

## A NEW DEPOSIT OF AMPHORAE IN THE DNIEPER ESTUARY (LAST QUARTER OF THE 4<sup>th</sup> CENTURY BC)

Valeriya BYLKOVA

**Keywords:** *Belozerskoe, amphora, dipinto, graffito, black-glaze ware, 4<sup>th</sup> century BC.*

**Summary:** *Excavations have been conducted in the settlement of Belozerskoe at the mouth of Dnieper river since 1991 and more than 3000 m<sup>2</sup> have been uncovered. In semi-dugout No. 80 of the first building phase a set of amphorae was found, bearing identical graffiti and dipinti, and black-glaze pottery as well as other materials. Amphora of unidentified manufacture (supposedly from the North-Aegean area) may be considered as a single commercial consignment. Amphora fragments from the refuse fill may be dated from the interval 360s–350s to the second half of the 4<sup>th</sup> century BC. Finds of black-glaze ware, which constitute chronological markers are not numerous. Two early Hellenistic lekythoi confirm that the most likely date for the deposit of the complex under consideration is the last quarter of the 4<sup>th</sup> century BC.*

Amphora deposits constitute important landmarks for solving many archaeological questions and every new find of this kind is deserves attention. Such complexes from the North Black Sea littoral are well known in large numbers, however, the evidence for the last quarter of the 4<sup>th</sup> / very beginning of the 3<sup>rd</sup> BC is poor<sup>1</sup>. The topic of this paper deals with an assemblage of amphoras, discovered during the recent (2003) excavations in Belozerskoe settlement in the Dnieper estuary. This find may be considered as a single commercial consignment.

The Belozerskoe settlement, situated on the right bank of the Dnieper estuary (*Fig. 1:1*), has been investigated by expeditions from the Kherson Regional Museum (1991-1997) and the Kherson State University (from 1998 to the present)<sup>2</sup>. Excavation sector IV, located in the southeastern part of the site, exceeds 3,350 m<sup>2</sup>. Two construction phases can be identified in the stratigraphic record for the 4<sup>th</sup> century BC and the first quarter of the 3<sup>rd</sup>. The first (principal) phase is characterised by a variety of semi-dugout structures and pits, some of which comprise closed complexes (*Fig. 1:2*). The end of the first phase is attested by a reconstruction that dated certainly within the last quarter of the 4<sup>th</sup> century. The

---

<sup>1</sup> MONACHOV 1999a, p. 426-427.

<sup>2</sup> BYLKOVA 1996; 2003.

semi-dugout complex No. 80 deserves separate publication since it is distinguished by a ceramic assemblage which is not typical for the settlement, including in particular an amphora set with identical graffiti and dipinti from an unidentified Mediterranean centre.

Semi-dugout No. 80 was dug in the subsoil 1.15 m deep. Its area is 4.5 m<sup>2</sup>. The pit of the semi-dugout is of rectangular shape with cut off corners on the entrance side of the pit and strictly vertical walls. It is oriented northwest – southeast, with the entrance on the southeast side. Above the level of the subsoil in the pit of the dugout a layer of rubbish was found, containing the remains of the walls of the above ground portion of the structure. In the fill of the pit and in the rubbish layer many fragments of ceiling plaster were encountered. The abandonment of the building is connected with a conflagration: on the walls irregular traces of fire can be observed and on the floor a thick layer of soot. Large pieces of burnt wood were found on the floor and in the fill, which was made up of the debris of mud-bricks and a layer of black ashes. The bulk of the fill accumulated simultaneously as a result of the blaze and fell into the pit immediately after it. The greatest concentration of charcoal was observed in the centre of the pit, while in the western part the ash fill was mixed with yellow clay. It was precisely here that the more complete objects were found. On the floor of the building there was nothing.

The refuse fill of semi-dugout No. 80 included more than 1600 items, most of them consisting in ceramic fragments. Among the latter stand out 14 sinkers of uniform dimensions and shape stand out, made from the sherds of amphoras. Apparently they were attached to a single net. There are also two unfinished examples of similar weights. The remnants of a thick rope, plaited from three strands, were discovered. The five coins found are not suitable for restoration, but in size they correspond to those of an Olbian manufacture with a head of Demeter which are frequently encountered in the excavation. A nail, a bronze earring and three whetstones were also found. Among 15 severely corroded iron artefacts it is possible to identify several large construction nails which correspond in size to a bronze specimen.

Among the numerous material, several more or less intact vessels are of a special interest. The deposit contains *nine amphorae* which are distinctive in both shape and fabric. Commercial identical *dipinti* on them suggest they may be a commercial consignment, purchased wholesome. Although none of them preserved intact, morphology is easily reconstructed. This set stands out in their type, fabric and markings, all amphorae are stampless. Since these amphorae are resin-coated inside, they are likely to be related with wine trade. The pots show no traces of prolonged use.

