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IMPACT OF THE BADEN COMPLEX UPON THE TRIPOLYE AND FUNNEL BEAKER CULTURES IN WESTERN UKRAINE¹

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ABSTRACT

In scientific literature the discussion over the evident ties between the Baden complex and Tripolye culture dates back to the mid 1990s and is related to Sofievka type complexes. In earlier papers by scholars on TC Stage CII only passing mention was given to Baden influences, the exception being works by Mykhailo Videiko, who paid particular attention to contacts with the Carpathian Basin. He noted their impact upon Troyaniv-Gorodsk type complexes and pointed out the presence of the Baden pottery style in the settlements of the Kasperivtsy-Gordinești complex. The adoption of Baden traits by communities belonging to the Funnel Beaker and Tripolye cultures in western Volhynia ran along very different lines. The quantity of data on Baden influence upon Funnel Beaker culture communities in the area between the Western Bug, Upper Dniester and Styr rivers remains small.

Keywords: Baden culture, Funnel Beaker culture, Tripolye culture, cultural impact, Western Ukraine, 4th millennium BC

¹ The paper presents the results of works carried out as part of the NCN Opus 15 UMO2018/29/HS3/01166 *Gordinești-Stinca goala as an example model of development and decline of fortified settlements of the Tripolye culture at the end of the 4th mill. BC* project.

In archaeological literature the discussion over the evident ties between the Baden complex (BC) and Triploje culture (TC) dates back to the mid 1990s and is related to Sofievka type complexes [Koško, Videiko 1995; Kadrow 1995; Kadrow *et al.* 1995]. The presence of Baden pottery style came to be regarded as a marker of its influence upon the TC, as well as the use of cremation burial customs [Koško, Videiko 1995]. In earlier papers by scholars on TC Stage CII only passing mention was given to BC influences [Dergachev 1980], the exception being works by Mykhailo Videiko [2000; 2008], who paid particular attention to contacts with the Carpathian Basin. He noted their impact upon Troyaniv-Gorodsk type complexes, where he identified e.g. knobs on vessel handles as markers of Baden influence. Videiko also pointed out the presence of BC pottery style in Gordinești-Kasperivtsy complex sites [Videiko 2000; 2008].

Generally, impulses from the Carpathian Basin were associated with areas occupied – in the northeast – by Troyaniv-Gorodsk groups, and by Gordinești-Kasperivtsy ones in the south. In 2013, a series of data concerning BC elements in TC complexes from around Ostrog in western Volhynia were published [Pasterkiewicz *et al.* 2013]. These data cast new light upon the relations between those two cultural units, revealing that BC impulses are not limited to the two aforementioned groups, but are also visible in TC communities from its borderlands with the Funnel Beaker culture (FBC) ocumene [Rybicka 2017; Rybicka *et al.* 2019]. Not so long ago, pottery with Baden references was identified in the Western Bug River valley enclave of the FBC, as evidenced by the – few in number – finds from Gródek [Gumiński 1989]. This provokes the question whether BC influences might have been relayed to western Volhynia by the FBC community on the Western Bug River; or was such influence from the Carpathian Basin also adopted by FBC communities, occupying the area enclosed by the Upper Dniester, Western Bug and Styr rivers, with this group being responsible for the projection of Carpathian Basin patterns upon the TC Stage CII populations of western Volhynia. Other interesting aspects are the chronology and dynamics of adoption of Baden traits by both TC Stage CII and FBC.

IMPACT OF BADEN STYLE ON THE FUNNEL BEAKER CULTURE BETWEEN THE WESTERN BUG, UPPER DNIESTER AND STYR RIVERS

The pool of information about the FBC between the Western Bug, Upper Dniester and Styr has significantly increased lately. We now possess data on not only its Western Bug River Valley enclave, e.g. from sites: Gródek, Hrubieszów

District [Gumiński 1989]; Zimno, Lutsk District [Bronicki *et al.* 2003; Peleshchyshyn 2004], Leżnica (Lezhnitsa), Volhynia District [Rybicka *et al.* 2019], but also FBC settlements throughout western Ukraine [Rybicka 2015; 2017], such as Kotoryny-*Grodzisko III*, Zhydachiv District, Rudniki, Lviv District in its south-eastern reaches, or Małe Grzybowice and Vynnyky-*Lysivka*, Lviv District in its centre. This grouping represents isolated samples from both the periphery and centre of the eastern reaches of the FBC oecumene.

Still, however, the quantity of data on BC influences upon FBC communities in the aforementioned area remains small. It is represented by a small number of pottery finds from settlements located in various areas of the FBC eastern oecumene, such as Rudniki-*Monastyrysche*, Lviv District [Konopla, Havinskyi 2013], Vynnyky-*Lysivka*, Lviv District [Havinskyi 2013; Rybicka *et al.* 2018], and Kotoryny-*Grodzisko III*, Zhydachiv District [Hawinskyj *et al.* 2013]. In this context, discoveries made at Kotoryny-*Grodzisko III* are of particular relevance [Hawinskyj *et al.* 2013: 264, Table XXIX and Phot. X, XIII]. The accumulation layer of Trench I yielded several finely made thin-walled vessel fragments with polished gray-black surfaces, decorated with motifs having affinities with BC ornamentation, such as the motifs of spiral lines and vertical incised lines (Fig. 1: 2) or a segmented arrangement of vertical incised lines (Fig. 1: 1, 3, 7). The technology of making such pottery does not significantly differ from that characterising the remainder of the assemblage, where several vessels evidently bearing the FBC style also possess dark glossy surfaces and are very finely made [Hawinskyj *et al.* 2013: 199]. The style set of the aforementioned pottery fragments can be related to Layer C at Jevišovice [Medunová-Benešova 1981: Taf. 138: 1; 175: 11] and e.g. Bratislava-*Jiráskova* Site 12 [Baxa, Kaminská 1984: 190-191]. The motif of spiral lines can be related to the early stages of the BC [Furholt 2009: 149-151]. It may presumptively be linked with the first phase of FBC settlement at Kotoryny-*Grodzisko III*, chronologically set in a broad period from ca 3700/3600 to 3400 BC.

The Rudniki-*Monastyrysche* site yielded a vessel with the belly decorated with appliqué bosses (Fig. 2: 8). Single examples of analogous use of such decoration are found both inside the BC, this including the site at Jevišovice C2 in Moravia [Medunová-Benešova 1981], as well as within the south-eastern (Pawłosiów, site 52) [Rybicka *et al.* 2014] and eastern groups of the FBC (e.g. Dobroń site) [Pelisiak 2002]. It is difficult to establish whether the Rudniki-*Monastyrysche* specimen is the result of BC or FBC influences. Materials from this site probably correspond to the younger phases of the classic FBC stage in the south-eastern group [Rybicka 2017: 84], with the presence of vessels with faceted edges as found in the younger stages of the settlement at Zimno [Bronicki *et al.* 2003]. This places Rudniki-*Monastyrysche* in the final centuries of the 4th millennium BC. Discrete influence of the BC was also noted at Vynnyky-*Lysivka*. It is represented here by double knobs on vessel handles (Fig. 3: 6) [Diachenko *et al.* 2019: 22].

