

TILES AND CERAMIC CONTAINERS

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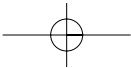
TILES (Aa 1-14)

Several dozen fragments of pan tiles (*keramides*) and cover tiles (*kalypteres*) were found in U6. Only one cover tile was found virtually complete, and it was also possible to reconstruct one unstamped pan tile. The main characteristic of this group of material is that by far most of the fragments of unstamped tiles and all those of stamped tiles were found re-used for secondary purposes on the floors of hearths in *rooms* 20 (Ab 8) and 30 (Ab 4), and in the construction of an inner staircase (Ab 2 = Aa 10). Fragments were also used for filling spaces between the flags of pavements in the southern corner of the courtyard (Ab 1, Ab 3, Ab 6, Ab 9) and in front of the entrances of *rooms* 3 (Ab 7) and 12 (Ab 5), and crushed tiles were used in the masonry of the wall socles to level the layers of stone, and possibly also the layers and junctures in mud-brick. Taken in conjunction with the small number of finds and the stratigraphic evidence, this clearly suggests that the building had never been roofed with tiles. The only possible exception is the roof over the upper storey of *room* 12. However, in this case too, re-used tiles were used for the roofing; the tiles having been manufactured some decades before the house was built, as evidenced by the date of the stamped fragments. That tiles were not otherwise used for roofs is strongly suggested by the very few fragments of cover tiles (Aa 11-14).

It is obvious that almost all the tiles found in U6 were brought here, most of them probably in a fragmentary state, from the debris of earlier (probably neighbouring) buildings or from dumps. All examples – whether fragmentary or almost complete tiles – belong to two types well known from Greek sites in the Mediterranean and Black Sea areas.

Type 1 – tiles of the so-called ‘Laconian’ type. They are characterized by being slightly concave and very well fired. The ware is dark red, thin, and dense, and contains a large amount of mineral inclusions, which are not seen in the ceramic wares from production centres in the Black Sea region. These tiles may have been imported from a Greek centre in the east-Mediterranean. Visually, the clay is very similar to that of amphorae from Thasos or from the so-called ‘Thasian Circle’. Due to the fragmentary state of the material, this type is not included in the following catalogue.

Type 2 – tiles for the so-called ‘Sicilian’ system of roofing. The pan tiles are flat, with vertical ridges with oblique notches in the upper inner corners for fixing the tiles of the row above. In the lower corners of the plates there are corresponding bevelled edges, fitting into the notches of the tile below. The cover tiles are semicircular in cross-section, slightly widening downwards, and have a narrow ‘shovel-blade’-shaped upper end, which fits into the lower part of the cover tile above. In the Black Sea area, three production centres, Herakleia Pontike, Sinope and Tauric Chersonesos, manufactured tiles of this type, including stamped tiles. Only Sinopean tiles, stamped and unstamped, are represented among our finds. Nine fragments of Sinopean tiles bear stamps (Ab 1-9). The most characteristic examples of tile fragments and all the stamps are included in the following catalogues.



Aa 1. U6 room 12, horizon IA and sub-horizon IC₁. Find list 6/1. 1971.
Fragmentary unstamped pan tile. The lower left quarter of the plate, both upper corners, and small fragments of the middle part of the plate are preserved. Clay dense, well fired, with coarse and fine grains of pyroxene and other mineral inclusions; lilac and yellow hues in break. Dimensions: estimated L. 66.7 cm, W. 50.6 cm, thickness 3.0 cm, H. of ridge 3.0 cm, W. of ridge 3.50-4.0 cm.
Sinopean manufacture.

Aa 2-9. U6 room 12, horizon IA and sub-horizon IC₁. Find list 6/2. 1971.
Fragments of seven pan tiles. Similar to **Aa 1**.
Sinopean manufacture.

Aa 10. U6 room 4. Find list 4/1. 1970.
Fragment of a pan tile with a Sinopean stamp of the astynomos *Diophantos* with the device ‘eagle on a dolphin’

(**Ab 2**). Similar to **Aa 2-10**. About 70% of the plate is preserved.
The tile was used as building material in the construction of the staircase leading to the first floor.

Aa 11. U6 courtyard, E-6. Find list 17/19. 1972. Pl. 44
A semi-cylindrical cover tile. The only completely preserved example. Clay dense, similar to **Aa 1-10**. Dimensions: L. 62.5 cm, W. 17.0 cm, thickness 2.0 cm, L. of ‘shovel-blade’ 11.5 cm.
Sinopean manufacture.
Found *in situ* in the southern corner of the courtyard. The position suggests that it had been used as a gutter.

Aa 12-14. U6 room 12, horizon IA. Find list 6/2a. 1971.
Fragments of lower and upper parts of semi-cylindrical cover tiles. Clay dense, similar to **Aa 1-11**. Dimensions: estimated W. *c.* 17-18.5 cm, thickness 2.0 cm.
Sinopean manufacture.

STAMPS ON FRAGMENTS OF SINOPEAN TILES (**Ab 1-9**)

As previously mentioned, only nine fragments of Sinopean tiles with stamps were recorded. Despite the fragmentary character of most of the stamps it is possible to reliably restore the legends on seven impressions. They all belong to Sinopean astynomoi from Grakov’s group I (360s – 340s B.C.). Three of the stamps contained the name of one of the first magistrates, *Histiaios* (**Ab 5-7**), the others that of the last astynomos of the group – *Diophantos* (**Ab 1-4**).

Ab 1. U6 courtyard, E-6. Find list 17/1. 1972. Pl. 54.
Tile fragment with a rectangular stamp, Grakov’s group I (1929). Type: *IOSPE* III 2766. Legend running along the perimeter.

ΔΙΟΦΑ | ΝΤΟΥΑΣΤΥΝΟΜΟ | ΥΝΤ | ΟΣΝΕΥΜΗΝΙΟΥ
dove

Διοφά | ντου άστυνομο | ύντος Νευμηνίου

Ab 2. U6 room 4. Find list 4/1. 1970. Pl. 54.
Stamped tile fragment. Rectangular stamp, Grakov’s group I, with legend running along the perimeter. Type: *IOSPE* III 2767-8.

ΔΙΟΦΑ | ΝΤΟΥΑΣΤΥΝΟΜ | ΕΥΝΤ | ΟΣΠΟΣΕΙΔΩ
dove

Διοφά | ντου άστυνομ | εύντ | ος Ποσειδω(νίου)

Ab 3. U6 courtyard, D-5. 1974. Pl. 54.
Tile fragment with a stamp from Grakov’s group I. Type: *IOSPE* III 2769.

ΔΙΟΦΑΝ | ΤΟΥΑΣΤΥ | ΝΟΜΕΥΝ | ΤΟΣΠΟΣΕΙ
(along the perimeter)
bunch of grapes
Διοφάν | του άστυ | νομεύν | τος Ποσει(δωνίου)

Ab 4. U6 room 30. Find list 14/1. 1972.
Similar to the preceding. Type: *IOSPE* III 2769. Used in the construction of the hearth.

Ab 5. U6 room 14. Find list 7/5. 1971. Pl. 54.
Small sherd with fragmentary stamp from Grakov’s group I. Type: *IOSPE* III 363-5.

]IO	eagle	’Ιστια]ιο
] vac.	on the	άστυ()]
]NIO	dolphin	Νευμη]νίο

Ab 6. U6 courtyard, D-5. 1974. Pl. 54.
Similar to the preceding. Type: *IOSPE* III 363-5.

]AIO	eagle	’Ιστι]αίο
] vac.	on the	άστυ()]
]NIO	dolphin	Νευμη]νίο

Ab 7. U6 courtyard, E-2. 1973.
Fragmentary stamp from Grakov’s group I. Type: *IOSPE* III 359-60.

[– – –]	eagle	[’Ιστιαίο]
]NO	on the	άστυ]νο()
]EMHNIO	dolphin	N]ε<υ>μηνίο

Ab 8. U6 room 20. Find list 4/1. 1972.
Small stamped fragment.

ΠΡ[
ΑΣ[
[- - -]

ΠΡ[
ἄσ[τυνόμου
[- - -]

Ab 9. U6 courtyard, G-6. 1972.
Fragmentary stamp. No letters preserved.

CERAMIC CONTAINERS I. PITHOI AND STORAGE-BINS (**Ac 1-6**)

Large vessels for the storage of liquids or dry provisions are rare in the ceramic assemblage from U6. This fact distinguishes the building from many other rural houses in the *chora* of Chersonesos, both in the immediate vicinity of the city on the Herakleian Peninsula, and in the more remote territory of north-western Crimea.

At the time of destruction there were probably no more than two pithoi in the house. All the fragments are of Sinopean manufacture.

Ac 2 is as yet the only complete one of this type among the finds from the northern Black Sea area (Pls. 43-44). A fragment of the upper body of a similar pot with a painted floral decoration was found during excavations at the Yuzhno-Donuzlavskoye site in the north-western Crimea (near the village of Popovka). O.D. Daševskaja, who has published the site, describes it as a *krater* (κελέβη), according to the typology proposed by V.D. Blavatskij.¹ B.A. Sparkes and L. Talcott have classified a similarly painted (bands and floral design) pot from the Athenian Agora, dated to the second half of the 4th century B.C. as a *storage-bin*.²

The excavations of potters' workshops³ at Chersonesos have attested that painted ware, both with a very simple decoration in the shape of bands around the body or neck, and with more complex floral ornaments, was manufactured here. The contexts of the workshops can be dated to *c.* 300-270 B.C., *i.e.*, the later period of U6. The same date is indicated by finds of painted ware on other sites with good stratigraphies in north-western Crimea, *e.g.* in the rural house near the Bay of Vetrenaya, on the Yuzhno-Donuzlavskoye site, *etc.*⁴ However, it still remains an open question whether the production of painted ware in Chersonesos began *c.* 300 B.C. or in the late 4th century B.C.

Storage bins (Pl. 44) are represented by four examples, three of which were kept in the storerooms for amphorae (**Ac 3**, **Ac 5-6**). One pot (**Ac 4**) and its lid were found in fragments in the accumulation of broken pottery in the southern part of the courtyard.

Ac 1. U6 room 13, horizon IA. Find list 8. 1971.

Rim-shoulder fragment of heavy *pithos*. The rim is trapezoid in section. Clay dense, well fired, with coarse and fine grains of pyroxene and other mineral inclusions; lilac hue in break. The surface is slipped. Dimensions: D. of rim: outer 34.5 cm, inner 27.4 cm, preserved H. 10.0 cm, H. of rim 5.0 cm, thickness 3.5 cm.

Ac 2. U6 room 3, sub-horizon IC₁. Find list 6/37. 1971. Pls. 43-44.

Painted two-handled jar. The vessel has a broad bulbous body on a ring foot. Broad out-turned, beak-shaped rim, low neck, and sloping shoulder. On the shoulder two vertical arched handles, round in section. Rectangular handle plates. The pot is covered with light slip and decoration in red paint. Three 0.45-0.55 cm wide bands on the upper body; the space between the two lower bands is filled in with white paint. Stylised, 2.0 cm wide floral frieze on the

shoulder, consisting of a laurel branch between bands the same width as those on the body. The handles and butt-ends of the handle plates are decorated with painted stripes (0.3 cm wide), forming an ornament of rays. Dimensions: H. 32.0 cm, D. 34.2 cm, D. of rim 25.0 cm, D. of base 13.8 cm, H. of neck 3.6 cm.

Chersonesean manufacture.

The pot was kept in the amphora storeroom on the first floor.

Ac 3. U6 room 3, sub-horizon IC₁. Find list 6/1. 1971. Pl. 44.

Fragmentary pot with straight vertical rim, ovoid body and flat base. Two vertical arched handles (12.0 × 5.5 × 2.0 cm) are attached on the shoulders. All the fragments were badly burnt in the fire. Clay brownish grey with a high content of coarse pyroxene grains. Reconstructed graphically. Dimensions: estimated H. *c.* 55 cm, D. *c.* 40 cm, D. of rim 19.0 cm, D. of base 20 cm; wall thickness 1.2-1.4 cm.

Probably Sinopean.

The pot had been kept in the amphora storeroom on the first floor, along with **Ac 2**.

Ac 4. U6 courtyard, D-4, D-5, E-6. 1974. Pl. 44.

Fragmentary two-handled pot with straight vertical rim, ovoid body and flat base. Two vertical arched handles (14.5 × 8.5 × 3.0 cm) are attached on the shoulders. Light slip on the surface. Dimensions: H. 37.0 cm, H. of rim 2.0 cm, D. of rim 19.2 cm, D. 36.7 cm, D. of base 13.0 cm; thickness of rim and body *c.* 1 cm.

Chersonesean manufacture.

Ac 4a. U6 courtyard, E-4. 1974. Pl. 44.

