

KOINÈ ET MOBILITÉ ARTISANALE ENTRE LA MÉDITERRANÉE
ET LA MER NOIRE DANS L'ANTIQUITÉ

PONTICA LI SUPPLEMENTUM V



MUSÉE D'HISTOIRE NATIONALE ET D'ARCHÉOLOGIE
CONSTANȚA
2018

**PONTICA LI
SUPPLEMENTUM V**

**KOINÈ ET MOBILITÉ ARTISANALE
ENTRE LA MÉDITERRANÉE ET LA
MER NOIRE DANS L'ANTIQUITÉ**

**Hommage à PIERRE DUPONT
à son 70^e anniversaire**

CONSTANȚA

2018

Éditeurs

**ALEXANDRU AVRAM
LIVIA BUZOIANU
VASILICA LUNGU**

Comité de rédaction:

**LIVIA BUZOIANU
CONSTANTIN CHERA
VASILICA LUNGU
IRINA SODOLEANU**

Sécrétaire de rédaction:

IRINA SODOLEANU

Informatique éditoriale:

**MARIA BOLOCAN
VASILICA PODARIU**

Couverture:

ADA-ADINA MARCU

Sur la couverture: vase fragmentaire de l'établissement fortifié de Nemirov (Ukraine) (VII^e-VI^e s. av. J.-C.) © Musée de l'Hermitage de Saint-Pétersbourg

Les manuscrits, les livres et les revues proposés en échange, ainsi que toute correspondance seront adressés à la Rédaction: Musée d'Histoire Nationale et d'Archéologie, 12 Place d'Ovide, 900745, Constantza, Roumanie, Tél./Fax 0040-241-618763; e-mail: revista.pontica@gmail.com.

PONTICA en-ligne edition : www.revistapontica.wordpress.com

**ISSN 1013-4247
ISSN (en-ligne) 2247 – 9341
ISBN 973-7951-29-8**



SOMMAIRE

Notre ami Pierre Dupont (A. Avram)	7
Bibliographie des travaux de Pierre Dupont	9
GERALD P. SCHAUS	
Two Fragmentary Vases from Miletus Imitating (?) Chian Pottery	19
JAN BOUZEK	
Clay Analyses of Pottery Provenance: Success Achieved and Further Questions Waiting	29
HECTOR WILLIAMS	
Mytilene, the Aeolic World, and Beyond	39
GOCHA R. TSETSKHLADZE	
Pontic Notes	47
MARINA JU. VAKHTINA	
Archaic East Greek Pottery from Nemirov Fortified Settlement and Some Questions of Distribution of Early Greek Pottery in the Northern Black Sea Region	69
DMITRY CHISTOV	
Amphorae Assemblages of the Second Quarter - Mid-6th Century BC from the North-Eastern Part of The Berezan Island Site	85
SERGEY MONAKHOV, ELENA KUZNETSOVA, and DMITRY CHISTOV	
An Assemblage of the mid-6th Century BC Well from the Berezan Excavations of 1963/1964	97
YULIA I. ILYINA	
Chian Kraters from the Excavation in Berezan	115
VLADIMIR D. KUZNETSOV	
“Sindian” Coins: Some Remarks	123
MARGARIT DAMYANOV	
On the Early Date of the Sanctuary of Demeter in Apollonia: Some East Greek Pottery	141
LÂTIFE SUMMERER	
Votivterrakotten der <i>ionischen koinè</i> aus einem spätarchaisch/frühklassischen Fundkontext in Amisos	155

KONRAD ZIMMERMANN	
Delphin am Dachrand	181
DAREJAN KACHARAVA	
Novelties from the Vani City Site	191
LIVIA BUZOIANU	
Timbres rhodiens des périodes I et II découverts à Callatis	217
THIBAUT CASTELLI	
Contribution à l'étude des amphores de Myrsileia	237
VASILICA LUNGU	
Amphores timbrées d'époque hellénistique à Mytilène (Lesbos)	247
ANDREI OPAIȚ, DAN DAVIS, and MICHAEL LEE BRENNAN	
Sailing from Cilician Shores to Elite Markets: A Case Study of Two 2nd - Century Shipwrecks off Knidos	299
ALEXANDRU AVRAM	
Notes épigraphiques (VII)	335
MIRCEA ANGELESCU	
Histria. Quelques notes sur le port antique	343
<i>Abbreviations</i>	385

AN ASSEMBLAGE OF THE MID – 6TH CENTURY BC WELL FROM THE BEREZAN EXCAVATIONS OF 1963/1964*

Sergey MONAKHOV**

Elena KUZNETSOVA**

Dmitry CHISTOV**

Keywords: *Berezan, well, amphorae, Klazomenai, Lesbos, Samos, Ionian and Chian pottery.*

Abstract: *The article is devoted to the assemblage of finds from the well excavated by the State Hermitage archaeological mission under the direction of K.S. Gorbunova in 1963–1964 on the Berezan island. Transport amphorae are represented by the Samian, Lesbian and Klazomenian production. In addition, fragments of handles belonging to Cypriot basket-handle amphorae appear in the same deposit. The filling of the well contained the significant number of complete and fragmented tableware vessels of the Corinthian, Chian, Attic, North and South Ionian production.*

The dating of painted pottery fits into the narrow chronological limits of the second – early third quarters of the 6th century BC. The deposit of the well is close to the 'border' deposits and structures precedent to the early stage of the mass construction of stone-and-mudbrick houses in the third quarter of the 6th century BC. Probably, the well is synchronous with the dugouts of the second quarter of that century but it was filled up in the course of the rapid urbanization of the colony in the 540s BC or slightly later.

An archaeological expedition of the State Hermitage headed by Kseniya S. Gorbunova investigated for two seasons of 1963 and 1964 a well in square

* The study was conducted with the financial support of the Russian Research Foundation (grant № 18-18-00096).

** Sergey Yur'yevich MONAKHOV: head of the Chair of the History of the Ancient World, Director of the Institute of Archaeology of the Saratov State University, Saratov, Astrakhanskaya Str., 83, e-mail: monachs@mail.ru; Elena Vladimirovna KUZNETSOVA: Custodian of the collections of the Institute of Archaeology of the Saratov State University Saratov, Astrakhanskaya Str., 83, e-mail: ev_kuznetsova@list.ru; Dmitry CHISTOV: State Hermitage Museum, Department of Antiquity, 19000 Dvortsovaya nab. 34, St. Petersburg, Russia, e-mail: d.chistov@gmail.com.

no. 26 of the excavation sector „G” (Fig. 1). The spot where this object was revealed is situated near the shore in the north-eastern part of the present-day island viewing the mouth of the Berezan Liman (estuary) near the sand spit, i.e. the ancient isthmus eroded by water. The excavation of the sector „G” was started in 1930–1931 by the director of the Odessa Archaeological Museum Mikhail F. Boltenko. Boltenko was interested in the abovementioned area of the site as an area situated near the presumed harbor of Borysthenes¹. After discharge and subsequent arrest of the researcher, the works at the sector „G” were interrupted for 15 years and resumed by him in a very limited scale only in 1946–1947.