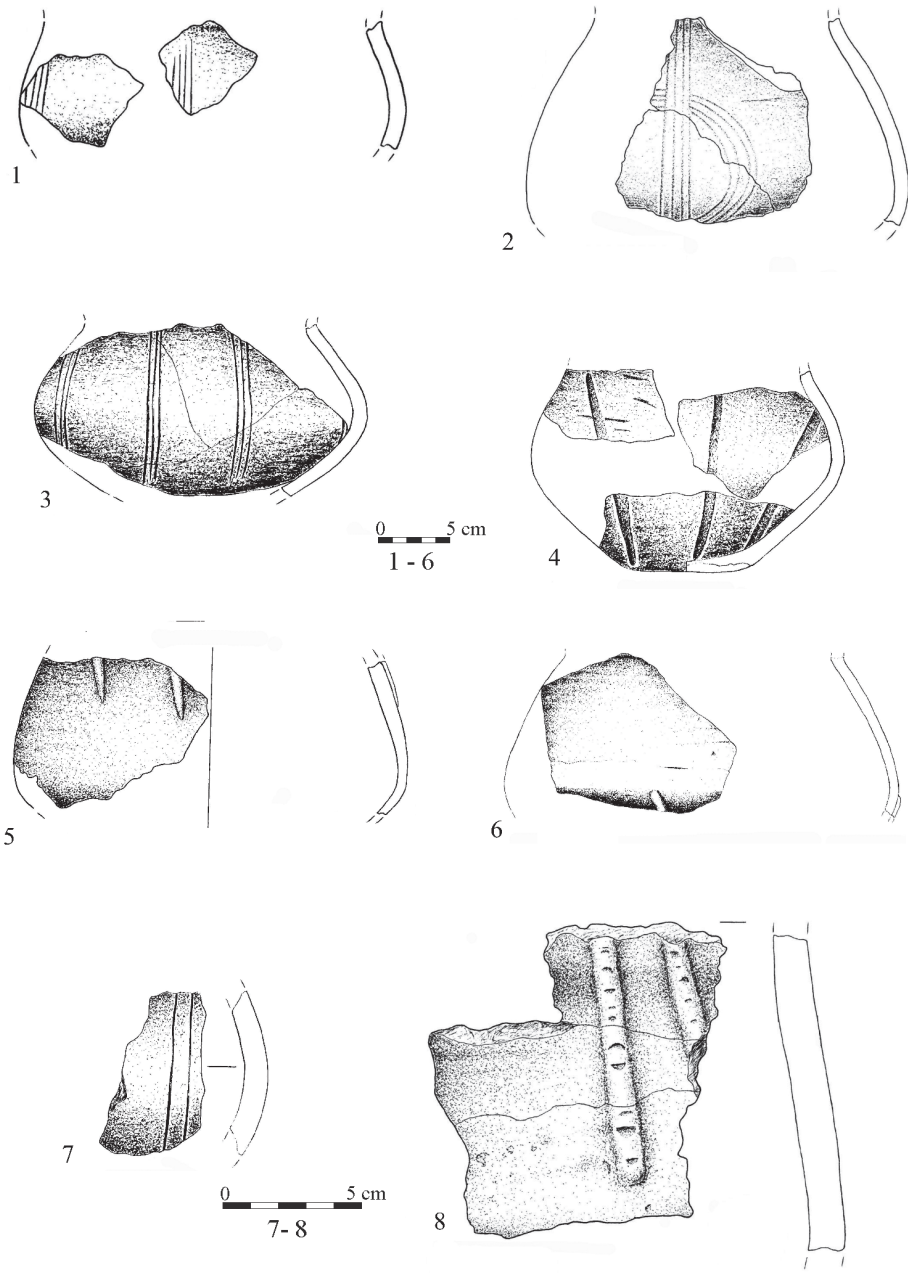


Fig. 1. Kotoryny-Grodzisko III, Zhydachiv District. Funnel Beaker culture pottery from excavation trench no. 1

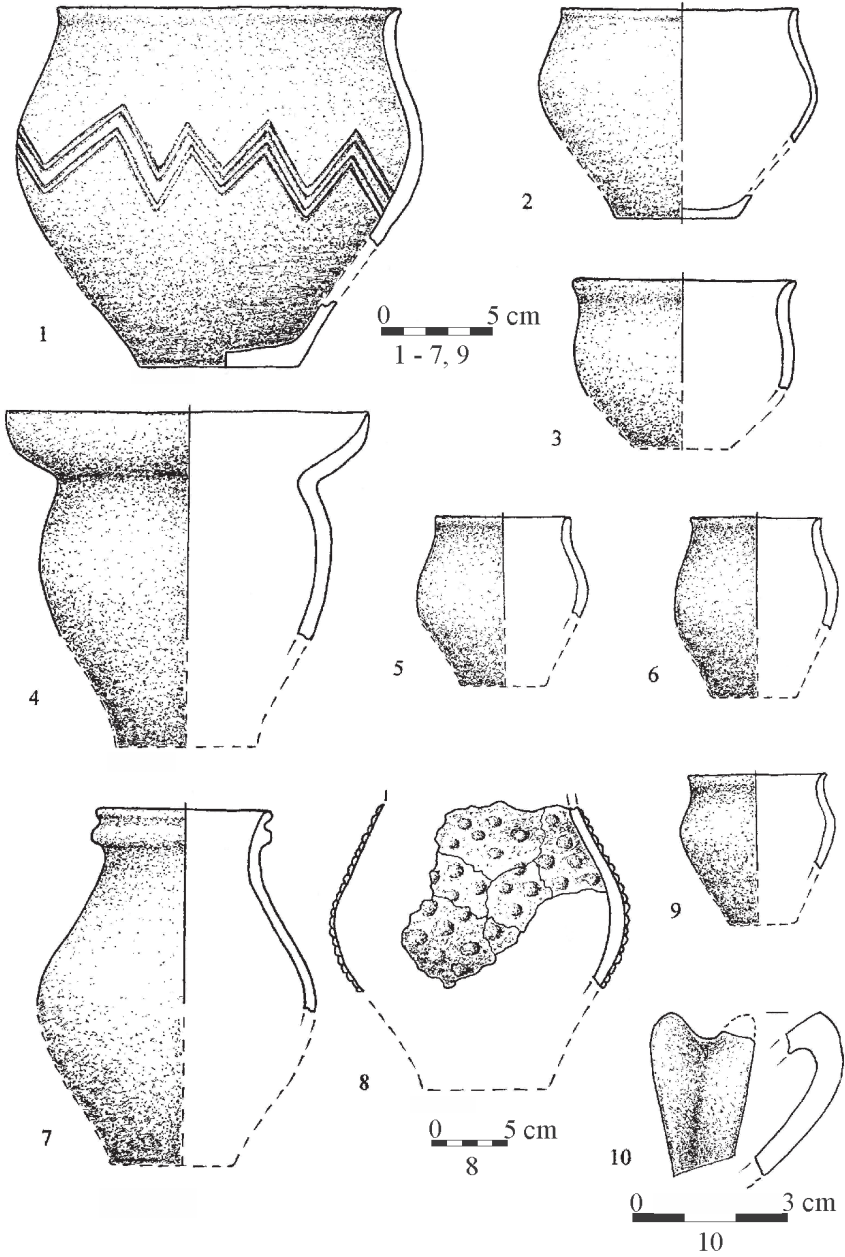


Fig. 2. Rudniki-Monastyrtsche, Lviv District. Pottery of the Funnel Beaker culture