Fragmentary lid in the form of a truncated cone with a vertical, 2.5 cm-high edge. The base (*c.* 5 cm in D.) of a round knob for lifting the lid is preserved in the centre. Light slip on the surface. Clay and slip are identical with that of **Ac 4**. Dimensions: H. *c.* 6 cm, D. 22.0 cm; thickness of the walls *c.* 0.7 cm. The dimensions of the lid fit pot **Ac 4** precisely – they clearly belonged together, as is also indicated by the fact that the fragments were found in the same area.

Chersonesean manufacture.

Ac 5. U6 room 13, sub-horizon IC₁. Find list 8/28. 1971.

Fragmentary pot similar to **Ac 4**. The lower body, fragments of the rim, the shoulder, and a vertical arched handle are preserved. Light slip. All the fragments were badly burnt in the fire. Enough preserved for a reconstruction of the complete profile of the pot. Dimensions: preserved H. 19.0 cm, estimated H. *c.* 30-32 cm, estimated D. *c.* 27-30 cm, D. of rim 14.0 cm, D. of base 12.0 cm; thickness of the walls 0.6-0.8 cm.

Chersonesean manufacture.

The pot had been kept in the amphora storeroom on the first floor, together with **Ac 6**.

Ac 6. U6 room 13, sub-horizon IC₁. Find list 8/29. 1971.

The upper part of a painted pot similar to **Ac 4**. The rim is beak-shaped.⁵ Two vertical arched handles (14.0 × 4.7 × 2.2 cm) on the shoulders. Light slip. A red band, 0.7 cm wide, around the widest diameter of the body. Dimensions: preserved H. 15.0 cm, D. 32.6 cm, D. of rim 19.8 cm; thickness of the walls *c.* 0.7 cm.

Chersonesean manufacture.

The pot had been kept in the amphora storeroom on the first floor, together with **Ac 5**.

CERAMIC CONTAINERS II. TRANSPORT AMPHORAE (**Ad 1-93**)

Part of the amphora collection from U6 – mainly Chersonesean vessels – has already been published.⁶ However, the collection was considerably augmented during the completion of the excavations of the building and especially after pottery was restored. Only a third of about 200 vessels stored in the house present complete or archaeologically complete shapes. These are catalogued below, together with a number of characteristic fragments, giving an idea of the diversity of the shapes of transport amphorae brought to the settlement.

Chersonesean amphorae are the most common. Peculiar to this group is the absence of earlier examples of unstamped Chersonesean specimens of the I-A-1 and I-A-2 variants, dating to the middle and third quarter of the 4th century B.C., which are quite common in the graves of the necropolis, as well as in the North Bank Necropolis of Chersonesos and at other sites. The chronologically subsequent issue, variant I-A-3, is, however, represented by a number of vessels, including those with stamps of the astynomos *Bathyllos* (**Ad 1-5**; Pls. 45 and 50). These are large, standard amphorae of 6 Attic *hemihectes* (26.26 litre), which were produced in Chersonesos in the period from the last quarter of the 4th century to the first quarter of the 3rd century B.C.

The most frequently found transport amphora in U6 is the Chersonesean amphora of variant IB (30 examples: **Ad 7-36**). This actually reflects a general trend in Chersonesean amphora production, since this variant is the most common, not only in U6, but in general. In fact, variant IB is a four *hemihectes* (17.51 litre) variety of type I-A-3. All the specimens from U6 belong to the earliest issues, as proven by stamps on some of the vessels: one with the name of the astynomos *Sopolis* (**Ad 18**; Pl. 46); and two other cases of monogram stamps EYA in ligature (**Ad 17**, **Ad 19**; Pl. 46), which are usually considered as manufacturer's stamps. However, since the other handle of the same amphorae is without any standard astynomos stamp, the explanation for the monogram stamps could be that there may have been a practice of stamping containers with monogram stamps in the name of an astynomos in Chersonesos.

Only very few examples of other types and variants of Chersonesean amphorae are represented in the collection from U6. Three amphorae (**Ad 37-39**) may be attributed to variant IIA (a variety of the standard with a volume of 1 *hemihecte* (4.37 litre); one of them has a conical body, a truncated bi-conical foot with a groove in the transition between body and foot, and a trapezoid rim (**Ad 37**; Pls. 47 and 52). Vessel **Ad 38** is tentatively attributed to this variant. It has a softer body contour, a different foot, and a longitudinal groove along the outer surface of its handles (Pls. 47 and 52). Unfortunately, the stamps impressed on two of the three amphorae of this type are illegible. Two fragmentary amphorae possibly belong to the rare variant IIIB (a standard measure of 3 Attic *choes* – 9.85 litre), which was not produced after the first third of the 3rd century (**Ad 40-41**; Pl. 47).

The number of imported transport amphorae from U6 is small and limited to single specimens from Herakleia, Amastris, Kolophon, Samos, Rhodes, and Korinth, along with some of unknown origin.

Imports from Herakleia are represented by a single fragmentary vessel (lacking handles and the upper part of the neck) (**Ad 78**; Pls. 47 and 53), which can be attributed to I.B. Brašinskij's classification, late type IIA. Similar vessels have been found in burials dated to the late 4th century B.C. or *c.* 300 B.C. (*e.g.* Grave 25 in Gorgippia, Azov Kurgan 2; the 1973 burial in Novorossiysk; Kurgan 14 at Elizavetovskoye). They usually bear late Herakleian stamps, such as NI, HPA, *etc.* Apparently this Herakleian amphora does not belong to the last period of the occupation of U6, since parallels suggest a date around 300 B.C. The Herakleian amphora stamps from U6 (**Ae 117-132**) also suggest that products of this city did not reach U6 during the last period of its existence.

Amphorae produced in other centres are only represented in the collection by single finds. Thus two Amastrian stamps (**Ae 115-116**) were found, including one on the neck of an amphora whose shape can be reconstructed. In terms of its morphological characteristics (**Ad 77**; Pls. 47 and 53) and the results of petrographic analysis of the clay, this vessel is similar to the Sinopean prototype from the period of stamps from Grakov's group III. According to A.N. Ščeglov, the main exports from Amastris were olive oil and salted olives rather than wine,⁷ and a major part of exports from Sinope may also have been oil. The only identifiable specimen from this city comes from the well (**Ad 76**; Pl. 47), and belongs to Monachov's type IIC (Monachov 1992). However, as evidenced by the number of stamps and characteristic profile fragments, Sinopean amphorae were second in number only to those from Chersonesos.

The assemblage of pottery from U6 also includes an amphora with two-barrelled handles (**Ad 79**; Pls. 47 and 53), which made it possible to identify a group of transport amphorae from Kolophon.⁸ Although there was no stamp on this vessel, it is very probable that the stamps with a legend containing a magistrate's name and the ethnicon ΚΟΛΟΦΩΝΙΩΝ, known from rare finds, are products of this small Ionian centre on the Aegean coast of Asia Minor. Dated fragments of a similar amphora (a handle and a foot) have as yet been reported only at the Elizavetovskoye site, in a layer dated not later than the 270s B.C.⁹

One fragmentary amphora with a peg foot (*kubarevidnaya* in Russian terminology) may confidently be attributed to Rhodes (**Ad 84**; Pl. 48). As to the type of clay, the dimensions, and the profile of the body, an exact parallel is to be found in the 'proto-Rhodian' amphora from the Benaki collection, with stamps of the eponymos *Polyaratos* and the manufacturer *Mikythos*.¹⁰ The rims of these amphorae were probably mushroom-shaped.

A number of other vessels from our collection also possess the so-called mushroom-shaped rims. One of them has a cylindrical neck with a marked transition to the shoulder, and its rim is not massive, but thin and strongly out-turned. The wide body ends in a rather small peg foot. The very loose, flaky light brown clay contains a large amount of fine mica and is very similar to Samian clay (**Ad 80**; Pl. 48). Its shape and rim profile closely resem-

ble the Samian(?) amphora published by V. Grace and dated to the time of the Athenian occupation of Samos (about 300 B.C.).¹¹ Another close parallel is an amphora from Kastro Tigani, attributed to a local Samian production.¹² Among the finds from the Black Sea area are two more vessels, possibly belonging to this series of supposedly Samian amphorae: one with the stamp KΛEO, which was found in the layer dated to the late 4th century at the Elizavetovskoye site¹³ and the other with the stamp 'Φ' deriving from Grave 13 of the necropolis near Khutor Lenina in Kuban'.¹⁴

One of the stamps mentioned in the preceding section (**Ae 135**) may also be connected with this supposedly Samian group of amphorae. It bears an as yet unmatched one-lined legend, CAΓΓAPI[, on a flattened handle of flaky dark grey clay containing a large amount of mica. The complete shape of the vessel (**Ad 82**) could not be identified, the most marked feature being an out-turned rim.¹⁵

Amphora **Ad 81** has quite a different profile. Its rim is high and overhanging rather than mushroom-shaped, the neck widens upwards, the transition from neck to shoulder is smooth, the body is broad (Pl. 48). The clay is reddish brown, flaking off in parts and with sparse inclusions of mica. The closest parallel is a fragmentary amphora from the cellar excavated in 1988 at Elizavetovskoye. A complete specimen of this shape comes from the barrow of Vodyana Mogila. It cannot be ruled out that this group of containers was produced at Samos or a neighbouring centre. The type may preliminarily be referred to as the 'Vodyana Mogila' type.

Two more vessels with mushroom-shaped rims and relatively thin walls have been grouped as of uncertain origin (**Ad 89-90**; Pl. 48). Both are made of yellowish clay with a large amount of mica and a few particles of grog. They may possibly come from the same workshop.

Korinthian transport amphorae are rare among the 3rd century transport amphorae found in the Black Sea area. Fragments of two vessels from this centre were found in U6. The neck of one of them has a high, almost vertical, collar-shaped rim and loop handles (**Ad 85**; Pls. 48 and 53). The rim of the second (**Ad 86**; Pl. 48) is more gently sloping towards the shoulder. Both are variants of Koehler's type A'.¹⁶ The closest parallels are the vessels from the archaeological museum in Korfu, dated indirectly to the 4th – middle of the 3rd century B.C.,¹⁷ together with some fragmentary amphorae from Elizavetovskoye, dated not later than the 270s B.C.¹⁸

In concluding this brief typological review of the assemblage of transport amphorae from U6, we must emphasise that the sample represented in the following catalogue does not present a complete picture of the amphorae imported to U6 during the whole period of its occupation. Unfortunately, a considerable part of the amphora material used in the statistical calculations below has been lost since these were done.

A relatively simple and apparently quite logical method of counting the total number of vessels from diverse centres and of various types was proposed by I.B. Brašinskij, who considered the counting of complete feet (*i.e.* of those which have retained the underside) as the 'only correct' method when dealing with amphorae fragments.¹⁹ However, the long-term investigations of the settlement at Panskoye I, during which a detailed counting of all types of sherds from amphorae was carried out, have shown that the amount of preserved amphora feet from some centres was considerably smaller than the number of other fragments giving the complete profile of the same vessels. Therefore it may be seriously doubted whether feet sampled at sites always adequately reflect the totality of the amphorae represented there.

In our opinion this phenomenon may first and foremost be explained by the practice of re-using amphorae even if their feet were broken off; the lower body was then smoothed and the feet themselves used as net-weights, graters, stoppers, *etc.*

Table 1

Centres	Number of WAE						
	Rims	Handle attachments		Feet	Weight	Maximal number	Number of stamps
		Upper	Lower				
Chersonesos	168	158	155	127	164	168	99
Sinope	10	10	9	11	12	12	15
Amastris	2	2	1	1	–	2	2
Herakleia	7	6	8	8	7	8	16
Thasos	1	1	1	2	–	2	1
Kolophon	1	1	1	1	–	1	–
Samos (?)	2	2	2	1	–	2	–
Kos (?)	–	–	1	1	–	1	–
Rhodos	–	–	1	1	–	1	–
Korinth	2	2	–	–	–	2	–
Uncertain	12	12	8	17	–	17	8
Total	205	194	187	170	–	216	141

A more promising method of calculating numbers when studying a large body of fragments of transport amphorae seems to be to estimate the *equivalent in whole amphorae* (WAE). This method was proposed by S.M. Koljakov (Koljakov 1975), but has unfortunately not met wide acceptance.

In our case an estimation of WAE was carried out, taking into account the following diagnostic parts of vessels: rims (sum of fragments rendering 360° is taken as a unit), upper and lower handle attachments (two attachments counted as one unit), feet (those complete). In addition, in the estimation of WAE of amphorae from Herakleia, Sinope and Chersonesos, the mean weight of the vessels was employed as a criterion. The results of the estimation are presented in the table above.

