

EARLY GREY WHEEL-MADE WARE FROM EAST-CARPATHIAN REGION (ON THE BASIS OF FINDS FROM TRINCA-IZVORUL LUI LUCA SETTLEMENT)

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Abstract. *This article examines the earliest grey wheel-made pottery, discovered in the Late Hallstattian complexes of Trinca-Izvorul lui Luca settlement, in the northern part of modern Republic of Moldova (Fig. 1-2). Among the unearthed wheel-made ceramics, one could distinguish the vessels of Kruglik-type (Fig. 7), bitronconical mugs with an elevated handle (Fig. 6), as well as rims of vessels with grooves on the outer edge (Fig. 8) and vessels with round in section handles (Fig. 10). The main problems, bound with the research of earliest grey wheel-made ware from the East-Carpathian region, where it appears as early as in the middle of the 7th century B.C. (Fig. 1), are being discussed. The adoption of technology of grey wheel-made pottery production is established, basing on earlier materials from phase Troy VII b2, 1130 – 1050/30 B.C. (Fig. 4). The local prototypes of such pottery were also examined (Fig. 3). The problem of the track of this pottery spreading was discussed and the Pruthian or/and Sirethian way were found more likely. Transmission of such technology directly through the barbarian milieu of Eastern Balkans was also suggested. Thereupon, the role of Troy as one of the key-centers in transmission of this new technology was underlined. Attention was also drawn on the fact, that the grey wheel-made pottery was a prestige item in barbarian milieu.*

FOREWORD¹

For a long time, the grey wheel-made ware dwelled in shadow, being steadily displaced by the highly artistic Greek ceramic specimens. However, researchers are already displaying their persistent interest towards the simple

¹ The authors would like to express their gratitude to Stanislav Țerna (Chișinău) for translating the text into English.

earthenware, not only in the heart of the Greek culture – inland Greece and Aegean – but also in the regions touched by Greek colonization². Here, where the Greeks encountered the local population during all colonization stages, grey wheel-made ware was firmly situated in the range of Greek commodities, which were offered for exchange and fluxed deep into the barbarian backlands.

As it is known, the biggest quantities of early grey wheel-made ware specimens (at least from the half of the 7th cent. B.C.) occurred in North-Pontic, in the Middle Dnestr basin, in the West-Podolian group area of the Early Scythian culture (**Fig. 1**). From the very moment of its discovery, this category of finds has been broadly discussed in the specialty literature³. A further enlargement of classification, together with the study of technical and technological traits of this kind of pottery from North-Pontic colonies and settlements from the north-western area of the barbarian backland is now in progress⁴. In the East-Carpathian region, the grey wheel-made ware also occurs quite early, in insignificant amount (as early as in the 7th cent. B.C.). It is also found in the late-Hallstattian sites. A new collection of such items comes from the longstanding excavations of the multilayered settlement Trinca-Izvorul lui Luca (**Fig. 1/21; 2; 3/5; 6-10**).

THE EARLY GREY WHEEL-MADE WARE FROM TRINCA SETTLEMENT

The settlement. The multilayered archaeological site Trinca-Izvorul lui Luca has been systematically large-scale researched during many field seasons beginning with the early 80s of the 20th century. It lies in the northern part of modern Republic of Moldova (the Pruthian part of the North-Moldavian upland) and is located 2.5-3 km to the South from Trinca village, in the „Izvorul lui Luca” stow. The site covers almost completely the surface (about 13 ha) of a high linguiform promontory (maximal height of 213.3 m, with a decrease to 183.3 m) on the left bank of the Dragiște river. Exceeding 6,246 m², the excavated surface shows that the promontory was inhabited since Upper Paleolithic through late stages of the Hallstattian epoch.

The grey wheel-made ware originates from the ground complexes and cultural layer of trenches IV (1989) and V (1990), located in the south-eastern part of the settlement. Basing on the constructional traits of the dwellings, as well as on pottery's morphology and ornamentation, these complexes were attributed to the Podolian-Moldavian group, dating with middle of the 7th – early 5th cent. B.C.⁵.

In the dwellings and cultural layer of *trench IV* a total amount of 69 fragments (a part of which belong to 4-5 vessels) of grey wheel-made ware were discovered, representing about 9% of the altogether ceramic complex. About 46% of grey wheel-made ware was discovered amidst and under the debris of the dwellings daub, another 46% in the dwellings foundation layer, about 6% in the

² See *Pontic grey wares* 2008; KPAPIVINA 2007, p. 98-106; BUJSKIKH 2006, p. 29-57.

³ See SULIMIRSKI 1936, p. 106 and next; SMIRNOVA 1965, p. 8 and next; SMIRNOVA 1999, p. 44-57; CHOCHOROWSKI 1996, p. 116-147; IGNAT 2006, p. 62-65, fig. 9; ICONOMU 1978-1979, p. 79 and next; MOSCALU 1983.

⁴ *Pontic grey wares* 2008; KOWAL 2008, p. 74-94; LEVITSKI 2009.

⁵ LEVITSKI 2009.

upper part of the layer.

Grey wheel-made ware from trench IV is mainly represented by small fragments, making the vessels reconstruction nearly impossible. Nevertheless, one could state the presence of the Kruglik-type vessels (**Fig. 2/1, 6, 10; 7**) – the thickened and deflected edge of the rim is horizontally cut, the neck is short, a low ridge is placed on the neck's base, the body is rounded and the bottom is flat. The dimensions of these vessels are various, standing in direct correlation with the thickness of the walls (max. 1-1.3 cm). The rim diameter is 18-20 cm; the bottom diameter is about 10 cm (**Fig. 2/1, 7**). Vessels with relatively thin walls (**Fig. 2/5**) are represented by mugs/bowls and, supposedly, jugs, judging by a deflected fragment of a rim (**Fig. 2/2**) and a reconstructed middle part of another one (**Fig. 2/8**).

The grey wheel-made ceramic complex from trench V is also insignificant – 61 fragments (among which parts of 6-7 vessels), representing about 5% of the pottery discovered altogether. About 70% of the grey wheel-made ware was found amidst the debris of the dwellings daub, 15% in the lower part of the layer containing the dwelling, in its direct proximity. The remaining 15% come from the layer directly overlapping the dwelling.

A bitronconical mug with deflected rim and elevated banded handle with lengthwise grooves on both sides was recovered from a pottery concentration in the western part of the dwelling. The transition from neck to body is marked by a small ledge; the most gibbous part of the body – by a sharp ridge. The bottom of the vessel is slightly dished and embossed, wearing traces from the potter's wheel support (height about 12.4 cm, rim diameter about 13.4 cm, body's maximal diameter 16 cm with the bottom's diameter 7 cm (**Fig. 3/5; 6**).

Basing on the other fragments, the following shapes can be identified: - grey polished vessels with elevated, circular in section handles, the diameter about 1.4 cm (**Fig. 10**); - two vessels with deflected rim, with grooves on the outer edge, engobed and quality polished (**Fig. 2/3-4; 8/1-2**); - vessels of Kruglik-type, represented by big fragments (**Fig. 9**) and a flat bottom (**Fig. 2/9**); - the presence of fragments engobed and polished on both sides permits to suppose the occurrence of open-shaped vessels, possibly bowls with deflected rim(?).

The grey wheel-made ware from both trenches was found in similar circumstances, together with the moulded ware – in the debris of the surface dwellings and in the layer of dwellings foundations. The ware under consideration is also technologically similar. It is made out of fine-washed clay, containing tiny particles of mica. However, the moulding clay of some vessels, both of big (with the body 0.8-1.3 cm thick) and small (body 0.5-0.6 and 0.7 cm thick) dimensions, contains sparkling and matt white particles, fine- and coarse-grained sand, small river pebbles, as well as impurities of vegetable (seeds) and mineral (broken limestone) provenience. The color of the vessels is mainly grey, with a lighter or darker tint, more scarcely – light-brown, and in some cases – brown-reddish. The surfaces are burnished or well-polished, covered with light-grey engobe, with light-brown or dark spots. In some cases, due to inhomogeneous firing, the color of the vessels has different tints. The inner surface of most of the vessels wears their wheel-making traces – horizontal

hollows, left by the potter's fingers. The bottoms wear traces of the potter's wheel support. Altogether, these features illustrate the en masse homogeneity of the grey wheel-made ware, found on the settlement.

EARLY GREY WHEEL-MADE WARE FROM THE EAST-CARPATHIAN REGION

In the Late Hallstattian period, the grey wheel-made ware occurs on the sites of many cultures and cultural groups from the Carpathian-Danube region.

In the area of the West-Podolian group from the Middle Dnestr basin and the Podolian-Moldavian group from Southern Bucovina, grey wheel-made ware is certified in settlements and burial grounds. Among the settlements: Ivane-Puste⁶, Zales'e⁷, Dolinjany⁸, Neporotovo⁹, as well as the recently discovered settlement Lipcani-La Rabii¹⁰. Among the funeral complexes we mention: tumulus (B) near Novosyolka-Grimajlovskaya¹¹, tumulus 1 near Servatincy¹², tumulus near Lisichniki¹³, tumulus 1 near Kruglik¹⁴, tum. 6 of Cașvana necropolis¹⁵, tum. 3 and 7 near Shutnivczy¹⁶, tum. 2 near Tarasivka¹⁷, tum. 2 and 3 near Teklivka¹⁸, tum. 4, 11 and 12 near Kolodiivka¹⁹, as well as tumulus 5 of the "Drumul Feteștilor" necropolis, situated in the environs of the same village Trinca, where the settlement is located²⁰.

