

# THE WESTERN BORDER AREA OF THE TRIPOLYE CULTURE

**Janusz Budziszewski**  
**Larisa V. Demchenko**  
**Sławomir Kadrow**  
**Viktor I. Klochko**  
**Aleksander Koško**  
**Sergey A. Kozak**  
**Vladimir A. Kruts**  
**Viktor N. Kvasnitsa**  
**Jerzy J. Langer**  
**Vyacheslav I. Manichev**  
**Tamara G. Movsha**  
**Sergey M. Ryzhov**  
**Mikhail P. Sokhatskiy**  
**Marzena Szmyt**  
**Olena V. Tsvek**  
**Taras Tkachuk**  
**Mihailo Y. Videiko**  
**Anna Zakościelna**

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BALTIC-PONTIC STUDIES  
61-809 Poznań (Poland)  
Św. Marcin 78  
Tel. (061) 8294799, Fax (061) 8294788

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## Editor's Foreword

The 'western borderland' of the Tripolye culture, appearing in the title of this volume of the 'Baltic-Pontic Studies', refers to the circle of neighbouring cultural systems of the Upper Tisza and Vistula drainages. As neighbours of the Tripolye culture such groups are discussed as Lengyel-Polgár, Funnel Beaker and, albeit to a much narrower extent, the Globular Amphora (cf. B-PS vol. 8) and the Corded Ware cultures. The papers discuss the reception of 'western' traditions by Tripolye communities as well as the 'western borderland' mentioned in the title.

Defined in this way, these questions have been only cursorily treated in the literature. The consequences of accumulated omissions in the study of the cultural surroundings of 'Tripolye' have been felt by us when we worked on this issue. Thus, we submit a greatly limited work as far as its subject matter is concerned hoping that it will open a sequence of necessary studies. Such studies should, in the first place, focus on the co-ordination of the 'languages' of taxonomy and then they should investigate different aspects of the mechanisms of the outlined processes of the 'cultural contact'.

**Mihailo Y. Videiko**

**TRIPOLYE AND THE CULTURES OF CENTRAL EUROPE.  
FACTS AND THE CHARACTER OF INTERACTIONS:  
4200–2750 BC**

The Tripolye-Cucuteni culture is the most eastwardly-advanced outpost of the early agricultural cultures of Balkan origin in Europe. Its eastward expansion, up to the Dnieper, was a protracted process. The objective of our research consists in defining the components of other cultures which are reflected in materials of the Tripolye-Cucuteni culture (period between 4200-2750 BC). Research has provided data which enables us to define the economic and ideological factors which lay behind this process. We have limited the territorial scope of our research to the Forest-Steppe zone between the rivers Dniester and Dnieper, and this article will discuss the influence of cultures of Central Europe.

We will not examine the Steppe zone here: the origin of Tripolye culture types in this area is a subject for separate research.

It is possible to select two sequential stages of cultural interaction between 4200-2750 BC. The first is dated between 4200-3800 BC and can conditionally be referred to as the period of 'polgárisation' of Tripolye-Cucuteni cultures. The second period is dated between 3500-2750 BC and can be defined as the period of 'badenisation'.

1. THE PERIOD OF 'POLGÁRISATION': 4200–3800 BC

For this first stage, it is possible to distinguish two major events, the first being the rising influence of cultures of the Lengyel-Polgár circle. The second phenomenon was the initiation of contacts with groups from the Vistula basin belonging to the Funnel Beaker culture (FBC). Below, we shall consider the evidence of contacts between the cultures listed above (Fig. 1, 2).



## 1.1. CONTACTS WITH THE LENGYEL-POLGÁR CIRCLE OF CULTURES

## 1.1.1. THE DNIESTER REGION

The cultural contact zone was probably the area of the Upper Dniester, where there is a widespread occurrence of settlements of the Zalishchyky type (Fig. 1). The form of ceramics characteristic for settlements of this type have prototypes in the Polgár and Lengyel cultures (Fig. 3). In addition, on one Zalishchyky settlement was found the top of a figurine which has direct analogies in plastics of the Lengyel culture (LC) in terms of the form of the head, the gesture of the hands and the profile of the torso (Fig. 4). Also found on this settlement were figurines, the form and decoration of which also have analogies in the LC. A similar piece was discovered on the Vorvulinty settlement situated in the same area.

Contemporaneous with complexes of the Zalishchyky type on the Dniester were settlements of the Soloncheny type (Fig. 1). Here, ceramic forms characteristic for the Lengyel and Tisa cultures were also widespread, including such vessel forms as dishes, lids, bowls with handles, pots with decorative relief (Fig. 5), and the anthropomorphic figurines in sitting position (Fig. 5:10).

V. Kruts and S. Ryzhov have recently distinguished a new local group of the Tripolye culture (TC) on the Upper Dniester, which also displays evidence of contacts with the Lengyel and Polgár cultures [Kruts, Ryzhov 1997]. These authors considered that the adherence of these cultures to one cultural type promoted intercultural links, reflected mainly in the exchange of raw materials — flint and obsidian. They also consider that the majority of selected finds are not real imports, but were produced by craftsmen using motifs with which they were personally familiar. In their opinion, one may speak about a two-sided infiltration of the population [Kruts, Ryzhov 1997:29-30]. In the same work, the authors also put forward the hypothesis that the use of cremation in the Tiszapolgár culture was of Tripolye origin [Kruts, Ryzhov 1997:28-29]. In our opinion, this hypothesis appears somewhat unsatisfactory when taking into account the history of the distribution of this funeral rite across Central Europe [Koško, Videiko 1995].