Five amphorae (*Fig. 2: No. 347/348, 353, 354/361, 359, 373*) have fine-grained and well-fired reddish – 2.5 YR 5/6 – fabric, with small mica and white lime inclusions. The sixth amphora (*Fig. 2: No. 352/377*) belongs to the same type but it stands apart by both structure and colour of fabric, which is pale brown in sherd (7.5 YR 6/4) and the surface is brownish (7.5 YR 5/3). Metric characteristics are closely similar. Height: 74 cm. Diameter of mouth: 9.2-9.6 cm. Diameter of body: 33 (four vessels) -36 cm. Width of handle: 4-4.5 cm. Height of handle: 19-20

cm. Height of toe until up of groove: 5.5 cm. Diameter of toe: 5.6cm. Diameter of depression: 2.8-3.3cm. Capacity of such amphora is, approximately, 24 litres.

To this group probably belongs also an amphora (*Fig. 3*: No. 350) of which only the upper part of the neck is preserved, and, judging by the profile of the fragment and its fabric, it corresponds to the toe No. 372 (*Fig. 3*). The beginning of a graffito, running off to the broken edge, is preserved on the neck.

These amphorae are characterized by the following morphological features:

- ovoid body that narrows to the toe
- the outlines of shoulders are slightly concaved
- straight cylindrical neck with a groove
- rounded mouth
- beak-shaped rim is rounded in the upper part
- handles are oval in section, join below rim and on shoulders, undercut in the lower part
- grooved cylindrical toe, flaring towards the ribbed end and with a conical depression below.

To judge by some details they can be associated with the late conical Thasian amphorae which are known from 320s BC<sup>3</sup>, a shape of toe is similar to those of Thasian type II-C-3<sup>4</sup>. But our amphorae are distinguished both by clay and morphology – they are not conical and handles and rim are quite different. Centre of manufacture is unidentified.

Two uncomplete amphorae may be included into this set. They look of some resemblance with the above described as a variant of type (*Fig. 3*: No. 349, 351). Fabric is similar but its red colour is of more yellowish hue (5YR 5/6). The neck is shorter (near 20 cm) and slightly broader towards the rounded shoulders. The body with a 30 cm diameter runs smoothly into the shoulder. Handles are the same in form and size only join over rolled rim. The same alphabetical graffiti are set on the necks of these amphorae, but the dipinti are different in content and are positioned on the neck in the area of the handles. It is not impossible that neck No. 349 and toe No. 362 (*Fig. 3*) are fragments of the same vessel. They differ from others by their fabric, which contains a large quantity of lime particles of different sizes in combination with mica. This toe No. 362 is somewhat different from the rest; it is taller and the base is less elevated.

As regards fabric one might assign to this group of vessels toe No. 367 of different shape (*Fig. 3*). It does not have a regular cylindrical form, but widens sharply at the base like the toes of the Thasion bi-conical amphorae from the beginning of the developed series. Its height: 6cm, width: 6.6 cm.

Perhaps, one may propose that amphorae under consideration come from the northern regions of the Aegean, somewhere near Thasos; in a period of the manufacture there the late conical amphorae and the last probably, might serve as a sample.

The *graffiti and dipinti* (*Fig. 3*) merit special examination. They are encountered systematically on amphorae in the Belozerskoe settlement, and the signs varied in content and form according to each complex; analogous dipinti to

<sup>3</sup> TUROVSKIJ *et al.* 2001, p. 23, 25 – fig. 12.18.

<sup>4</sup> MONACHOV 2003a, plate 50: 1.

those found in this complex from semi-dugout No. 80 have been found nowhere else in the settlement<sup>5</sup>. On the amphorae under consideration in six cases uniform graffiti consisting of a large letter *N* are enscribed on the neck. There is a graffito over a dipinto in one case. In the case of two amphorae the neck was not fully preserved, and so it is not impossible that they too carried this mark. In it one may see an indication of someone who had bought this batch of goods, inasmuch as the marks of ownership are usually large and casually written in comparison with other markings<sup>6</sup>. Such amphorae are found nowhere else in the Belozerskoe settlement, and so we may suggest that the goods were purchased in a single batch and accordingly were marked with the name of the buyer. On amphora No. 355 from this complex, which derives from another centre of production, there are no marks, i.e. the owner of the semi-dugout did not mark all his vessels.

Four amphorae bear the supplementary graffiti in the form of three (No. 354, 359) or four (No. 347/348, 351) vertical strokes. On amphora No. 359 above the strokes the letters *III* are finely enscribed, which also have numerical significance. The strokes are applied in the same manner as the letter *N*, evidently by the owner. Similar marks appear on amphora necks from the end of the 5<sup>th</sup> century BC, and M. Lang suggested that they mean measures of content – a total bulk or intermediate notations for the taken product<sup>7</sup>.