In the late-Hallstattian cultures from the Carpathian-Danube region, the grey wheel-made ware occurs in different proportions. In the Kushtanovice culture of the trans-Carpathian region, it occurs in limited quantities and just in some graveyards²¹. With rare exceptions, the wheel-made pottery is almost unknown in the sites of the Scythian group from Transylvania (Ciumbrud)²². In the South-Carpathian group Ferigile-Bârsești, the wheel-made pottery came just from some funerary complexes²³. And only in the Vekerzug/Szentes-Vekerzug culture, this category of pottery was broadly spread²⁴.

⁶ GANINA 1965, p. 109-115, fig. 1, 8-9; 4, 9.

⁷ GANINA 1984, p. 74, fig. 4, 1, 6.

⁸ SMIRNOVA 1999, p. 44-57, fig. 5-7.

⁹ KRUSHELNITSKA 1998, p. 17, fig. 6, 2.

¹⁰ LEVITSKI *et alii* 2009.

¹¹ SULIMIRSKI 1936, p. 82-83, tab. XV, 6.

¹² SULIMIRSKI 1936, p. 93-94, tab. XV, 9.

¹³ SMIRNOVA 2004, p. 423, fig. 2, 6.

¹⁴ SMIRNOVA 1968, p. 15, fig. 2, 8.

¹⁵ IGNAT 2006, p. 28, pl. XIV, 4.

¹⁶ GUTSAL *et alii* 1998, p. 75, fig. 2, 15; GUTSAL *et alii* 2001, p. 18.

¹⁷ GUTSAL, MEGEI 1997, p. 85-88.

¹⁸ GUTSAL *et alii* 2003, p. 91-92, fig. 2, 4.

¹⁹ GUTSAL *et alii* 2005, p. 119; GUTSAL *et alii* 2006, p. 158-159, fig. 1, 2.

²⁰ LEVITSKI 2006, p. 32, fig. 27, 7.

²¹ SMIRNOVA, BERNIAKOVITCH 1965, p. 103, tabl. III, 10; POPOVICH 1993, p. 285; MOSCALU 1983, p. 175.

²² MOSCALU 1983, p. 159.

²³ VULPE, POPESCU 1972, p. 83, 110-111; MORINTZ 1959, p. 232, fig. 1, 1.

²⁴ CHOCHOROWSKI 1985, p. 48-51; IEREM 1986, p. 180, note 341; NEMETI 1972, p. 135-138; NEMETI 1982, p. 121-122, 124; ROMSAUER 1993, p. 16.

Grey wheel-made ware is also known on the early-Scythian sites of the forest-steppe zone eastward of Dnestr – in the Dnieper basin, but the time of its apparition there seems to be not so early, comparing to the Dnestr region²⁵.

Aspects of comparison – the technological one

In most cases, the presence of wheel-made pottery on the sites of the above-mentioned cultures and cultural groups is only stated, the mentioning of the composition of the moulding paste being even more infrequent. However, some suggestions about the technological aspects of the wheel-made pottery come from the publications of the Dolinjany settlement, belonging to the West-Podolian group of the early Scythian culture from the Middle Dnestr basin²⁶, of the late-Halstattian settlement Curteni, which lies on the Central Moldavian plateau in the East-Carpathian region²⁷ and of the Sanislău necropolis, belonging to the Vekerzug/Szentes-Vekerzug culture in north-western Romania²⁸.

In Dolinjany, this category of pottery was made out of fine-washed clay, containing tiny golden-colored particles. The paste color is grey, more rarely – light-brown and the vessels surface is polished, after a special covering with liquid plaster. All the vessels types were modeled on a flat support. Usage of such technique is also witnessed in Sanislău, the only difference being the use of small river sand for clay tempering. For the wheel-made ceramics from Curteni, it was ascertained, that the moulding paste of bowls (the ones with deflected rim) contained large river sand and small pebbles; the color of wheel-made ware was generally light-brown, dark-brown and grey-brown; the surface of the vessels was covered with a thick layer of engobe of light-brown color, polished or matt.

Returning to the wheel-made ware from Trinca, one could conclude, that it was made following a similar technology as the one used in the West-Podolian group and at Curteni. Exceptionally characteristic for Trinca ceramics is the usage of small sand, white sparkling or matt particles, river pebble, as well as impurities of vegetable and mineral provenience as leaning impurities. It is important to add here, that the above-listed impurities were certified in Trinca also in the composition of the moulded ware. Moreover, the paste of some hand-moulded vessels (large earthenware pots) contains mica, which, as an admixture, is met virtually in all of the wheel-made ware. Herein, one could recall the usage of similar impurities (large river sand and small pebbles) in the making of wheel-made²⁹ and hand-made³⁰ pottery at Curteni settlement.

The examination of wheel-made ware from Dolinjany settlement in comparison with similar pottery from other sites of the Middle Dnestr basin – Ivane Puste and Zales'e – allowed G. Smirnova³¹ to ascertain its sameness, especially from the standpoint of technological and morphological characteristics.

²⁵ KOVPANENKO *et alii* 1989, p. 85; SHRAMKO 1998, p. 125; SHRAMKO *et alii* 2004, p. 28; BESSONOVA, SKORII 2001, p. 81-82.

²⁶ SMIRNOVA 1999, p. 44-57.

²⁷ ICONOMU 1978-1979, p. 204, 211, 215.

²⁸ NEMETI 1972, p. 136.

²⁹ ICONOMU 1978-1979, p. 204, 211, 215.

³⁰ ICONOMU 1978-1979, p. 183, 194, 202.

³¹ SMIRNOVA 1999, p. 50.

Therefore, it is possible to conclude, that the technological techniques of the wheel-made ceramics fabrication, ascertained in Dolinjany, were known to and used by the potters from other settlements of the West-Podolian group, where wheel-made pottery was found. The usage of same impurities (tiny golden-colored particles) in the making of wheel-made and hand-made pottery from Dolinjany confirms, according to Smirnova³², the local manufacturing of wheel-made pottery in the Middle Dnestr basin.

Aspects of comparison – the morphological one

In spite of the relatively small quantity and high degree of Trinca wheel-made potteries fragmentation, the distinctive rims execution, the diameter of rims and bottoms, the thickness of walls and the way of surface treatment allow identifying several types of vessels.

The vessels of *Kruglik* type (Fig. 2/1, 6-7, 9-10; 7) represent the most spread in the Middle Dnestr basin ceramic form, known both in funeral complexes (tumulus (B) near Novosyolka-Grimajlovskaya and tum. 1 near Servatincy³³, tumulus near Lisichniki³⁴, tum. 1 near Kruglik³⁵, tum. 3 near Teklivka³⁶) and settlements, where they quantitatively prevail (Ivane-Puste³⁷, Dolinjany³⁸ and Neporotovo³⁹).

Vessels, similar to those of *Kruglik* type, are widely spread in the Vekerzug/Szentes-Vekerzug culture of the Carpathian basin⁴⁰. Recently, vessels of this type were also revealed in the ceramic complexes of early-Scythian sites from the forest-steppe zone of the Dnepr basin, both on its right (Motroninskoe fortified settlement⁴¹) and left bank (Liubotinskoe fortified settlement⁴² and Chervonosovo III settlement⁴³).

The modern level of research allows to state, that in the Carpathian-Danube region vessels of *Kruglik* type concentrate in its north-eastern (West-Podolian and Podolian-Moldavian groups) and north western (Vekerzug/Szentes-Vekerzug culture) areas, representing a specifical ceramic form for the north-Thracian cultural milieu, produced by local potters⁴⁴.

These vessels were designated by E. Moscalu as globular with a strong-prominent body and a short neck, ornamented by a low ridge or without it (variant C, type 38). They do not have any prototypes in the southern Thracian milieu – in the Balkans and at the Lower Danube. In the same time, they do not resemble any known Greek forms⁴⁵. The time of their appearance in the Middle

³² SMIRNOVA 1999, p. 54.

³³ SULIMIRSKI 1936, tab. XV, 6, 9.

³⁴ SMIRNOVA 2004, fig. 2, 6.

³⁵ SMIRNOVA 1968, fig. 2, 8.

³⁶ GUTSAL *et alii* 2003, fig. 2, 4.

³⁷ GANINA 1965, fig. 4, 9.

³⁸ SMIRNOVA 1999, fig. 5, 1-8, 10-11, 14-15; 6, 5-9; 7, 3-7.

³⁹ KRUSHELNITSKA 1998, fig. 6, 2.

⁴⁰ CHOCHOROWSKI 1985, Abb. 4, 17; NEMETI 1972, p. 136; NEMETI 1982, Abb. 3, H1; MOSCALU 1983, p. 149; ROMSAUER 1993, p. 16.

⁴¹ BESSONOVA, SKORII 2001, fig. 53, 1, 2.

⁴² SHRAMKO 1998, p. 125.

⁴³ SHRAMKO *et alii* 2004, fig. 1, 10.

⁴⁴ MOSCALU 1983, p. 149.

⁴⁵ MOSCALU 1983, p. 149.