Using the method described, it was possible to identify 216 WAE from ten centres (not counting those unidentified) among the transport amphorae from U6. The number of the various diagnostic parts deviates slightly from the mean values for most of the centres. Exceptions from this pattern are the Chersonesean amphorae and amphorae from unidentified centres. Thus, the number of feet of Chersonesean amphorae was 20-25% less than the quantity suggested by the other diagnostic fragments, a fact which, as mentioned above, is accounted for by the distinctive practice of re-using the amphorae of this centre. It seems that there were similar reasons for the opposite tendency, characteristic of the amphorae from as yet unidentified centres. Here the number of equivalents of whole rims and whole handle attachments is 30-40% smaller than the number of feet. Typological analysis of the latter showed that about a third of them (six specimens) are either the so-called ‘flaring stem toes’ or the ‘conical toes with offset ridge and narrow deep hollow in the base’ (*ryumkoobraznye* and

kolpachkovye respectively in Russian terminology),²⁰ typical of amphorae of the third quarter of the 4th century B.C. These amphorae must already have arrived at Panskoye I during this period, and their feet did not attract the attention of the inhabitants of U6 until later, when they were broken, and were then used for secondary purposes. Thus only about two thirds of WAE of the unidentified centres (12 examples out of 18) can be reliably connected with the period of occupation of U6.

During the excavations it was revealed that in U6 at least three or four amphora storage rooms had existed on the first floor of the building (the largest above *rooms 3* and *13*).²¹ There is no doubt that not only the containers of the last deliveries were kept in these storage rooms, but also those that had been brought to U6 some decades earlier. As is usual in a farmer's household, the emptied jars were re-used for storing wine from the new harvest or other provisions.

In this connection one may ask how accurately the assemblage of transport amphorae from U6 reflects the diversity of trade relations of the Black Sea region in that period. In contrast to materials from excavations of such large trade settlements as Elizavetovskoye or Chersonesos itself, materials from rural settlements, including that of Panskoye I, cannot reflect the totality of the trade relations encompassing the Black Sea. What they can and do reveal is the characteristics of the rural sites in the *chorai* of the major Greek centres. At such sites wine and oil in amphorae were purchased by the inhabitants of the settlement for their own needs, not for resale. Hence the irregularity and the special character of the goods, *i.e.*, the fact that they are of the cheapest kinds. It is by no means mere chance that Chersonesean amphorae (the cheap local wine) predominate in U6, the Sinopean ones being much rarer (as already mentioned, they most probably contained olive oil rather than wine; however, one cannot rule out purchases of Sinopean wine), and the famous and expensive wines (Thasian, Chian *etc.*) were extremely seldom purchased, as witnessed by the virtual lack of transport amphorae from these centres. Another characteristic is that empty transport amphorae were used at such settlements for many years. Therefore the co-existence of amphorae differing by 20-30 years in date is not an exception but a rule at these rural sites.

(Amphorae are presented on plates 45-48 on a scale of 1:10; stamps, and profiles of rims and feet – 1:2)

The following abbreviations are used to designate the major linear dimensions: H. – height of the vessel; H₀ – depth of the vessel; H₁ – height of the upper body; H₃ – height of the neck; D. – the maximal diameter of the body; d₁ – diameter of the mouth.

PONTIC ATELIERS

Chersonesos

Ad 1. U6 room 13. Find list 8/2. 1971. Pls. 45 and 50.

Transport amphora, Monachov (1989) type I-A-3, with the magistrate stamp **Ae 33**. Two graffiti on lower part of the neck (**H 33(a)**) and on opposite shoulder (**H 33(b)**). Capacity 31.4 l. Dimensions: H. 69.5 cm, H₀ 63.6 cm, H₁ 27.0 cm, D. 36.8 cm, d₁ 12.0 cm. Publications: Kac and Monachov 1977, fig. 2, *1*, tab. I, *7*; Monachov 1980, no. 37; Brašin-

skij 1984, 201 no. 2; Monachov 1989, no. 12; Monachov 1999a, 498 pl. 211, *7*.

Ad 2. U6 courtyard, DE-6. Find list 17/26. 1972. Pl. 45.

Fragmentary transport amphora similar to **Ad 1**, with the magistrate stamp **Ae 32** on handle and the graffito **H 13** on the neck. Lower part and base missing. Dimensions: preserved H. 59.5 cm, H₀ c. 64.0 cm, H₁ 27.0 cm, D. 35.3 cm, d₁ 12.4 cm. Publications: Kac and Monachov 1977, fig. 2, *2*, tab. I, *2*; Monachov 1989, no. 15; Monachov 1999a, 498 pl. 211, *2*.

Ad 3. U6 room 13. Find list 8/9. 1971. Pl. 45.

Fragmentary amphora similar to **Ad 1**. Rim and both handles missing. Estimated capacity c. 30 l. Dimensions: H₀ 63.5 cm, H₁ 26.0 cm, D. 38.0 cm. Publications: Monachov 1980, no. 36; Brašinskij 1984, 201 no. 3; Monachov 1989, no. 13; Monachov 1999a, 498 pl. 211, *3*.

Ad 4. U6 courtyard, D-5. 1973. Pl. 45.

Fragmentary amphora similar to **Ad 1**. Neck and both handles missing. Dimensions: preserved H. 54.5 cm, D. 38.5 cm, H₂ 44.7 cm. Publications: Monachov 1989, no. 121.

Ad 5. U6 courtyard, DE-6. Find list 17/34. 1972. Pl. 45.

Upper part of an amphora similar to **Ad 1**. One handle as well as part of rim and neck missing. Relief stamp **Ae 53** on the preserved handle. Clay light brown with few inclusions of limestone and pyroxene. Fawn-coloured slip. Dimensions: d_1 c. 10.5 cm; H_1 20.5 cm, H_3 15.5 cm.

Ad 6. U6 room 12. Find list 6/11. 1971. Pl. 53.

Fragmentary amphora of type I-A. Lower part of body and base are preserved. Reddish brown clay with few inclusions of limestone. Dimensions: preserved H. 17.3 cm.

Ad 6a. U6 gate. Find list 3/17. 1972. Pl. 53.

Upper part of amphora of type I-A. Rim and one of the handles are missing. Clay reddish brown with limestone particles, few pyroxene and dark brown inclusions. Dimensions: preserved H. 18 cm.

Ad 7. U6 room 13. Find list 8/6. 1971. Pls. 45 and 50.

Amphora, Monachov (1989) type I-B. Base missing. Horizontal groove on neck. Capacity 18.2 l. Dimensions: H_0 63.6 cm, H_1 23.8 cm, D. 29.5 cm, d_1 11.2 cm. Publications: Kac and Monachov 1977, fig. 3, 7, tab. I, 7; Monachov 1980, no. 31; Brašinskij 1984, 202 no. 23; Monachov 1989, no. 16; Monachov 1999a, 498 pl. 211, 4.

Ad 8. U6 room 13. Find list 8/9. 1971. Pl. 45.

Transport amphora similar to **Ad 7**. Horizontal groove on neck. Capacity 19.0 l. Dimensions: H. 71.0 cm, H_0 63.5 cm, H_1 24.0 cm, D. 30.0 cm, d_1 11.2 cm. Publications: Monachov 1980, no. 26; Brašinskij 1984, 202 no. 17; Monachov 1989, no. 18; Monachov 1999a, 498 pl. 211, 5.

Ad 9. U6 courtyard, E. 1975. Pl. 45.

Transport amphora similar to **Ad 7**. One of the handles and the base are missing. Capacity 16.7 l. Dimensions: H_0 64.7 cm, H_1 24.7 cm, D. 29.8 cm, d_1 11.6 cm. Publications: Monachov 1980, no. 13; Brašinskij 1984, 203 no. 34; Monachov 1989, no. 20; Monachov 1999a, 498 pl. 211, 6.

Ad 10. U6 room 3. Find list 6/2. 1969. Pls. 45 and 50.

Transport amphora similar to **Ad 7** with the magistrate stamp of *Dioskouridas* (**Ae 52a**). Base missing. Red painted band under the rim. Graffito **H 7** on lower part of the neck. Capacity 19.2 l. Dimensions: H_0 62.8 cm, H_1 26.0 cm, D. 30.6 cm, d_1 11.8 cm. Publications: Kac and Monachov 1977, fig. 2, 6, tab. I, 6; Monachov 1980, no. 30; Brašinskij 1984, 202 no. 14; Monachov 1989, no. 26; Monachov 1999a, 498 pl. 211, 7.

Ad 11. U6 room 13. Find list 8/9. 1971. Pl. 45.

Transport amphora similar to **Ad 7** with two horizontal grooves on neck. Capacity 19.4 l. Dimensions: H. 72.4 cm, H_0 65.7 cm, H_1 24.0 cm, D. 30.4 cm, d_1 12.0 cm. Publications: Monachov 1980, no. 31; Brašinskij 1984, 202 no. 13; Monachov 1989, no. 21; Monachov 1999a, 499 pl. 212, 7.

Ad 12. U6 room 13. Find list 8/4. 1971. Pls. 45 and 50.

Transport amphora similar to **Ad 7**. Horizontal groove on neck. Capacity 17.2 l. Dimensions: H. 70.0 cm, H_0 64.4 cm, H_1 24.7 cm, D. 29.2 cm, d_1 11.6 cm. Publications: Kac and

Monachov 1977, fig. 3, 3, tab. I, 9; Monachov 1980, no. 17; Brašinskij 1984, 203 no. 29; Monachov 1989, no. 27; Monachov 1999a, 499 pl. 212, 2.

Ad 13. U6 room 13. Find list 8/3. Pls. 45 and 51.

Transport amphora similar to **Ad 7**. Red painted band and dipinto **H 70** on the neck. Capacity 19.6 l. Dimensions: H. 71.7 cm, H_0 66.2 cm, H_1 24.1 cm, D. 29.5 cm, d_1 11.0 cm. Publications: Kac and Monachov 1977, fig. 2, 3, tab. I, 3; Monachov 1980, no. 32; Brašinskij 1984, 202 no. 12; Monachov 1989, no. 25; Monachov 1999a, 499 pl. 212, 3.

Ad 14. U6 room 13. Find list 8/7. 1971. Pls. 46 and 51.

Transport amphora similar to **Ad 7**. Horizontal groove on neck. Capacity 19.1 l. Dimensions: H. 70.8 cm, H_0 62.8 cm, H_1 25.2 cm, D. 29.5 cm, d_1 11.2 cm. Publications: Kac and Monachov 1977, fig. 2, 4, tab. I, 4; Monachov 1980, no. 28; Brašinskij 1984, 202 no. 16; Monachov 1989, no. 17; Monachov 1999a, 499 pl. 212, 4.

Ad 15. U6 room 13. Find list 8/9. 1971. Pl. 46.

Fragmentary amphora similar to **Ad 7**. Base broken off, no join to the upper part. Capacity 18.4 l. Dimensions: H. c. 70 cm, H_0 c. 63.5 cm, H_1 23.6 cm, D. 30.0 cm, d_1 11.5 cm. Publications: Monachov 1980, no. 24; Brašinskij 1984, 202 no. 22; Monachov 1989, no. 24; Monachov 1999a, 499 pl. 212, 5.

Ad 16. U6 room 13. Find list 8/9. 1971. Pl. 46.

Transport amphora similar to **Ad 7**. Capacity: 19.7 l. Dimensions: H. 72.0 cm, H_0 67.0 cm, H_1 25.1 cm, D. 31.0 cm, d_1 12.4 cm. Publications: Monachov 1980, no. 33; Brašinskij 1984, 202 no. 11; Monachov 1989, no. 19; Monachov 1999a, 499 pl. 212, 6.

Ad 17. U6 room 3. Find list 6/16. 1969. Pl. 46.

Upper part of transport amphora similar to **Ad 7**, stamped on one handle with **Ae 86**. Horizontal groove on neck. Dimensions: H_1 22.0 cm, D. 29.4 cm, d_1 11.0 cm. Publications: Monachov 1989, no. 144; Monachov 1999a, 500 pl. 213, 7.

Ad 18. U6 room 3. Find list 6/21. 1969. Pl. 46.

Neck and handles of amphora similar to **Ad 7**. Stamped on one handle with **Ae 73**. Graffito **H 8** on lower part of neck. Dimensions: preserved H. 19.0 cm, d_1 12.0 cm. Publications: Monachov 1989, no. 152; Monachov 1999a, 500 pl. 213, 2.

Ad 19. U6 room 3. Find list 6/14. 1969. Pl. 46.

Neck and handles of amphora similar to **Ad 7**. Signed with stamp **Ae 84**. Two horizontal grooves on neck. Dimensions: preserved H. 19.8 cm, d_1 11.5 cm. Publications: Monachov 1989, no. 237; Monachov 1999a, 500 pl. 213, 3.

Ad 20. U6 room 29. Find list 13/3. 1972. Pls. 46 and 51.