On seven amphorae alphabetical dipinti in red paint are positioned on the lower part of the neck. On amphora No. 352 the dipinto is smeared and almost obliterated, but traces of letters are faintly visible. Inasmuch as the graffito on one of the amphorae is written on top of the dipinto, it may be supposed that in these markers we have designations of commodities, affixed by the seller. On five amphorae with cylindrical necks the letters *AB* in ligature and  $\Lambda$  (*lambda*) are written, while on the amphorae with the shorter neck  $\Theta$  (*theta*) and  $\Lambda$  (*lambda*) are separately inscribed (Fig. 3). On amphorae No. 352-354 and 359 the dipinti, consisting of three letters written together, are placed on the central part of the neck. The lines of the letters are of uniform thickness. On amphora No. 347/348 the same letters are thinly applied,  $\Lambda$  (*lambda*) standing apart from the following stroke. They are located alongside the handle at the level of a small groove on the neck. *Theta* and *lambda* are set in the same area and in the manner of their writing they resemble the other four. Evidently, in both cases two words are to be understood.

A close analogy to our finds is unknown, but separate analogies are provided by amphora markings and they have been identified to denote their contents. *AB* –  $\alpha\beta$  (*poros*) – is identified as dry wine and  $\Theta$  (*asio*) – as Thasian wine (it is worth to note that such marks are known just as dipinti on amphorae)<sup>8</sup>. It is not certain whether all the notation refers to the content of the containers. Understanding of  $\Lambda$  may be only presumed in accordance with other marks and I suppose in our case it must be characteristic of wine. Possibly these amphorae

<sup>5</sup> BYLKOVA 2004, p. 72-74; BYLKOVA 2005b, p. 259, 260 - fig. 3, 262, 263 - fig. 5.

<sup>6</sup> LAWALL 2000, p. 49

<sup>7</sup> LANG 1976, p. 59 and pl.32: Ha 3-7.

<sup>8</sup> SAPRYKIN & MASLENNIKOV 2007, p. 186 No. 998 and p. 27 No. 46, p. 106 No.538, p. 116 No. 603, p. 137 No. 705, p. 139 No. 716.

contained white wine – λευκός – or even oily wine – λιπαρότερος – that we know from Athenaeus [I. 26-32]<sup>9</sup>. There are several categories of wine after Galen: according to colour it may be white wine, according to body or weight it may be thin wine – λεπτός – and in the third category it may be λιπαρός<sup>10</sup>.

These amphorae were found together in a single deposit. They constitute certainly one commercial consignment, purchased wholesale by a single individual. Its capacity exceeds 200 litres. Thus, the vessels bore commodity designations and after following purchase they received a supplementary mark in the name of the new owner. The buyer might have immediately indicated the volume of the wine contained in them, but it is more likely that periodical recordings of wine taken from these amphoras were added later. The ceramic imports discovered in semi-dugout No. 80 show that the demands of the inhabitants of this settlement were individual.

The scarcity of these shapes and the atypical fabric indicate that this set of amphorae had been transported from a trade center unpopular for our region. The morphological similarity of the toes to those of Thasian wares supports the hypothesis that a centre somewhere in the northern Aegean area manufactured such vessels from c. 320s BC.

For a summary of the *chronological ranges* for these amphorae an analyses of the other materials from the semi-dugout No. 80 might be useful. Examination of materials demonstrates that numerous rubbish with rather wide date was collected into rubbish fill. The earlier examples may be dated from 360s BC. One amphora toe No. 385 of Sinopean production has a shortened stem and a convex base and may be assigned to variant II-A-2 with a date in the 360s BC; a second one, No. 378 with cavity in the foot, variant II-E-1, is dated the 2nd quarter to mid 4<sup>th</sup> century<sup>11</sup> (Fig. 4). Fragments of Heraklean amphorae belong to vessels of variants II-2 and II-3, which were widely exported in the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the 4<sup>th</sup> century BC<sup>12</sup>. Fragments of amphorae with tall cylindrical necks and mushroom rims (Fig. 4: No. 355/371) were found in this fill. A dating to the 2<sup>nd</sup> quarter of the 4<sup>th</sup> century BC was proposed and they are encountered down to the second half of the century<sup>13</sup>. The lower part of amphora No. 375 (Fig. 4) ends with a toe reminiscent of such examples. There are also separate finds of amphora toes (Fig. 4). Toe No. 370 is marked by an unusual shape, having a wide base with a “turned back” rib and a deep hollow. It is made from reddish-yellow clay (5YR 6/6) containing particles of lime and the surface is covered with a greyish-yellow “engobe”. Similar finds are encountered in the cultural layer. Toe No. 386, made from clean, dense, rose-coloured clay (5YR 7/4) is the first one encountered in the settlement. Included in this material is a fragment of an anepigraphic Heraklean stamp with a representation, most probably, of ivy leaf. Anepigraphic imprints consist Group 7 after V. Kac and this one may be synchronized with Groups of

<sup>9</sup> ATHENAEUS 1969.

<sup>10</sup> BROCK & HANNEKE 2000, p.457-459.

<sup>11</sup> MONACHOV 2003a, p.149, 151, Plates 101: 6; 102: 6.

<sup>12</sup> MONACHOV 2003a, p. 144, Plates 93 – 8; 94 – 1, 6; 95 – 3.

