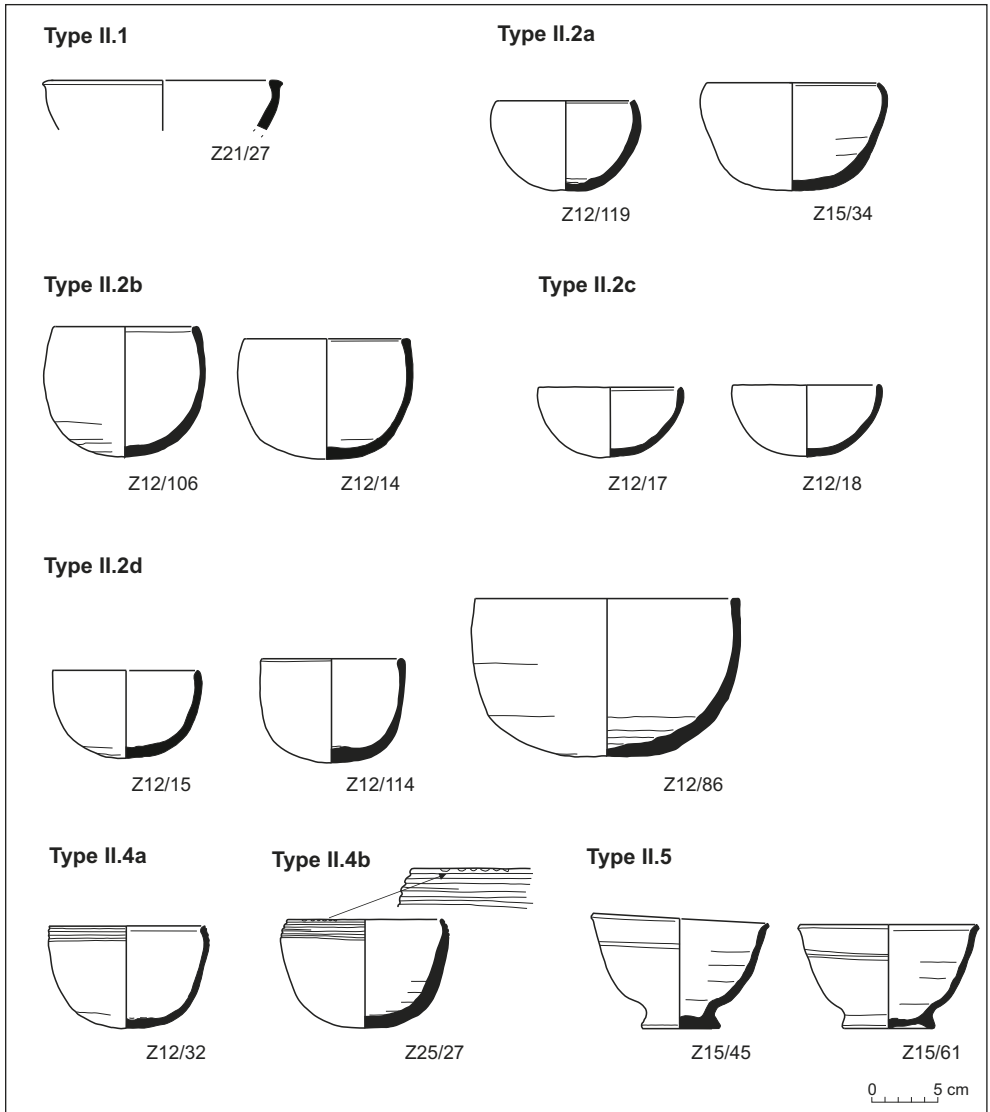


Fig. 3. Bowls (group II)
 (Drawing E. Czyżewska-Zalewska, A. Głąb, U. Wicenciak; digitizing E. Czyżewska-Zalewska, Z. Kowarska, U. Wicenciak)

and Czyżewska 2012: 365, 367). Two variants were distinguished:

Variant II.4a [Fig. 3]

Bowls with rounded base and tapering walls in the upper part of the vessel. Decorated with grooves below the rim.