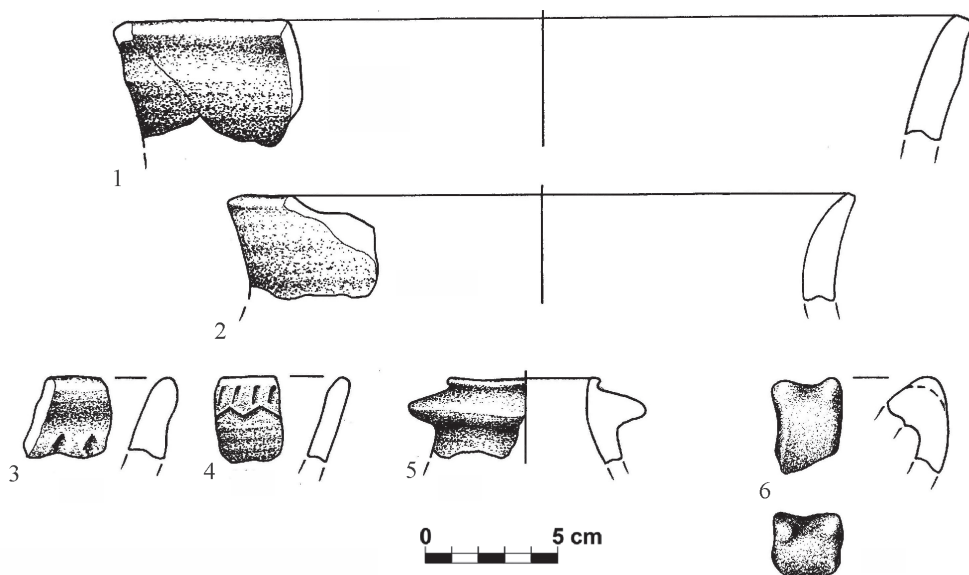


Fig. 3. Vynnyky-Lysivka, Lviv District. Pottery of the Funnel Beaker culture

In the TC such a manner of handle ornamentation is characteristic of Troyaniv-Gorodsk complexes [Kruts, Ryzhov 2000; Videiko 2008], and dated to the final centuries of the 4th millennium BC [Rybicka *et al.* 2019: 47].

In the context of the aforementioned reflections of the BC on the FBC pottery from settlements in Western Ukraine the small, published collection from Gródek is of particular note [Gumiński 1989: Fig. 55c-d, m, p]. Here the bellies of vessels are decorated with vertical or diagonal segments of incised lines or motifs similar to the ‘wolf’s teeth’ and are direct borrowings from the BC as seen at various stages of its development (e.g. Brno-Lišeň or Zesławice) [Furholt 2009: Taf. 8-9; 98-99]. Hence, the above-mentioned motifs cannot be used as chronological markers.

Information presented above substantiates the thesis that the eastern reaches of the FBC do not show signs of being subject to intensive influence, originating in the Carpathian Basin. The borderlands underwent different processes from those occurring in the FBC south-eastern and eastern groups, which is reflected e.g. in the conservatism of pottery ornamentation [see Rybicka 2017; Rybicka *et al.* 2019: 53]. Nor did the borderlands undergo the crystallisation of BC-FBC syncretisation, which is a characteristic feature of western Małopolska [Kruk, Milisauskas 1999] as well as Kujawy [Koško 1981; Rybicka 1995]. This lends further credence to the FBC borderlands evolving at a different rhythm to that of the south-eastern and eastern groups.

IMPACT OF THE BADEN COMPLEX ON THE TRIPOLYE CULTURE
STAGE CII IN WESTERN UKRAINE

In the area delimited by the upper Western Bug, Horyn and upper Dniester rivers, permanent TC settlement at the onset of its Stage CII was limited to the region between the Styr and Horyn; additionally, the end of this stage saw the establishment of some enclaves (e.g. Vynnyky-Zhupan) in previously FBC occupied territories in the Roztocze region [Verteletskyi 2019a].

Special attention should be given here to sites from around Ostrog in western Volhynia, whose TC pottery revealed traces of several links to the BC. The similarities are often represented by cups decorated with *Furchenstich* or cord impressions (Fig. 4-7) [Pasterkiewicz *et al.* 2013; Rybicka 2016]. The discover-