<sup>13</sup> MONACHOV 2003a, Plates 72 – 4.

Period B from the second quarter to the beginning of the last quarter of the 4<sup>th</sup> century BC<sup>14</sup>.

The amphora set under consideration was found together with six black-glaze vessels (*Fig. 5*), probably their date is close. They also show no traces of wear or repair. It is interesting that, although *kylikes* are encountered more often than any other shape in Belozerskoe settlement, the complex has yielded no fragment of a single example. Vessels for oil were found here – two *lekythoi* (and a rim fragment of a third), an *askos* – and small dishes of types which are rare for this site, and also two thin-walled two-handled vessels which are encountered nowhere else in the settlement.

The *lekythoi* are of a single type, but differ in size, proportions and rim profile. No. 408 is 13 cm high and No. 407 is more than 15 cm and semiglazed. Strap handles run from edge of shoulder to below rim, the form of the lip is funnel. One specimen preserves a ring foot. They are made of beige coloured fabric with isolated small glints of mica and much of the surface is covered with a thin shiny gloss. *Lekythoi* closely similar to those ones, but with disk foot, are found in Olbian necropolis, they are assigned to type II – a date at the beginning of the 3<sup>rd</sup> century BC is proposed for them, based upon the “quality of the gloss”. The dating of the grave, the inventory of which includes an analogous *lekythos*, is fixed as the end of the 4<sup>th</sup> century BC<sup>15</sup>. This form was already in production in the Classical period. The type which is close to No. 408 belongs to the final development stage of classical *lekythoi* with a spherical body, in use in the last quarter of the 4<sup>th</sup> century BC<sup>16</sup>. *Lekythos* No. 407 has more elongated proportions of the Early Hellenistic form.

Small guttus-type *askos* No. 406 (*Fig. 5*) with a heavy ring foot, 6 cm in diameter, a body with the maximum diameter (8 cm) at a lower part, thin neck with a ridge at the base belongs to the Classical type, which continued its existence in the last quarter of the 4<sup>th</sup> century BC<sup>17</sup>. An example from Histrian necropolis dated to the 3<sup>rd</sup> quarter of the 4<sup>th</sup> century BC<sup>18</sup> is close analogous to our find.

No good analogies have been found for the two-handled vessels and the small plate. They are quite different in shape and fabric from the other black-glaze vessels. No. 402, 403, 409 (*Fig. 5*) are made of pale greyish fabrics with rare small inclusions of lime and mica unlike the normal clay fabric of Attica. One may conjecture that these vessels are the manufacture of Asia Minor workshops. The surviving part of the two-handled vessels No. 402 and 403 is characterized by outturned rim with ridge or groove below. The body is smoothly differentiated from the neck with a ridge, strap handles run from shoulder to just below ridge. The gloss is thin though shiny and the coverage of the inner surface is patchy. Small low plate No. 409 with flat rim (12.5 cm in diameter) and ring foot (7.5 cm in diameter) may be approximately dated after its size as far as

---

<sup>14</sup> KAC 2003a, p. 263-264.

<sup>15</sup> PAROVIČ-PEŠIKAN 1974, p. 107, fig. 92: 2; p. 157.

<sup>16</sup> ROTROFF 1997, p. 169, 349 No. 1110, Pl. 81, Fig. 69.

<sup>17</sup> ROTROFF 1997, p. 172-173, No. 1140.

<sup>18</sup> ALEXANDRESCU 1978, p. 93 – Fig. 16. No. 611.

small plates (D 12-15 cm) were preferred in the second half of the 4<sup>th</sup> century<sup>19</sup>.

Other complete vessels were also found in semi-dugout No. 80. A *louterion* of Corinthian manufacture was shattered but could be practically fully restored. It has an out-turned rim, a small lip, two handles with relief decoration, and a disk foot. On the whole Sinopean *louteria* predominate in the Belozerskoe settlement, although Corinthian products are encountered. A *pithos* of Sinopean manufacture was found in the complex, a unique find in the settlement. These finds can not serve for narrow dating. There is a rare find in a pitcher or small hydria (height 28.5 cm, diameter 21 cm) of greenish clay with painted garland decoration on the shoulder. Similar pots made of red clay are known in Chersonesus. This style of decoration is identified as Early Hellenistic<sup>20</sup>. All the other ceramic sherds consist of usual materials of the 4<sup>th</sup> century BC that spread en masse throughout the Black Sea littoral.

Thus the earliest date for materials from refuse fill of semi-dugout No. 80 belongs to the Late Classical amphorae shapes which characterized the first building phase in the settlement. The date of the basic complex of amphorae under consideration is later and must be closer to the time of reconstruction. Since dipinti are well preserved, it is possible that not much time elapsed between the acquisition of this set of amphorae and the fire and it is precisely the more or less "complete" artefacts which fix the date at which semi-dugout No. 80 ceased to be used. Hypothetically, this may be the last quarter of the 4<sup>th</sup> century BC, when Early Hellenistic vessels mentioned above, could be in use. If the fire was not a purely local phenomenon but enveloped a significant part of the settlement (it looks so according to stratigraphy), then we may link the date of the deposit to the other structures filled in before the reconstruction. If so, the last quarter of the 4<sup>th</sup> century BC becomes altogether probable.