Variant II.4b [Fig. 3]

Bowls with rounded base and tapering walls in the upper part of the vessel. Decorated with grooves below the rim and bearing painted dots on the rim.

Type II.5 (new) [Fig. 3]

New type distinguished by the author. Only four examples were found. These were footed bowls with outflared sides and outflared pointed rims, decorated with horizontal grooves on the body. They are similar in size: rim diameter about 13–14 cm and height 8–9 cm. Surfaces were slipped and polished.

To the best of my knowledge, this type of bowl has no parallel. It may be an imitation of Roman vessels. In Meroitic times, pottery was imported from Egypt, in most cases as local copies, but some of them could have come from the Roman Empire (Shinnie 1967: 119–120, Fig. 40).

Similarities can also be observed with the classic X-Group. Wheel-made red ware with slip and low polished surface was made under Roman inspiration (Adams 1986: 469, Figs 265–266). According to Adams, a thin and low base ring (as in the bowls presented above) was common in goblets (Adams 1986: 469). Straight-sided cups, like the bowls described above, were found among X-group remains in the Qustul and Ballaña cemeteries. Cups were made of fine white clay from Nubian sandstone; a few examples only were red-

-coated. Grooves below the rim and decoration were also present (Williams 1991: 48, 55, Fig. 9f, h). Type II.5 may well have taken these bowls a prototype, but more research is needed to confirm this idea.

HANDMADE POTTERY

BOTTLES/‘BEER’ JARS (Group VII)

Klimaszewska-Drabot classified bottles /‘beer’ jars, two forms very common at the el-Zuma site, in one group (VII) (Klimaszewska-Drabot 2010b: 484). The difference between ‘beer’ jar and ‘beer’ bottle is difficult to describe. The division is to a large degree arbitrary, as it is often difficult to specify which group a given vessel should belong to.

‘Beer’ jars are characterized by a globular body and broad, medium-long neck. The neck gradually develops into a globular body. The rim is usually unmodeled and rounded. The measurements below are based on the study presented by Mahmoud El-Tayeb with slight revisions concerning the sizes. Being of less regular form, which is due to production by hand, these vessels often do not fit into the classification (El-Tayeb 2012: 89, 91). In such cases, the decisive dimension for classification purposes is vessel height. The jars came in three sizes: a) large with a body diameter of 40 cm to 60 cm and height of 40 cm to 75 cm; b) medium with body diameter of 25 cm to 39 cm and height of 30 cm to 39 cm; and c) small with body diameter of 20 cm to 25 cm and height of 20 cm to 35 cm

‘Beer’ bottles are smaller vessels with a globular body and a short or long neck, but slender than in ‘beer’ jars, with straight or slightly concave walls. Regular bottles are more slender and taller. Straight or

outflared rim, either unmodeled and rounded or modeled. The measurements below are based on the study presented by Mahmoud El-Tayeb with

slight modification. They occur in two sizes: a) medium with body diameter of 15 cm to 30 cm and height of 20 cm to 35 cm, and b) small with body diameter