Dnestr region goes back to the last third or the last quarter of the 7th cent. B.C., while the earliest complexes with such pottery from Vekerzug/Szentes-Vekerzug culture can be dated not earlier than the middle – the second half of the 6th cent. B.C.; most of them go back to the 5th-4th cent. B.C.⁴⁶. This fact witnesses, according to Moscalu⁴⁷, the eastern provenience of such vessels in the Vekerzug/Szentes-Vekerzug culture milieu, where they were made *in loco*.

The comparative analysis of wheel-made ceramics from Dolinjanj settlement with the ceramics from Berezani settlement allowed ascertaining that the grey pottery from the Berezani archaic complexes is characterized by a higher making quality, a richer assortment and lack of Kruglik-type vessels⁴⁸.

Another type of wheel-made ceramics from Trinca is the *bitronconical mug* with a deflected rim and elevated banded handle, wearing lengthwise grooves on both sides (Fig. 3/5; 6).

Mugs with similar morphological parameters represent the second, but less spread type of wheel-made vessels in the West-Podolian and Podolian-Moldavian groups: complete specimens are known in tumulus 6 of Cașvana necropolis⁴⁹ and tum. 3 near Shutnivczy⁵⁰, fragmented specimens come from the Dolinjanj settlement⁵¹ (Fig. 3/2) and probably from Zales'e⁵².

In the late-Halstattian cultures and cultural groups, wheel-made mugs are known in the same proportions, as in whole for this ceramic category: in the Kushtanovice culture, mugs with lengthwise grooves on handles are present among the grave-goods from tum. IX and XI of Kolodnoe necropolis⁵³; on the sites of the Transylvanian Scythian group (Ciumbrud cultural aspect), one wheel-made mug is known in the Blaj necropolis and another one, considered as an import – in Târgu Mureș⁵⁴; in the Ferigele-Bârsești group, the presence of mugs is certified by their fragments from tum. 9, 10 and 12 of Tigveni necropolis⁵⁵. And only in the Vekerzug/Szentes-Vekerzug culture, this type of vessels, together with the mugs with turned-in edge, represent the most spread form of wheel-made ware⁵⁶.

By some morphological traits (the execution of transition between neck and body, presence of a lengthwise groove on the outer side of the handles, slightly profiled flat or dished bottom), the bitronconical wheel-made mugs from the West-Podolian sites find analogies among the vessels spread in the Vekerzug/Szentes-Vekerzug culture⁵⁷. According to I. Nemeti, exactly this type of

⁴⁶ SMIRNOVA 1999, p. 54, nota 39, 42.

⁴⁷ MOSCALU 1983, p. 149.

⁴⁸ SMIRNOVA 1999, p. 54; SMIRNOVA 2004, p. 418.

⁴⁹ IGNAT 2006, p. 28, 62, pl. XIV, 4.

⁵⁰ GUTSAL *et alii* 1998, p. 75, fig. 2, 15.

⁵¹ SMIRNOVA 1999, fig. 5, 9, 12-13; 6, 2-4; 7, 1-2.

⁵² GANINA 1984, fig. 6, 1.

⁵³ SMIRNOVA, BERNIAKOVICH 1965, p. 103.

⁵⁴ MOSCALU 1983, p. 107, 159, pl. LXXIII, 29.

⁵⁵ VULPE, POPESCU 1972, p. 83, 110-111, fig. 14, 7, 22.

⁵⁶ CHOCHOROWSKI 1985, p. 48-51, fig. 2, 1-3; 43, 17; 45, 2; 47, 5; 49, 2, 12; 54, 2; NEMETI 1972, p. 135; NEMETI 1982, p. 121-122, fig. 3, F, 1-5; ROMSAUER 1993, p. 16, tabl. III, 10; XII, 13-14.

⁵⁷ CHOCHOROWSKI 1985, fig. 2, 1-2; CHOCHOROWSKI 1987, fig. 8, 5, 10; ROMSAUER 1993, tab. III, 10; DUSHEK 1971, fig. 5, 3; 28, 5; 30, 1; NEMETI 1982, fig. 3F.

mugs has local Hallstattian prototypes, basing on materials from Sanislău necropolis⁵⁸. E. Moscalu admitted that some variants of bitronconical mugs from the Tisa-Slovakian region build an independent typological group, spread only in this area, but in the same time, he considered that they are made after Greek specimens from the Lower Danube and the North-Pontic regions⁵⁹.

Herein one could add that in the East-Carpathian region, mugs of bitronconical shape with elevated handles are known on other sites too – especially the specimens from Curteni should be outlined. The site excavator defined them as globular and dated them back to the second quarter – middle of the 5th cent. B.C. – the first quarter of the 5th cent. B.C. But among them there are vessels of more extended and stocky proportions⁶⁰. The graphical reconstructions of mugs from Curteni, presented in another publication, show also bitronconical specimens with an elevated handle with a lengthwise groove⁶¹ (**Fig. 3/4**). This fits well the analogies, given by C. Iconomu – the vessels from Slobozia, Alexandria, Gogoşu and others, ascribed by E. Moscalu to the 6/a variant of bitronconical mugs, known in Histria already in the first archaic horizon⁶².

Grey wheel-made bowls with an elevated handle (= bitruncated bowls) appear in Histria in the archaic horizon I. Their spreading area includes the Anatolian north-east, whence they passed on through the north-eastern Black Sea shore to Olbia. They are already being reproduced in local workshops from Histria beginning from the middle of the 6th cent. B.C. Their production is adopted by Thracian workshops afterwards, in the second half of the 6th cent. B.C. and they spread to Wallachia, Muntenia and Moldova – for example in Curteni settlement⁶³. According to E. Moscalu's research, bitronconical mugs, wide-spread in the Thraco-Getian necropolises and settlements of the 6th-4th cent. B.C., are of Greek provenience, but already in the 5th and particularly beginning from the 4th cent. B.C., along with imports from the Greek colonies, appear specimens, made by Thracians and Geto-Dacians⁶⁴.

Grey wheel-made cups with a bitronconical body, high out-bent rim, on a circular or thickened support with an elevated handle (= bitruncated handle) are known, in the assortment of simple tableware from North-Pontic region, from closed Olbia and Berezani complexes, as well as from one-layered archaic settlements – Beicush, Kaborga I, Bolishaya Chernomorka II⁶⁵. They were mainly on-site made, following Greek prototypes, and only a few specimens could have been imported⁶⁶. According to recent research, the activity of workshops producing simple wheel-made tableware begins, both in Berezani and Olbia, in the third quarter of the 6th cent. B.C.⁶⁷, consequently its spreading was determined

⁵⁸ NEMETI 1972, p. 138.

⁵⁹ MOSCALU 1983, p.104.

⁶⁰ ICONOMU 1978-1979, p. 215, 231, pl. XXIV, 2-6; XXVI, 1-6; XXVII, 1.

⁶¹ ICONOMU 1979, p. 79-91, fig. 6, 4; ICONOMU 1978-1979, pl. XXVI.

⁶² MOSCALU 1983, p. 100-104.

⁶³ ALEXANDRESCU 1972, p. 117, nota 29, fig. 3, 3-4; ALEXANDRESCU 1977, p. 130-137, fig. 15, 17.

⁶⁴ MOSCALU 1983, p. 100-104.

⁶⁵ KRAPIVINA 1987, p. 75, fig. 27, 5-6; KRAPIVINA 2007, p. 101-102, fig. 5, 2, 3; 6.

⁶⁶ KRAPIVINA 1987, p. 71-72; KRAPIVINA 2007, p. 98-99; BUJSKIKH 2006, p. 32-33.

⁶⁷ KRAPIVINA 2007, p. 98; BUJSKIKH 2006, p. 32.

in the barbarian milieu from the Bug, Dnepr and Middle Dnestr basins.

Regarding the provenience of wheel-made mugs from the north-eastern part of the Carpathian-Danube region, it is unlikely that they come from one production center, taking into account the morphological peculiarities of every known specimen. In the same time, the assessment of their local production in the late-Hallstattian settlements after an adopted wheel-made ware technology, gains more and more arguments. This assumption is certified by the technological parameters, especially the even character of the materials used as leaning impurities in the process of making wheel-made and hand-made pottery (see the ceramics from Trinca and Dolinjany).

Hand-made vessels with an S-like ribbed profile and an elevated handle, found in Trinca and Dolinjany (compare **Fig. 3/1** and **Fig. 3/2**) could have served as prototypes (sic!) for wheel-made mugs. Similar hand-made vessels, but of more slender proportions, found in tumulus VII of Trinca-Drumul Feteștilor necropolis⁶⁸ and in Ivahnovczy cemetery⁶⁹, have direct parallels in the ceramic complex of the late-Hallstattian Stoicani necropolis from the southern part of the East-Carpathian region, dated back to the 8th – middle of the 7th cent. B.C.⁷⁰ (**Fig. 3/6**). The observations made for Curteni are important, where the same impurities (big river sand and small pebbles) were used both for the making of wheel-made and hand-made ware and where the bitronconical wheel-made mugs were found together with morphologically close moulded specimens (compare **Fig. 3/3** and **3/4, 7**). Taking into account the above-mentioned arguments, the local Hallstattian provenience of wheel-made mugs, which were used by the population of West-Podolian and Podolian-Moldavian groups, appears to be well-grounded.