---

<sup>19</sup> ROTROFF 1997, p. 143.

<sup>20</sup> LUNGU 2007.

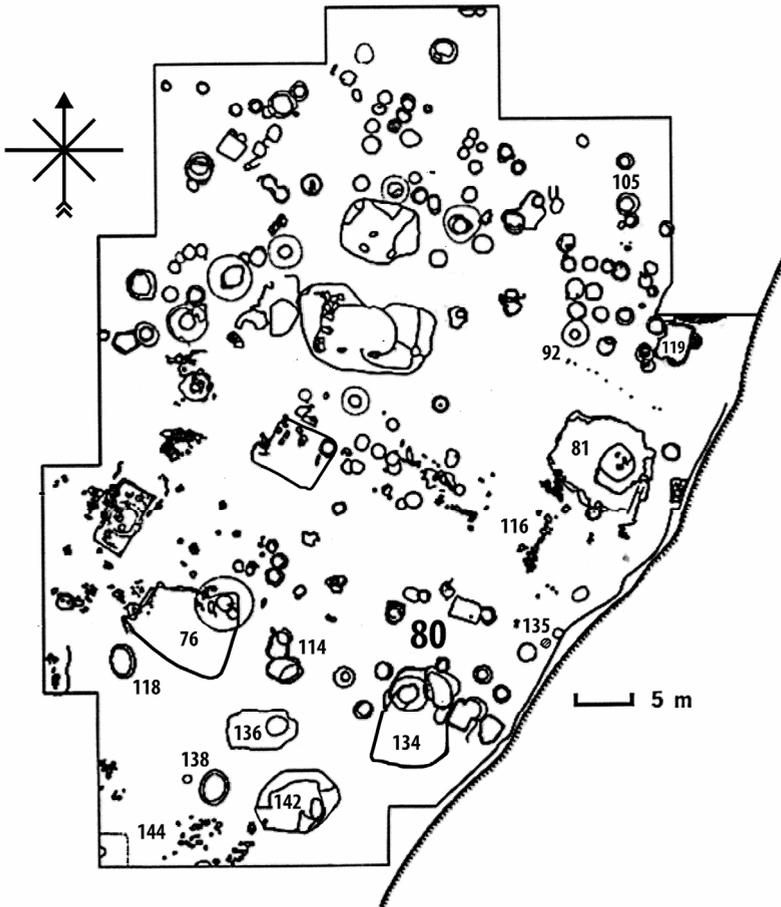
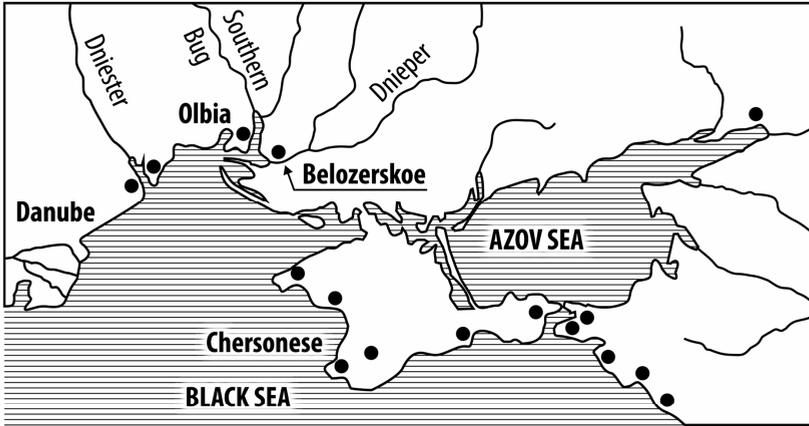


Fig. 1 – Map of a region under review and plan of excavation.