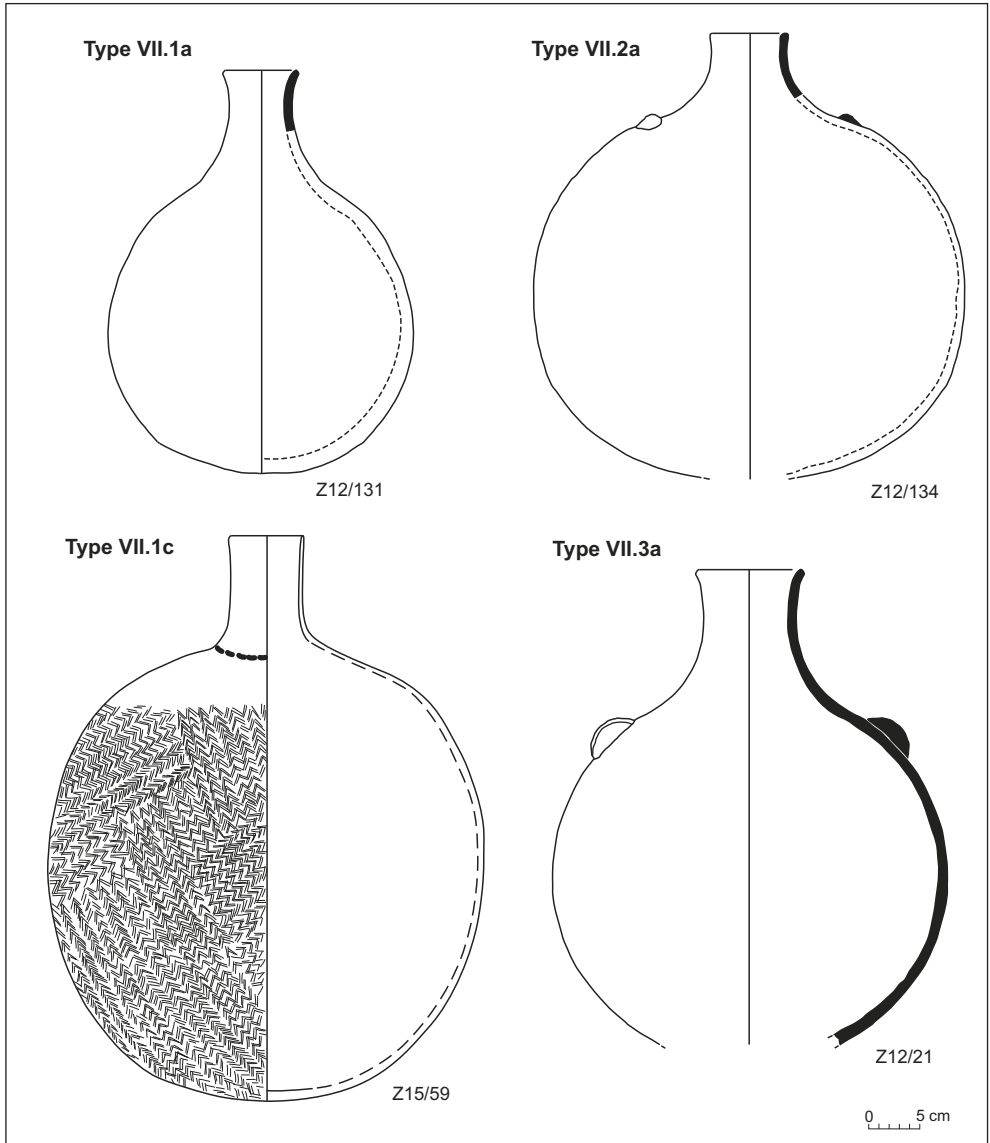


Fig. 4. Bottles/ 'beer' jars (group VII)

(Drawing E. Skowrońska, U. Wicenciak; digitizing E. Czyżewska-Zalewska, U. Wicenciak)

of 12 cm to 15 cm and height of 14 cm to 19 cm (El-Tayeb 2012: 97)

Three types, one with three variants (a–c) and two with two variants (a–b), were distinguished in this group:

Type VII.1

Bottles (VII.1a, 1b and 1c) with globular body, without additional elements such as bosses or handles.

Variant VII.1a [Fig. 4]

Bottles. External surface untreated or merely smoothed. In some cases mat impressions are discernible as an effect of shaping processes (see below, Fig. 11).

Variant VII.1a₁

In some cases, decoration can occur below the rim or on the neck (as in Z15/59, Fig. 4).

Variant VII.1b

Bottles. External surface slipped and burnished or just slipped, although the slip covers the entire outside surface. A mat impression is occasionally visible beneath the slip.

Variant VII.1b₁

In some cases, decoration can occur below the rim or on the neck

Variant VII.1c [Fig. 4]

Bottles with mat impressions on the body. Slip may occur on the external surface. If present, it covers only part of the vessel, mainly the rim, neck and shoulders. Incised or punctuated decoration occurs.

Variant VII.1c₁

In some cases, decoration can occur below the rim or on the neck (Z15/59, Fig. 4).