Fragmentary amphora similar to **Ad 7**. Both handles and rim missing. Estimated capacity c. 18 l. Dimensions: preserved H. 63.0 cm, H_0 c. 64.5 cm, H_1 c. 26.0 cm, D. 29.2 cm. Publications: Kac and Monachov 1977, fig. 3, 2, tab. I, 8; Monachov 1980, no. 21; Brašinskij 1984, 202 no. 24; Monachov 1989, no. 22.

Ad 21. U6 courtyard, E-6. Find list 17. 1974. Pl. 46.

Fragmentary amphora similar to **Ad 7**. Base and one handle missing. Capacity 17.35 l. Dimensions: preserved H. 64.0 cm, H₀ 63.5 cm, H₁ 21.0 cm, D. 29.0 cm. Publications: Monachov 1980, no. 18; Brašinskij 1984, 203 no. 28; Monachov 1989, no. 23.

Ad 22. U6 room 13. Find list 8/5. 1971. Pls. 46 and 51.

Fragmentary amphora similar to **Ad 7**. Upper part of neck and both handles are missing. Estimated capacity *c.* 19 l. Dipinto **H 73** on lower part of neck. Dimensions: preserved H. 60.5 cm, H₀ *c.* 62.0 cm, H₁ *c.* 25.0 cm, D. 29.8 cm, Publications: Kac and Monachov 1977, fig. 2, 5, tab. I, 5; Monachov 1980, no. 26; Brašinskij 1984, 202 no. 18; Monachov 1989, no. 41.

Ad 23. U6 courtyard.

Fragmentary amphora similar to **Ad 7**. Base, handles and most of neck are missing. Estimated capacity 18.1 l. Dimensions: preserved H. 60.8 cm, H₀ 60.0 cm, H₁ 23.0 cm, H₃ 15.0 cm; D. 31.0 cm; d₁ 9.2 cm. Publications: Monachov 1989, no. 138.

Ad 24. U6 room 12. Find list 6/7. 1971. Pl. 46.

Lower part of amphora similar to **Ad 7**. Dimensions: preserved H. 52.5 cm, D 30.8 cm. Publications: Kac and Monachov 1977, fig. 3, 5, tab. I, 17; Monachov 1989, no. 137.

Ad 25. U6 room 13. Find list 8/9. 1971 + courtyard, B-2. 1973. Pl. 46.

Fragmentary amphora similar to **Ad 7**. Estimated capacity *c.* 16 l. Dimensions: H. 68.0 cm, H₀ 58.5 cm; H₁ 25.5 cm; H₃ 17.0 cm; d₁ 8.5 cm; D. 29.0 cm. Publications: Monachov 1989, no. 139.

Ad 26. U6 room 12. Find list 6/6. 1971. Pls. 46 and 52.

Fragmentary amphora similar to **Ad 7**. Both rim and lower part of body missing. Red painted band on neck. Dimensions: preserved H. 52.0 cm, D. 31.3 cm. Publications: Kac and Monachov 1977, fig. 3, 4, tab. I, 10; Monachov 1989, no. 173.

Ad 27. U6 room 30. Find list 14/4. 1971.

Fragmentary amphora similar to **Ad 7**. Both neck and base are missing. Dimensions: D. 30.6 cm. Publication: Monachov 1989, no. 174.

Ad 28. U6 courtyard, B-6. 1971.

Lower part of amphora similar to **Ad 7**. Dimensions: preserved H. 47.0 cm, D. 29.0 cm. Publications: Monachov 1989, no. 175.

Ad 29. U6 courtyard.

Fragmentary amphora similar to **Ad 7**. Neck, handles, and lower part of body missing. Dimensions: preserved H. 45.5 cm, D. 29.0 cm. Publications: Monachov 1989, no. 176.

Ad 30. U6 room 30. Find list 14/5. 1972. Pl. 46.

Lower part of amphora similar to **Ad 7**. Dimensions: preserved H. 35.0 cm, D. *c.* 30 cm. Publications: Kac and Monachov 1977, fig. 3, 6, tab. I, 12; Monachov 1989, no. 188.

Ad 31. U6 gate. Find list 3/6. 1972.

Fragmentary amphora similar to **Ad 7**. Only lower part of body preserved. Dimensions: preserved H. 35.5 cm, D. *c.* 31 cm. Publications: Monachov 1989, no. 191.

Ad 32. U6 room 13. Find list 8/13. 1971.

Fragmentary amphora similar to **Ad 7**.

Ad 33. U6 room 12. Find list 6/8. 1971. Pl. 47.

Upper part of amphora similar to **Ad 7**. Restored with plaster. Lower part of one handle and upper part of the other are missing. Graffito (**H 36**) described in the find list is not preserved. Clay light brown with few inclusions of limestone. Yellowish rose slip. Dimensions: preserved H. 31.8 cm, H₁ 25.0 cm, H₃ 18.4 cm, d₁ 9.2 cm

Ad 34. U6 room 32. Find list 3/1. 1973. Pls. 47 and 52.

Lower part of amphora similar to **Ad 7**. Clay reddish brown with inclusions of limestone. Cream-coloured slip. Dimensions: preserved H. 29.5 cm

Ad 35. U6 room 32. Find list 3/2. 1973. Pls. 47 and 52.

Lower part of amphora similar to **Ad 7**. Light brown clay with few inclusions of limestone. Greenish white, partly yellowish white slip on both outer and inner surface. Dimensions: preserved H. 35.7 cm.

Ad 36. U6 room 7. Find list 1/31. 1971.

Lower part of amphora similar to **Ad 7**. Base is missing. Dimensions: preserved H. 26.0 cm.

Ad 36a. U6 gate. Find list 3/5. 1972. Pl. 52.

Upper part of amphora similar to **Ad 7**. Graffito **H 78** on shoulder. Dimensions: preserved H. 20 cm; H₃ 16 cm; d₁ 9 cm.

Ad 37. U6 courtyard, D-6. Find list 17/27. 1972. Pls. 47 and 52.

Small amphora, type II-A, signed with stamp **Ae 81** on one handle. Horizontal groove (width 0.7 cm) on outer surface of base. Capacity 5.0 l. Dimensions: H. 50.8 cm, H₀ 43.8 cm, H₁ 20.1 cm, D. 22.8 cm, d₁ 8.8 cm. Publications: Kac and Monachov 1977, fig. 4, 1, tab. I, 13; Brašinskij 1984, 203 no. 49; Monachov 1989, no. 93; Monachov 1999a, 500 pl. 213, 7.

Ad 38. U6 room 12. Find list 6/5. 1971. Pls. 47 and 52.

Small amphora, type II-A, stamped with **Ae 82** on one handle. Vertical grooves (width 0.5 cm, depth 0.3 cm) on outer surface of handles. Capacity 5.16 l. Dimensions: H. 53.0 cm, H₀ 44.8 cm, H₁ 20.5 cm, D. 20.8 cm, d₁ 9.4 cm. Publications: Kac and Monachov 1977, fig. 4, 2, tab. I, 14; Monachov 1980, no. 9; Brašinskij 1984, 203 no. 45; Monachov 1989, no. 92; Monachov 1999a, 500 pl. 213, 8.

Ad 39. U6 room 9. Find list 3/2. 1971. Pl. 47.

Fragmentary amphora, type II-A. Only the upper part is preserved. Typical Chersonesean clay with few inclusions of limestone. Greenish white slip. Dimensions: preserved H. 21.8 cm, H₁ 18.5 cm, H₃ 16.7 cm, d₁ 7.0 cm, D. 23.4 cm.

Ad 40. U6 room 13. Find list 8/9. 1971. Pl. 47.

Fragmentary amphora, Monachov (1989) type III-B. One handle and most of rim missing. Broad red band on neck. Dimensions: preserved H. 30.0 cm, H₁ 28.5 cm, D. 30.0 cm, d₁ 11.0 cm. Publications: Monachov 1989, no. 225; Monachov 1999a, 500 pl. 213, 4.

Ad 41. U6 courtyard, E-6. Find list 17. 1975. Pl. 47.

Fragmentary amphora similar to **Ad 31**. Type III-B. Upper part of neck, base, as well as one handle are missing. Dimensions: preserved H. 49.0 cm, H₀ c. 58.0 cm, D. 29.2 cm. Publications: Monachov 1989, no. 103; Monachov 1999a, 500 pl. 213, 5.

Ad 41a. U6 courtyard, B-6. Find list 16/26. 1974.

Fragment from rim and the upper part of a handle of amphora. Type unidentified. Relief stamp **Ae 3** on the handle. Publication: Monachov 1989, 135 pl. 9 rim no. 77.

Ad 42. U6 room 9. Find list 3/4. 1971. Pl. 49.

Lower part of amphora. Brown clay with few inclusions of limestone. Cream-coloured slip. Preserved H. 12.0 cm.

Ad 43. U6 well, no. 62. 1977. Pl. 49.

Lower part of amphora. Light reddish brown clay with few particles of limestone. Preserved H. 10.7 cm.

Ad 44. U6 room 13. Find list 8/4. 1971. Pl. 49.

Lower part of amphora. Clay reddish brown. Greenish white slip. Preserved H. 12.3 cm.

Ad 45. U6 room 3. Find list 6/3a. 1969. Pl. 49.

Lower part of amphora. Preserved H. 8.0 cm.

Ad 46. U6 room 3. Find list 6/4a. 1969. Pl. 49.

Lower part of amphora. Preserved H. 8.5 cm. Room 3 revealed the correlation of this type of base with the magistrate stamps of *Dioskouridas*.

Ad 47. U6 room 3. Find list 6/4b. 1969. Pl. 49.

Lower part of amphora. Preserved H. 8.2 cm.

Ad 48-52. U6 room 3. Find list 6/4c-g. 1969. Pl. 49.

Amphora bases similar to **Ad 46-47**.

Ad 53. U6 room 3. Find list 6/3b. 1969. Pl. 49.

Lower part of amphora. Preserved H. 7.8 cm.

Ad 54-57. U6 room 3. Find list 6/3d-g. 1969. Pl. 49.

Amphora bases similar to **Ad 45** and **Ad 53**.

Ad 58. U6 room 3. Find list 6/5a. 1969.

Lower part of amphora. Preserved H. 13.8 cm. The finds in room 3 enable us to combine this base type with the monogram stamps similar to **Ae 83-97**.

Ad 59-62. U6 room 3. Find list 6/5b-e. 1969.

Amphora bases similar to **Ad 58**.

Ad 63. U6 gate. Find list 3/15. 1972.

Base of amphora. Preserved H. 6.0 cm.

Ad 64. U6 room 3. Find list 6/3c. 1969.

Lower part of amphora. Preserved H. 9.4 cm.

Ad 65. U6 room 3. Find list 6/6a. 1969.

Lower part of body with base of a small amphora. Preserved H. 11.3 cm.

Ad 66. U6 room 3. Find list 6/6b. 1969.

Lower part of amphora. Preserved H. 8.6 cm.

Ad 67-74. U6 room 3. Find list 6/6c-j. 1969.

Amphora bases similar to **Ad 65-66**.

Ad 75. U6 well, no. 51. 1977.

Base of an amphora. Clay light brown with few inclusions of limestone and pyroxene. Preserved H. 6.0 cm.

Sinope

Ad 76. U6 well, no. 88. 1977. Pl. 47.

Lower part of body with conical base of an amphora, Monachov type IIC (1992, 173 f., 193 pl. 8). Clay yellowish brown, partly brownish lilac, with many inclusions of pyroxene. Dimensions: preserved H. 21.5 cm.

Amastris

Ad 77. U6 gate. Find list 3/25. 1972. Pls. 47 and 53.

Fragmentary amphora signed on the neck with stamp **Ae 115**. Graffito **H 12** on neck. Lower part of the body missing. Clay similar to Sinopean clay (with many inclusions of pyroxene). Estimated capacity c. 21-23 l. Dimensions: estimated H. 70-74 cm, H₀ 64.0-68.0 cm, H₁ 30.0 cm, D. 38.0 cm, d₁ 13.1 x 13.5 cm. Publications: Ščeglov 1986, 365 ff., fig. 1, 7; Kac, Pavlenkov and Ščeglov 1989, 24, 16 fig. 1, 3 catalogue no. 3; Monachov 1999a, 501 pl. 214, 7.

Herakleia Pontike

Ad 78. U6 room 12. Find list 6/9. 1971. Pls. 47 and 53.

Fragmentary amphora, Brašinskij type II-A (1980). Both handles and upper part of the neck are missing. Dimensions: preserved H. 49.0 cm, D. 25.0 cm. Publications: Monachov 1999a, 500 pl. 213, 6.

MEDITERRANEAN ATELIERS

Kolophon

Ad 79. U6 room 13. Find list 8/15. 1971 + courtyard, B-6. Find list 16/81. 1972. Pls. 47 and 53.

Fragmentary amphora. Middle part of double-barrelled handles restored with plaster. Clay reddish brown with small sand particles. Light greyish slip. Capacity 9.2 l. Dimensions: H. 51.0 cm, H₀ 44.6 cm, H₁ 20.0 cm, D. 26.2 cm, d₁ 10.2 cm. Publications: Monachov 1990, 101 fig. 5; Monachov 1999a, 501 pl. 214, 2, 506.