The latest traces of contacts with the LC were detected on Tripolye C I monuments in materials of Koshylivtsy (Koshylovtsy, Koszyłowce) type. This issue has been addressed by such authors as K.K. Chernysh and T.M. Tkachuk, who have noted the Lengyel features, such as white colour and geometrical ornamentive motifs on a range of ceramics, as well as a similarity in anthropomorphic and zoomorphic plastics [Chernysh 1982; Tkachuk 1998:15]. It is also worth remarking that some features of a range of

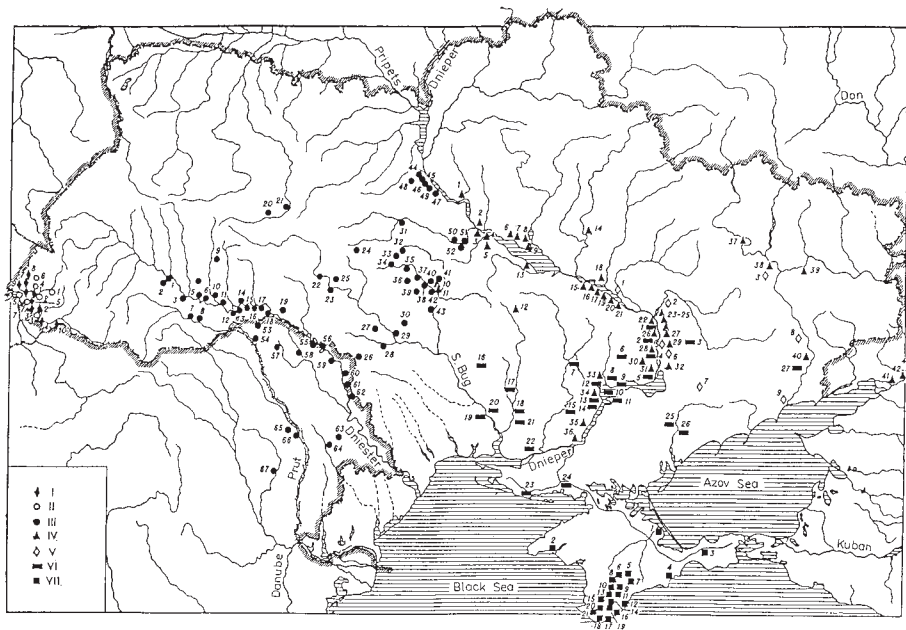


Fig. 1. Tripolye culture, phases B I-II, B II, C I and other Copper Age cultures: I - Polgár culture; II - Baden culture; III - Tripolye culture; IV-V - Sredni Stog Unity; VI - Nizhna Mikhailovka culture; VII - Copper Age of Crimea (after Arkheologiya 1985: Map 6).

ceramics from settlements of Koshylivtsy type have analogies in ornamentation patterns of the Baden culture (we shall return to this issue later).

#### 1.1.2. THE SOUTHERN BUG REGION

The distribution of materials displaying traits of the Lengyel and Tiszapolgár cultures in complexes of the Zalishchyky, Soloncheny and Koshylivtsy types was mentioned above. In the area between the Southern Bug and the Dnieper of the 'eastern Tripolye' culture, we can observe a new phenomenon in ceramics production, present in a group of vessels featuring forms typical for the Lengyel and Polgár cultures. They have a glossy surface, are black or dark brown in colour, and are not ornamented. The researchers have classified this type of ceramics in a separate, third category.

A number of these vessels were made of clay, characteristic of the painted pottery. Less frequent was a ceramic mass with an admixture of sand, crushed shell or stone. The

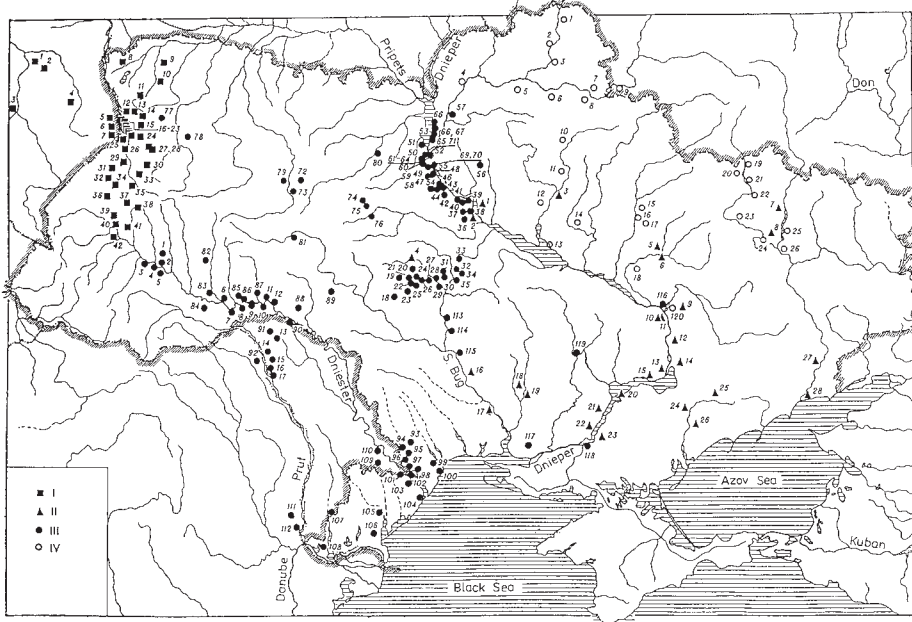


Fig. 2. Tripolye culture, phases C I, C II and other Copper Age cultures: I - Funnel Beaker culture; II - early Yamnaya culture; III - Tripolye C I and C II; IV - Pit- and Comb-Pottery culture (after *Arkeologiya* 1985: Map 7). Tripolye culture: 1-5 - Koshlyivtsy type (end C I); 6-17 - Zhvaniets type (C II); 18-35 - Tomashivka type (C I); 18 - Teplik, 19 - Popudnia, 20 - Mankivka, 21 - Dmitrushki, 22 - Uman (Pankivka), 23 - Tomashivka\*, 24 - Stary Babany, 25 - Sushivka\*, 26 - Dobrovody\*, 27 - Talyanki\*, 28 - Talne-1, 29 - Maydanetskoje\*, 30 - Kolodiste\*, 31 - Rozsokhuvatka\*, 32 - Chichirkozivka\*, 33 - Stara Buda, 34 - Vasilkove\*, 35 - Kaytanivka; 36-39 - Kanev type (C I); 40-51 - Kolomiyschyna type (C I); 52-57 - Lukashi type (end C I); 58-71 - Sofievka type; 72-76 - Troyaniv type; 77-92 - Gorodsk type; 93-112 - Usatovo type; 113-120 - Tripolye materials in mound burials (C II: 113 - Yermolayevka, 114 - Olshanka, 115 - Serezlivka, 116 - Zhivotilivka, 117 - Bilozirka, 118 - Libimivka, 119 - Krivy Rig, 120 - Sokolivka). \* - Tripolye protocities