Type VII.2

Bottles with globular body and small bosses on the shoulder [Fig. 5 left]. In general, bosses occur in pairs (two bosses on the shoulder of a vessel), but sometimes two pairs can be observed (not illustrated here). Two variants of these have been distinguished:

Variant VII.2a [Fig. 4]

Bottles with small bosses on the shoulder. The external surface is either untreated or just smoothed. Remains of mat impression can be seen, providing evidence of the shaping process (see below).

Variant VII.2a₁

In some cases, decoration can occur below the rim or on the neck (Z15/59, Fig. 4).



Fig. 5. Differences between bosses (left) and lugs (right) applied to the shoulders of bottles/'beer' jars (Photos A. Kamrowski)

Variant VII.2b

Bottles with small bosses on the shoulder. External surface slipped and burnished or just slipped. The slip covers all of the external surface. Mat impressions which sometimes occur on the body beneath the slip reflect shaping techniques.

Type VII.3

Bottles with globular body and vertical lugs¹ on the shoulder [Fig. 5 right], the lugs bigger than the bosses and flattened, resembling human ears. The lugs occur in pairs. Two variants within this type have been distinguished:

Variant VII.3a [Fig. 4]

Bottles with lugs on the shoulder. External surface either untreated or just smoothed. In some cases, mat impressions are visible as a evidence of body shaping techniques.

Variant VII.3a₁

In some cases, decoration can occur below the rim or in the neck (as in Z15/59, Fig. 4).

Variant VII.3b

Bottles with lugs on the shoulder. External surface slipped and burnished or just slipped. Slip covers all of the outside surface. Mat impressions can occur as proof of body shaping techniques.

REMARKS ON TECHNOLOGY AND SURFACE TREATMENT

CUPS AND BOWLS

Production technology

Cups of type I and bowls of types II.1, and II.2, common at el-Zuma, represented the same production technology and surface



Fig. 6. Footed polished bowl, type II.5
(Photo A. Kamrowski)

treatment. All were wheel-made, yet some were asymmetrical in shape. In most cases examined by the author, wheel marks were clearly visible on the internal surface, while the external surface was smoothed as a rule. Both bowls and cups are burnished inside and outside, regardless of whether the vessels are slipped or not, but in most cases both surfaces were slipped.

Bowls of type II.4 and footed bowls of type II.5 were also wheel-made and slightly asymmetrical [see Fig. 6]. The surface was carefully smoothed, slipped and polished. Wheel marks are practically invisible

Surface treatment

The slip in types II.1 and II.2, is matt and very thin, and in some places missing. Maybe parts of the surface may have been left unslipped. A few examples without the slip on the internal surface and two

¹ Small lugs of this kind (present also on bowls) are often described as “unpierced lugs” (Edwards 1991: 48, bowl QM0027).



Fig. 7. Burnish on cups: a – dense; b – medium; c – thin
(Photos A. Kamrowski, R. Mabler)



Fig. 8. Careless burnishing on the inside surface
(Photo E. Czyżewska-Zalewska)

unslipped bowls (with no traces of slip application whatsoever) were recorded.

The slip on types II.4 and II.5 bowls covered the entire vessel and was thicker than in types described above. On type II.5 traces of slip application by wiping are visible on the external surface [see Fig. 6]. The polishing effect is especially visible in the upper part of the vessel, near the rim.

Three variants of burnish were distinguished. The division was made based on observed differences. The subject requires further study in the context of fabric wares. These variants of burnish are as follows:

- Dense, applied with overlapping strokes; whole surface smooth, wheel marks scarcely visible [Z15/7, Fig. 7:a].
- Medium without overlap of strokes of the burnishing tool, gaps between burnishing marks, narrower than the strokes and each one of the same width [Z12/19, Fig. 7:b].
- Thin, with narrow burnishing marks, sometimes with wavy lines which look like decoration of some kind; gaps between marks are wider than in the above groups [Z12/108, Fig. 7:c].

Regardless of the variant of burnish, the external surface is finished with greater care than the internal one, probably because of less convenient access to the latter. The internal surface (especially in cups) often bears single burnishing marks, mainly in the upper part of the vessel. In bowls, where the interior is easily accessible, burnish is executed more carefully. In both cases, however, differences in burnish execution can be observed, especially on the inside of the vessels, which was sometimes burnished

with careless strokes going in every direction, as if the aim of the potter was to erase something [Fig. 8].