Samos (?)

Ad 80. U6 room 3. Find list 6/26. 1969. Pl. 48.
Transport amphora, Solocho-I type. Mushroom-shaped rim. Clay micaceous yellowish brown (partly grey). Dimensions: H. 64.8 cm, H₀ 62.6 cm, H₁ 28.0 cm, D. 40.3 cm, d₁ 15.0 cm. Publications: Monachov 1999a, 501 pl. 214, 3, 599 variant IV-C.

Ad 81. U6 room 14. Find list 7/3. 1971. Pl. 48.
Fragmentary amphora, Solocho-I type. Lower part missing. Broad mushroom-shaped rim. Clay reddish brown with inclusions of mica. Clay-coloured slip. Dimensions: H₁ 35.0 cm, D. 44.8 cm, d₁ 16.8 cm. Publication: Monachov 1999a, 501 pl. 214, 4.

Ad 82. U6 courtyard, D-5. 1973.
Fragmentary transport amphora. Shape could not be determined. Mushroom-shaped rim. Relief stamp **Ae 135** on handle. Dark grey clay with inclusions of mica. Publication: Monachov 1999a, 501 pl. 214, 7, 507.

Kos (?)

Ad 83. U6 well, no. 109. 1977. Pl. 48.
Fragmentary amphora. Lower part with the typical base and both double-barrelled handles preserved. Clay light brown with many inclusions of mica. *Cf.* Monachov 1999a, 444 pl. 193, 6 (late 4th century B.C.).

Rhodos

Ad 84. U6 room 13. Find list 8/14. 1971. Pl. 48.
Fragmentary ‘proto-Rhodian’ amphora. Upper part of neck and both handles missing. Graffito **H 34** on shoulder. Dimensions: estimated H. 70 cm, H₀ 63 cm, H₁ 32 cm, D. 42 cm. Publication: Monachov 1999a, 501 pl. 214, 5.

Korinth

Ad 85. U6. Pls. 48 and 53.
Upper part of amphora, Koehler’s type A’ (1992, 281 pl. 2c). Dimensions: d₁ 11.6 cm. Publication: Monachov 1999a, 501 pl. 214, 6. *Cf.* Marčenko, Žitnikov and Kopylov 2000, Abb. 70.7.

Ad 86. U6 room 13. Find list 8/16. 1971. Pl. 48.
Fragment from rim and neck of an amphora, Koehler’s type

A’ (1992, 281 pl. 2b). Fawn-coloured clay with large inclusions of grog. Dimensions: d₁ 12.0 cm. *Cf.* Abramov 1993, 109 pl. 41, 3.70; Marčenko, Žitnikov and Kopylov 2000, Abb. 70.10.

UNCERTAIN

Ad 87. U6 room 12. Find list 6/10a. 1971. Pl. 48.
Amphora with a wide body. Clay light brown, micaceous. Fragmentary graffito **H 80** on the shoulder. Capacity 38.16 l. Dimensions: H. 82.0 cm, H₀ 78.0 cm, H₁ 33.0 cm, H₃ 22.0 cm, D. 43.0 cm, d₁ 8.4 cm.

Ad 88. U6 well, no. 75. 1977. Pl. 48.
Fragmentary amphora. Middle part of body missing. Clay brownish orange with many impurities. Clay-coloured slip. Estimated capacity c. 30-31 l. Dimensions: estimated H. c. 70 cm, H₁ c. 27 cm, H₃ 15.0 cm, estimated D. c. 42 cm, d₁ 12 cm. For the shape compare an amphora from the necropolis of Nikonion dated to the last quarter of the 4th century B.C. (Monachov 1999a, 335 pl. 144, 6).

Ad 89. U6 courtyard, DE-6. Find list 17/50. 1972. Pl. 48.
Fragmentary amphora with broad mushroom-shaped rim. Upper part with both handles is preserved. Clay yellowish with many inclusions of mica and sparse small particles of grog (similar to **Ad 87**). Dipinto **H 60** in red on neck. Dimensions: preserved H. 24.3 cm, H₁ c. 25.0 cm, H₃ 13.5 cm, D. c. 34.0 cm, d₁ 8.5 cm.

Ad 90. U6 room 12. Find list 6/10b. 1971. Pl. 48.
Upper part of amphora with mushroom-shaped rim. Clay yellowish, micaceous, similar to **Ad 89**). Dimensions: preserved H. 18.5 cm, H₃ 13.7 cm, d₁ 10.4 cm.

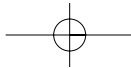
Ad 91. U6 well, no. 102. 1977. Pl. 49.
Base of an amphora. Clay reddish brown, partly orange with few particles of mica. Preserved H. 7.3 cm.

Ad 92. U6 well, no. 103. 1977. Pl. 49.
Base of an amphora. Clay orange with few small inclusions of limestone and sand. Preserved H. 11.0 cm.

Ad 93. U6 courtyard. 1973-1974. Pl. 53.
Fragmentary amphora with wide, bulbous body. Restored with plaster. One of the handles and base with lower part of body are missing. Dimensions: preserved H. 51 cm, H₁ 15.5 cm, d₁ 11 cm, D. 35.5 cm.

AMPHORA STAMPS (Ae 1-141)

142 amphora stamps were recorded during the investigation of U6. They are distributed as follows according to production centres:



Chersonesos	—	100
Sinope	—	15
Amastris	—	2
Herakleia	—	16
Thasos	—	1
Unidentified centres	—	8
<i>Total</i>	—	142

Most of the stamps of this relatively small collection are made with dies well known from finds at other sites in the Black Sea area. However, a number of them derive from dies not previously known (**Ae 67**, **Ae 100**, **Ae 119**, **Ae 121**, **Ae 132-136**, **Ae 138-140**).

Stamps of Tauric Chersonesos. Chersonesean stamps make up by far the largest group, and it has been possible to identify almost all the 100 examples in the collection more or less definitely.

The overwhelming majority of the stamps (83 examples, **Ae 1-82**) contain a magistrate's name (in three cases with patronymics) in the complete form (Pls. 55-58). We have been able to read and restore the inscriptions on 74 examples (about 90% of the total number). They belong to 14 officials who controlled the ceramic production in the city, unevenly distributed in time: ten officials are represented by 1-4 stamps; one by 7 examples, and three by 14-20 stamps.

Apart from these, the collection includes 17 Chersonesean monogram stamps (**Ae 83-99**). Usually such stamps are identified as abbreviated names of the 'manufacturers' or potters,²² the reason being that on complete vessels these monogram stamps are accompanied with a magistrate's stamp, either on the same or on the opposite handle.

However, our collection has yielded a unique example, which throws doubt on this usually accepted interpretation. Among the amphorae found in *room 3* there is an upper body with both handles preserved (**Ad 19**); one of the handles bears a monogram stamp containing three retrograde letters: E, Y and A in ligature (**Ae 84**). Additionally, 14 separate handles with stamps made with the same die were found during the excavation (**Ae 83**, **Ae 85-97**). They are all considerably larger than the typical Chersonesean stamps, and unlike the latter, not made with a semi-cylindrical, but a flat stamp. All this enabled one of us to suggest that in the present case we are dealing, not with a 'manufacturer's' or potter's stamp, but with the stamp of a magistrate.²³

Based on the materials from the excavations of Panskoye I, Kac has recently developed a new chronological classification of Chersonesean ceramic stamps.²⁴ Taking into account the closed complexes of stamps from this site and paying special attention to typology, he was able to distinguish four different types:²⁵

Type 1 is characterized by the legend beginning with a name without patronymic, followed by the magistrate's title;

Type 2 is composed of stamps with name and patronymic followed by the title;

Type 3 comprises stamps in which the magistracy is put before name and patronymic;

Type 4 is composed of stamps without any magistrate title.

The typological analysis of the magistrate stamps shows that the first three types of stamps probably represent an uninterrupted chronological sequence, and that each of these types

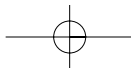


Table 2. Magistrate stamps of Chersonesos

Chronological groups	Chronological Limits	Magistrates	Number of Stamps
1A	325-315 B.C.	<i>Bathyllos</i>	14
		<i>Eua()</i>	15
		<i>Eukleidas</i>	2
		<i>Kraton</i>	3
		<i>Sopolis</i>	1
		Total	35
1B	315-300 B.C.	<i>Alexandros</i>	1
		<i>Apollonios</i>	17
		<i>Herakleios</i>	1
		<i>Xanthos</i>	7
		<i>Sokritos</i>	4
		Total	21
1B	300-285 B.C.	<i>Dioskouridas</i>	20
		<i>Herodotos</i>	1
		Total	21
2A	285-272 B.C.	<i>Apollas Choreiou</i>	1
		<i>Kotytion Aristonos</i>	1
		<i>Prytanis Aristonos</i>	1
		Total	3
		Total	89

may possibly form a chronological group, whereas type 4 may be considered as atypical variations of the first three types of dies.

According to this classification, 11 of the astynomoi whose stamps are represented among the material from U6 belong to chronological group 1, and the remaining three magistrates to the beginning of group 2. In addition, if the hypothesis that the monogram stamps (**Ae 83-97**) are actually magistrate stamps is justified, then the first astynomos undoubtedly belongs to the very beginning of group 1. Actually, it seems probable that the practice of stamping amphorae in Chersonesos began with these stamps. Thus all the magistrate stamps found in U6 may be divided into four successive chronological stages, of which three belong to the first chronological group and the last to the very beginning of the second group (*cf.* Table 2).

The import of Chersonesean products in transport amphorae went on continuously for 45-50 years of the occupation of U6. However, the intensity of the import was not consistent. It was most frequent during the first decade, to which almost 40 percent of the stamps found in the house can be dated. Imports were not uniform even during this period. Mass purchases of wine occurred twice, and during the three subsequent years only small consignments were imported. Imports of Chersonesean products continued, though on a smaller scale, during the next period, to which the stamps of astynomoi of sub-group 1B are dated. Significantly, in this case too, purchases of only one large, one medium and three small con-

signments of wine can be registered over a period of 15 years. The last large-scale consignment was imported at the time of *Dioskouridas* – a magistrate of the beginning of sub-group 1B. After that, during the 290s and 280s, only three very small consignments of Chersonesean wine were delivered to the house.

The two ‘manufacturer’s’ stamps (**Ae 98-99**) found in the house do not suggest any significant corrections of the above conclusions. Firstly, because the classification of this group of stamps is not completely developed, and these stamps are therefore usually dated within quite a broad range of time.²⁶ The date of our examples, found in a closed archaeological complex, proves to be narrower: the very end of the 4th – first quarter of the 3rd century B.C.²⁷

Stamps from Sinope. This group includes 15 stamps (Pls. 58-59). The number of Sinopean amphora stamps found in the building is thus approximately equal to that of Herakleian stamps; however, the imports of these two groups of amphorae differ significantly in date.

Up to the present, the prime classification of Sinopean stamps remains B.N. Grakov’s, which was worked out more than 50 years ago.²⁸ Although the absolute chronology of Grakov’s six groups has frequently been subject to revision, the groups proper and their succession still remain unchallenged. The stamps from U6 are not distributed evenly among these groups. Thus only one stamp (**Ae 101**) belongs to the magistrates at the end of group I, and one, that of astynomos *Histiaios*, to the beginning of group IV (**Ae 104**). As to the remaining stamps (10 specimens), they derive from amphorae manufactured at the time of the magistrates at the end of group III: *Theudorides* (**Ae 102**), *Theupeithes* (**Ae 103**), *Mikrios* (**Ae 105**), *Mnesikles* (**Ae 106-111**) and *Pythokles* (**Ae 112**).

In contrast to their relative chronology, the absolute chronology of the magistrate stamps of Sinope remains disputed. The dates proposed by Grakov have later been revised more than once (also by Grakov himself) in favour of earlier dates.²⁹ For that reason the date of stamps from the first four groups varies greatly in different publications, though recently a certain converging of opinions can be observed. Thus there is general agreement that the practice of stamping amphorae undoubtedly started in Sinope in the 370s-360s B.C. Judging by the 18-20 magistrates of group I known so far,³⁰ it lasts into the 340s. Taking into account the number of magistrates constituting the next two groups, we can approximately define the temporal limits of these groups. At present, about 30 astynomoi have been recorded in each group. Therefore, the magistrates’ stamps belonging to group II are dated within the range of the late 340s and the beginning of the last decade of the 4th century B.C., and those of group III between the end of that century and the first two decades of the next one. Thus the late 280s or early 270s B.C. may be considered as the time when the stamps of the astynomoi of group IV appeared. The stamp of the magistrate *Histiaios* (**Ae 104**) on the handle of an amphora evidently brought to the house not long before its destruction is to be dated to this period. The amphora stamps of magistrates from group III, constituting three quarters of our collection, are dated to the first two decades of the 3rd century B.C. Also, with the exception of stamp **Ae 100**, on which it is impossible to read the first name with certainty, all the other stamps belong to astynomoi of the end of group III and are dated to the second half of the 280s.