The expedition of the Hermitage started its work at the sector „G” in 1962 and continued it until 1970. The investigations resulted in uncovering the area between the shore line and the ditch of a Turkish battery. The excavation was expanded in the eastern and north-western directions, but, in addition, the area uncovered under the direction of M.F. Boltenko in 1930–1931 was excavated down to the virgin soil, and exactly within this area the well of 1963/1964 was situated.

Sector „G” is characterized by the presence of deposits and building remains of the second half of the 5th – early 4th century BC, Roman period (2nd – 3rd centuries), as well as the Middle Ages (12th –13th centuries) – i.e. the periods poorly represented or altogether absent among the materials from other excavated areas of the Berezan settlement. On the contrary, the preservation of stone-and-mudbrick structures of the second half of the 6th – first third of the 5th century BC within the sector „G” is very fragmentary. The building remains of that period have been uncovered only in its western area. This fact possibly is due both to the fortification construction of the 18th and early 20th century and to the presence of traces of a mediaeval settlement in this territory. Structures of the 6th and first half of the 5th century BC here are represented exclusively by objects dug down into the virgin soil, i.e. storage pits and dugouts; only isolated stone blocks are preserved from the wall masonry not enabling the researchers to reconstruct the plan of the buildings². Thus the archaeological context here does not allow us to suppose definitely with which structures this well was related and to which stratigraphic phase it belonged. Near the well, a cistern and several storage pits containing the ceramics of the 5th – early 4th century BC were uncovered, as well as dugout and storage pits of the 6th – first half of the 5th century BC.

The well in square no. 26 was circular in plan gradually tapering towards the bottom (from 1.10 to 0.95 m). From the depth of about 0.5 m it was cut in the virgin rock. In the course of the investigations, the well was excavated down to the level of appearance of the ground waters at the depth of 4.22 m³. The closeness of the rock base and the relatively small depth of the well are quite common for this part of the island with the smallest height above sea level. Thus the height of the modern surface of the shore above the liman level is about 4.5–6.0 m here.

In the fill of the well there were numerous pieces of pottery of different types (about 3 700 fragments) including 3 064 fragments of amphora containers,

¹ KOLESNICHENKO 2011, p. 184.

² GORBUNOVA 1966, p. 80.

³ GORBUNOVA 1963-1964.

fragments of table and handmade pottery. In the opinion of Kseniya S. Gorbunova, the well functioned in the first half of the 6th century BC, in about the middle of the century it became disused and was filled with synchronous materials. The researcher did not exclude that, at this stage, it served as the *bothros* for dumping offerings from a sanctuary situated somewhere nearby. In her opinion, the cult purpose of the well is possibly confirmed by a considerable number of complete forms of East Greek table pottery and, besides, a graffito with the name of Achilles found in one of the storage pits close to it⁴. It must be noted that for the decades passed, no information has been obtained on the presence of any cult structures in this area of the Berezan settlement. The centre of the archaic colony now is localized 150–200 m to the south from area „G“ (in the vicinity of areas „T“, „O-Eastern“, „O-Western“) that is confirmed by the arrangement of public buildings, concentration of finds of architectural fragments, fragments of sculpture etc.⁵ For this reason and due to the absence of votive inscriptions among the assemblage of the finds from the well, it is hardly possible to suppose its functioning as a *bothros*. Nevertheless, this deposit undoubtedly is noteworthy due to its position near the ancient isthmus and haven, as well as owing to the diverse range of the finds.

During recent years, the materials from the well of 1963/64 were not once examined by researchers considering particular categories of finds. Thus P. Dupont published three amphorae from the fill of the well with their description and dated them on the basis of available parallels to within the middle – third quarter of the 6th century BC.⁶

In particular, two *Samian* amphorae come from there, one (B.63-290) with a heavy everted rim, a short neck separated with a groove from the shoulder (Fig. 2. 1). The body is spherical ending with a toe in the form of a rather narrow pedestal with a trapezoid hollow⁷. The clay of the vessel is light brown, dense, with a large content of limestone and seashell. Similar amphorae were found in burials no. 61 and no. 81 of the Etruscan burial ground of Vulci where, through the accompanying painted pottery, they are dated to the first quarter/third of the 6th century BC.⁸ More elongated proportions are characteristic of an example from burial no. VII-1 of the cemetery of Cerveteri⁹. Similar morphological characteristics belong to a vessel from a kurgan no. 14 near the village of Krasnogorovka¹⁰. The Krasnogorovka vessel is dated, most often, to the late 7th century BC¹¹, although in the publication on this mound, its date was defined within a wider chronological span of the end of the 7th – beginning of the

⁴ GORBUNOVA 1963-1964; 1966, p. 80.

⁵ CHISTOV 2015; BUJSKIKH & CHISTOV 2018.

⁶ DUPONT 2005, p. 64, 66, No. 21, 50, 51, 90.

⁷ COOK & DUPONT 1998, fig. 23.6b; DUPONT 1999, pl. 1 -3; MONAKHOV 2003, p. 26, 244, tabl. 14 -1; Borisfen-Berezan' 2005, p. 27, No. 3; DUPONT 2005, p. 54, 66, No. 50.

⁸ RIZZO 1990, p. 21, fig. 351–352; MONAKHOV 2003, p. 26, tabl. 14, 2, 3.

⁹ RIZZO 1990, p. 22, fig. 353; DUPONT 1999, p. 146, pl. 1, 4.

¹⁰ MONAKHOV 1999, p. 172, fig. 16, 2; MONAKHOV 2003, p. 26, tabl. 14 -4.

¹¹ DUPONT 1999, p. 147; SEZGIN 2012, p. 190, Sam1.19.

6th century BC.¹² Thus the analogues known are dated within the limits of the late 7th – first quarter or third of the 6th century BC.

The upper body (**Fig. 2. 2**) was found of another amphora also of *Samian* production (B.63-385)¹³, although it has a type of clay uncharacteristic of pottery of this centre. This clay is dark grey with a green tint on the outside; inside it is dark-brown with inclusions of lime. The flattened rim is strongly outturned, the neck is short slightly widening downwards, the body is of a pithoid type. The known parallels date its manufacture to within the time span of the first half of the 6th century BC.¹⁴

The production of *Lesbos* is represented by a complete vessel¹⁵. This greyware amphora (**B.63-289**) has a rather small cylinder-shaped rim with a small ledge; its high neck has a ledge at the transition to the shoulder. The body is pithoid, the toe is broad without a hollow (**Fig. 2. 3**). The parallels of this vessel are few. One specimen of the first half of the 6th century BC comes from burial no. 1025 of the necropolis of Kamarina¹⁶, another one – from the Olbian necropolis¹⁷. Still another analogous vessel was found in Berezan in the same 1963 in a well at area „C-1” on the northern shore of the island (**B.63-288**)¹⁸. One complete example is hosted in the archaeological Museum of the Turkish Izmir¹⁹. Unfortunately, the known analogous amphorae have no specific chronological dates. The specimen here considered, on the basis of the finds from the fill of the well, must be dated to the chronological range of the second quarter – the middle of the 6th century BC.