surface of the ceramics is covered with a thin engobe layer, and traces of glossing. Six types of vessels have been distinguished: dishes, bowls, bi-conical and pear-shaped vessels, lids, 'binocular-shaped' vessels and pots [Zayets, Ryzhov 1992:115-117]. A number of these forms (Fig. 6) have analogies in ceramics of the Lengyel and Polgár cultures. In addition to these, I. Zayets and S. Ryzhov distinguished a vessel with a rounded top, from the Klishchiv settlement assemblage. On the surface of this vessel, loop handles are placed within a pattern of circles (Fig. 6-8). In the opinion of the authors, this vessel has analogies in the latest complexes of the Tiszapolgár culture [Zayets, Ryzhov 1992:161]. Similar vessels have also been found on settlements of the Tripolye periods A I-II and A II on the Dniester, namely those in Buchach, Viktoriv, Komariv and Odaiv [Zayets, Ryzhov 1992:161; Konopla, Kruts, Ryzhov 1989:104]. The researchers link the origins

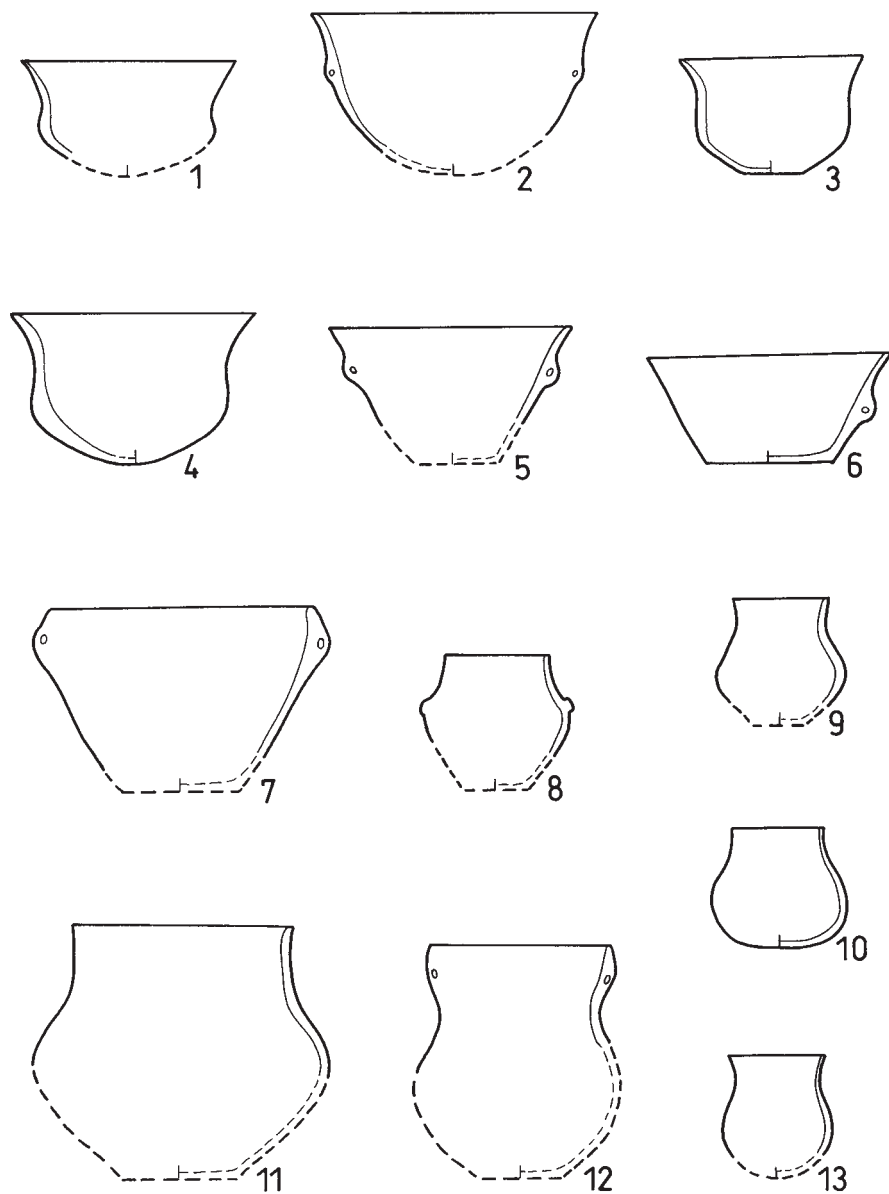


Fig. 3. Types of pottery, from Tripolye culture phase B I-II on Dniester, type Zalizhchyky: 1,4,6,8,10 - Zalizhchyky; 2,11,13 - Polivaniv Yar; 3,5,9,7 - Buchach (after Vinogradova 1983).

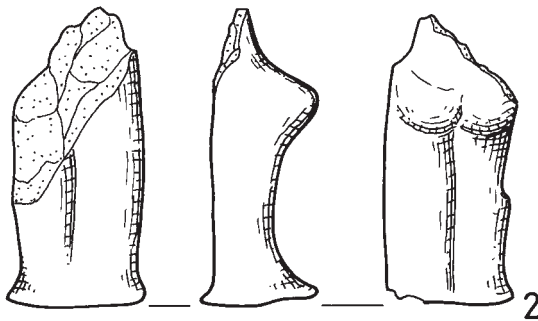
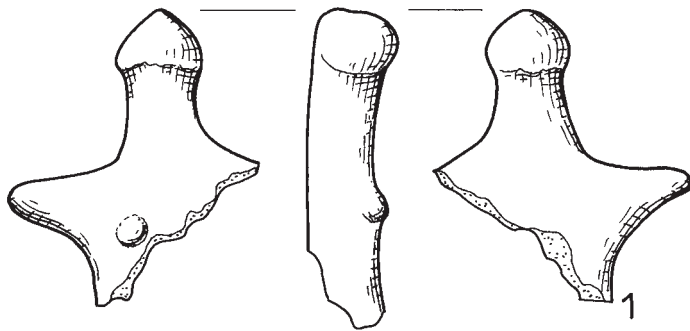


Fig. 4. Tripolye culture phase B I-II. Zalizhchyky. Figurines with features of Lengyel culture (after Pogozeva 1985).