The amphora stamp with the name of the astynomos *Hephaistios* belongs to the number of stamps which have turned up on reused material in U6 (see above, the discussion on tiles, and below, on stamps from Herakleian amphorae).

Stamps from Amastris are known only in a few specimens, and two of those found in U6 are actually made with the same die (**Ae 115-116**; Pl. 60). Two-lined engraved stamps are

placed on amphora necks. Their shape and palaeography certainly suggest a similarity to group IV of the Herakleian stamps, with which they are probably contemporary. The hypothesis that stamps with this legend were put on amphorae during the period between 300 and 285/284 B.C., when Queen Amastris ruled the city she founded,³¹ seems quite probable.

Stamps from Herakleia Pontike. In number, amphora stamps from Herakleia take second place among the stamps from U6, being considerably fewer in number than those of Chersonesos, and slightly more common than those from Sinope. However, the Herakleian stamps are much less well preserved than those of the other two cities. Most of them are found on small fragments of amphora necks, and have retained just two or three letters of the inscription (Pls. 60-61). For that reason we have not been able to restore the legends on almost half of the stamps. Taking into consideration the existing classifications,³² the remaining nine specimens with reliably legible inscriptions belong to the following typological groups:

Group 1 – stamps including one manufacturer's name – 3 samples (**Ae 117-118, Ae 122**);

Group 2, early phase – stamps with two names, of which the magistrate's is given in a strongly abbreviated form – 2 samples (**Ae 124-125**);

Group 2, late phase – stamps with two names, of which the magistrate's is given in a slightly abbreviated form (**Ae 123**);

Group 4 – stamps with a single, possibly manufacturer's name – one example (**Ae 120**);

Group 5, late phase – abbreviations of one name made with a large type – one example (**Ae 119**);

Group 6, late phase – figured stamps – one example (**Ae 121**);

Group 7 – anepigraphic stamps – one example (**Ae 132**).

As to the main chronological periods of the stamps of Herakleia, the six stamps of group 1 and group 2, early and late phase, and presumably the anepigraphic stamp of group 7, undoubtedly belong to the first (A) period, comprising the first quarter of the 4th century B.C. Of the remaining examples, the two stamps of group 4 and late phase group 5 belong to the third (C) period, and are datable to the late 4th or first quarter of the 3rd century B.C. Similar stamps are recorded in the assemblage from the grave found in 1973 at Novorossiysk (HPA), and on a complete amphora of type IIA from the necropolis of Elizavetovskoye (HPAKΛEIDA). The leaf-like stamp with a relief inscription from group 6 is possibly connected with the same period. Earlier, I.B. Brašinskij grouped all the figured stamps into a single group and assigned them to the first (A) period.³³ However, in recent years a number of leaf-like stamps, including those made with the same die as our example, were found at the Elizavetovskoye site in layers dating to the first quarter of the 3rd century B.C. A similar stamp is reported from Romania on an amphora neck with a 'collar' rim found in the amphorae storehouse near Islam Geaferca. The amphora is dated to *c.* 300 B.C. or the first third of the 3rd century B.C.³⁴ Thus there are reasons to subdivide the figured stamps typologically into two groups and to place the leaf-like impressions similar to ours in group 6, late phase.

Thus seven of the ten identifiable Herakleian stamps from U6 were made as early as the first half of the 4th century B.C., and three at the end of the same century or in the first decades of the 3rd century. The predominance of the early stamps is even more marked if we take into account that, of the six stamps on which it was not possible to restore the inscriptions completely, one (**Ae 126**) also belongs to the two first chronological periods, judging

by its typological and palaeographic peculiarities. Here, it should be noted once more that all the earlier Herakleian stamps are found on small reused fragments.

Stamps from Thasos. This production centre is represented by a single stamp of the magistrate *Bion I* (**Ae 133**; Pl. 60). According to the classification developed by Yu. G. Vinogradov, it belongs to sub-group 5b, dated within a fairly broad time-span to the late 4th and the 3rd centuries B.C.³⁵ According to M. Debidur's recent and more detailed classification of this sub-group, *Bion I* was in office in the first quarter of the 3rd century B.C.³⁶

Stamps from unidentified centres. Only 8 stamps (less than 6% of the total amount) have been impossible to localise. Practically all of them are made with dies so far unknown (**Ae 134-141**; Pl. 61).

These stamps may be divided into two sub-groups:

1. stamps with the legend consisting of a name in a complete or slightly abbreviated form – 2 examples;
2. monogram stamps – 6 examples.

The first sub-group includes a stamp on an oval amphora handle of dense red clay with the name of *Antiochos* in the genitive on two lines (**Ae 134**). Judging by the palaeographic features and the use of very small letters, the stamp is to be dated not earlier than *c.* 300 B.C. No such stamps have been recorded in the *Corpus* of Pridik-Grakov (*IOSPE III*). The only known parallel is on one of the handles of a fragmentary amphora with a mushroom-shaped rim from the excavations at Olbia. On the other handle of this amphora, there is a relief stamp with the name of *Hermios*. In contrast to the *Antiochos* stamp, the *Hermios* stamp has been reported from other sites in the Black Sea area, in particular from Tyras³⁷ and in rural houses near the Eupatoria lighthouse.³⁸ On cursory inspection of the amphora from Olbia, we had the impression that it may belong to one of the Graeco-Italian centres in Sicily or southern Italy, where vessels with mushroom-shaped rims were very common during the entire 4th and part of the 3rd century B.C.

The second stamp of this sub-group (**Ae 135**) was on an oval handle of a broken amphora. The form of the amphora has not been restored, but its most marked morphologic feature is an out-turned, overhanging rim. The clay is very similar to Samian: it is layered, dark grey with a high content of mica. The rectangular single-lined stamp contains the name of *Sangari[os?]*. Judging by the palaeographic features, including the lunar sigma, this stamp can also be dated to a period not earlier than *c.* 300 B.C.

Most of the monogram stamps (**Ae 138-140**) are round impressions made with the same die. Unfortunately, the monograms are blurred on all the examples, probably because of some defect in the die, and can be only tentatively restored. The stamps are placed on oval handles of dark brown clay containing limestone inclusions and mica. A similar clay is characteristic of the fourth amphora handle, with a rectangular stamp with a monogram (**Ae 141**), which also can be only tentatively read. All these monogram stamps are probably connected with the period when U6 was active, *i.e.* they are dated to the late 4th or the early 3rd century B.C.

In contrast, stamp **Ae 136**, containing a single *beta* with angles instead of semicircles, undoubtedly belongs to an earlier period. The stamp is placed on the lower part of the neck of the amphora, which is made of a dark-brown clay with inclusions of lime and a dense slip of the same colour as the clay. No parallels to this stamp are known, and it probably belongs to a rare series of stamps seen on amphorae from Peparethos ('Solokha-II' type).

Table 3. The Distribution of Amphora Stamps

Phase	Chronological limits	Chersonesos	Sinope	Herakleia	Amastris	Thasos	?	Total	Frequency (<i>q_i</i>)	f°
I	<i>c.</i> 325-295 B.C.	1A 35						85	75.89	2.53
		1B 30								
		1B 20								
II	<i>c.</i> 295-275 B.C.	1B 1	11	3	2	1	6	27	24.11	1.21
		2A 3								
I-II	325-275 B.C.	89	11	3	2	1	6	112	100.0	2.0

It is possible to date most of the stamps from U6 with reasonable certainty. Their uneven distribution into two different periods is immediately apparent. All the above-mentioned tile stamps, but only 9 of the amphora stamps belong to the earlier period, which more or less covers the first half of the 4th century B.C. Among the amphora stamps there are 7 Herakleian (**Ae 117-118**, **Ae 122-126**), one Sinopean (**Ae 101**), and one from an unidentified centre (**Ae 136**). One cannot rule out the possibility that most of the fragmentary Herakleian stamps with illegible legends (**Ae 127-131**) should be assigned to the same group. Thus, as already stressed, the earliest stamped amphora fragments from the assemblage belong to the period before the construction of U6 and were brought there, evidently by chance, from the earlier building U7, situated nearby. The stamped Sinopean tiles were probably also brought from U7 and reused in the structures of hearths and pavements.

The majority of the amphora stamps (128 examples) derive from the period when U6 was active, and date from the last quarter of the 4th to the first quarter of the 3rd century B.C. The single Herakleian stamp (**Ae 132**), three Sinopean (**Ae 100**, **Ae 113-114**), and nine Chersonesean stamps (**Ae 74-82**), on which it was possible to reliably restore the legends, can only be dated to this broad range of time. This also goes for the two Chersonesean stamps with monograms (**Ae 98-99**) and the monogram stamp from an unknown centre (**Ae 137**). The remaining 112 imprints can be dated within a narrower chronological range, and grouped in two successive phases of the occupation of the complex (*cf.* Table 3).

The first phase comprises the first three decades of the existence of the complex. Three quarters of the stamps found can be assigned to this phase. Moreover, they all belong to Chersonesean magistrates in group 1. As mentioned above, though the supplies of Chersonesean products were continual, they had an irregular character. Large consignments of wine were purchased once every seven or eight years, with two or three smaller ones in the interims. The last large consignment came at the time of the astynomos *Dioskouridas* in the early 3rd century B.C. (the very beginning of sub-group 1B). It is notable that only one stamp of *Herodotos* (one of the last astynomoi of sub-group 1B) is represented in the collection (**Ae 56**). That this is hardly accidental is also proved by the analysis of the set of ceramic stamps related to the last two decades of the occupation of the house (second phase, *i.e.* mid-290s – early 270s B.C.).

Only a quarter of the stamps found in the house are connected with the second phase. Their relative distribution density (f_o) is half of that of the earlier phase. Along with the *Herodotos* stamp already mentioned, only three more stamps of the magistrates of sub-group 2A (on amphorae which must have arrived immediately before the destruction of the house) date from the same period (**Ae 2**, **Ae 57**, **Ae 68**). On the other hand, import of Sinopean products becomes quite systematic during the last decade. Also, products of two more centres of southern Pontos – Herakleia and Amastris – were purchased, though in limited quantities. It is noteworthy that high quality wine from the Mediterranean arrived in this rural settlement, though in very limited amounts.

Thus there can be little doubt that there were both quantitative and qualitative differences in the wine import during the two phases of the occupation of the house. What were the reasons for these differences? We have no evidence for connecting the reduction of the imports with any general crisis in the area after the middle of the 290s. On the contrary, the situation in this region was quite favourable at the beginning of the 3rd century B.C. Therefore, we assume that the explanation is to be sought in the specific economical development of Panskoye I itself. It seems that in the first phase wine was not produced here, and local needs were satisfied by the import of relatively cheap wine from Chersonesos. But at the beginning of the 3rd century the settlement may have begun its own wine production, which then resulted in a cutback of the import.

PONTIC ATELIERS

Chersonesos

a) Magistrate stamps

Ae 1. U6 courtyard, E-3. 1974.

Fragmentary stamp on amphora handle. Retrograde. Kac's group 1B (1994) (315-300 B.C.). Die: Kac 1994, 1-9,1-6.

ΔΡ[	Ἀλεξάνδρου
[- - - -]	[ἀστυνόμου]

Ae 2. U6 room 3. Find list 6/20. 1969. Pl. 55.

Two adjoining fragments of an amphora handle with a stamp of Kac's group 2A (285-272 B.C.). Die: Kac 1994, 1-11,5. Beginning of line 3 is obliterated.

ΑΠΟΛΛΑ	Ἀπολλᾶ
ΧΟΡΕΙΟΥ	Χορείου
ΙΥΝΟΜΟΥ	ἄστυνόμου

Ae 3. U6 courtyard, B-6. Find list 16/26. 1972.

Rim and upper part of handle of amphora **Ad 41a**. Signed with a relief stamp of Kac's chronological group 1B (315-300 B.C.). Die: Kac 1994, 1-15,1. Publication: Monachov 1989, 135 pl. 9 rim no. 77.

ΑΠΟΛΛΩΝΙΟΥ	Ἀπολλωνίου
ΑΣΤΥΝΟΜΟΥ	ἄστυνόμου

Ae 4. U6 courtyard, B-6. Find list 16/67. 1972 + courtyard, V-4. 1973.

Similar to the preceding. Two adjoining fragments. Same die.

Ae 5. U6 courtyard, B-6. Find list 16/66. 1972 + courtyard, G-4. 1967. Pl. 55.

Similar to the preceding. Two adjoining fragments. Same die.

Ae 6. U6 courtyard, V-2. Find list 11. 1971.

Similar to the preceding. Same die.