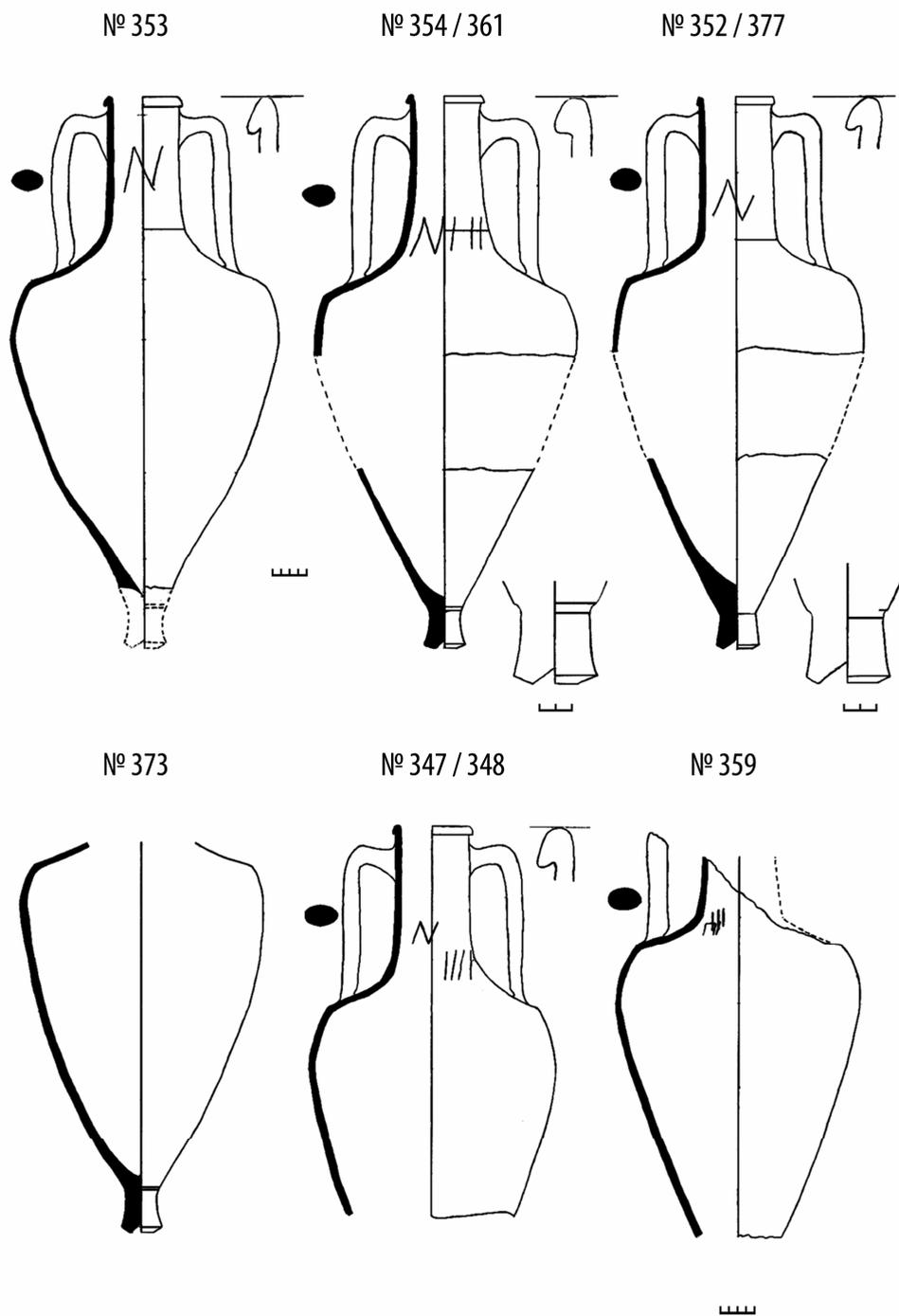


Fig. 2 – Set of amphorae from semi-dugout No. 80.