Finally, the last amphora found in the fill of the well was manufactured in Klazomenai (**B.64-125**). The morphology and decoration of the vessel are traditional for containers from that centre (**Fig. 2. 4**)²⁰. The closest examples in terms of their morphological and metric parameters are two amphorae of the first third of the 6th century BC from excavations at the necropolis of Vulci²¹. Similar vessels from the necropolis of Klazomenai are dated to the first quarter of the same century²². Fragments of amphorae from Klazomenai of the first half of the 6th century BC were encountered during excavations of Histria²³ and in the layers of period I in Berezan²⁴.

Noteworthy is the presence of several fragments of handles of *Cypriot* amphorae in the fill of the well. These are handles of the Basket-handle type

¹² MONAKHOV 1999, p. 35–37, tabl. 2, 1.

¹³ DUPONT 2005, p. 54, 66, No. 51.

¹⁴ SEZGIN 2012, Sam 2.05, 2.06.

¹⁵ BRAŠINSKIJ 1984, p. 176, tabl. 2, № 1; XI -1, XII -1; MONAKHOV 2003, tabl. 27, 2; DUPONT 2005, No. 27; SEZGIN 2012, Gles4.05.

¹⁶ COOK & DUPONT 1998, p. 157, 160, fig. 23.4b.

¹⁷ MONAKHOV 2003, tabl. 27 -3.

¹⁸ DUPONT 2005, No. 26.

¹⁹ SEZGIN 2012, Gles2.03.

²⁰ DUPONT 2005, No. 90 (without ill.); MONAKHOV *et alii*. 2018, fig. 2, 1.

²¹ RIZZO 1990, p. 104, 105, fig. 197, 198, 357.

²² SEZGIN 2012, Kla 5.03, 5.07.

²³ BÎRZESCU 2012, p. 293, 294, No. 746–753.

²⁴ CHISTOV & IL'INA 2012, p. 21, tabl. 3 -1–5.

(Fig. 2. 5). The presence of Levantine amphora imports has been encountered already not once among the materials from the Berezan settlement²⁵, although the volumes of goods imported in these containers were evidently very small. Fragments of amphorae of this type are found in Berezan in the deposits of the first three quarters of the 6th century BC.²⁶ It is of note that large fragments of their handles were uncovered in household pit no. 118 in the area „O-Western”²⁷ dated to the second quarter of the 6th century BC. The composition of finds from this pit is in general very close to that from the well of 1963/1964. This fact allows us to date the import of Cypriot amphorae to the Berezan settlement to the period up to the mid-6th century BC.²⁸

Characteristics of the painted pottery are of no less importance for more precise dating of the context of the well.

The pottery of *Attic manufacture* is very rare in the fill of the well (only 18 fragments). Moreover, in the lower part of the fill excavated in 1964, Attic pottery was absent. Two fragments of black-figure oinochoai representing a lion are dating from 570–560 BC.²⁹ T. Smith dated a fragment of the handle of a black-figure krater with a male head turned to the left and a fragment of the wall of a black-figure amphora with lion's paws to the middle of the same century³⁰.

A fragment of a „Little Masters Cup” (in a form of a band cup) with parts of figures of a bird and a panther may be considered as the latest find from the context of the well (Fig. 3. 1; B.63-192). Cups of this group are the most common forms of the Attic tableware in the Berezan' layers of the third quarter of the 6th century BC.³¹

Corinthian pottery is represented by a fragment of the shoulder of a polychrome oinochoe (B.63-88, Fig. 3. 3) dated to the 590–550s BC.³² Small fragment of the similar black polychrome oinochoe (B.63-87) of an Aiolian production also appears in the same assemblage (Fig. 3. 2).

Chian pottery from the fill of the well is more numerous. It includes a fragmentary cup with a representation of a sphinx, as well as two fragments of cups with representations of lions³³ and of part of a female figure³⁴. All these examples are dated to within the 580–550s BC.

The main mass of the painted tableware from the context of the well was manufactured in centres of *Northern Ionia*. The plates are represented both by profiled fragments and complete forms. They belong predominantly to the type of plates with a ring foot and an outturned rim decorated with a broken meander

²⁵ DUPONT & NAZAROV 2003; BUJSKIKH 2017, p. 193-197.

²⁶ CHISTOV 2018, p. 26-27.

²⁷ IL'INA & CHISTOV 2012, p. 24, tabl. 14.3.

²⁸ Cf. the opinion of A.V. Bujskikh on the termination of import of these amphorae no later than the beginning of the VI century BC: BUJSKIKH 2017, p. 197.

²⁹ GORBUNOVA 1973, p. 199, fig. 4B; GORBUNOVA 1982, p. 38, fig. 2a; SMITH 2010, p. 206, No. 185, fig. 177a–b.

³⁰ SMITH 2010, p. 198, 199, No. 121, fig. 116, No. 132 – without ill.

³¹ SMITH 2010, p. 173, tabl. 5.

³² BUKINA 2010, p. 69, 137, № 218.

³³ IL'INA 2005, p. 85, 86, 135, № 48, 54.

³⁴ IL'INA 1997, p. 16, No. 36, tabl. 4.

around the edge, bands of gloss and purple on the walls and a large lotus flower in the centre (**Fig. 3. 4-6, 8**). This pottery is dated to the second quarter of the 6th century BC.³⁵ Another form is that of a stemmed dish with a rosette – a lotus in the centre and bands around the edge (**Fig. 3. 7**). It is represented in the collection by only a single fragment (**B.63-7**). Finds of pottery of this type are fairly numerous both in Berezan³⁶ and at other sites of the Northern Black Sea littoral³⁷. As to Berezan, similar plates are mass material dating not only from the second quarter of the 6th century BC³⁸ but also from the stratigraphic phase II-A comprising a span, presumably, from the 540s BC until the fires and destructions of the last quarter of the 6th century BC.³⁹ A complete plate on a ring foot was found at the level of the floor of a large rectangular dugout of the type of a *colonists' house* dated to about the middle of the 6th century BC.⁴⁰ It is possible that the importation of the pottery of this type continued during some short period also after the mid-6th century BC.

North-Ionian plates and small plates (**B.63.150-151, B.64-64**) with a ring foot and with an outturned edge decorated with concentric bands or bands and groups of strokes of white paint around the rim may be dated to within the span of the second and third quarters of the 6th century BC (**Fig. 3. 9-10; 4. 1**)⁴¹.