Ae 7. U6 courtyard, V-2. 1971 + courtyard, G-2. 1971. Pl. 55.

Similar to the preceding. Two adjoining fragments. Same die.

Ae 8. U6 courtyard, V-2. 1971 + courtyard, V-4. 1973.

Similar to the preceding. Two fragments. Same die.

Ae 9. U6 courtyard, V-2. 1971 + courtyard, G-2. 1971.

Similar to the preceding. Three fragments. Same die.

Ae 10-12. U6 courtyard, V-4. 1973.

Similar to the preceding. Same die.

Ae 13. U6 courtyard, V-4. 1973.

Similar to the preceding. Two fragments. Same die.

Ae 14. U6 courtyard, V-4. 1973 + courtyard, G-4. 1967. Pl. 55.

Similar to the preceding. Two adjoining fragments. Same die.

Ae 15. U6 courtyard, V-4. 1973 + courtyard, G-4. 1967. Pl. 55.

Similar to the preceding. Two fragments. Same die.

Ae 16. U6 courtyard, G-2. 1971.

Similar to the preceding. Four adjoining fragments. Same die.

Ae 17. U6 courtyard, G-4. 1967. Pl. 55.

Similar to the preceding. Same die.

Ae 18. U6 courtyard, G-4. 1967. Pl. 55.

Similar to the preceding. Two adjoining fragments. Same die.

Ae 19. U6 well, no. 39. 1977.

Similar to the preceding. Same die.

Ae 20. U6 courtyard, D-2. 1973. Pl. 55.

Fragment of an amphora handle with a relief stamp of Kac's group 1A (325-315 B.C.). Die: Kac 1994, 1-32,1.

ΒΑΘΥΛΛΟΥ
ΑΣΤΥΝΟΜΟΥ

Βαθύλλου
ἀστυνόμου

Ae 21. U6 courtyard, E-4. 1973.

Similar to the preceding. Three adjoining fragments. Same die.

Ae 22. U6 square Z-7. 1973.

Similar to the preceding. Same die.

Ae 23. U6 courtyard, V-4. 1973.

Similar to the preceding. Die: Kac 1994, 1-32,2.

Ae 24. U6 courtyard, V-4. 1973.

Similar to the preceding. Two fragments. Same die.

Ae 25-27. U6 courtyard, G-2. 1971.

Similar to the preceding. Same die.

Ae 28. U6 courtyard, G-4. 1973 + courtyard, G-5. 1973.

Similar to the preceding. Three fragments. Same die.

Ae 29. U6 courtyard, D-3. 1973.

Similar to the preceding. Same die.

Ae 30. U6 courtyard, E-4. 1973.

Similar to the preceding. Same die.

Ae 31. U6 courtyard, E-6. Find list 17. 1972.

Similar to the preceding. Same die.

Ae 32. U6 courtyard, DE-6. Find list 17/26.1972. See also **H 13**.

Similar to the preceding. On the handle of the fragmentary amphora **Ad 2**. Same die. Publication: Monachov 1999a, 498 pl. 211, 2.

Ae 33. U6 room 13. Find list 8/2. 1971. Pl. 55. See also **H 33**.

Similar to the preceding. On the handle of the amphora **Ad 1**. Die: Kac 1994, 1-32,3.

Ae 34. U6 courtyard, B-2. 1974. Pl. 55.

Fragment from neck and handle of an amphora. Two adjoining sherds. Relief stamp of Kac's group 1B (300-285 B.C.) on the handle. The second line is not completely impressed (only the tops of the letters are visible). Die: Kac 1994, 1-40,1.

ΙΚΟΥΡΙΑΔΑ
ΙΣΤΥΝΟΜΟΥ

Διοσκούριδα
ἰστυνόμου

Ae 35. U6 room 3. Find list 6/8. 1969. Pl. 56.

Fragment from rim (c. 45° preserved) and upper part of a handle of an amphora. Relief stamp of Kac's group 1B (300-285 B.C.). Die: Kac 1994, 1-40,2.

ΔΙΟΣΚΟΥΡΙΑΔ[
ΑΣΤΥΝΟΜ[

Διοσκούριδ[α
ἀστυνόμ[ου

Ae 36. U6 room 3. Find list 6/9. 1969. Pl. 56.

Upper part of an amphora handle. Two adjoining fragments. Relief stamp similar to **Ae 35**. Same die.

Ae 37. U6 room 3. Find list 6/10. 1969. Pl. 56.

Upper part of an amphora handle. Two adjoining fragments. Relief stamp similar to **Ae 35**. Same die.

Ae 38. U6 room 3. Find list 6/11. 1969. Pl. 56.

Amphora handle. Fragment from upper part. Relief stamp similar to **Ae 35**. Same die.

Ae 39. U6 room 3. Find list 6/12. 1969. Pl. 56.

Amphora handle. Fragment from upper part. Relief stamp similar to **Ae 35**. Same die.

Ae 40. U6 courtyard, V-4. 1973.

Amphora handle. Fragment from upper part. Relief stamp similar to **Ae 35**. Same die.

Ae 41. U6 courtyard, V-4. 1973.

Similar to the preceding. Same die.

Ae 42. U6 courtyard, G-3. 1971.

Four adjoining fragments from the upper part of an amphora handle. Relief stamp similar to **Ae 35**. Same die.

Ae 43. U6 courtyard, G-2. 1967. Pl. 56.

Amphora handle. Fragment from its upper part with relief stamp similar to **Ae 35**. Same die.

Ae 44. U6 courtyard, B-2. 1975.

Fragment from rim (c. 40°), neck and upper part of handle of an amphora. Relief stamp similar to **Ae 35**. Same die.

Ae 45. U6 room 3. Find list 6/7. 1969. Pl. 56.

Two adjoining fragment from the upper part of an amphora handle with relief stamp of Kac's group 1 B (300-285 B.C.). Die: Kac 1994, 1-40,5.

ΙΣΚΟΥΡΙΑΔΑ
ΙΤΥΝΟΜΟΥ

Διοσκούριδα
ἰστυνόμου

Ae 46. U6 room 3. Find list 6/13. 1969. Pl. 56.

Fragment from amphora handle with relief stamp similar to **Ae 45**. Same die.

Ae 47-48. U6 courtyard, G-3. 1971.

Two amphora handles with relief stamps similar to **Ae 45**. Same die.

b) Monograms

Ae 83. U6 courtyard, VG-4. Pl. 58.

Fragment of rim, neck and handle of an amphora. Relief stamp of Kac's group 1 (325-285 B.C.) on handle. Die: Kac 1994, 2A-13,5. Publication: Monachov 1989, 134 tab. 9 rim no. 75.

EYA()

Ae 84. U6 room 3. Find list 6/14. 1969. Pl. 58.

Fragmentary amphora **Ad 19**. Relief stamp similar to **Ae 83** on the handle. Same die. Publication: Monachov 1999a, 500 pl. 213, 3.

Ae 85. U6 room 3. Find list 6/15. 1969. Pl. 58.

Fragment of rim, neck and handle of an amphora. Relief stamp similar to **Ae 83** on the handle. Same die. Publication: Monachov 1989, 134 tab. 9 rim no. 76.

Ae 86. U6 room 3. Find list 6/16. 1969. Pl. 58.

Fragmentary amphora, type I-B (**Ad 17**). Lower part of jar missing. Relief stamp similar to **Ae 83** on handle. Same die. Publication of the amphora: Monachov 1989, 148 no. 144.

Ae 87. U6 room 3. Find list 6/17. 1969. Pl. 58.

Fragment of amphora handle with relief stamp similar to Ae 83. Same die.

Ae 88. U6 room 3. Find list 6/18. 1969. Pl. 58.

Similar to the preceding. Same die.

Ae 89. U6 courtyard, V-2. 1971.

Similar to the preceding. Same die.

Ae 90. U6 courtyard, B-5. 1971.

Ae 91. U6 courtyard, E-2. 1973.

Ae 92. U6 courtyard, E-5. 1974.

Ae 93. U6 well. 1975.

Similar to the preceding. Same die.

Ae 94. U6 gate. Find list 3/8. 1972.
Similar to the preceding. Same die.

Ae 95. U6 square A-3. 1971.

Similar to the preceding. Same die.

Ae 96. U6 square B-0. 1973.

Similar to the preceding. Same die.

Ae 97. U6 square Z-7. 1972.

Like the preceding. Same die.

Ae 98. U6 well. 1975.

Relief stamp on a fragment of an amphora handle. Chronologically corresponding to the magistrate stamps of groups 1B-B, 2A (315-270 B.C.). Die: Kac 1994, 2A-16.4.

HP()(retrograde) Ἡρ()

Ae 99. U6 courtyard, E-2. 1973.

Handle fragment of Chersonesean amphora with a monogram stamp. Chronologically corresponding to the magistrate stamps of Kac's groups 1B-B, 2A (315-270 B.C.). Die: Kac 1994, 2A-32,36.

ΠΑ()(retrograde) Πα()

Sinope

a) Magistrate stamps

Ae 100. U6 courtyard, D-5. 1974. Pl. 58.

Fragment from rim, neck and upper part of a handle of an amphora. Relief stamp on handle. Grakov's group I (1929). New die? 4th- 3rd centuries B.C.

Δ[· ·]Ο[	Δ[· ·]ο[
ΑΣΤΥΝ[	ἄστυν[ο
ΠΟΣΕΙΑ[	Ποσειδ[ωνίο

Ae 101. U6 courtyard, G-2. 1971. Pl. 58.

Fragment of amphora handle with relief stamp. Grakov's group I (1929). Type: *IOSPE* III 294-7. Middle of the 4th century B.C.

ΗΦΑΙΣΤΙΟ	eagle	Ἡφαιστίο
ΑΣΤΥΝΟ	on	ἄστυνο()
ΙΡΧΕΠΤΟ	the dolphin	Ἰρχεπτο(λέμο)

Ae 102. U6 courtyard, B-2. 1974. Pl. 58.

Upper part of amphora handle with a relief stamp from Grakov's group III (1929). Type: *IOSPE* III 4017-20. First quarter of the 3rd century B.C.

ΘΕΥΔΩΡΙΔΟΥ	Θευδωρίδου
ΑΣΤΥΝΟΜΟΥΝΤΟΣ	ἄστυνομούντος
ΠΥΘΕΩ	Satyr head
	Πυθέω

Ae 103. U6 courtyard, E-3. 1973. Pl. 59.

Handle fragment of an amphora with a relief stamp from Grakov's group III (1929). Type: *IOSPE* III 4096-103. First quarter of the 3rd century B.C.

ΙΙΘΟΥ wreath	Θευπε[τίθου
ΙΟΜΟΥ	ἄστυν[όμου
[- - -] kantharos	[Καλλισθέ(νου)]

Ae 104. U6 courtyard, E-3. 1975.

Amphora handle fragment with a relief stamp from Grakov's group IV (1929). Type: *IOSPE* III 4550-2. 270s B.C.

A[	ἄ[στυνό- kantharos]
M[	μ[ου Ἰστιά-
ΟΥΔΗ[	ου Δη[μητρίου

Ae 105. U6 room 13. Find list 8/11. 1971. Pl. 59.

Three joining fragments of an amphora handle. Relief stamp from Grakov's group III. Type: *IOSPE* III 5369-79. End of the first quarter of the 3rd century B.C.

ΜΙΚΡΙΟΥΑΣΤΥΝΟ	Μικρίου ἄστυνο-
ΜΟΥΝΤΟΣ	μούντος
ΘΥΟΣ horse to left	Θυός

Ae 106. U6 courtyard, V-4. 1973. Pl. 59.

Handle fragment of an amphora. Relief stamp from Grakov's group III. Type: *IOSPE* III 5584-7. End of the first quarter of the 3rd century B.C.

ΑΣΤΥΝΟΜΟΥ	ἄστυνόμου
ΜΝΗΣΙΚΛΕΟΥ[	Μνησικλέου[ς
ΑΠΟΛΛΩΝΙΟ leaf	Ἀπολλωνίο

Ae 107. U6 courtyard, E-3. 1973. Pl. 59.

Two adjoining fragments of an amphora handle. Relief stamp from Grakov's group III. Type: *IOSPE* III 5601-7. End of the first quarter of the 3rd century B.C.

ΑΣΤΥΝΟΜΟΥ	ἄστυνόμου
ΜΝΗΣΙΚΛΕΟΥ[	Μνησικλέου[ς
ΙΥΟΣ bunch of grapes, ear	Ἰαυός

Ae 108. U6 courtyard, D-3. 1973. Pl. 59.

Handle fragment of an amphora. Relief stamp from Grakov's group III. Type: *IOSPE* III 5662. End of the first quarter of the 3rd century B.C.