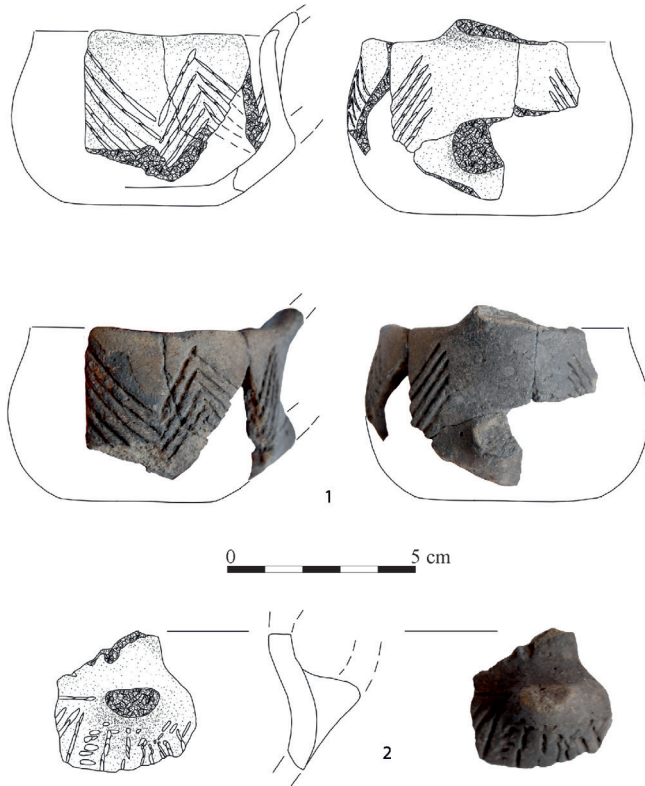


Fig. 4. Brodiv, Rivne District. Pottery of the Funnel Beaker culture

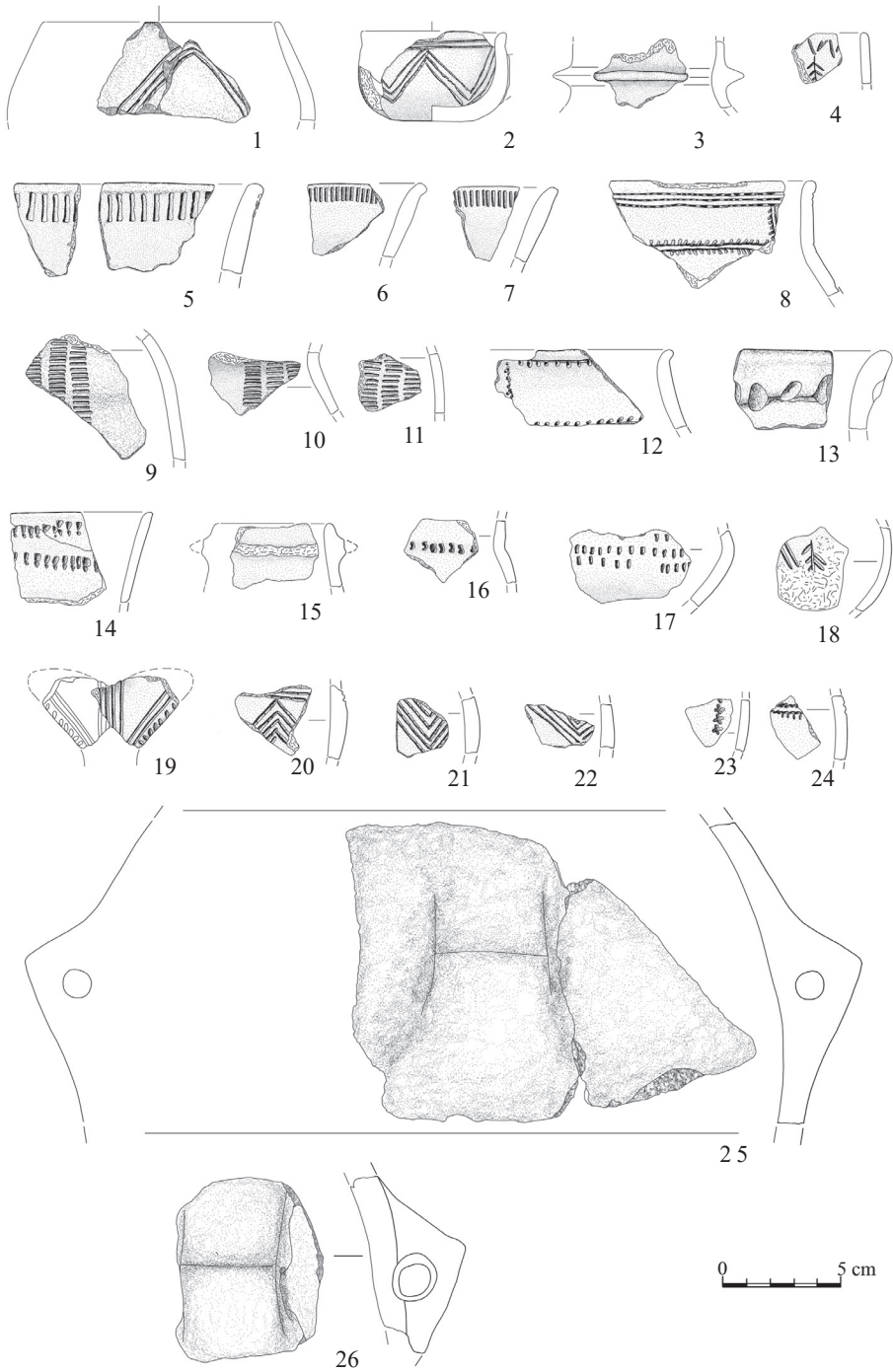


Fig. 5. Novomalın-Podobanka, Rivne District. Pottery of the Funnel Beaker culture

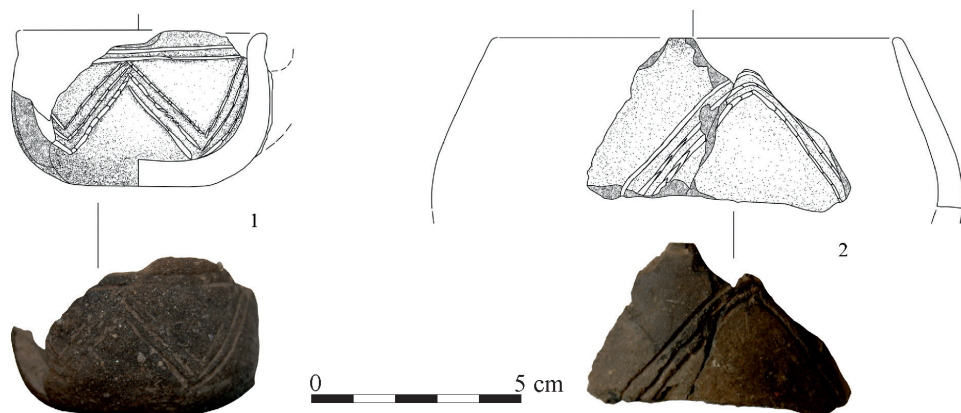


Fig. 6. Novomalin-Podobanka, Rivne District. Pottery of the Funnel Beaker culture

ies at Novomalin-*Podobanka* and Kurgany-*Dubova* are of particular relevance [Rybicka 2016; Verteletskyi 2016].

In the settlement at Novomalin-*Podobanka*, a cup decorated with *Furchenstich* was identified in the context of TC and FBC pottery (Fig. 5: 1, 2, 18, 20-22; 6) [Rybicka 2016; 2017]. Specifically, the settlement yielded pottery made in TC technology but with FBC ornamentation and vice versa, this being an important argument for the homogeneity of these materials. We can find similarities to the shape of the aforementioned cups in finds from Cimbург-type complexes, with the traits of *Furchenstichkeramik* [Zápotocký 2000], as well as in several other pre-Boleraz finds [Košťurik 2007; Šmid, Kalabkova 2015]. The absolute age determinations for FBC pottery from Novomalin-*Podobanka* are Poz-55979 4670±40 BP, 3627-3363 BC (95.4%) [Król, Rybicka 2016: Table 1]; hence these artefacts may be assigned to an early phase of the TC Stage CII.

In a settlement at Kurgany-*Dubova*, a cup with a rounded base was excavated from the earthen floor of a TC dwelling (Fig. 7: 1). This cup was decorated with *Furchenstich*, in a more elaborate style than those from Novomalin-*Podobanka* [Rybicka 2016]. Cups of this shape have analogies in various stages of the BC [Košťurik 2007; Furholt 2009] while their decorations have counterparts at Jevišovice B [Medunová-Benešová 1972: Taf. 50 and 60: 7,9]. The technological aspects of pottery from Kurgany-*Dubova*, as well as their accompanying TC vessels are similar [Rybicka 2016]. Radiocarbon dating for charcoal from