Another type of wheel-made vessels from Trinca is documented by a fragment of a *bar-like handle* with round section and the diameter of about 1.4 cm (**Fig. 10**).

Vessels with round in section handles occur very scarcely among late-Hallstattian and early-Scythian wheel-made pottery. Hypothetically, the handles of high mugs (jugs) from the Ivane-Puste settlement of the West-Podolian group were round in section⁷¹. Vessels with a simple or double-barreled handle are known both in the Nitra-Ivanka settlement of Vekerzug/Szentes-Vekerzug culture⁷² and in the early Scythian Motroninskoe fortified settlement from the forest-steppe zone on the right bank of Dnepr, dated back to last third of the 6th – first quarter of the 5th cent. B.C.⁷³.

In the East-Carpathian region, handles with a round section, ascribed to mugs, are known in the already-mentioned Curteni settlement from the second quarter – middle of the 6th – first quarter of the 5th cent. B.C.⁷⁴. From the same settlement comes a fragment of a two-barreled handle, with round in section bars,

⁶⁸ LEVITSKI 2006, p. 75, pl. 39, 10.

⁶⁹ SULIMIRSKI 1936, tab. XIII, 8.

⁷⁰ PETRESCU-DÎMBOVIȚA 1953, fig. 10, 4d pl. IX, 24a; LÁSZLÓ 1995, p. 92.

⁷¹ GANINA 1965, p. 109, fig. 1, 8-9.

⁷² ROMSAUER 1993, tab. XII, 17.

⁷³ BESSONOVA, SKORII 2001, p. 82, fig. 53, 15, 17.

⁷⁴ ICONOMU 1978-1979, p. 215, 231, pl. XXVII, 4, XXVIII, 2.

from a vessel of unascertained type⁷⁵. Also round in section are the handles of bitronconical mugs from Butuceni, dated back to the 6th – 5th cent. B.C.⁷⁶. Here one could add the round handles of more tardy globular mugs with a more or less high neck, from the assortment of local wheel-made pottery, as well as the lateral handles of bitronconical bowls dated to the 4th – 3rd cent. B.C. from Huși–Corni (Carpathian-Prut region)⁷⁷.

In this context, it is important to underline, that simple or two-barreled handles with a round section occur more often in the southern-Thracian cultural milieu. Thus, elevated handles with round sections occur by bitronconical mugs from the Cernica settlement⁷⁸, dated to the second half of the 5th cent. B.C.⁷⁹. Also, round section is characteristic for the bars of two-barreled elevated handles of dishes with deflected edge, tronconical dishes and bitronconical mugs from the lower horizon of the Getian fortified settlement “Cetatea Jidovilor” near Coțofenii-din-Jos village, which are considered of Greek provenience and were found together with imported Greek red and black slipped ware from the end of the 5th – first quarter of the 4th cent. B.C.⁸⁰. The handles of a bitronconical mug with deflected edge on circular support from Fântânele, dated back to the middle of the 4th – first quarter of the 3rd cent. B.C., had round sections, as well as the mugs on circular support from barrows 16 and 17 of Duvanli necropolis (Basova Moghila), dated to the last quarter of the 5th cent. B.C.⁸¹, amphorae from Mezek in the southern Balkan region, dated to the end of the 4th cent. B.C.⁸² and a vessel with two elevated handles from Prundu-La Stână settlement, dated to the 4th – 3rd cent. B.C.⁸³. A fragment of three-barreled handle with round-sectioned bars⁸⁴ was found in a Getian settlement from middle of the 4th – first half of the 3rd cent. B.C. in the Pietroiu–Gîldău area (Călărași district),

It must be mentioned here that round-sectioned handles were also found on small grey chalices of Greek provenience from Ishelnicza and Devetashkata Peshhera (Lovecz), dated to the second half of the 7th – the 6th cent. B.C.⁸⁵, as on some bitronconical bowls from the Alexandria–La Vii settlement, dated back to the 4th – 5th cent. B.C.⁸⁶.

In Histria, the two-barreled handles of an oenochoe from archaic period, with a horizontal-channeled decoration on the neck⁸⁷, designated by P. Alexandrescu as a mug, dated back to the 6th cent. B.C.⁸⁸ are round-sectioned, as

⁷⁵ ICONOMU 1978-1979, p. 216, pl. XXVII, 6; XXVIII, 6.

⁷⁶ NICULIȚĂ 1987, p. 53.

⁷⁷ TEODOR 1981, p. 183, 191.

⁷⁸ NICULIȚĂ 1987, p. 53.

⁷⁹ MOSCALU 1983, p. 374, fig. 14.

⁸⁰ ZIRRA *et alii* 1993, p. 122, 129, 131, fig. 35, 4; 36, 4; 35, 1-3; 36, 3.

⁸¹ MOSCALU 1983, p. 104, 109, pl. LXXIII, 1; LXXIV, 6.

⁸² MOSCALU 1983, p. 137, pl. XCV, 5.

⁸³ SÎRBU *et alii* 1996, p. 72, fig. 121, 8.

⁸⁴ SÎRBU, OPREA 1995, p. 124, 129, fig. 9, 7.

⁸⁵ MOSCALU 1983, p. 127, pl. LXX, 3, 10-11.

⁸⁶ PREDA 1959, p. 255, 258, fig. 6, 5-6.

⁸⁷ DUMITRIU 1966, p. 97, pl. 60, 443.

⁸⁸ ALEXANDRESCU 1978, p. 102, fig. 22, 659.

well as the handles of high mugs of reddish and brown colors with channeled decoration on neck and body, dated to the middle or end of the 5th cent. B.C., or to the end of the 5th – beginning of the 4th cent. B.C., which come from the barrow necropolis⁸⁹. A grey amphora with two-barreled round-sectioned handles from tumulus XVII of the same necropolis should also be mentioned⁹⁰.

Continuing the discussion on round-sectioned handles, it should be mentioned that in Olbia, simple or two-barreled handles are characteristic for jugs of different types from archaic complexes of the second half of the 6th – first quarter of the 5th cent. B.C.⁹¹. The lekanai were also provided with round-sectioned vertical handles, but here they appear no earlier than the second half of the 6th cent. B.C., continuing to exist over the entire next century⁹².

The next type of wheel-made pottery from Trinca is represented by grey or light-brown *deflected rims with grooves on outer side*, engobed and thoroughly polished (Fig. 2/3-4; 8/1-2). Taking into account, that from fragments of wheel-made ware from trench IV a middle part of the body of one jug (?) was reconstructed, one could presume that rims with grooves belonged to jugs.

We don't know such vessels among the wheel-made pottery from late-Hallstattian and early-Scythian cultures in the region under consideration and respectively from the forest-steppe part of the Dnepr basin. Vessels with such specific parameter (presence of one or two grooves on outer side of the rim) in the late-Hallstattian – early La Tène period were spread only in the milieu of the South-Thracian cultures from southern Oltenia, territories to the North and South of the Danube, as well as to the South of the Balkan Mountains. Such parameters are present at a lekane and a jug from the 6th – 5th cent. B.C. horizon of Beidaud settlement⁹³; a bitronconical bowl from burial 34 of Professor Ishirkovo necropolis in north-eastern Bulgaria, dated to the end of the 6th – middle of the 4th cent. B.C.⁹⁴; a pelike from burial 4 of the Getian Satu Nou necropolis⁹⁵, dated to the 4th cent. B.C.⁹⁶ or the first half of the 4th cent. B.C.⁹⁷; large earthenware pots of type I, representing autochthonous shapes of wheel-made pottery, produced by Thracians in the 4th – 3rd cent. B.C. and found in Zimnicea, Fântânele, Grojdibod, Lăceni, Mizia and other sites⁹⁸; a grey amphora from Dolno Sahrane, dated to the beginning of the 4th cent. B.C.⁹⁹; an amphora separately found in Zimnicea necropolis¹⁰⁰, as well as a krater and a bitronconical bowl from the Căscioarele-Șivița Hotarului settlement, an large earthenware pot from Căscioarele-Cătălău

⁸⁹ ALEXANDRESCU 1966, p. 166, pl. 86, XXII, 6; ALEXANDRESCU 1972, p. 117, fig. 2, 4; ALEXANDRESCU 1978, p. 102, fig. 22, 665, 667.

⁹⁰ ALEXANDRESCU 1966, p. 150, pl. 85, XVII, 14.

⁹¹ KRAPIVINA 2007, p. 100-101, fig. 2, 16; 4, 5.

⁹² KRAPIVINA 2007, p. 103-104, fig. 8, 3; 9.

⁹³ SIMION 2003, p. 82-83, fig. 11, 1, 4-5.

⁹⁴ GEORGIEVA, BACHVAROV 1994, p. 55, tab. XXXVI, 3.

⁹⁵ ALEXANDRESCU 1972, p. 122, note 48, fig. 7, 3.

⁹⁶ MITREA and others 1961, p. 286.

⁹⁷ MOSCALU 1983, p. 374, fig. 14.

⁹⁸ MOSCALU 1983, p. 93-95, pl. LXVII-LXVIII.

⁹⁹ ALEXANDRESCU 1977, p. 118, fig. 5, 13; MOSCALU 1983, p. 137, pl. XCV, 4.