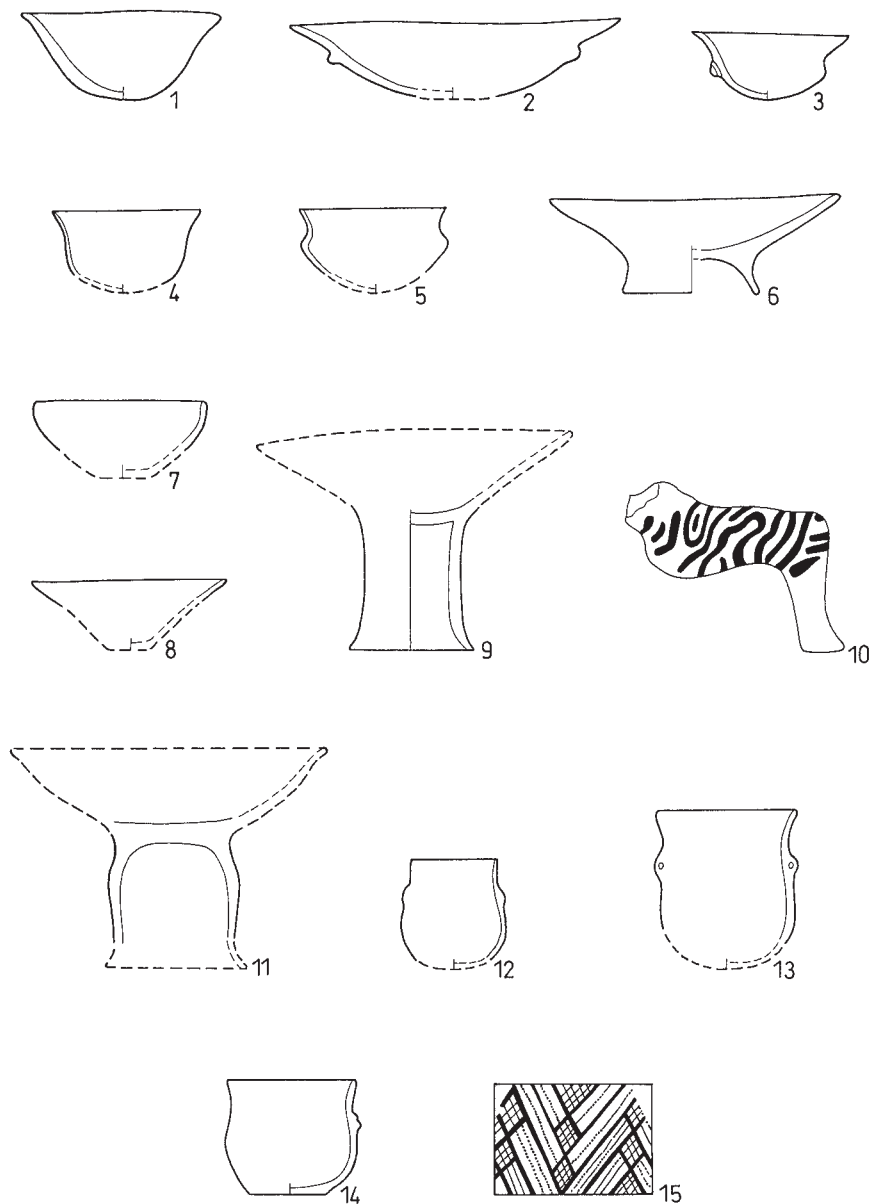


Fig. 5. Types of pottery, figurines and painted ornaments from Tripolye culture phase B I-II on Dniester, type Solonchény: 1,9,10,15 - Floreshty; 2 - 8, 12 - Stari Orkhei; 11, 13, 14 - Solonchény II (after Vinogradova 1983).