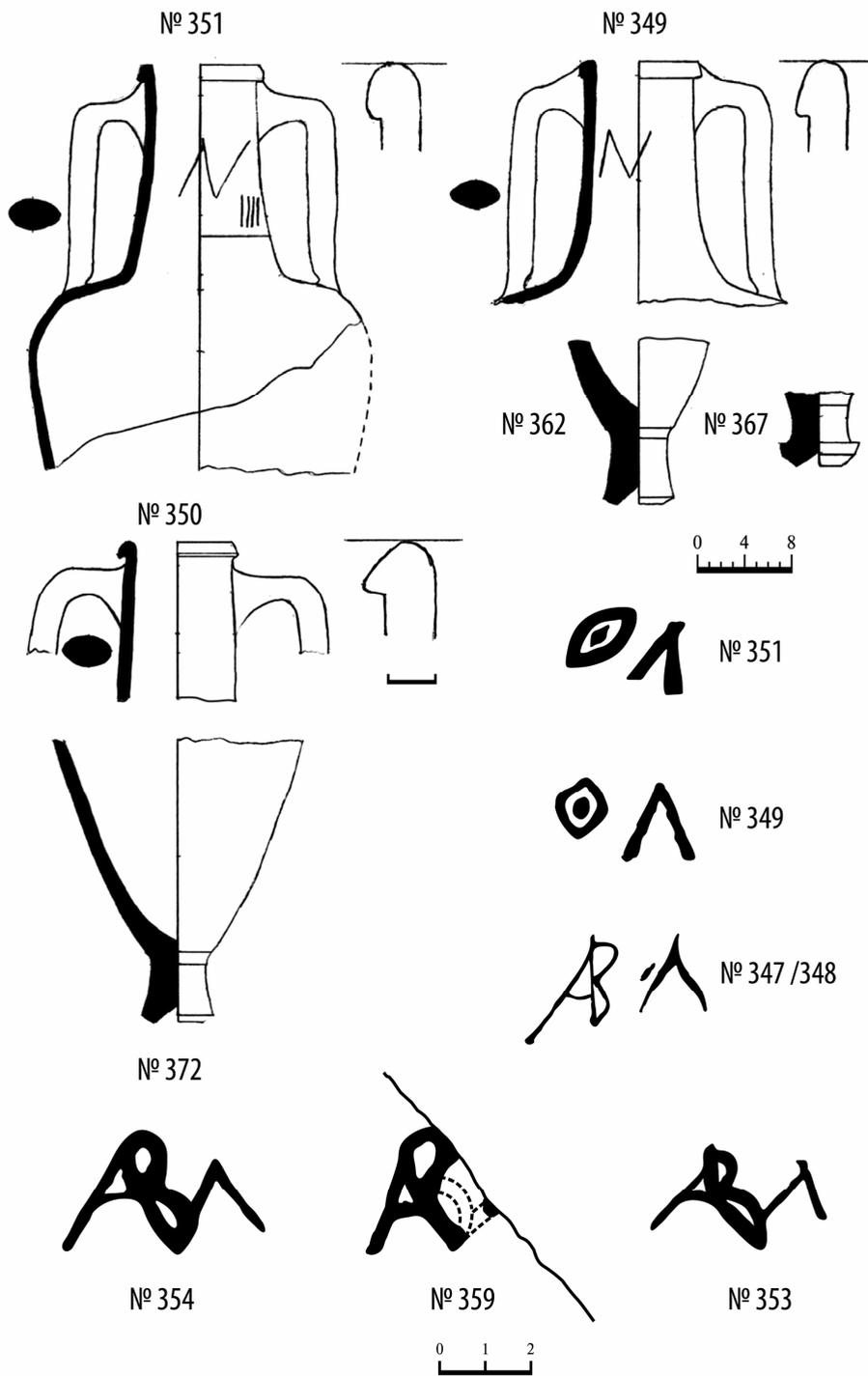


Fig. 3 – Fragments of amphorae from semi-dugout No. 80 and types of dipinti.