BOTTLES/'BEER' JARS

Production technology

Bottles are wholly handmade and shaped probably in a depression in the ground. A similar process of pottery production can be observed in a modern small pottery workshop in the village of El-Dahasyra near el-Zuma. The vessel is formed in a depression in the ground, stones being used to beat the clay into shape [Fig. 9 bottom]. The hollow is lined with a woven textile, leaving a mat-like



Fig. 9. Pot-making in the village of el-Dahasyra near el-Zuma
(Photos E. Czyżewska-Zalewska)

impression on the outer surface [Fig. 9 top]. Ancient pottery may have been produced in the same manner. Different patterns on the surface of vessels come from different kinds of materials used to line the interior of the pit.

Necks and rims were handmade separately and then attached to the vessels. Traces of such joining are visible in some of the 'beer' jars [Fig. 10].

Surface treatment and decoration

Different types of surface treatment can be distinguished across all subtypes.

- Plain surface, smooth or with a poorly visible mat-impression. The latter in these cases is evidence of body-shaping technology, not decoration [Fig. 11 top left]. Incised, sometimes also punctuate decoration, executed on the neck or rim in wet clay before firing may occur.
- Burnished and slipped external surface. The burnish is visible most clearly on the neck where it is carefully executed with vertical strokes. Burnishing marks on the globular body run in

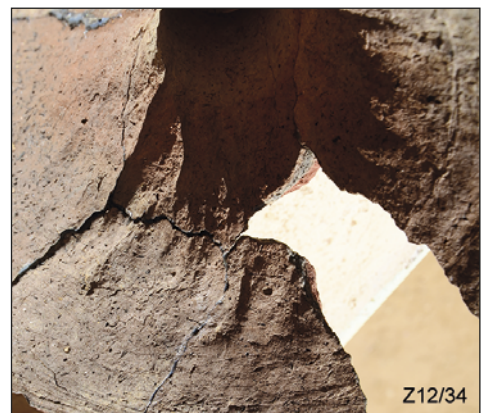


Fig. 10. Traces of the joining of neck and body on the internal surface of a 'beer' jar
(Photo E. Czyżewska-Zalewska)



Fig. 11. Different types of surface treatment: top left, 'beer' jar with mat-impression evidencing body-shaping technology; top right, 'beer' jar with mat-impressed decoration on the body and punctuated decoration on the shoulder and rim; bottom left, bottle with burnished and slipped surface; bottom right, 'beer' jar with slipped neck and mat-impressed decoration on the body (Photos A. Kamrowski)

various directions and usually are not as precisely executed as the ones on the neck [Fig. 11 bottom left]. The slip is thicker and more shiny than on the cups and bowls discussed above and covers the whole surface of the vessel. Poorly visible mat-impression evidencing technological processes may occur under the slip.

- Mat-impressed decoration. The impression covers the globular body and in some cases also part of the shoulder. The surface of the neck and upper part of the shoulder remains without slip or burnish. Incised, sometimes also punctuate decoration, executed on the neck or rim in wet clay before firing can be accompanied by a mat impression [Fig. 11 top right].
- Burnished and slipped external surface and mat-impressed decoration. The impression occurs on the globular

body, which is usually without slip and burnish. The neck and shoulder are slipped and burnished, and the slip covering them is a decoration of some kind, as in Z12/72, where the slip covers the entire neck, forming bands on the shoulder [Fig. 11 bottom right].

The different patterns of mat-impressed decoration are due to the use of diverse materials to make the imprints on wet clay, as discussed by Jacke Phillips. Three patterns were distinguished in the examined assemblage. Pattern 1 [Fig. 12 left] is similar to a “diagonal twill” weave pattern (Phillips 2010: 232, Fig. 6). Pattern 2 [Fig. 12 center] resembles the warp-faced “plain” or “tabby” weave pattern (Phillips 2010: 230–232, Figs 4A and 4B). And pattern 3 [Fig. 12 right] looks like the “twined” mat pattern (Phillips 2010: 233–234, Fig. 7).