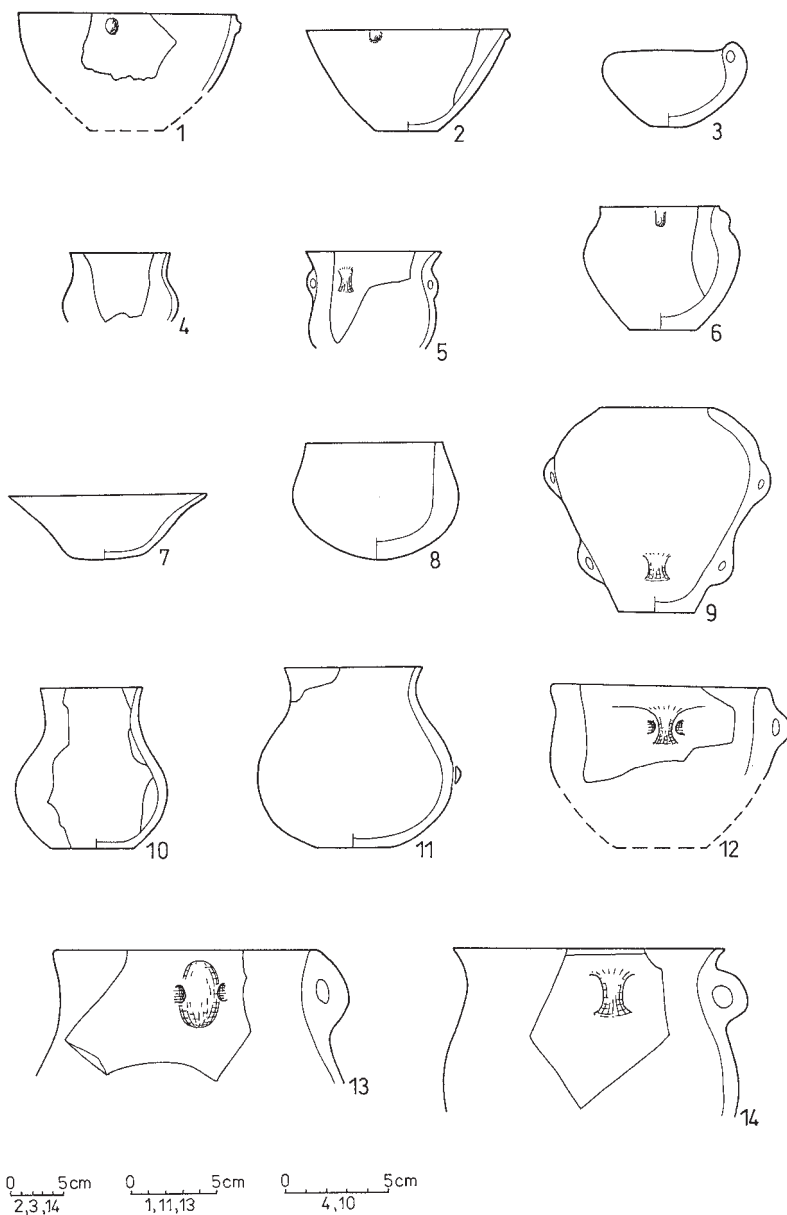


Fig. 6. Tripolye culture phase B I-II. Types of non-ornamented pottery ('the third category') 1,9,10,14 - Floreshty (after Vinogradova 1983); 2-8, 11-13 - Klishchiv (after Zayets, Ryzhov 1992).

of monuments of the Klishchiv type to settlements of the Soloncheny and Zalishchyky types on the Dniester [Zayets, Ryzhov 1992:162]. The presence of features of the Lengyel and Tiszapolgár cultures in this region has already been discussed above.

#### 1.1.3. THE AREA BETWEEN THE SOUTHERN BUG AND THE DNIEPER

A great deal of data concerning the contacts between the population of this region and the Lengyel and Tiszapolgár cultures can be found in the works of O.V. Tsvek [Tsvek 1985, 1989]. This author has identified a number of imported ceramic artifacts, as well as imitations of imported specimens [Tsvek 1985:Fig. 1; 1989:Fig. 5]. On the Miropil settlement, located in the Ros River basin, tools made from obsidian were found. This material must have been imported directly from the Carpathian Mountains [Tsvek 1985:40]. On the Vesely Kut settlement was found a copper eyeglass-shaped pendant. Pendants of this type also are widespread throughout Central Europe [Tsvek 1989].

We propose to focus attention here also on the presence of utensils of the third category among the ceramics of the settlements of this region. Such finds were mentioned above in relation to the Klishchiv settlement. According to data presented by O.V. Tsvek, such ceramics comprise between 20% — 30% of the ceramic finds on particular settlements [Tsvek 1980:Fig. 8], making this group the second most important in terms of quantity on settlements of this region.

Thus there are data that enable to trace contacts and exchanges between the populations of the Carpathian Mountains region and the area between the Bug and the Dnieper. In addition, the available data make possible to consider the eastern range of penetration of the population from Central Europe. In the opinion of O.V. Tsvek, the cultures of the Lengyel-Polgár circle participated in the creation of the eastern TC.

#### 1.1.4. THE MIDDLE DNIEPER REGION

At the B I-II stages, a settlement of the TC appeared on the Middle Dnieper which represented one of the variants of the eastern TC. We also find here ceramics which have analogies in the Tiszapolgár culture (Fig. 7), namely amphorae with pens under the rim, cover with rounded cover, anthropomorphic beakers, a bowl with pens, plain and profiled handles on pots, and a bowl with hanging indents on rims. In this period, there are also ceramics of the third category. These comprise from 30% to 70% of the total amount of ceramics in settlements in this region during various periods.