Among the finds from the well, of note is a considerable number of *Ionian* plates and small bowls decorated with concentric bands of red paint on the inner surface. In materials from the Berezan settlement similar finds are encountered in deposits of the entire 6th century BC however they are most numerous in layers of phase II-A, i.e. those of the third and beginning of the last quarters of the 6th century BC.⁴²

Bowl with the linear decoration of the inner side, painted with dark gloss (**B.63-148**) belongs to the form which appears in the early 6th century BC (**Fig. 4. 2**)⁴³. An other bowl with a ring foot (**B.63-149**), flattened rim and holes for suspension, ornamented with bands of red paint also belongs to a type without a narrow date range (**Fig. 34. 3**). Among the collection from Klazomenai, the bowls of a similar profile are dated to the first half of the 6th century BC.⁴⁴

To the first quarter of the 6th century BC, the finds of *North-Ionian* semi-spherical bowls (**B.63-93, B.64-75**) painted in the LWG style are dated (**Fig. 4. 4-5**)⁴⁵. The frieze on the outside represents a goat lowering down into the front legs and with the head turned backwards. Around the representation there are a plant pattern and rosettes. Beneath the frieze, there are bands of varnish and

³⁵ COOK & DUPONT 1998, p. 53, fig. 8.18; POSAMENTIR & SOLOVYOV 2006, p. 121, fig. 22 – below.

³⁶ CHISTOV 2006, fig. 28.3; IL'INA 2006, p. 119, cat. 47.

³⁷ See: BUJSKIKH 2013, p. 65, fig. 46.3, 241, 242, 244, 245.

³⁸ IL'INA & CHISTOV 2012, tabl. 27-28.

³⁹ IL'INA & CHISTOV 2012a, tabl. 67.7-12.

⁴⁰ CHISTOV & IL'INA 2013, fig. 2.

⁴¹ BUJSKIKH 2013, p. 140, 385, fig. 137.

⁴² IL'YINA & CHISTOV 2012a, tabl. 68.

⁴³ COURBIN 1978, tabl. XVII, fig. 11.

⁴⁴ UZUN 2007, p. 253-255, fig. 186.

⁴⁵ *Borisfen-Berezan'* 2005, s. 47, No. 54; BUJSKIKH 2013, p. 61, 3.200, 3.201.

a bunch of rays in the base of the wall. Inside, over the black gloss there are bands of purple bordered by white bands.

A fragmentary *rosette bowl* (**B.63-95**) belongs to a form dated broadly to within the range of the first half of the 6th century BC and to slightly later period⁴⁶ (**Fig. 4. 6**). The foot of a semi-spherical bowl of a very considerable size with a lotus rosette in the central medallion (**B.63-34**), is possibly datable to the beginning of the century (**Fig. 4. 7**). From the same early period, the lower part of a bowl is dating with an everted rim („Knickrandshale“), type B1 (Villard – Vallet) or type 10 (Schlotzhauer)⁴⁷. It is decorated with black gloss and thin concentric bands of purple on the internal surface (**B.63-31**). Like in the above instance, this bowl was of extremely large dimensions (**Fig. 4. 8**).

A big profiled fragment of the Ionian cup (**B.63-125**) with the everted rim (**Fig. 4. 9**) of the later type B2 (Villard – Vallet) or of the subtype 9,1.C (Schlotzhauer) might be dated to the second quarter of the 6th century BC (until 570/60-ies)⁴⁸. Such cups appears in the Berezan contexts which are dated close to the middle of the 6th century BC.⁴⁹

Also a table *amphora* (**B.63-48**) painted in the LWG style (NiA I) was manufactured in Northern Ionia (**Fig. 5. 1**)⁵⁰. On the neck of the amphora there is a coarse guilloche; on the shoulder frieze between the double-barrelled handles, a large figure of a goat is represented lowering down onto the front legs with the head turned forwards. The ornamentation around the goat is constituted by rosettes; on one side under the figure of the animal, a swastika is represented. The transition from the throat to the shoulder is marked by two bands of varnish between which there is a series of vertical strokes. Beneath the frieze there are bands of varnish of differing width. From the ring base around the body, several ‘beams’ are raised (**Fig. 5. 3, 4, 6**). Similar vessels, on the basis of numerous parallels, are dated to within the span of 580–560 BC.⁵¹ From the same period a fragment of another *oinochoe* with a similar pattern is dating (**B.63-49**). This vessel is distinguished by details of the filling ornamentation; the head of the goat is turned backwards (**Fig. 5. 2**). On the basis of the finds from Berezan excavations, this type of amphorae was distinguished into a separate „Borysthenes amphorae group”⁵². The same group of North-Ionian pottery comprises yet some other fragments from the fill of the well (**B.63-67, 69, B.64-16, 19, 20, 27**).

A *North-Ionian krater* is represented by a single small fragment of the rim (**B. 64-38**). On the outside around the rim there are strokes; on the upper plane of the rim, lotus buds are represented on a wavy stem (**Fig. 4. 10**). Kraters with ornamentation of this type are dated to within the period of 570–550s BC.⁵³

⁴⁶ COOK & DUPONT 1998, p. 26-27.

⁴⁷ SCHLOTZHAEUER 2001, p. 111-115.

⁴⁸ SCHLOTZHAEUER 2001, p. 107, 256, pl. 123, No. 177.

⁴⁹ IL'INA & CHISTOV 2012a, p. 35, 197, tab. 41.6.

⁵⁰ *Borisfen-Berezan'* 2005, p. 45, No. 52.

⁵¹ *Tocra I*, p. 41; BUJSKIKH 2013, p. 45, with analogies; VACHTINA 2015, p. 84, 85.

⁵² KERSCHNER 2006, fig. 7, 10; POSAMENTIR & SOLOVYOV 2006, p. 119, fig. 21; 2007, fig. Ia, 6-11; BUJSKIKH 2013, p. 45.

⁵³ BUJSKIKH 2013, p. 48, 3.28.

Closed forms of the of *Ionian* wave-line pottery are represented by amphorae (**B.64-124**, **B.64-126**) and an oinochoe (**B.63-142**). Amphorae (**Fig. 5. 7** and **6. 1**) with a wavy decoration possibly were manufactured also after the mid-6th century BC. An amphora of a similar form and ornamentation scheme (with an S-shaped „hook” on the shoulder) from excavations of Tocra was found in a layer dated not later than 530 BC.⁵⁴ At the necropolis of Olbia, a similar amphora comes from a burial dated by Varvara M. Skudnova to the second half of the 6th century BC, where it was found in association with plates with an outturned rim, decorated by bands. In the same burial was uncovered a bronze mirror of the „Olbian” type with a figure of a panther at the end of the handle⁵⁵.