¹⁰⁰ ALEXANDRESCU 1977, p. 118, 120, fig. 5, 11.

settlement, a vessel with faucet neck and a deep bitronconical bowl from Prundu-La Stână settlement¹⁰¹.

In Histria, deflected rims with grooves on outer side are known at: large pithoi of archaic period¹⁰²; a crater from the third archaic horizon, considered as a Chios import¹⁰³ and a vessel of *myké*-type, of archaic tradition, from tumulus XLI of the barrow necropolis – a shape which was produced in Athens at the end of the 5th – beginning of the 4th cent. B.C.¹⁰⁴.

In the range of simple wheel-made tableware, produced in North Pontic workshops, known by finds from closed complexes in Olbia and Berezani, as well as from one-layered archaic settlements (Beicush, Kaborga I, Bolishaya Chernomorka II), ornamentation of the deflected rim's outer side with one or two grooves is characteristic for many vessels: jugs of types I-III, oenochoes and kraters¹⁰⁵, wide-opened bowls of type III, lekanai and plates¹⁰⁶, ascribed to the 6th – 5th cent. B.C. A red jug, ornamented in a similar way, comes from Nadlimanskoe III settlement in the Lower Dnestr basin, and is dated to the end of the 6th – beginning of the 5th cent. B.C.¹⁰⁷.

DISCUSSION

The above-made analysis and review of grey wheel-made ware from the East-Carpathian region, performed in the light of finds from the late-Halstattian horizon of Trinca settlement, shows the following:

- in Trinca, as in the most researched West-Podolian settlements, two main categories of vessels were of household use – the hand-made and the wheel-made, with the quantitative prevalence of the first one. The technological characteristics and the morphological types of wheel-made ware from Trinca are common, both for the pottery of the West-Podolian and Moldavian-Podolian groups of sites, as well as for the entire circle of North-Thracian cultures from the late-Hallstatt period. Alongside with that, comparative analysis of this ceramic category from Trinca shows the presence of big Kruglik-type vessels and bitronconical mugs with elevated handle. In the same time, bowls are absent (?) from Trinca and vessels with simple or two-barreled round-sectioned handles, as well as vessels with deflected rim, ornamented with grooves on the outer side, which are present in Trinca, lack in the West-Podolian sites;

- the appearance moment of wheel-made pottery in the Trinca complexes was established by the time of their existence within the chronological limits of the West-Podolian group – middle of the 7th – early 5th cent. B.C., basing only on the morphological traits of the available pottery types. Both from technological and morphological point of view, vessels of Kruglik-type and bitronconical mugs with elevated handle are similar to the ones known in West-Podolian sites, where,

¹⁰¹ SÎRBU *et alii* 1996, p. 15, 40, 72, fig. 33, 2; 41, 5; 61, 2; 115, 10; 123, 5.

¹⁰² ALEXANDRESCU 1978, p. 93, fig. 17.

¹⁰³ ALEXANDRESCU 1972, p. 115, nota 14, fig. 1, 4.

¹⁰⁴ ALEXANDRESCU 1972, p. 122, nota 47, fig. 7, 1.

¹⁰⁵ KRAPIVINA 1987, p. 72-74, 76, fig. 25, 14; 26, 2; 28, 7; KRAPIVINA 2007, p. 107, fig. 5, 7.

¹⁰⁶ KRAPIVINA 1987, p. 77-78, 103; KRAPIVINA 2007, p. 105.

¹⁰⁷ OHOTNIKOV 1990, p. 23, fig. 12, 4.

on the base of Greek imports and other reliably dated finds, this ceramic category refers to the last third or quarter of the 7th – beginning or the first half of the 5th cent. B.C.¹⁰⁸. Vessels with simple or two-barreled handles with round sections represent a typical parameter for Greek pottery and the groove decoration on the outer side of the rim is considered an adoption from the Greek tradition¹⁰⁹. The workshops producing grey wheel-made ceramics begin to operate in Histria at the middle of the 6th cent. B.C. and in Berezani and Olbia in the third quarter of the 6th cent. B.C., from where it spreads in the North-Thracian and early-Scythian barbarian world. Handles with round sections are known, in the late-Halstattian Curteni settlement, already in the second quarter, maybe in middle of the 6th – first quarter of the 5th cent. B.C.¹¹⁰, and in Motroninskoe fortified settlement – in the period between last third of the 6th – first quarter of the 5th cent. B.C.¹¹¹. Handles with round sections also occur at some vessels from the West-Podolian type settlement Ivano-Puste, which has its upper chronological limit at the end of the 6th – beginning of the 5th cent. B.C.¹¹². Vessels with deflected rim and grooves on their outer side lack from the North-Thracian and early-Scythian cultural areas. However, in southern Thracian milieu they are spread beginning with the 6th – 5th cent. B.C. – Beidaud (Dobrudja)¹¹³. Also in the Lower Dnestr basin, one such vessel is known from the Nadlimanskoe III settlement, dated back to the end of the 6th – beginning of the 5th cent. B.C.¹¹⁴. Thus, the appearance of wheel-made pottery in Trinca is simultaneous with its spread in the Middle Dnestr basin (second half of the 7th cent. B.C.), also certified by the archaic character of molded ware from this settlement. But the upper chronological limit of the existence of wheel-made pottery in Trinca is so far placed *in toto* in the 6th cent. B.C. or at the beginning of the 5th cent. B.C.;

- the materials from Trinca bring another weighty argument towards the local production of wheel-made ceramics after an adopted technology. As it is known, the provenance of monochrome grey wheel-made ware is bound with the north-western part of Asia Minor peninsula – Aeolis, the technology of which, beginning with the 7th cent. B.C. was passing to the Greek centers beyond the borders of this region¹¹⁵ and which could have been passed further, through the barbarian milieu of the Lower Danube and south-eastern Transcarpathian region, northwards to the Middle Dnestr basin. The range of local prototypes must still be specified, but the search for them is already mapped out and in this respect, the materials of both Curteni settlement from South-eastern Transcarpathian region (**Fig. 3/4-5, 8**) and early Scythian settlements Ivane-Puste, Zales'e and Dolinjany (**Fig. 3/1-2**) of the West-Podolian group are of special interest. In this context, the Pruthian or/and Sirethian way of this pottery spreading appears to be more likely

¹⁰⁸ SMIRNOVA 1999, 50-53.

¹⁰⁹ MOSCALU 1983, p. 95, 105, 110.

¹¹⁰ ICONOMU 1978-1979, p. 231.

¹¹¹ BESSONOVA, SKORII 2001, p. 82.

¹¹² GANINA 1965, p. 109, 122.

¹¹³ SIMION 2003, p. 82-83.

¹¹⁴ OHOTNIKOV 1990, p. 23.

¹¹⁵ BAYNE 2000, p. 265 and next; BUJSKIKH 2006, p. 31.

(Fig. 1);

- the fact of local production of grey pottery, as well as the possibility of its transmission directly through the barbarian milieu is also illustrated by earlier materials from Troy VII b2, 1130 – 1050/30 B.C.¹¹⁶ (Fig. 4). The analysis made there has shown that grey ware (which is designated as „Anatolian grey ware” – „Anatolische Ware” / „Grau-mynische Ware”) was locally produced, and several regional centers of its production¹¹⁷ existed: Anatolian grey ware is met over the entire Troy VII period, but similar pottery from Troy VI differs by the composition of ceramic paste, a better surface treatment and more qualitative firing¹¹⁸. The grey pottery itself reveals morphologically a long-term tradition from Bronze Age to archaic period, being widely used (for drinking, eating, serving and storage activities) and remaining popular in the region until the end of the 6th – beginning of the 5th cent. B.C.¹¹⁹. Exactly in this period the imitation of foreign shapes in grey pottery is recorded – so, the typical for the moulded *Buckelkeramik* (Fig. 4, A/1-2) S-like shapes started to be repeated both in grey pottery (Fig. 4/6) and, partly, in local Trojan reddish-brown ceramics (Troianische Tanware). On grey ware passed even some patterns of geometrical decoration, typical for the moulded *Buckelkeramik*¹²⁰ (compare Fig. 4, A/1-5 and Fig. 4, B/8-10, 13, 14). An explanation for this would be that the potters, who came among the other migrants, adopted the Trojan technology of producing grey pottery, whereas the craftsmen remaining in Trojan workshops were continuing to further produce their pottery, including the grey one¹²¹. Taking into account the renewal of connections with Greece at the beginning of the Protogeometric period (phase Troy VII b3, 1025-950 B.C.) and the fact, that Troy is one of the few sites in this region, which remained populated in the transitional period from Late Bronze to Early Iron Age¹²², one could presume the role of Troy as one of the key-centers in the transmission of early grey wheel-made ware both in the Greek world and in the Balkan barbarian milieu¹²³. The version about the transmission of grey wheel-made ware technology directly through the barbarian milieu – from the eastern Balkans through Dobrudja and the East-Carpathian region to the Middle Dnestr basin – can be indirectly confirmed by other known examples of spreading novelties in this direction in earlier times. This is illustrated by the early bow knobs fibulae from X-IX cent. B.C.¹²⁴ (Fig. 5). The diffusion of Aegean clothing elements about 1000 B.C. and later in the eastern Balkans and further northwards to the Siret basin was one of the manifestations of quite constant Aegean

¹¹⁶ KORFMANN 1996, p. 24; KORFMANN 1997, p. 41-43; KOPPENHÖFER 1997, p. 343-346; HNILA, PIENIAŹEK-SIKORA 2002, p. 94 and next; BECKS 2003, p. 41 and next, tab. 2 *et alii*.