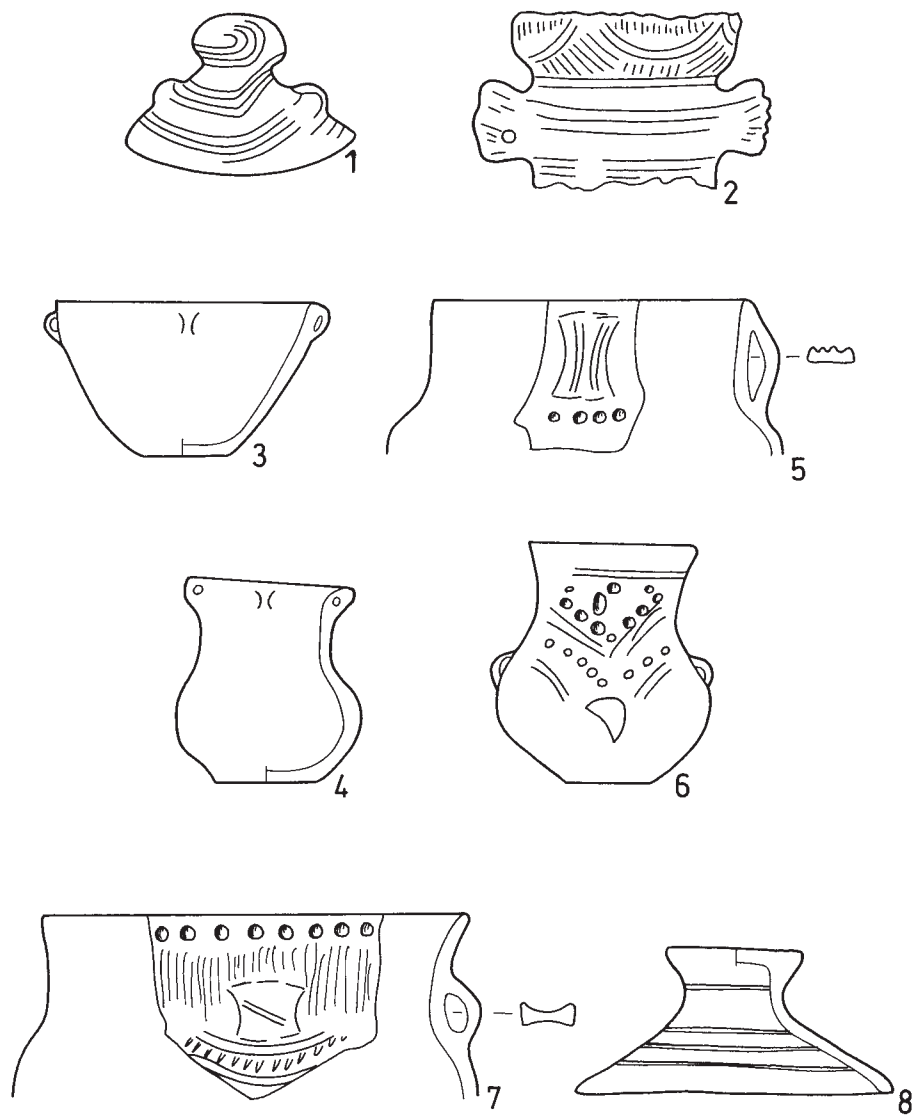


Fig. 7. Tripolye culture phase B I-II. Middle Dnieper region. Types of pottery, related to Central Europe region: 1,2 - Veremya (after Passek 1949).

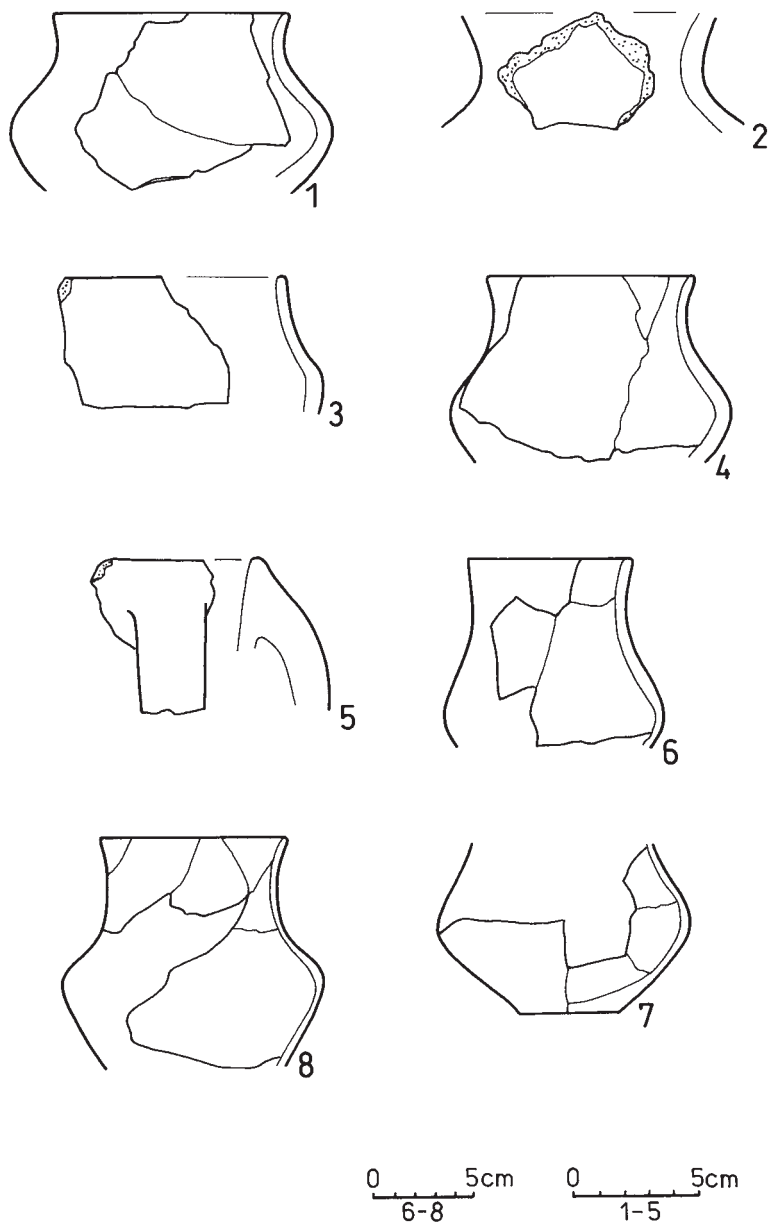


Fig. 8. Tripolye culture phase C I. Middle Dnieper region. Types of pottery, related to Central Europe region: 1-5 - Khomine, 6-8 - Ignatenkova Gora.

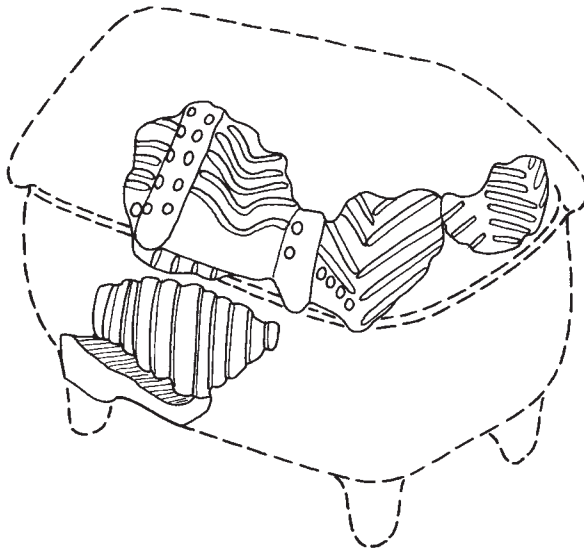


Fig. 9. Tripolye culture phase B II. Middle Dnieper region. The clay model of house from Kolomiyshchina II (after Passek 1949).

The anthropomorphic figurines, representing a seated figure with arms extended forwards, also display traits which are reminiscent of the LC.

On the Veremya and Shcherbanivtsy settlements, plain copper axes were found, attributed by N.V. Ryndina to the Sakalkhat type. Such axes are widespread in complexes of the Bodrogkeresztúr culture in Hungary and Slovakia. However, N.V. Ryndina considers that the production technology of axes found on the Dnieper differs from Bodrogkeresztúr culture traditions, judging that these products were made by local artisans, and their designs based on imported specimens [Ryndina 1998].