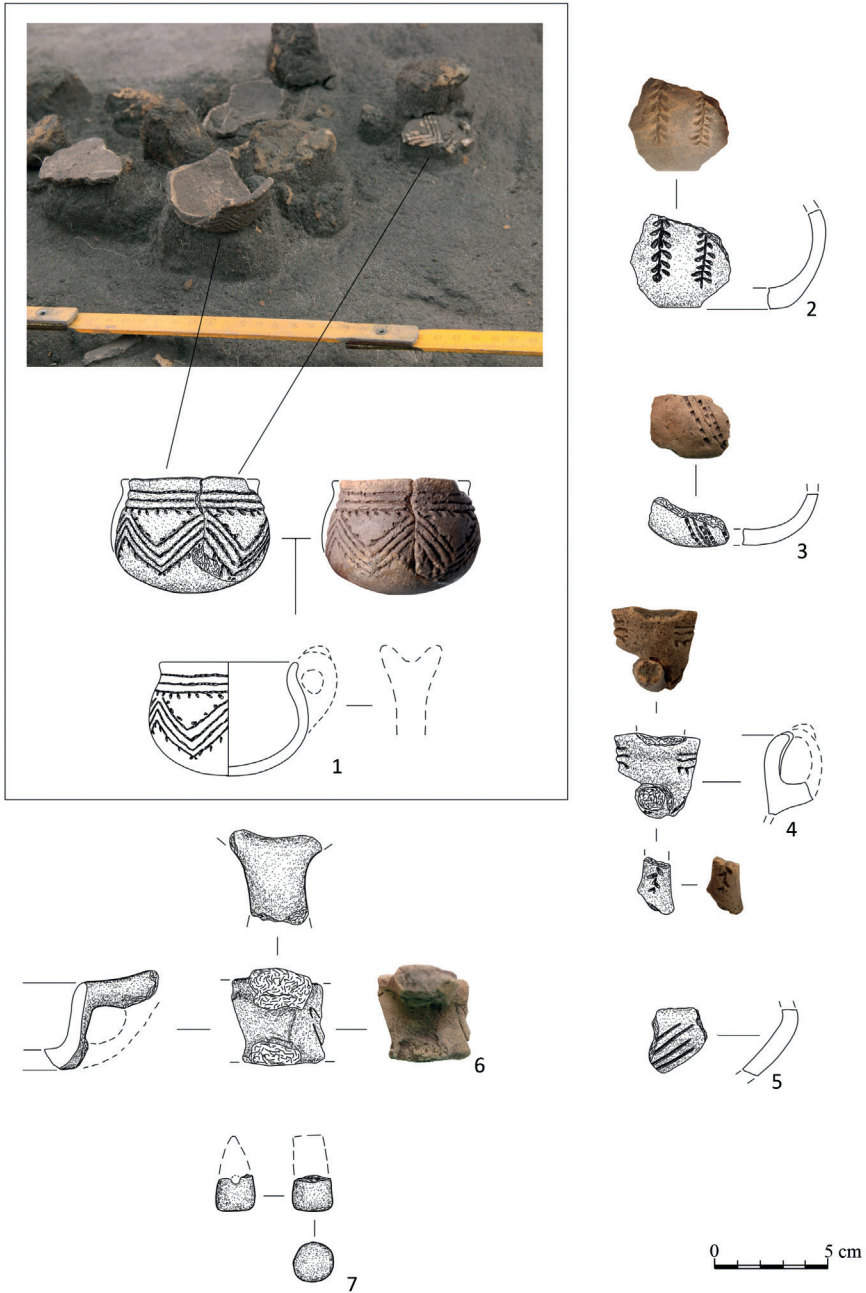


Fig. 7. Kurgany-Dubova, Rivne District. Pottery of the Triploye culture with Baden-like features