The *Ionian oinochoe* from the assemblage of the well (**Fig. 6. 2**) is datable to the period before the middle of the 6th century BC. A fragmentary analogous vessel was uncovered in the fill of the abovementioned pit no. 118 within the sector „O-Western” containing a representative set of pottery of the second quarter of the 6th century BC.⁵⁶

Among the minor Ionian vessels two *olpai* (**B.63-144**, **B.63-145**) with banded decoration (**Fig. 6. 3, 4**) belongs to the variants of this form, represented on Berezan by numerous finds in the deposits of the first half (or around the middle) of the 6th century BC.⁵⁷ Fragmented Ionian amphoriskos (**Fig. 6. 5**) and the aryballic lekythos (**Fig. 6. 6**), probably, represents the latest samples of East Greek pottery in the deposit of the well: both must be dated to the middle or to the second half of the 6th century BC.⁵⁸

An Ionian aryballos⁵⁹ (**Fig. 6. 7; B.63-82**) with a globular body, decorated with the stripes of dark gloss and purple, must be dated within the first half of the 6th century BC.⁶⁰ Corinthian aryballoi of the linear style, imitated by this Ionian type, are dated to the first third of the 6th century BC.⁶¹

A fragmentary Ionian three-nozzle lamp with a ledge in the centre (**Fig. 6.8; B.63-154**) according to the peculiarity of its profile must be attributed to the variant of widespread (s.n. „Samian”) type, which is datable to the time span of the late 7th – first half of the 6th centuries BC⁶² or to the second – third quarters of the same century.⁶³

Summarizing all the above, the dates of the painted pottery, according to numerous parallels, are fairly reliably determined by a narrow chronological range of the second – beginning of the third quarters of the 6th century BC. The fill of the well in terms of the variety of the pottery is close to the „border” deposits and structures precedent to the beginning of the mass construction of stone-and-

⁵⁴ Tocra I, p. 47, No. 587.

⁵⁵ SKUDNOVA 1988, p. 68-69, cat. No. 87.

⁵⁶ IL'INA & CHISTOV 2012, p. 32, 190, tabl. 33.2.

⁵⁷ IL'YINA, CHISTOV 2012, p. 189, tabl. 32.5-6, p. 196, tabl. 40.4.

⁵⁸ BUJSKIKH 2013, p. 36; 117, fig. 101; SKUDNOVA 1988, p. 79, No. 112; BOLDRINI 1994, p. 73, No. 147.

⁵⁹ Borisfen-Berezan' 2005, p. 56, No. 73.

⁶⁰ Tocra I, 1966, p. 46, pl. 39, No. 765.

⁶¹ BUKINA 2015, p. 248, No. 462.

⁶² HOWLAND 1958, p. 25-26, Nos. 71-2; DUPONT 1987, p. 48, fig. 5-6.

⁶³ KASSAB TEZGÖR & SEZER 1995, p. 57-58, No. 97-99.

mudbrick houses in the third quarter of the 6th century BC. Probably, the well is synchronous with the dugouts of the second quarter of that century but it was filled up in the course of the rapid urbanization of the colony in the 540s BC or slightly later.

Owing to analysis of the painted pottery it becomes possible to obtain a more precise date of the manufacture of the amphora containers found in the same context.

BIBLIOGRAPHY

BÎRZESCU 2012 – I. Bîrzescu, *Die archaischen und frühklassischen Transportamphoren*, Histria XV, București (2012).

BOLDRINI 1994 – S. Boldrini, *Gravisca. Le Ceramiche Ioniche*, Bari, 1994.

Borisfen-Berezan 2005 – *Borisfen-Berezan'*, *Nachalo antichnoy epochi v Severnom Prichernomor'e. K 120-letiyu arkheologicheskikh raskopok na ostrove Berezan*, St.-Petersburg, 2005.

BRAŠINSKIJ 1984 – I.B. Brasinskij, *Metody issledovaniya antichnoy torgovli* [Research methods of Ancient Trade], Leningrad, 1984.

BUJSKIKH 2013 – A.V. Bujskikh, *Arkhaiskaya raspisnaya keramika iz Ol'vii* [Archaic Painted pottery from Olbia], Kiev, 2013.

BUJSKIKH 2017 – A.V. Bujskikh, *Levantiyskiy import v Borisfene* [Levantine import in Borysthenes], *Antichnyi mir i archeologiya* 18 (2017), p. 193-205.

BUJSKIKH & CHISTOV 2018 – A. Bujskikh, D. Chistov, *Architectural details and monumental buildings at Borysthenes*, *CAIETE ARA* 9 (2018), p. 5-22.

BUKINA 2010 – A.G. Bukina, *Korinfskaya hudozhestvennaya keramika* [Corinthian art pottery], in: *Borisfen-Berezan'*, *Arkheologicheskaya kollektziya Ermitazha*, St.-Petersburg, II, 2010, p. 7-140.

BUKINA 2015 – A.G. Bukina, *Korinfskie vazy i ikh antichnye imitaczii* [Corinthian vases and their antique imitations], St.-Petersburg, 2015.

CHISTOV 2006 – D.E. Chistov, *Raboty na ostrove Berezan arkheologicheskoi ekspeditsii Ermitazha v 2004 g.* [Works on Berezan island of Hermitage archaeological expedition in 2004], in: *Materialy Berezanskoy (Nizhnebugskoy) antichnoy arheologicheskoy ekspeditsii*, I, 2006, p. 55-112.

CHISTOV 2015 – D.E. Chistov, *The civic centre of Archaic Borysthenes: a new approach to localization*, in: *The Danubian Lands between the Black, Aegean and Adriatic Seas (7th Century BC-10th Century AD)*, *Proceedings of the Fifth International Congress on Black Sea Antiquities*, London, 2015, p. 403-413.

CHISTOV 2018 – D.E. Chistov, *Import tovarov v amfornoy tare na Berezanskoe poselenie v VI-V vv. do n.e. (po materialam raskopok uchastka „O-Zapadnyi” v 2004-2016 gg.)* [Importation of goods in transport amphorae to the Berezan island site in 6th - 5th centuries BC (based on excavations of the sector „O-Western” in 2004-2016)], *Bossporskie issledovaniya* 36 (2018), p. 19-36.

CHISTOV & IL'INA 2013 – D.E. Chistov & Yu.I. Il'ina, *„Doma kolonistov” na Berezanskom poselenii – arkheologicheskii kontekst i istoricheskaya interpretatsiya* [“Houses of colonists” on Berezan' settlement – archaeological context and historical interpretation], *Bospor Kimmeriiskii i varvarskii mir v period antichnosti i srednevekov'ya*, *Arkheologicheskii ob'ekt v kontekste istorii* 14 (2013), p. 497-505.

COOK & DUPONT 1998 – R. Cook & P. Dupont, *East Greek Pottery*. London/New York, 1998.

COURBIN 1978 – P. Courbin, *La céramique de la Grèce de l'Est à Ras el-Bassit. Les céramiques de la Grèce de l'Est et leur diffusion en Occident*, Naples, 1978, p. 41-42.

DUPONT 1987 – P. Dupont, *Lampes ioniennes archaïques*, in: *Les lampes de terre cuite en Méditerranée. Dès origines à Justinien*, Table ronde du CNRS, tenue à Lyon du 7 au 11 décembre 1981, Lyon, 1987, p. 47–50 (Travaux de la Maison de l'Orient, 13).