Later, at the B II stage, ceramics of the third category (Fig. 8) were widespread on TC settlements on the Middle Dnieper. On settlements such as Grebeny, Chapaevka and Kolomiyshchina II ceramics of this category make up between 20-30% and 60-70% of the total ceramic assemblage.

There is a distinct similarity in the construction of houses of the LC to some of the settlements of the TC on the Dnieper, as can be judged from the clay model of a

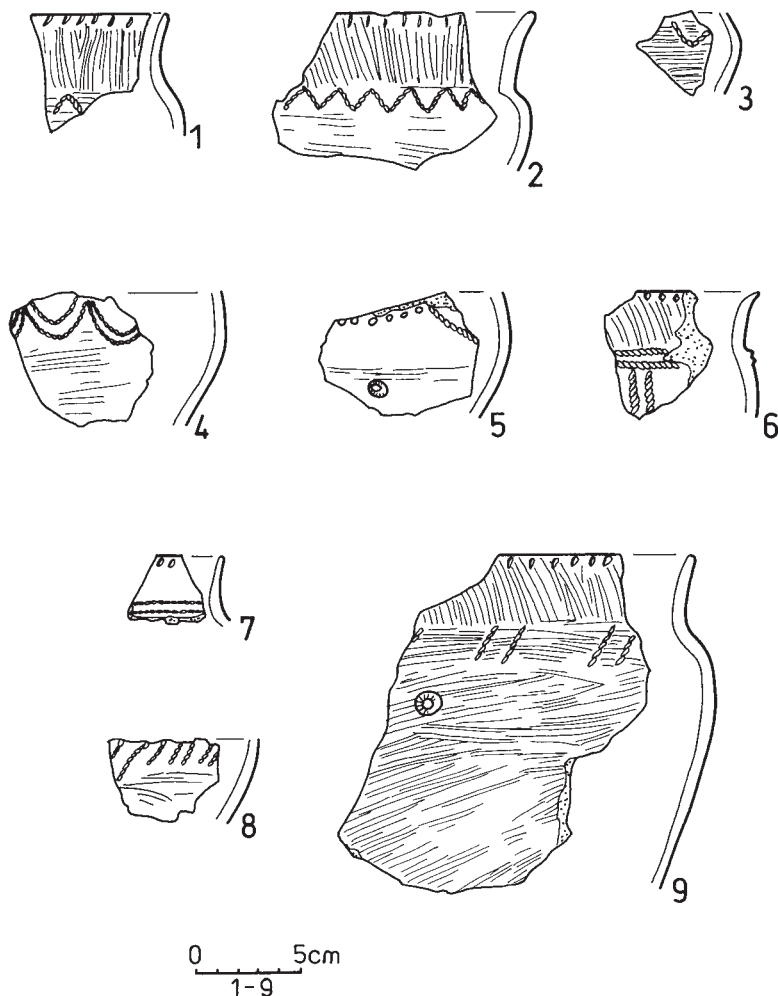


Fig. 10. Tripolye culture phases B II and C I. Middle Dnieper region. Decoration of kitchen pottery by cord.

dwelling found on the Kolomiyschchina II TC settlement. The walls of this dwelling's model are 'ornamented' by deeply incised lines that suggest the vertically-positioned split tree trunks. Fragments of a similar model are also found on the Grebeny settlement [Bibikov, Shmagliy 1964].

Such wall constructions are not characteristic of TC constructions in other regions. On models of dwellings which were found in the TC settlements in Rozsokhuvatka and

Voroshilivka [Southern Bug region], the walls are of a pillar construction [*Arkheologiya* 1971:192; Gusev 1995:72].

Houses typical of the LC are known to have walls consisting of trunks driven vertically into the ground. For this purpose, a ditch not less than one metre in depth was sunk around the perimeter of a house [Pavuk, Batora 1995]. No such ditches were detected on settlements of the TC. Nevertheless, TC clay models from settlements on the Middle Dnieper display similar constructions of the walls of dwellings, although the method of constructing could differ from LC traditions (Fig. 9).

Attention should also be drawn to a rather small amount of vessels discovered among the remains of houses on settlements of the Kolomiyschchina type and especially the Chapaevka type. Whilst between 30 and 150-200 vessels are found in dwellings on settlements of other types, here we have only 4-15 vessels. It is connected, most probably, with the rites which were practised. It may be assumed that the influence of a population with a distinct cult practice affected the customs of the middle TC on the Middle Dnieper.

At the C I stage in the Dnieper basin, there were monuments of both the Kolomiyschchina I and Lukashi types. On the Kolomiyschchina I, Ignatenkova Gora and Khomine settlements of this period, ceramics with features traditional for cultures of the Polgár circle and the Lublin-Volhynia culture were discovered, including such forms as bowls with wavy edges and large vessels with many handles (Fig. 8-13).

It is also important to note the similarity in the economic systems of the above-mentioned cultures. Scientists have previously noted a variety of ecological conditions of the population of the TC on the Middle Dnieper. To the north of the River Stugna, where settlements of both the Chapaevka and the Lukashi type are located, loess and podzol soils are most common, and there are many woods and wide river valleys. This area is favourable for cattle breeding, hunting and fishing. To the south of the Stugna, in territory occupied by settlements of the Kolomiyschchina type, chernozem soils are common, whilst there are significantly fewer woods. The natural conditions here are more favourable for agriculture.

As the TC population inhabited both zones simultaneously, possibly we deal with two groups with different types of economy. It is necessary to clarify all the reasons for these distinctions.

As a benchmark for the northern area, one could take the Kazarovichi settlement (excavated by V.A. Kruts), located on the Dnieper. Here, the materials of three types — Chapaevka, Lukashi and Sofievka — are all found within a distance of 600 meters along the river. This means that this location was occupied three times between the B II stage and the C II stage. All the settlements were built up by dwellings sunk deep into the ground. The soil here is loess. The remains of fauna have shown that both hunting and fishing played an important role in the economy, whilst cattle breeding was less developed.