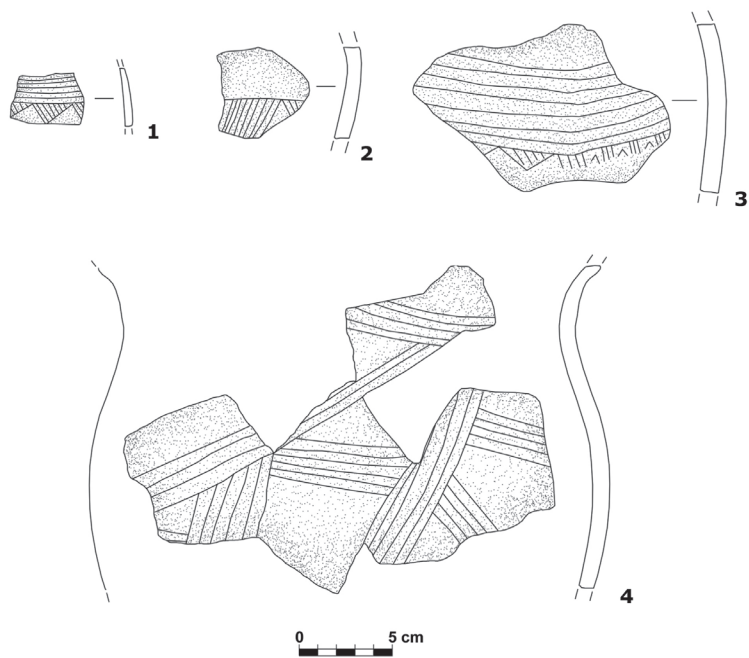


Fig. 8. Holyshiv, Lutsk District. Pottery of the Tripolye culture

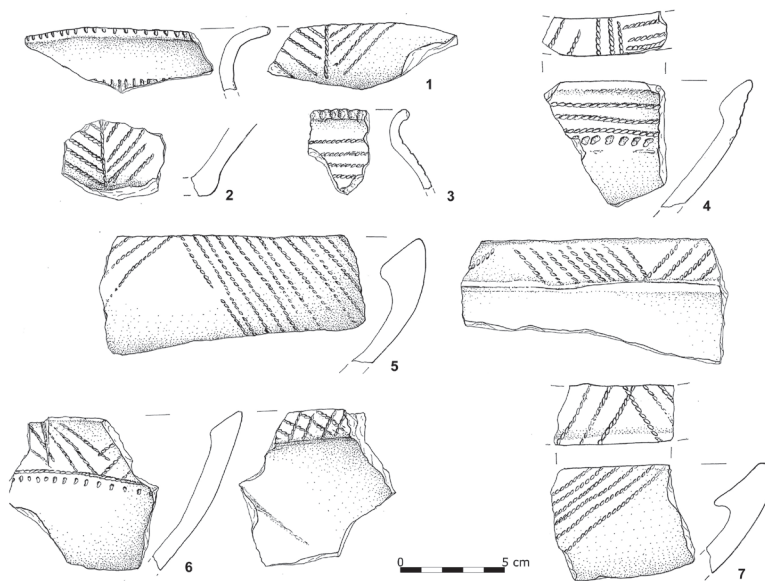


Fig. 9. Holyshiv, Lutsk District. Pottery of the Tripolye culture

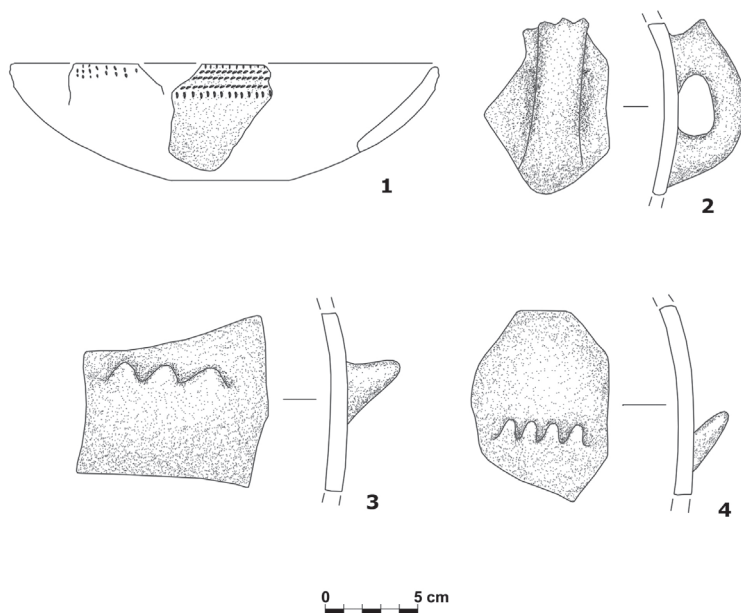


Fig. 10. Holyshiv, Lutsk District. Pottery of the Tripolye culture

TC pottery is Poz-77974 4500 ± 35 BP, 3355–3091 BC (95.4%) [Król, Rybicka 2016: Table 1].

In general terms, the chronology of the settlements where cups with the above-described characteristics have been found falls on the period of 3600/3500–3300/3100 BC [Pasterkiewicz *et al.* 2013; Król, Rybicka 2016]. The presence of cups revealing weak BC influences at many TC settlements in western Volhynia coincides with a parallel lack of finds with knob-decorated handles, which are Baden markers in groups located in the eastern part of Volhynia: Troyaniv and Gorodsk [Videiko 2000]. This suggests a different manner of the adoption of Baden inspirations by the communities in Volhynia.

Pottery from TC settlements in the area between Dubno and Ostrog does not indicate connections to the decoration motifs that are markers of the BC, such as segments of horizontal and vertical lines, and motifs of ‘wolf’s teeth’ [Furholt 2009]. However, vessels with such traits are present at Holyshiv – a settlement perceived as representing the youngest phase of the TC in western Volhynia [Pozikhovskiy, Okhrimenko 2005; Pozikhovski 2019]. Alongside traits typical of the Late Tripolye complexes of the Zvenyachyn type [Verteletskiy 2019b], at Holyshiv, pottery decorated with lines in arrangements typical of the BC occurs (Fig. 8: 2-4) [Rybicka 2017]. There are also other Baden patterns present there: ‘mesh’ (*Netzmuster*; Fig. 9: 6) [Rybicka 2017: Fig. 28:1-2], ‘fishbone’ (*Fis-*