¹¹⁷ CHABOT-ASLAN 2008.

¹¹⁸ KOPPENHÖFER 1997, p. 316, 333.

¹¹⁹ CHABOT-ASLAN 2008.

¹²⁰ KOPPENHÖFER 1997, p. 320.

¹²¹ KOPPENHÖFER 1997, p. 320, 333.

¹²² CHABOT ASLAN 2002, S. 96; HNILA, PIENIAŹEK-SIKORA 2002, p. 94 and next; BECKS 2003, p. 51 and next.

¹²³ See KASHUBA, LEVITSKI 2009.

¹²⁴ KASHUBA 2006, S. 229-233, Abb. 2; 13.

influences in the European Bronze Age (Mycenaean ornaments and ceramics, weaponry (foils), symbols of authority and others)¹²⁵. This witnesses the presence of constant interest from the east Aegean world to eastern Balkans and North Pontic areas before their colonization. And the transmission of technological novelties (in our case, the monochrome grey wheel-made ceramics technology) not only through Greeks-colonists, but also directly through the barbarian milieu of the eastern Balkans and the East-Carpathian region could be quite probable. In this case, one could say that a certain part of early grey wheel-made pottery in the East-Carpathian region was of Asia Minor provenience;

- there is another important aspect, which is bound with the peculiarities of grey wheel-made ware circulation in barbarian milieu. Taking into account the „cultural biography” of things, when their significance and function depend on specific (definite) cultural contacts and can change in space and time¹²⁶, one could also consider the early wheel-made ware from the barbarian milieu in a different way. Grey monochrome pottery gets to initial colonization regions of North-West Pontic with the colonists from Miletus, among their private household utensils¹²⁷. And the low quantity of early wheel-made ware in barbarian settlements, as, for example, in Dolinjaný – 5-7%¹²⁸ only confirms, that in barbarian hinterlands early specimens of this kind of pottery were a novelty – a prestige item, intended not for everyday use. Therefore, those shapes and specimens, which were well-known and had a wide circulation in the barbarian milieu, were copied into the new technology.

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¹²⁵ See LICHARDUS *et alii* 2002, p. 168 and next, and the references cited therein.

¹²⁶ Shortly in HANSEN 2008, p. 1.

¹²⁷ BUJSKIKH 2006, p. 31.

¹²⁸ SMIRNOVA 1978, p. 33.

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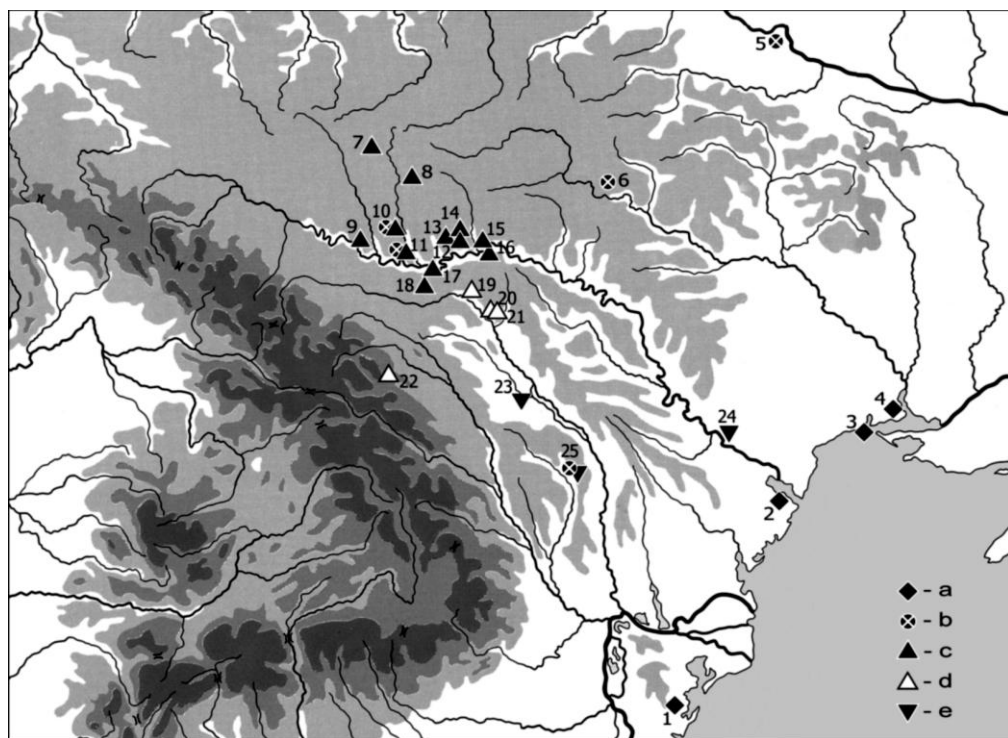


Fig. 1 - The East-Carpathian region and its adjacent territories in the early period of Greek colonization. Sites mentioned in text:

1 – Histria, 2 – Tyras, 3 – Berezani, 4 – Olbia, 5 – Trahtemirov, 6 – Nemirov, 7 – Novosyolka-Grimajlovskaya, 8 – Servatinczy, 9 – Lisichniki, 10 – Zales'e, 11 – Ivane-Puste, 12 – Teklivka, 13 – Tarasivka, 14 – Shutnivczy, 15 – Kolodiivka, 16 – Neporotovo, 17 – Dolinjany, 18 – Kruglik, 19 – Lipcani-La Rabii, 20 – Trinca-Drumul Feteștilor, 21 – Trinca-Izvorul lui Luca, 22 – Cașvana, 23 – Cotu Morii, 24 – Cioburciu, 25 – Curteni. Legend: a) greek empories and colonies, b) early greek imports, c) early grey wheel-made ware from West-Podolian group of Early Scythian culture, d) early grey wheel-made ware from Podolian-Moldavian group, e) early grey wheel-made ware from other sites.

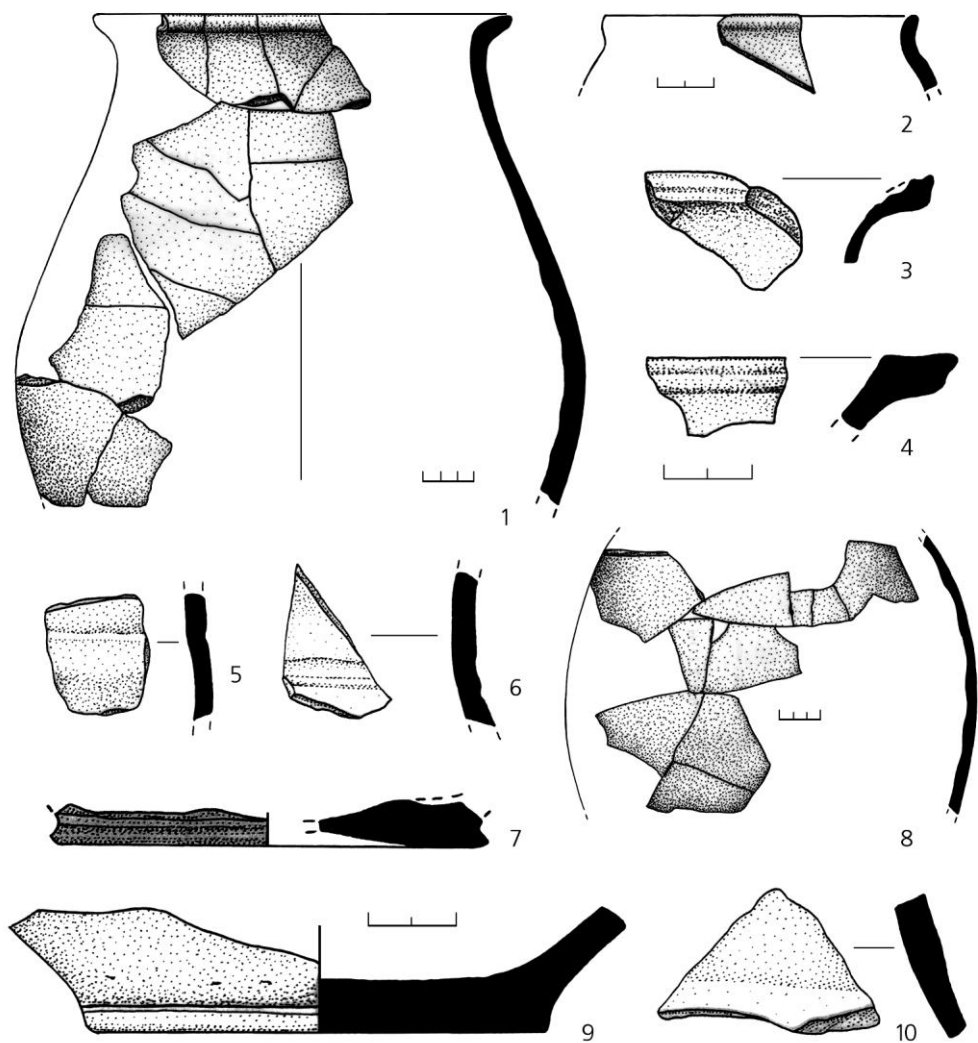


Fig. 2 - Trinca-Izvorul lui Luca settlement. Early grey wheel-made pottery.
1-2, 5-8, 10 – trench IV (1989), 3-4, 9 – trench V (1990).