ΙΤΥΝΟΜΟΥ	Ἰστυνόμου
ΙΝΗΣΙΚΛΕΟΥΣ	Μνησικλέου[ς
ΙΤΙΟ[	Ἡφαιστίο[υ

Ae 109. U6 courtyard, G-2. 1971.

Handle fragment of an amphora. Relief stamp from Grakov's group III. Type: *IOSPE* III 5755. End of the first quarter of the 3rd century B.C.

ΜΝΗΣΙΚΑ[	Μνησικλ[έους
ΑΣΤΥΝΟ bunch of grapes[	ἄστυνό[μου
[- - -]	[Τεῦθρα]

Ae 110. U6, square Z-7. 1973. Pl. 59.

Fragment of neck and upper part of handle of an amphora. Relief stamp from Grakov's group III on handle. Type: *IOSPE* III 5756-72. End of the first quarter of the 3rd century B.C.

ΑΣΤΥΝΟΜΟΥ bunch of grapes	ἄστυνόμου
ΜΝΗΣΙΚΛΕΟΥΟΣ	Μνησικλέου<ο>ς
ΦΙΛΟΚΡΑΤΟΥΣ	Φιλοκράτους

Ae 111. U6 courtyard, E-3. 1974. Pl. 59.

Similar to the preceding. Four adjoining fragments. Same die.

Ae 112. U6 courtyard, D-6. Find list 17/42. 1972 + courtyard, D-5. 1974. Pl. 59.

Two adjoining fragments of an amphora handle. Relief stamp from Grakov's group III. Type: *IOSPE* III 7289-92.

End of the first quarter of the 3rd century B.C.

]O[	[Πυθ]ο[κλέους]
ΑΣΤΥΝΟΜΟ head	ἄστυνόμο
]ΟΣΕΙΔΩΝΙΟΥ	]οσειδωνίου

Ae 113. U6 courtyard, G-5. 1974.
An obliterated stamp on a Sinopean amphora handle.

b) Anepigraphic stamps

Ae 114. U6 courtyard. 1967. Pl. 59.
Round relief stamp on an amphora handle: a bird (a heron?) with a small dolphin in place of the head, standing in front of a corn ear. Diameter: 2.3 cm. Typical Sinopean clay with numerous inclusions of pyroxene. Publications: Daševskaja 1968, 215; Čechmistrenko 1971, 72 fig. 2.

Amastris

Ae 115. U6 gate. Find list 3/25. 1972. Pl. 60.
An engraved stamp on an amphora neck (See also **Ad 77** and **H 12**). Publications: Ščeglov 1986, 367 fig. 1, 7; Kac, Pavlenkov and Ščeglov 1989, 24 ff. fig. 3, stamp 1; Monachov 1999a, 501 pl. 214, 1. 300-275 B.C.

AMACT	Ἀμάστ-
PIOC ivy-leaf	ριος

Ae 116. U6 gate. Find list 3/73. 1972. Pl. 60.
An engraved stamp similar to **Ae 115**. Same die. Twice impressed. Publications: Ščeglov 1986, 367 fig. 1, 7; Kac, Pavlenkov and Ščeglov 1989, 24 ff., stamp 1. 300-275 B.C.

Herakleia Pontike

a) 'The factory owners' stamps'

Ae 117. U6 courtyard, E-4. 1974. Pl. 60.
An engraved stamp on a fragment of an amphora neck. Type: *IOSPE* III 1535-57. Publication: Monachov 1999a, 504. First quarter of the 4th century B.C.

]Y	Εὐ]ρυ-
]MO	δα]μο

Ae 118. U6 room 12. Find list 6. 1971.
An engraved stamp on an amphora neck fragment. Type: *IOSPE* III 1594-603. First quarter of the 4th century B.C.

]K	Ἡρα]κ-
]A	λέδ]α

Ae 119. U6 courtyard, G-5. 1973. Pl. 60.
Two adjoining fragments of an amphora neck with an engraved stamp. Absent in *IOSPE* III. Cf. Brašinskij 1980, no. 485. New die. Publication: Monachov 1999a, 505. First quarter of the 3rd century B.C.

HP[Ἡρ[α()
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Ae 120. U6 courtyard, E-6. 1973. Pl. 60.
An engraved stamp on an amphora neck. Retrograde. Type: *IOSPE* III 1617-18. Publication: Monachov 1999a, 505. First quarter of the 3rd century B.C.

HPAK[Ἡρακ[λείδα
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Ae 121. U6 courtyard, D-6. Find list 17/45. 1972. Pl. 60.
Fragment from neck and rim of an amphora. Relief stamp on neck. Absent in *IOSPE* III. New die. Publication: Monachov 1999a, 505. First quarter of the 3rd century B.C.

KEP (in field of an ivy-leaf)	Κερ()
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Ae 122. U6 courtyard, V-2. 1971. Pl. 60.
An engraved stamp on a small fragment of an amphora neck. Type: *IOSPE* III 1879-80. Publication: Monachov 1999a, 504. First quarter of the 4th century B.C.

ΣΩΓΗ	Σω<τ>ῆ
]O[	ρ]ο[ς

b) Magistrate stamps

Ae 123. U 6 room 12. Find list 6/18. 1971+ gate. Find list 3/20. 1972. Pl. 60.
An engraved stamp on an amphora neck. Two adjoining fragments. Type: *IOSPE* III 861-5. Publication: Monachov 1999a, 504. First quarter of the 4th century B.C.

]OΞEN	Θε]οξέν-
]APIΣΤ[	ο] Ἀριστ[ο
ΚΛΕΟ[	κλέο[ς

Ae 124. U6 square Zh-7. 1972. Pl. 60.
Fragment of rim-neck of an amphora. Engraved stamp on neck. Type: *IOSPE* III 693. First quarter of the 4th century B.C.

]N	Διο]ν-
]O HP ↑	υσί]ο Ἡρ()↑

Ae 125. U6 courtyard, G-4. 1975. Pl. 60.
Neck fragment of an amphora with an engraved stamp. First half of the 4th century B.C.

]OA[	Κ]όα[ς
]A	Π]α()

c) Fragmentary stamps

Ae 126. U6 room 9. Find list 3/8. 1971.
Small fragment of an engraved stamp on a sherd of an amphora neck. First half of the 4th century B.C.

]EO	]εο
[--]	[--]

Ae 127. U6 courtyard, B-4. 1971.
Fragment of an illegible engraved stamp.

Ae 128. U6 courtyard, V-2. 1971.
Sherd of an amphora neck. Illegible fragment of an engraved stamp.

Ae 129. U6 courtyard, E-6. 1975.
Sherd of an amphora neck. Illegible fragment of an engraved stamp.

Ae 130. U6 room 16. Find list 10. 1971.
Sherd of an amphora neck. Illegible fragment of an engraved stamp

Ae 131. U6 room 17. Find list 15. 1972.
Sherd of an amphora neck. Illegible fragment of an engraved stamp.

d) Anepigraphic stamps

Ae 132. U6 courtyard, V-2. Find list 11/14. 1971. Pl. 61.
A cross-shaped stamp with a bunch of grapes in the centre. New die. 4th century B.C.

MEDITERRANEAN ATELIERS

Thasos

Ae 133. U6 courtyard, G-2. 1973. Pl. 61.
A stamp from Vinogradov's group 5b (1972). The first line runs retrograde. Sigma lunata. New die. First quarter of the 3rd century B.C.

ΒΙΩΝΟC	Βίωνος
alabaster	Θασίων
ΘΑCΙΩΝ	

UNDETERMINABLE ATELIERS

a) Individual names

Ae 134. U6 courtyard, D-5. 1974. Pl. 61.
Upper part of a broad massive amphora handle with a rectangular relief stamp. New die. Clay reddish brown with small particles of pyroxene and mica. Light brown slip. Publication: Monachov 1999a, 501 pl. 214, 8, 508.

ANT[	Ἀντ[ι-
OXOY	όχου

Ae 135. U6 courtyard, D-5. 1974. Pl. 61.
Stamp on handle of **Ad 82**. New die. Form not estimated. Rim shape similar to Solokha-I type. Clay dark grey with inclusions of mica. Publication: Monachov 1999a, 501 pl. 214, 7, 507.

CAΓΓΑΡΙ[Σαγγαρί[ου
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For the name, see *LGPNI*, 392.135

b) Monograms

Ae 136. U6 square A-3. 1971. Pl. 61.
A round relief stamp on a fragment of an amphora neck. New die. Clay dark brown with particles of limestone. Dense, clay coloured slip. Publication: Monachov 1999a, 501 pl. 214, 10.

B or ΔΔ	B() or ΔΔ
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Ae 137. U6 courtyard. 1967. Pl. 61.
Fragment of amphora handle signed with a relief stamp.

ΠΑ (?)	Πα()
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Ae 138. U6 room 33. Find list 4. 1973. Pl. 61
A round relief stamp on an amphora handle. New die. Clay dark brown with particles of limestone and mica. Publication: Monachov 1999a, 501 pl. 214, 9.

TIB (?)	Τιβ()
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Ae 139. U6 courtyard, V-4. 1973.
Similar to the preceding. Same die.

Ae 140. U6 courtyard, E-3. 1974.
Similar to the preceding. Same die.

Ae 141. U6 courtyard, E-3. 1974. Pl. 61.
A rectangular stamp on a fragment of an amphora handle. Retrograde. Partly obliterated. Clay similar to **Ae 138-140**.

ΦΡ or ΦΟΡ	Φρ() or Φορ()
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NOTES

1. Daševskaja 1967, 162 ff., fig. 1. *Cf* Blavatskij 1953, 42, no. 48.
2. Sparkes and Talcott 1970, 344, no. 1537; pl. 67; fig. 13. The painting is done in ‘Corinthian red’ glaze.
3. *Cf* Borisova 1958, 150, fig. 7; Borisova 1966b, pl. 13, 4; pl. 15, 1 and 5.
4. *Cf.*, *e.g.*, Daševskaja 1967.
5. *Cf* Monachov 1989, pl. XVIII, 9, 10. According to S.Yu. Monachov these represent the first type of rims of Chersonesean transport amphorae.
6. See: Kac and Monachov 1977, 90-105; Monachov 1989, 47 f.; Monachov 1999a, 497-509.
7. Ščeglov 1986, 365 ff. fig. 1; Kac, Pavlenkov and Ščeglov 1989, 24 ff. fig. 3. The hypothesis proposed by I.T. Kruglikova and S.Yu. Saprykin (Saprykin and Kruglikova 1991, 92) according to which the Amastrian stamping falls within the range of 285/284 – 266/265 B.C. is less probable.
8. Monachov 1990, 97-105.
9. Monachov 1990, 102 fig. 6.
10. Grace 1963, 324. fig.1, 7; Empereur and Hesnard 1987, 58. pl. 2, 8.
11. Grace 1971, 67, pl. 15, 13.
12. Tölle-Kastenbein 1974, 158, Abb. 259A.
13. Excavation of 1988. Excavation area XX, pit 4. Preserved at ROMK. The stamp ΚΑΕΩ is illustrated on the back cover of the collection of articles ‘Grečeskie amfory’ (Greek Amphoras) (Saratov 1992) (third from the left in the bottom line).
14. The Kuban Museum, Inventory no. 5455/1425.
15. It was impossible to restore the amphora.
16. Koehler 1992, 269 ff.
17. Koehler 1992, 281 pl. 2*bc*.
18. Marčenko, Žitnikov and Kopylov 2000, Taf. 41, Abb. 70, 7, 70, 10.
19. Brašinskij 1984, 53.
20. The English terms are those used by M.L. Lawall, Studies in Hellenistic Ilion. Transport amphorae from the lower city in *Studia Troica* 9, 1999, 187-224.
21. See Part II **H**.
22. Achmerov 1951.
23. Kac 1994, 37.
24. Kac 1994.
25. Kac 1985, 92 f.; Kac 1994, 20.
26. Achmerov 1951.h
27. Kac 1994, 77 f.
28. Grakov 1929; see also: Šelov and Vinogradov 1977; Kac 1993.
29. Grakov 1954, 90; Cechmistrenko 1958; 1960; Brašinskij, 1963, 133; 1980, 41 f.; Pruglo 1967; Vasilenko 1971; Šelov, 1975, 134 f.; Kolesnikov 1985; Conovici 1989; Conovici, Avram and Poenaru Bordea 1992; Fedoseev 1992; 1993; Efremov 1993.
30. Kac 1979; Conovici, Avram and Poenaru Bordea 1992; Fedoseev 1992; 1993; Efremov 1993.
31. Ščeglov 1986; Debidour 1986; Kac, Pavlenkov and Ščeglov 1989.
32. Brašinskij 1965; 1980; 1984; Balabanov 1985; Vasilenko 1970; 1974.
33. Brašinskij 1980, 39.
34. Bujor 1962.
35. Vinogradov 1972, 35 f.
36. Debidour 1979, 311; Debidour 1986, 282.
37. Štaerman 1951.
38. Kolesnikov 1985.