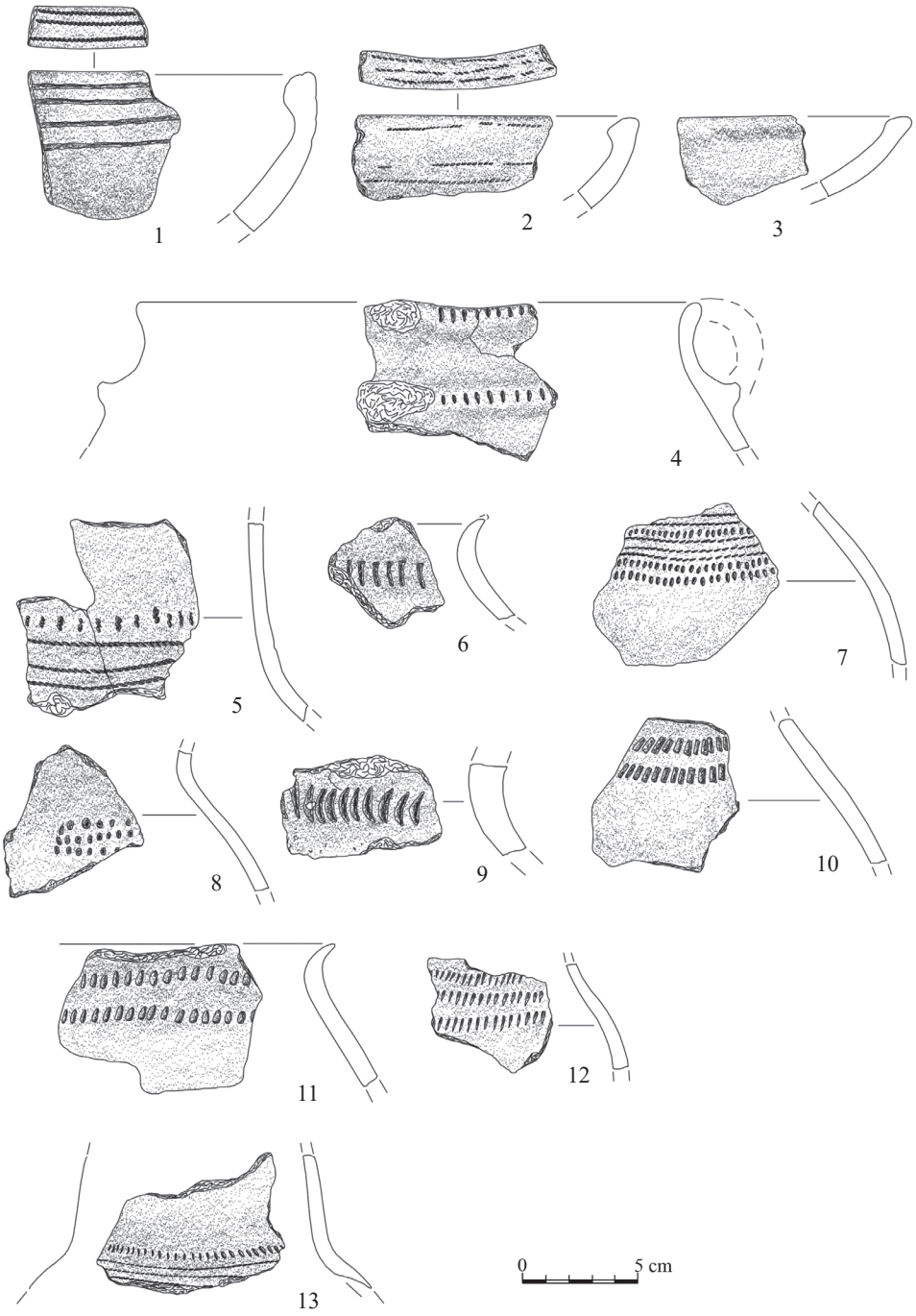


Fig. 11. Zvenyachyn, Chernivtsi District. Pottery of the Tripolye culture

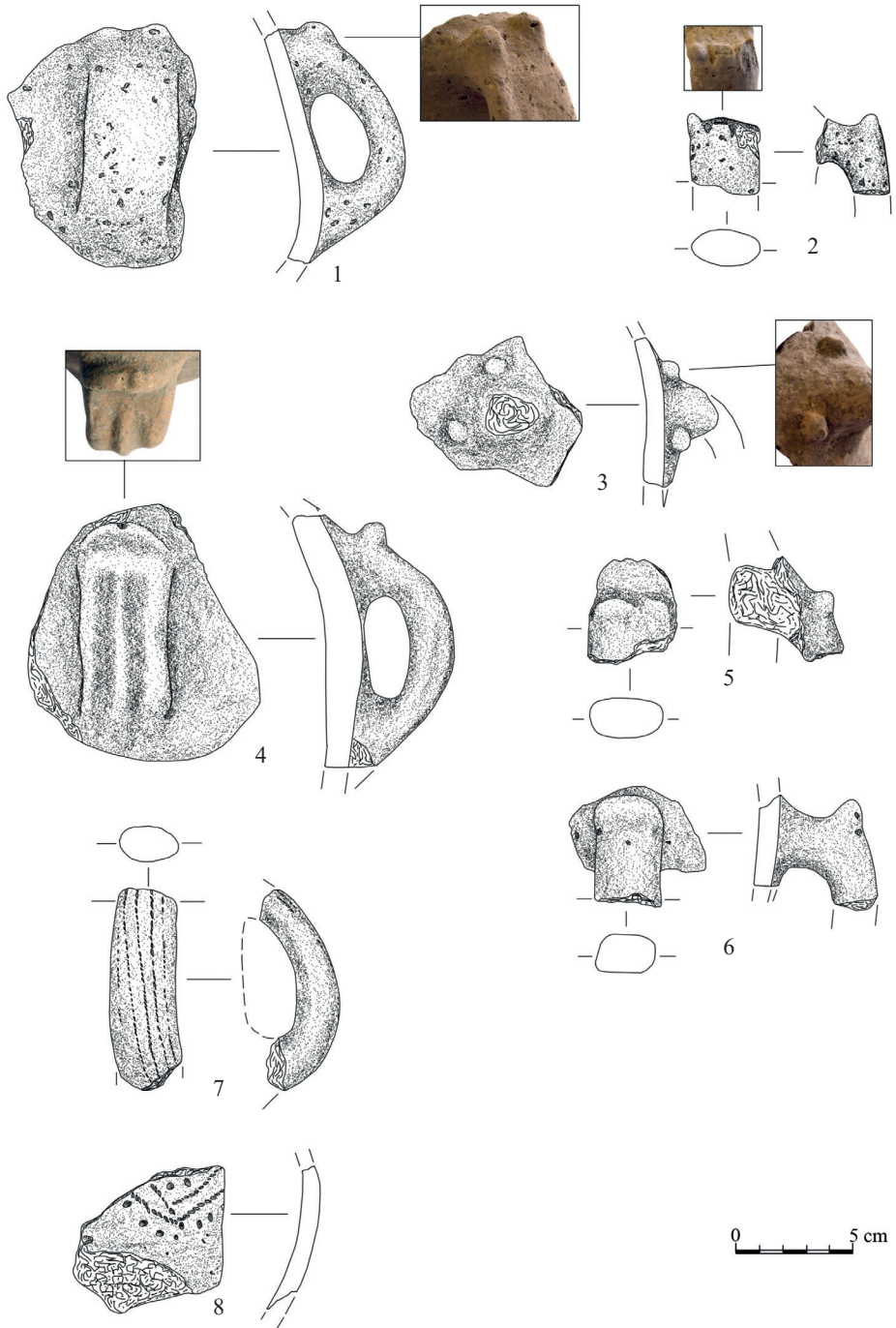


Fig. 12. Zvenyachyn, Chernivtsi District. Pottery of the Tripolye culture

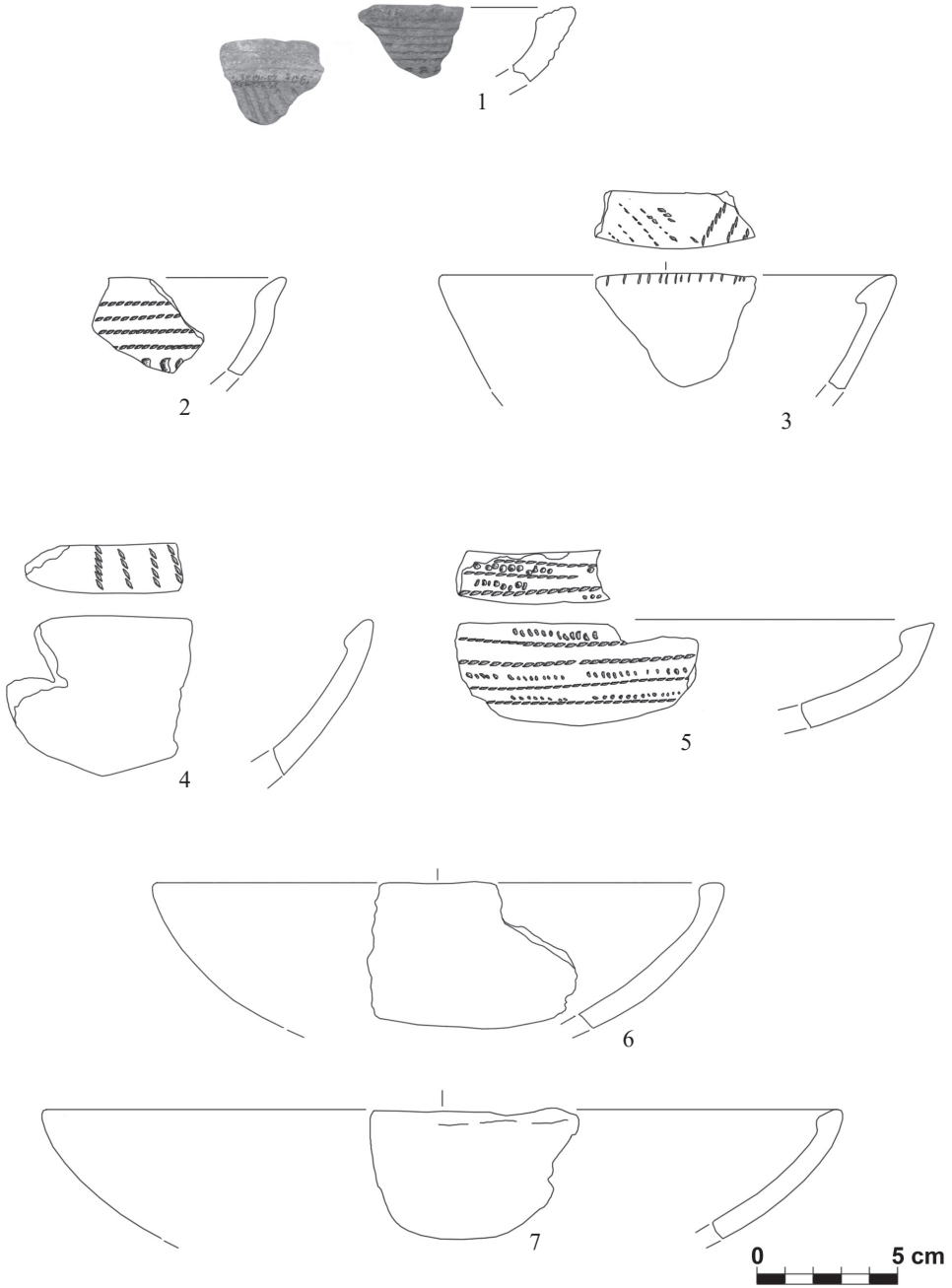


Fig. 13. Zvenyachyn, Chernivtsi District. Pottery of the Tripolye culture

chgratmuster) [Rybicka 2017: Fig. 31:4] and ‘fir branch’ (*Tannenzweigmuster*; Fig. 9: 1-2) [Pozikhovskiy, Okhrimenko 2005: Figs. 1:3; 5:6]. Such motifs have closer or more distant counterparts in the BC, or are a variation on the Baden style. Similar ornamentation could be found on many BC sites, e.g. in Brno-Lišen [Furholt 2009: Taf. 8:1,18,20; 11:1; 18:16; 21:20], Dolni Vestonice [Furholt 2009: Taf. 22:3], Hlinsko 13 [Furholt 2009: Taf. 26:5], Mogiła 55A [Furholt 2009: Taf. 81:10; 83:7]. Several references to decorations of Holyshiv pottery, such as the *Netzmuster* [Rybicka 2017: Fig. 28:1-2], and combined ‘fishbone’ pattern or cord impressions (Fig. 9) [Rybicka 2017: Fig. 30; 31:4], are visible in finds from Jevišovice B [Medunová-Benešová 1972: Taf. 54; 65:1-3,8-9; 70]. In Holyshiv, triple appliqué knobs were used to decorate the bellies of bowls (Fig. 10: 3-4) [Rybicka 2017: Fig. 31:1), whereas in the BC, they were used mostly on handles, e.g. in Jevišovice B [Medunová-Benešová 1972: Taf. 71:9-1]. Furthermore, in pottery from Holyshiv, connections to FBC ornamentation were noted [Rybicka 2017: Fig. 32], specifically on bowls with faceted lip edges, and in combinations of cord impressions in patterns characterising the complexes of the Radziejów-Opatowice type in Kujawy [Koško 1981; Rybicka 1995].

Furthermore, in western Volhynia, the style of Holyshiv pottery is similar to that of Vynnyky-*Zhupan* [Verteletskyi 2019a]. The assemblage from this site contains the ‘mesh pattern’ and various combinations of the ‘fishbone’ pattern or cord impressions [Verteletskyi 2019a: Fig. 17; Diachenko *et al.* 2019: Fig. 15:1], which are not the direct counterparts of BC ornamentation, but only loosely related imitations. The style of pottery from Vynnyky-*Zhupan* in the area of Lviv seems to have affinities with that from Zvenyachyn, Chernivtsi District (Fig. 11-13) [Verteletskyi 2019b].

SUMMARY

The adoption of BC traits by communities belonging to the FBC and TC in western Volhynia ran along various lines. In the former, we note very low incidence of such borrowings; in the latter such influence is much more in evidence, albeit initially limited to some single and selected traits of pottery decoration and vessel forms, particularly cups with *Furchenstich* or cord ornaments. They are often found on TC sites located around Dubno or Ostrog. No such pottery with *Furchenstich* has been identified at FBC settlements from the area between the Western Bug, upper Dniester and Styr, nor in TC assemblages from eastern Ukraine [Videiko 2000; 2008].

Such observations suggest that neither FBC communities from western Ukraine nor TC communities from eastern Ukraine (from the Troyaniv-Gorodsk

groups) contributed to the adoption of *Furchenstichstil* into TC wares. The last few years have seen the discovery of a *Furchenstichstil* type complex at Modlnica in western Małopolska [Zastawny, Grabowska 2011], thus showing that such complexes are representative not only of the Carpathian Basin [Zapotocky 2000]. However, one should not suggest that BC impulses reached the Ostrog area directly from Małopolska, as for instance forms of cups from the two regions are markedly different [*cf.* Zastawny, Grabowska 2011; Pasterkiewicz *et al.* 2013; Rybicka 2016]. To date, no vessels (cups) decorated in such a manner (*Furchenstichstil*) have been found in the FBC area between the Western Bug and Vistula. It is difficult to explain their appearance around Ostrog. Although contacts between TC communities in Volhynia and BC groups are documented by the presence of items made of Volhynia flint in the Carpathian Basin [Struhar *et al.* 2015], yet there is no data on when they began to be used.