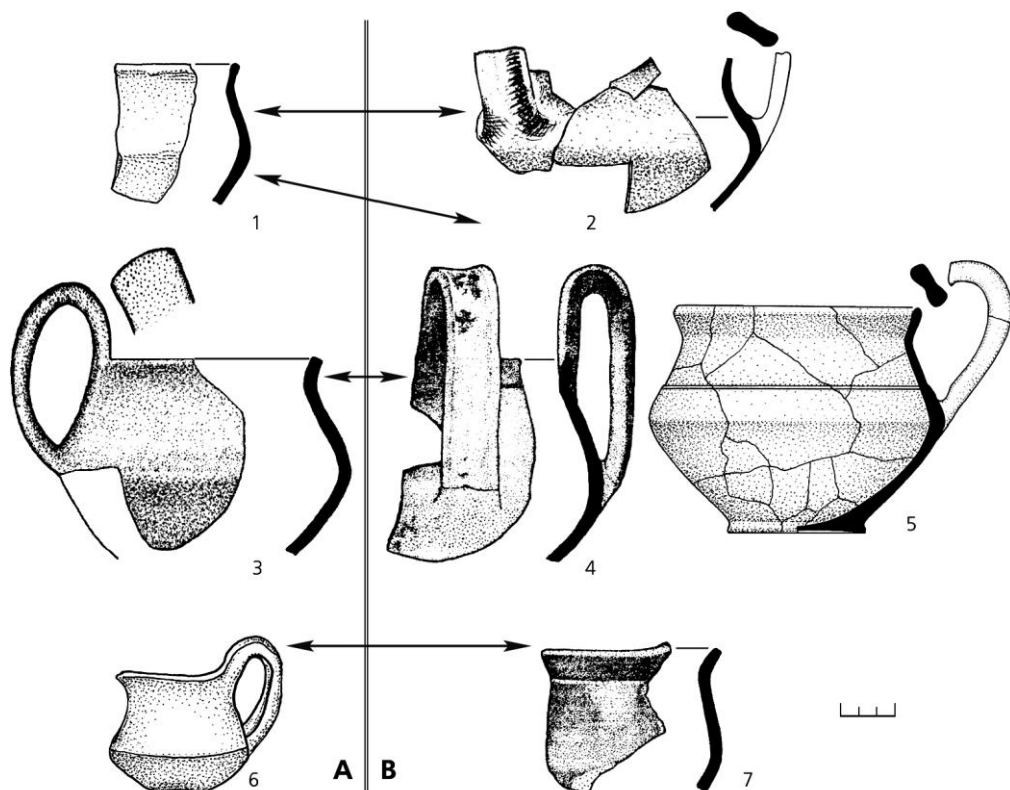


Fig. 3 - Early grey wheel-made pottery (2, 4, 5, 7) from the East-Carpathian region and its possible prototypes among the moulded ware (1, 3, 6).

1, 2 – Doliniany, 3, 4, 7 – Curteni, 5 – Trinca, 6 – Stoicani necropolis (1, 2 – after Smirnova 1981; 3, 4, 7 – after Ionomu 1978-1979; Ionomu 1979; 6 – after Petrescu-Dîmbovița 1953).

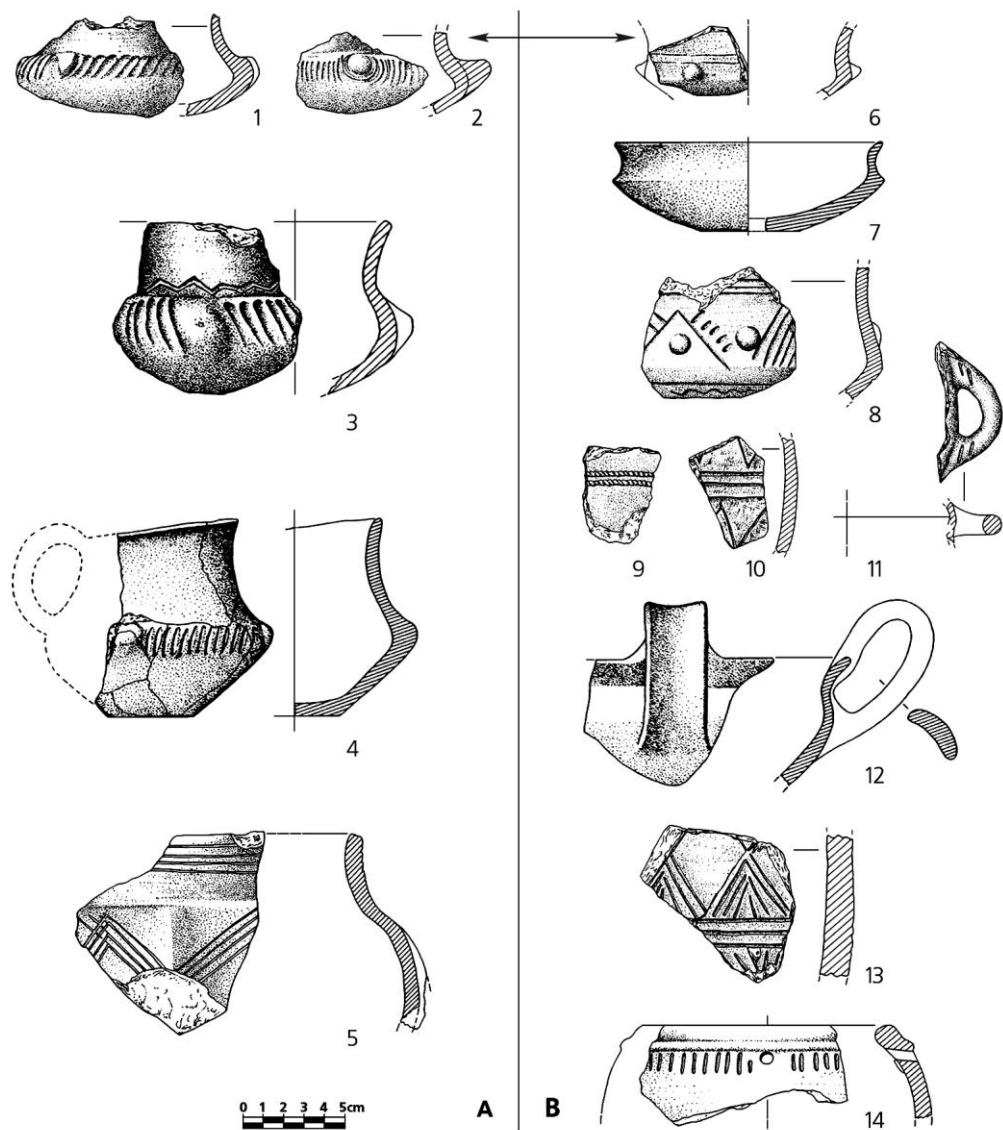


Fig. 4 - Pottery from Troy, phase VII b2 (1130-1050/30 BC).

A – Buckelkeramik (1-5), B – “Anatolian grey ware” and “Trojan grey ware” (6-14) (after Koppenhöfer 1997).