DUPONT 1999 – P. Dupont, *La circulation amphorique en mer Noire à l'époque archaïque. Spécificités et problèmes*, in: Y. Garlan (ed.), *Production et commerce des amphores anciennes en mer Noire*, Aix-en-Provence, 1999, p. 143–161.

DUPONT 2005 – P. Dupont, *Archaic Greek Amphoras from Berezan in the Hermitage Collection*, in: *Borisfen – Berezan*, Arkheologicheskaya kollektziya Ermitazha. Vol. 1, St.-Petersburg, 2005, p. 41–69.

DUPONT & NAZAROV 2003 – P. Dupont, V. Nazarov, *Levantiiskie amfory v Prichernomor'e*, *Iz istorii antichnogo obschestva* 10, [Amphores levantines en mer Noire], Nizhnii Novgorod, 2003, p. 142–145.

GORBUNOVA 1963–1964 – K.S. Gorbunova, *Otchet o rabote leningradaskogo otryada na Berezani v 1963 i 1964 gg.* [Report on the work of the Leningrad group on Berezan in 1963 and 1964], Arkhiv IA NANU. Delo No. 1963-1964/12a.

GORBUNOVA 1966 – K.S. Gorbunova, *Raskopki na ostrove Berezan' v 1962-1964 gg.* [Excavations on the Berezan island in 1962–1964], *SGH*, St.-Petersburg 27 (1966), p. 80–81.

GORBUNOVA 1973 – K.S. Gorbunova, *Les Fragments des céramiques attiques de la première moitié du VI^e siècle avant Jésus-Christ provenant de l'Île de Bérézan*, *Revue archéologique* 2 (1973), p. 195–202.

GORBUNOVA 1982 – K.S. Gorbunova, *Atticheskaya chernofigurnaya keramika iz raskopok 1962–1971 gg. na uchastke G ostrova Berezan'* [Attik Black-figure pottery from excavations of 1962–1971 on site Г Berezan island], *Khudozhestvennye izdeliya antichnykh masterov*, Leningrad, 1982, p. 34–69.

HOWLAND 1958 – R.H. Howland. *Greek lamps and their survivals*, The Athenian Agora IV, 1958, Princeton, N.J.

IL'INA 1997 – Yu.I. Il'ina, *Khiosskaya keramika konca VII – nachala VI v. do n.h. iz raskopok na ostrove Berezan'* [Chian pottery of the end of 7th - beginning of 6th century BC from the excavations on Berezan island], *TGE* 28 (1997), p. 5–16.

IL'INA 2005 – Yu.I. Il'ina, *Khiosskaya keramika iz raskopok na ostrove Berezan'* [Chian pottery from the excavations on Berezan island], in: *Borisfen-Berezan*, *Arkheologicheskaya kollektziya Ermitazha*, St.-Petersburg, I, 2005, p. 70–173.

IL'INA 2006 – Yu.I. Il'ina, *Keramika iz raskopok 2004 goda na Berezani* [Pottery from excavation of the 2004 year on Berezan], in: *Materialy Berezanskoy (Nizhnebugskoy) antichnoy arheologicheskoy ekspeditsii*, I, 2006, p. 113–126.

IL'INA & CHISTOV 2012 – Yu.I. Il'ina & D. Chistov, *I. Rannii period (konetz VII – pervaya polovina VI v. do n.h.). Nakhodki* [Early period (the end of 7th – first half of the 6th century BC). Finds], in: *Materialy Berezanskoy (Nizhnebugskoy) antichnoy arheologicheskoy ekspeditsii*, St.-Petersburg, II, 2012, p. 20–40.

IL'INA & CHISTOV 2012a – Yu.I. Il'ina & D. Chistov, *II-A. Antichnyi gorod na Berezani. Nakhodki* [Ancient city on Berezan. Finds], in: *Materialy Berezanskoy (Nizhnebugskoy) antichnoy arheologicheskoy ekspeditsii*, St.-Petersburg, II, 2012, p. 63–72.

KASSAB TEZGÖR & SEZER 1995 – D. Kassab Tezgör, T. Sezer, *Catalogue des lampes en terre cuite du Musée Archéologique d'Istanbul. Tome 1. Époques protohistorique, archaïque, classique et hellénistique*, Istanbul, 1995 (Varia Anatolica, 6).

KERSCHNER 2006 – M. Kerschner, *Zur Herkunftsbestimmung archaischer ostgriechischer Keramik: die Funde aus Berezan im Akademischen Kunstmuseum der Universität Bonn und im Robertinum der Universität Halle-Wittenberg*, *IstMitt* 56 (2006), p. 129–156.

KOLESNICHENKO 2011 – A.N. Kolesnichenko, *M.F. Boltenko i arkheolodicheskie issledovaniya na o. Berezan: neizvestnye stranitzy lichnogo arkhiva M.F. Boltenko*, *Istoriya arkheologii: lichnosti i shkoly. Materialy mekzdunarodnoi nauchnoi konferentsii k 160-letiu so dnya rotzdeniya V.V. Khvoiki* [M.F. Boltenko and archeological excavations on

the Berezan sland: the unknown pages in the personal archive of M.F. Boltenko], St.-Petersburg, 2011, p. 181-186.

MONACHOV 1999 – S.Yu. Monachov, *Quelques series d'amphores grecques des VII^e–V^e s. av. n. e. au Nord de la mer Noire* in: Y. Garlan (ed.), *Production et commerce des amphores anciennes en mer Noire*, Aix-en-Provence, 1999, p. 163-194.

MONAKHOV 1999 – S.Yu. Monakhov, *Grecheskie amfory v Prichernomor'e. Kompleksy keramicheskoy tary VII-II vv. do n.e.* [Greek amphorae in Black Sea Region. Assemblages of transport amphorae], Saratov, 1999.

MONAKHOV 2003 – S.Yu. Monakhov, *Grecheskie amfory v Prichernomor'e: tipologiya amfor veduschsikh tzentrov-eksporterov tovarov v keramicheskoi tare. Katalog-opredelitel'* [Greek amphorae in Black Sea Region: typology of amphorae of the leading Centers of exporters of goods in ceramic containers. Catalog-identifier], Saratov, 2003.

MONAKHOV & et alii 2018 – S. Monakhov, E. Kuznetsova, D. Chistov & N. Churekova, *Amfornaya kollektziya Gosudarstvennogo Hermitazha VI–II vv. do n.e.* [Amphora collection of the State Hermitage VI–II century BC], VDI 3 (2018), in print.

POSAMENTIR & SOLOVYOV 2006 – R. Posamentir & S. Solovyov, *Zur Herkunftsbestimmung archaisch-ostgriechischer Keramik: die Funde aus Berezan in der Eremitage von St.-Petersburg*, *IstMitt* 56 (2006), p. 103-128.

RIZZO 1990 – M.A. Rizzo, *Le Anfore da trasporto e il commercio etrusco arcaico*, I, Roma, 1990.