During the youngest phase of TC Stage CII in western Volhynia, the range of BC style expanded to include the motifs which are markers of Baden pottery-making [*see* Furholt 2009; Rybicka 2017]. However, it is difficult to establish unequivocally which specific groups served as intermediaries passing BC traits to western Volhynia. The lack of direct links to the BC in Gorodsk type complexes gives grounds to rule out their participation in the formation of Lystvyn-Holyshiv type complexes [*see* Videiko 2000; 2008].

The origin of Lystvyn-Holyshiv type complexes, in western Volhynia representing complexes bearing traits of the Gordinești group from Moldavia, is open to discussion [Pozikhovskiy 2019; Verteletskyi 2019a]. Some scholars view their emergence as resulting from influence exerted by the population of this youngest group of the TC [Kruts, Ryzhov 2000: 108].

What led to the appearance of phenomena similar to those of the Gordinești group, recorded at isolated enclaves in western Ukraine far to the north of its range (Vynnyky-*Zhupan*, Lystvyn-Holyshiv)? Was it due to the inflow of settlers from the south,² thus the observed standardisation of decorations, possibly being the effect of human migrations? If yes, what were the reasons for this process and are the BC influences identified in Holyshiv an element of this southern cultural package?

The observed similarities in pottery between Zvenyachyn (Fig. 11-12) [Verteletskyi 2019b], Vynnyky-*Zhupan* [Verteletskyi 2019a], and Holyshiv (Figs. 7-9) [Pozikhovskiy, Okhrimenko 2005; Rybicka 2017] type complexes support the hypothesis about a south-to-north migration.³ If true, then the similarities between the inventories from Vynnyky-*Zhupan* and Lystvyn-Holyshiv type complexes

² According to Videiko at this time "... *Migratory processes, mainly of the population of the Carpathian Basin, resulted in the appearance of the Gordinești and Trojaniv cultural types. Their subsequent translocation to the east gave rise to the Sofievka type...*" [Videiko 2000: 67].

³ Not all their traits correspond to distinctive markers of the Gordinești group, whose settlements were established on exposed hilltops in northern Moldavia. This location type was used for Zvenyachyn, Vynnyky-*Zhupan* as well as Lystvyn, but not for Holyshiv.

suggest that the emergence of the above-listed late TC complexes might have involved the population of an intermediate location, i.e. the settlement at *Vynnyky-Zhupan*. The standardisation of pottery features, however, may have had other causes, for instance, contacts between northern and southern communities in the context of trading/bartering Volhynia flint.⁴ This issue requires further studies.

⁴ As far as earlier contacts between the Brînzeni group and western Volhynia were driven by intensive distribution of Volhynia flint [Markevich 1981; Dergachev 1980: 133; Rybicka 2017]; this raw material was also used by Gordinești group communities, but not to a major degree [Dergachev 1980: 121]. Nevertheless, it may be assumed that Volhynia flint was of some significance in relations between the north and south.

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