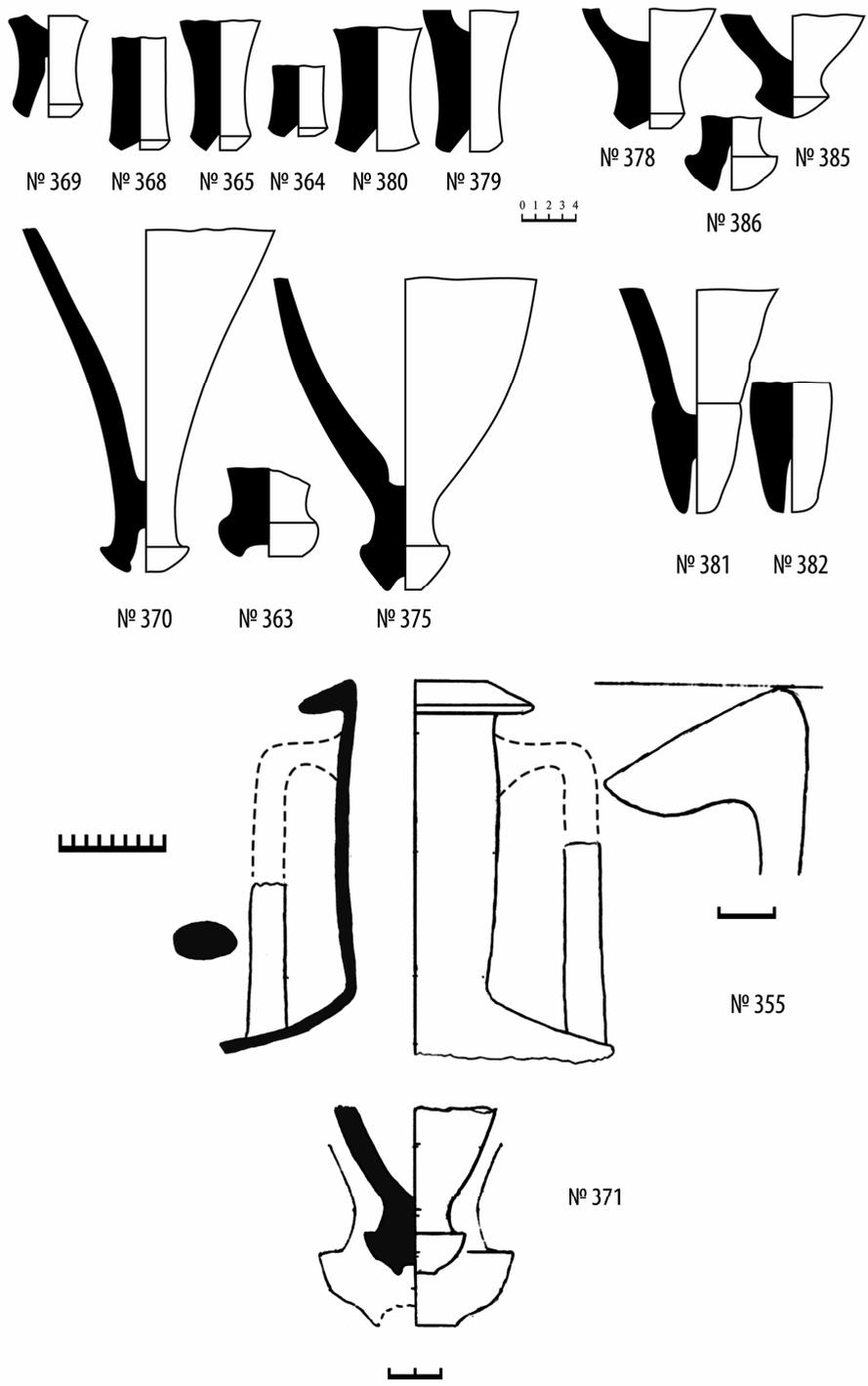


Fig. 4 – Fragments of amphorae from refuse fill in semi-dugout No. 80.

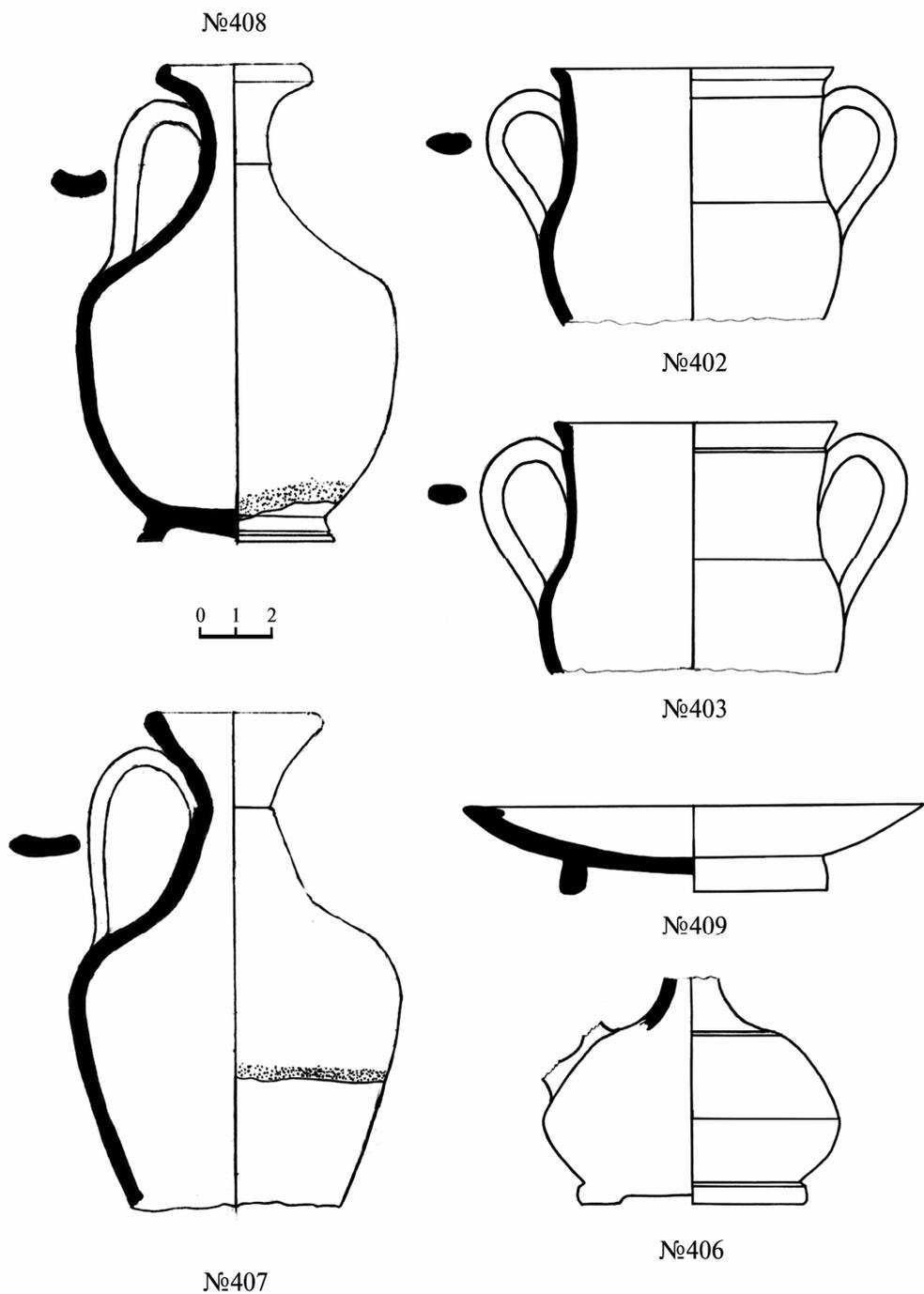


Fig. 5 – Black-glaze vessels from semi-dugout No. 80.  
(drawn by S. Nemtsev, computer version by V. Križanovski).