SCHLOTZHAUER 2001 – U. Schlotzhauer, *Die südionischen Knickrandschalen. Eine chronologische Untersuchung zu den sog. Ionischen Schalen in Milet* (Diss. Ruhr-Universität Bochum 2001) <http://www-brs.ub.ruhr-uni-bochum.de/netahtml/HSS/Diss/SchlotzhauerUdo/diss.pdf>.

SEZGIN 2012 – Y. Sezgin, *Arkaik Dönem Ionia Uretim Tigarı Amphoralar*, Ege Yayınları, 2012.

SKUDNOVA 1988 – V.M. Skudnova, *Arkhaicheskii nekropol' Ol'vii* [The archaic necropolis of Olbia], St.-Petersburg, 1988.

SMITH 2010 – T. Smith, *Notes on Attic Red-Figure Pottery from Berezan* (2010), in: *Borisfen – Berezan, Arkheologicheskaya kollektziya Ermitazha*, Vol. II, St.-Petersburg, p. 171-290.

Tocra I – J. Boardman & J. Hayes, *Excavations at Tocra 1963–1965: The Archaic Deposits* (1). BSA, Suppl. 4, 1966.

UZUN 2007 – K. Uzun, *Klazomenai Dalgalı Çizgi Bezekli Seramiği / Clazomenian Wave-Line Pottery*, (PhD. Thesis), İzmir, 2007.

VAKHTINA 2015 – M.Yu. Vakhtina, *Ob odnom arkhaicheskome pogrebenii Tuzlinskogo nekropolya (po materialam nauchnogo arkhiva IIMK RAN)*, [About one of the Archaic Burials from the Necropolis at the Cape Tuzla (Based on the materials from the Scholarly Archive of the Institute of History and Material Culture of the Russian Academy of Science)], *S Mitridata duet veter. Bospor i Prichernomor'e v antichnosti*, Moscow, 2015, p. 83-89.

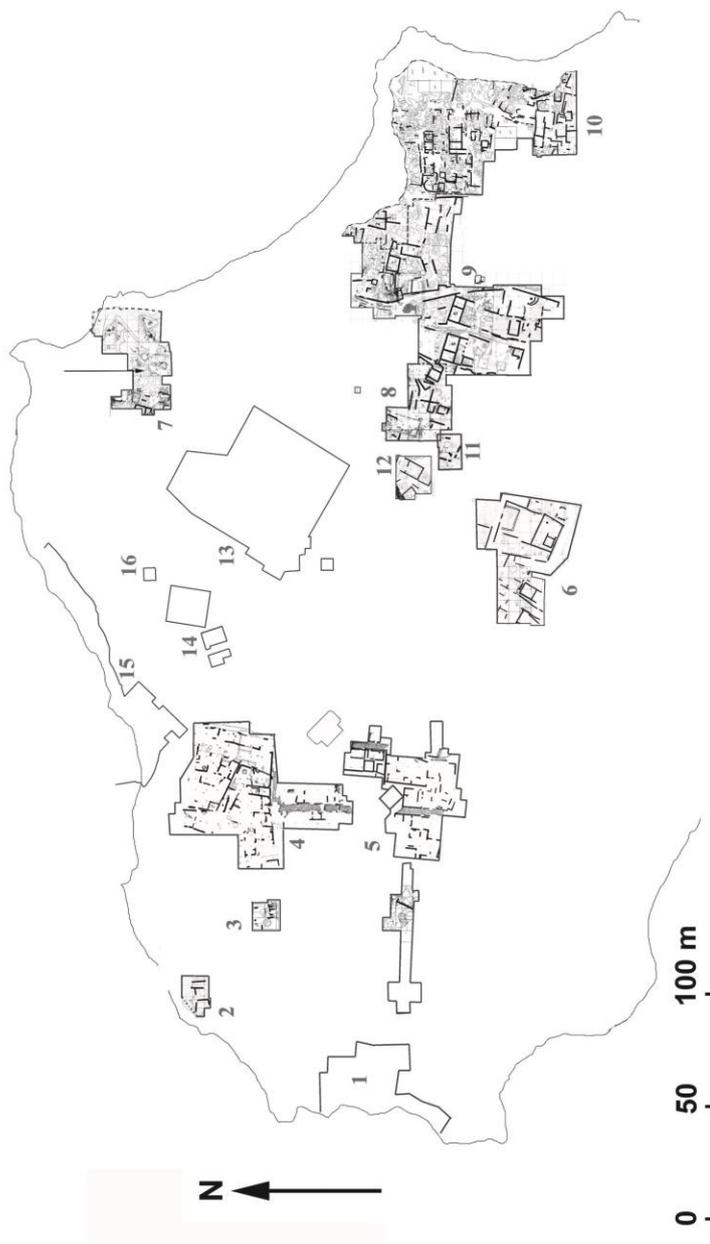


Fig. 1. Northern part of the Berezan settlement with the main excavation trenches. Numbers of the sectors on the plan: 1 – Necropolis, 2 – sector „S-1” (Northern-1), 3 – sector „S-2” (Northern-2), 4 – sector „North-western A”, 5 – sector „North-western B”, 6 – sector „T”, 7 – sector „G” (location of the well, excavated in 1963/64, pointed by the arrow). 8 – sector „R-1v” (eastern), 9 – sector „O”-Western, 10 – sector „O”-Eastern, 11 – sector „R-1” (western), 12 – sector „G.Sh.”, 13 – sector „A1”, 14 – sectors „C4-6”, 15 – sector „B8”, 16 – sector „Zh”.