REMARKS ON USAGE

CUPS AND BOWLS

The vessels from el-Zuma show no traces of use apart from evidence of having lain in the ground or been damaged by robbers. Similar observations were made in Tanqasi (Klimaszewska-Drabot 2008: 484), but there is also evidence that such

vessels bore traces of usage, as for example at Kassinger Bahri, Sites HP45 and HP47 (El-Tayeb and Kolosowska 2007b: 38). It is tenable that they were put in the graves newly made. Numerous finds of such vessels in graves indicate that robbers had little interest in them.



Fig. 12. Various types of impressed pattern: left, pattern 1 (Z15/8); center, pattern 2 (Z12/72); right, pattern 3 (Z12/51) (Photos A. Kamrowski)

BOTTLES/'BEER' JARS

Neither did the bottles appeal to the robbers, as evidenced by multiple examples found undisturbed in the chambers or in the robbers' shafts. Moreover, 'beer' jar sherds with signs of having been used as digging tools were a common find from all of the robbers' shafts.

Some of the bottles showed traces of use. This consisted in many cases of decoration scratched in a sloppy and random manner somewhere on the neck, shoulder or body, sometimes resembling children's drawings [Fig. 14]. There is a breadth of motifs from geometrical to floral and cross patterns. It could suggest the decoration may have been executed by the owners of the vessels themselves (see also Klimaszewska-Drabot and Czyżewska 2012: 362, Fig. 1).

Examples of remodeled or repaired necks have been found, indicating the importance of vessel modification. In a few examples, rims were damaged and edges

of the neck were smoothed afterwards [see Fig. 13 left]. Holes were drilled in the lower part of the neck or on the shoulder close to the neck. In some cases, the neck was broken off, resulting in an uneven edge. The holes were drilled along the crack, matching the irregularity [see Fig. 13 right]. The holes were probably used to repair the neck with some kind of organic material. This can be observed in the Kassinger Bahri excavation, where a broken neck was replaced with a form from woven plant fibers attached to the



Fig. 13. Shortened necks of bottles
(Photos E. Skowrońska)



Fig. 14. Examples of scratched decoration
(Photos E. Skowrońska)

vessel by tying through the holes (El-Tayeb and Kołosowska 2007b: 40, Vessel 45.1.5). Another example is that from Hammur 2, where a 'beer' jar with holes on the neck was also found (Phillips and El-Tayeb 2003: 458, 461, Pl. 6). A similar example, with partly damaged rim and neck, was excavated in a late Meroitic tomb in

Ab-Heregil. The rim survived in part and the holes were executed around the damaged neck (El-Tayeb and Kołosowska 2007a: 21, Fig. 5k). However, no traces of such tops have been found in the tumuli. They may have not been preserved or maybe the pottery deposited in the graves was not secured in this way.

RECAPITULATION

The article focuses on the three most common categories of vessels represented in the pottery assemblage from el-Zuma: cups, bowls and bottles. Almost identical examples were discovered in Tanqasi (Klimaszewska-Drabot 2010a) and in El-Detti (to be published, El-Tayeb et al. 2016: 419, Fig. 11, in this volume), suggesting these forms were common in the area. Examination of the assemblage identified new types and variants, adding to the earlier published general typology.

The study updated and extended the information available on production technologies as well as usage (fabrics and wares still have to be studied). Surface treatment of all bowls and cups was similar, and the same Nile silt was used in

pottery production. It seems that vessels found in the graves were intended as grave furnishings, as they show no evidence of use, but a utilitarian function cannot be ruled out on principle. As for the bottles, some of them had certainly been in use before being deposited in the grave. They are more varied in type, surface treatment and decoration. The clay matrix (fabrics still have to be studied) is more diversified as well.

Further work on the el-Zuma collection, supplemented by new finds and studied in comparison with pottery from other sites in the region from this period (AD 450–550), will add to and update current knowledge of pottery production technologies, usage and workshops in ancient Nubia.

Ewa Czyżewska-Zalewska

Polish Centre of Mediterranean Archaeology, University of Warsaw
00-497 Warsaw, Poland, ul. Nowy Świat 4
ewa.czyzewska@uw.edu.pl

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