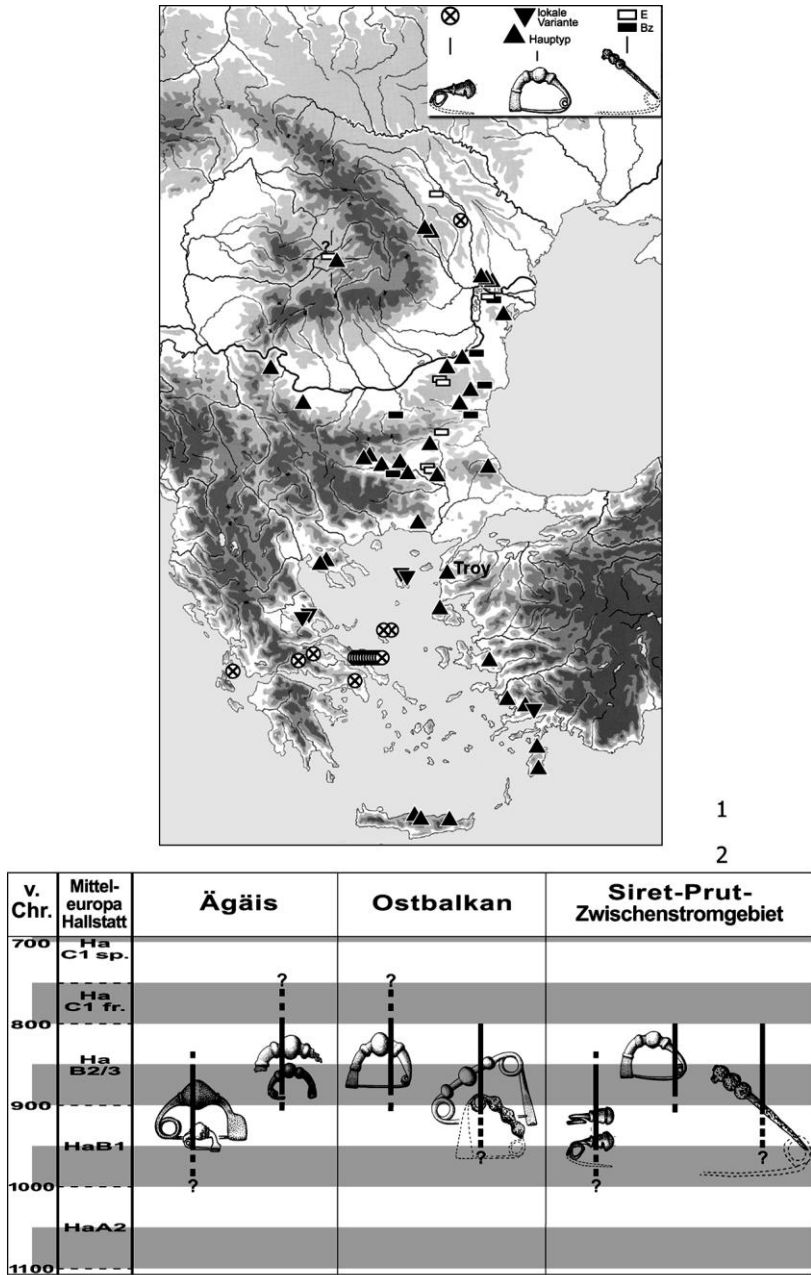


Fig. 5 - Early bow knobs fibulae from Aegean, central and eastern Balkans, East-Carpathian region.

1 – territory of distribution, 2 – chronological positions (after Kashuba 2006).



Fig. 6 - Trinca-Izvorul lui Luca settlement.
Early wheel-made ware – a bitronconical mug with elevated handle.



Fig. 7 - Trinca-Izvorul lui Luca settlement. Early wheel-made ware – a Kruglik-type vessel.

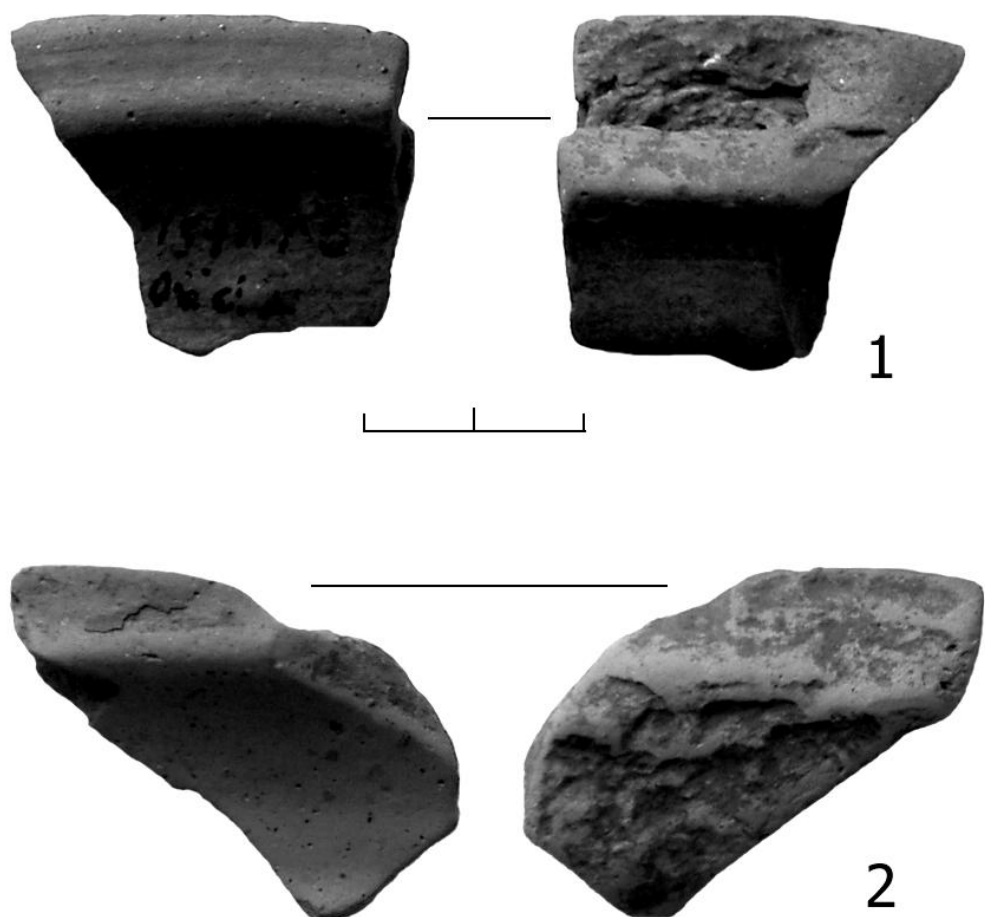


Fig. 8 - Trinca-Izvorul lui Luca settlement.
Early wheel-made ware – deflected rims with a groove on outer side (1-2).

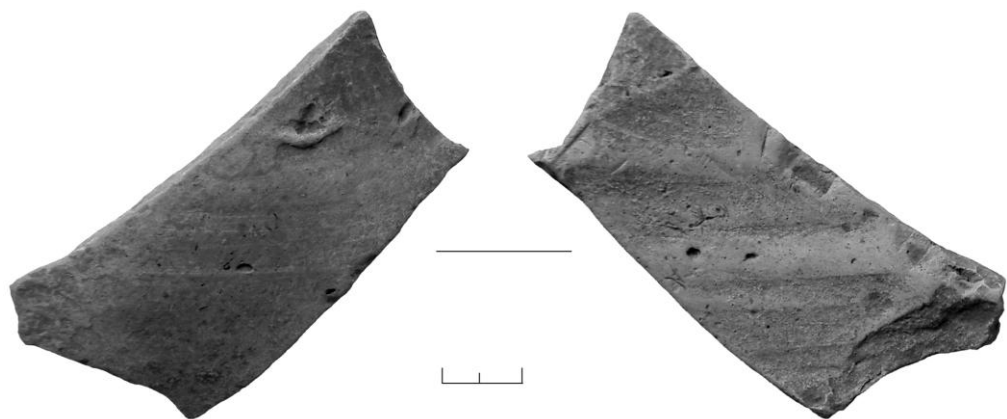


Fig. 9 - Trinca-Izvorul lui Luca settlement. Early wheel-made ware – wall of a large vessel.

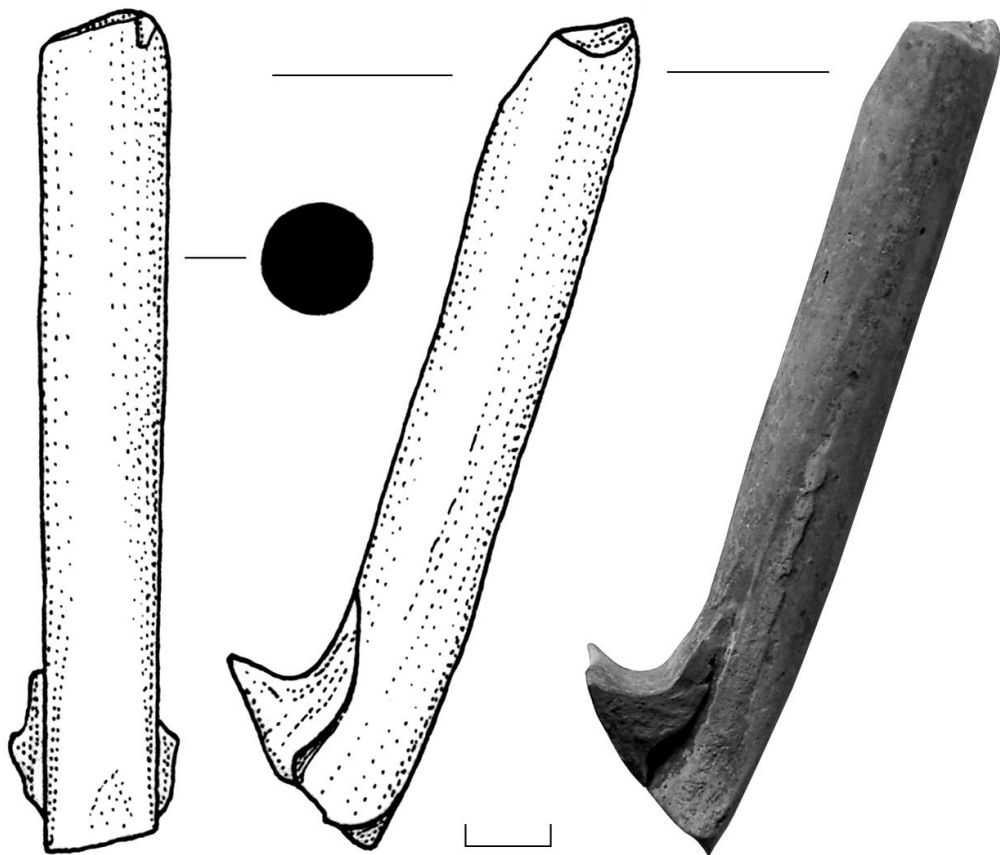


Fig. 10 - Trinca-Izvorul lui Luca settlement.
Early wheel-made ware – a round-sectioned handle from a jug (?).