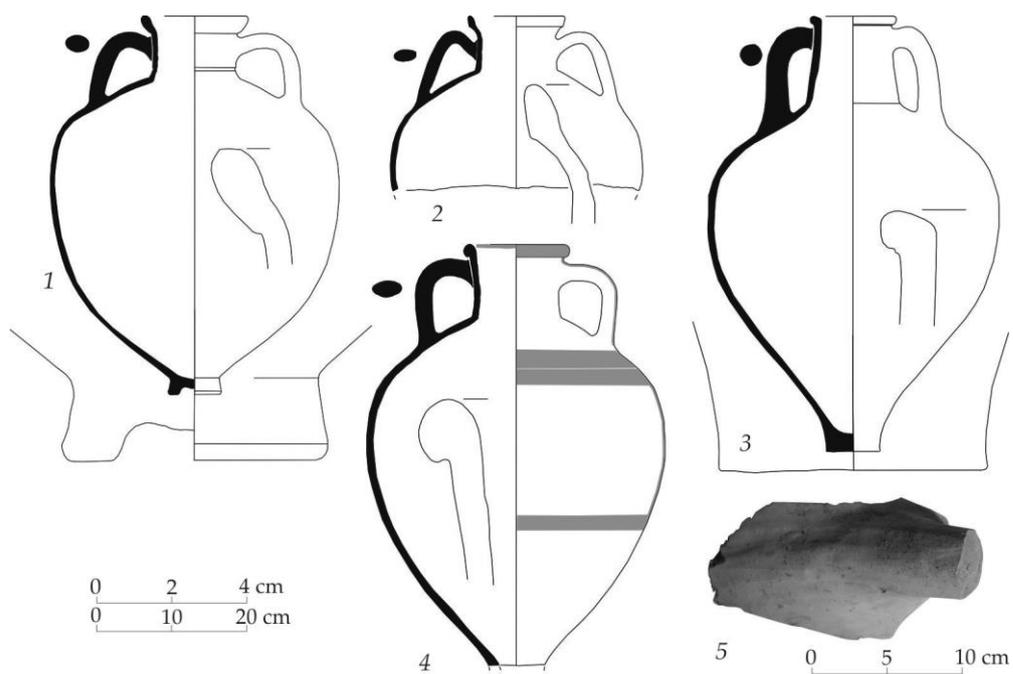


Fig. 2. Amphorae from the well 1963/64 on Berezan: 1-2 – Samian (B.63-290, B.63-385); 3 – Lesbian Grey (B.63-289); 4 – Klazomenai (B.64-125); 5 – Cypriot (B.63-186). The State Hermitage Museum, St. Petersburg.



Fig. 3. Pottery from the well of the 1963/64 on Berezan: 1 – Attica band cup (B.63-192); 2, 3 – Aiolian oinochoes (B.63-87, B.63-88); 4–10 – Northern Ionian plates (4 – B.63-4; 5 – B.63-6; 6 – B.63-5; 7 – B.63-7; 8 – B.64-59; 9 – B.63-150; 10 – B.64-64). The State Hermitage Museum, St. Petersburg.



Fig. 4. Pottery from the well of the 1963/64 on Berezan: 1, 4–8, 10 – Northern Ionia (1 – plate (B.63-151); 4 – bowl (B.63-93); 5 – bowl (B.64-75); 6 – bowl (B.63-95); 7 – bowl (B.63-34); 8 – bowl (B.63-31); 10 – krater (B.64-38); 2, 3, 9 – Ionian plates (B.63-148; B.63-149) and cup (9 – B.63-125). The State Hermitage Museum, St. Petersburg.



Fig. 5. Pottery from the well of the 1963/64 on Berezan: 1–6 – Northern Ionian table amphorae/oinochoe, LWG (1 – B.63-48; 2 – B.63-49; 3 – B.63-67; 4 – B.63-69; 5 – B.64-16; 6 – B.64-19); 7 – Ionian table amphora (B.64-124).
The State Hermitage Museum, St. Petersburg.

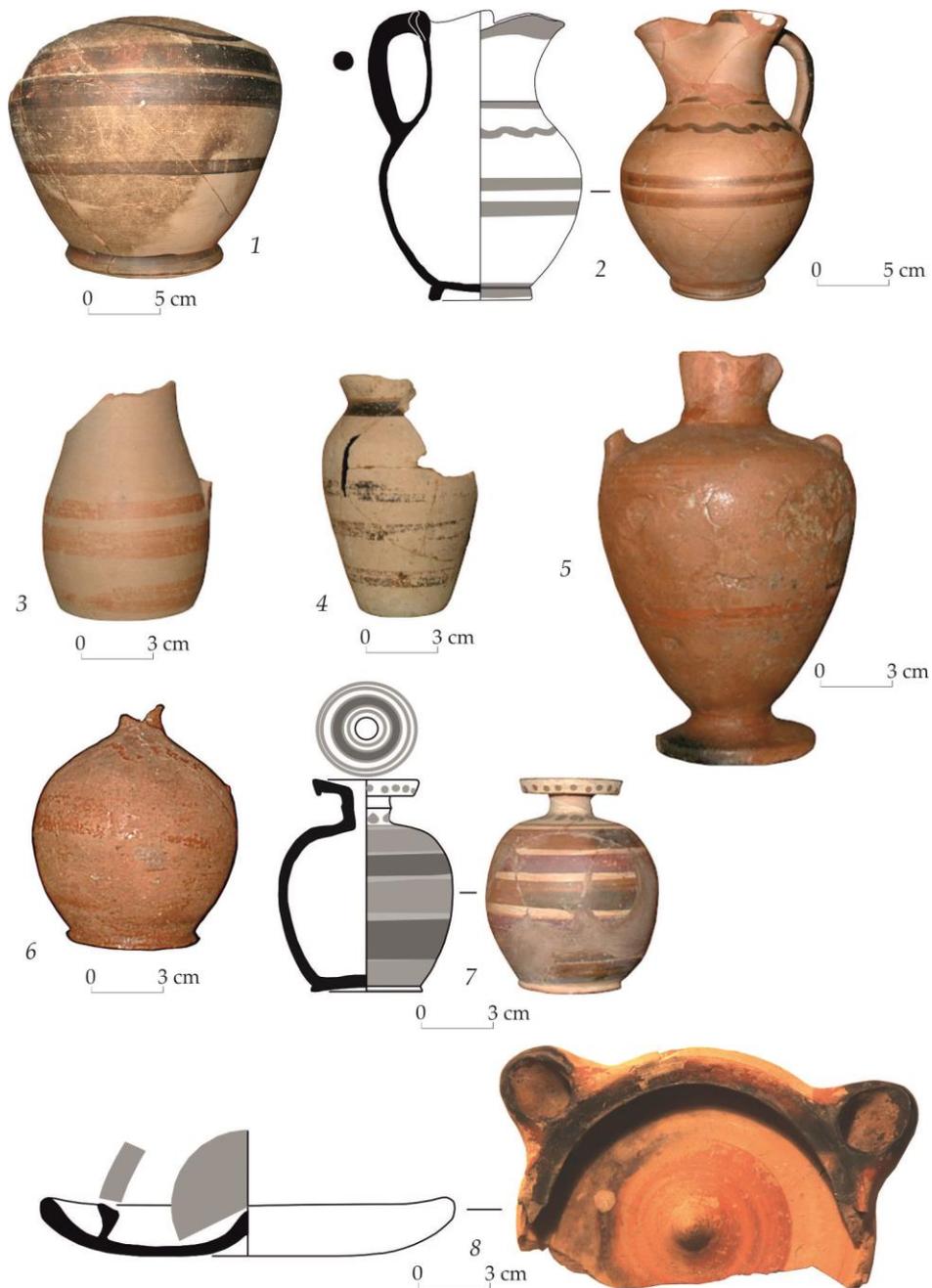


Fig. 6. Ionian pottery from the well of the 1963/64 on Berezan: 1 – table amphorae (B.64-126); 2 – oinochoe (B.63-142); 3, 4 – olpai (B.63-144, B.63-145); 5 – amphoriskos (B.63-146); 6 – aryballic lekythos (B.63-143); 7 – aryballos (B.63-82); 8 – lamp (B.63-154). The State Hermitage Museum, St. Petersburg.