Cultures such as the Lublin-Volhynia culture and the FBC inhabited territory with similar ecological conditions typical for the loess plateau of the Vistula basin. For them,

cattle breeding, hunting and fishing all played an important economic role, whilst agriculture was not significant. Settlements were periodically transferred from one place to another, returning from time to time to their former locations. This economic model would seem to be similar to that described above for the settlement in Kazarovichi. It should be noted that the most common ceramics on settlements of the northern Dnieper zone are those with features of Central European cultures. In our opinion, their influence is reflected not only in the material culture of the population on the Dnieper, but also in their economic model. This is suggested by the evidence of penetration into the TC environment on the Dnieper of population groups of the Lublin-Volhynia and FBC.

At the CI stage, the history of interaction with cultures of the Lengyel-Polgár circle comes to an end. The latest traces of their contacts on the Middle Dnieper can be seen in materials of the Lukashi type.

## 1.2. THE FUNNEL BEAKER CULTURE AND THE B II-C I STAGES OF THE TRIPOLYE CULTURE

In this period, only a few types of ornamentation characteristic for the FBC ceramics on settlements of Tripolye-Cucuteni culture are testified (Fig. 11-14).

On the Ignatenkova Gora settlement on the Dnieper, a small fragment of a pot was found. It is decorated with incised polygonal lines and both round and rectangular stamp impressions (Fig. 11:3) — a common ornamentation for FBC ceramics.

A 'polygonal line' motif is encountered on ceramics typical for the TC of the CI stage from the Middle Dnieper. Large vessels with such decoration around the top (Fig. 13:2) were found on the settlements in Kolomiyshchina I and Pidgirtsy 2. On one vessel from Kolomiyshchina I, this ornamentation is tripled (Fig. 13:1). Such decoration also appears on kitchen ceramics from the Khomine and Ignatenkova Gora settlements (Fig. 10:1; 11:10, 15), along with local imitations (Fig. 11:9, 11).

Incised polygonal line ornamentation is also detected on fragments of a kitchen pot found in the Tirpești settlement in Romania (Fig. 11:12, 13). This horizon is dated to the Cucuteni stage B, which corresponds to the Tripolye C I stage.

Analogies of ornamentive motifs made using round and triangular stamp impressions, incised lines, and festoons can also be found in FBC materials, such as vessels and kitchen pots from settlements of the Kolomiyshchina I type (Fig. 11:1, 2, 4-8; 12:3-7; 13:4).

From the B II and C I stages, ornamentation made using cord impressions occurs widely on ceramics from Chapaevka and Kolomiyshchina type settlements (Fig. 10; 14:1, 2). In the opinion of the Polish researchers, this type of ornamentation was distributed in the FBC about 3500-3400 BC, under the sole influence of the TC. We consider that

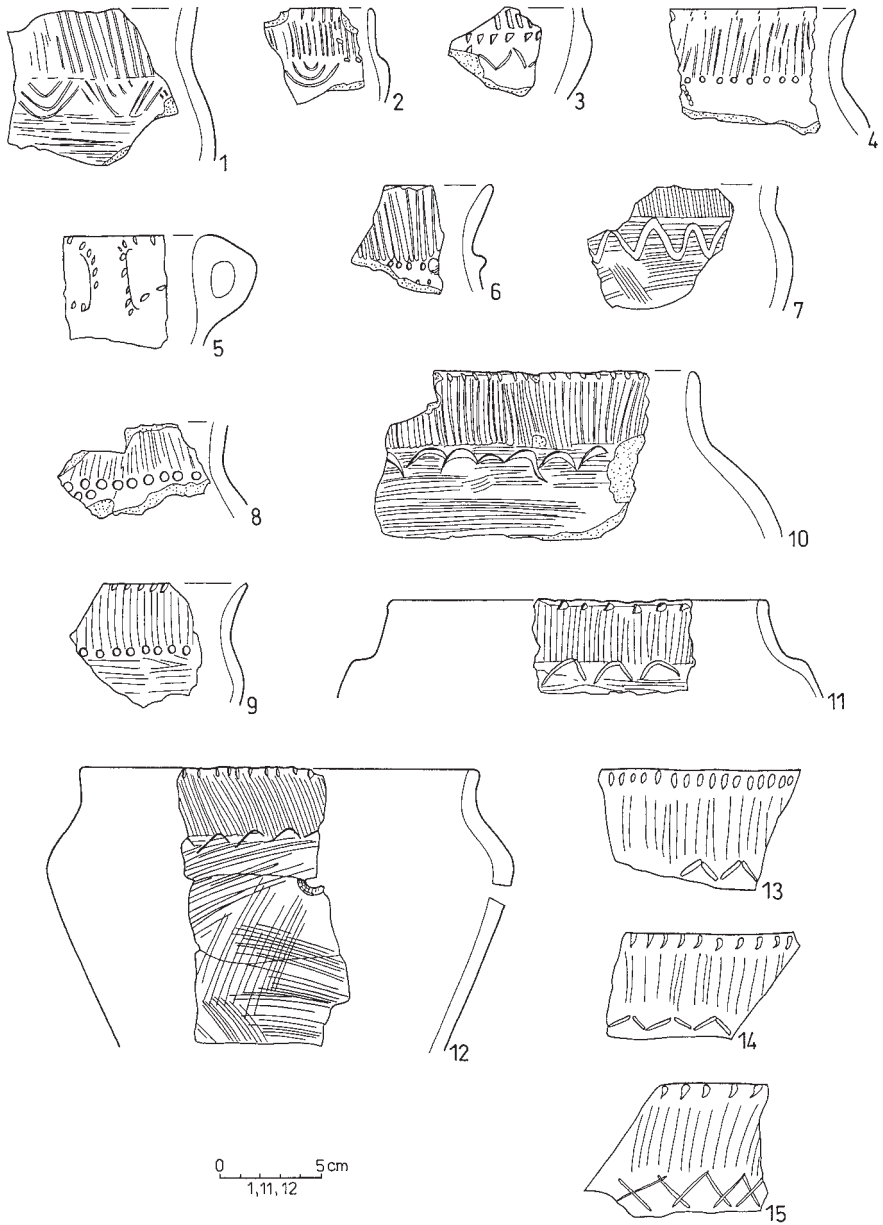


Fig. 11. Tripolye culture phase C I. Middle Dnieper region. Types of decoration of the kitchen pottery, related to Northern region.

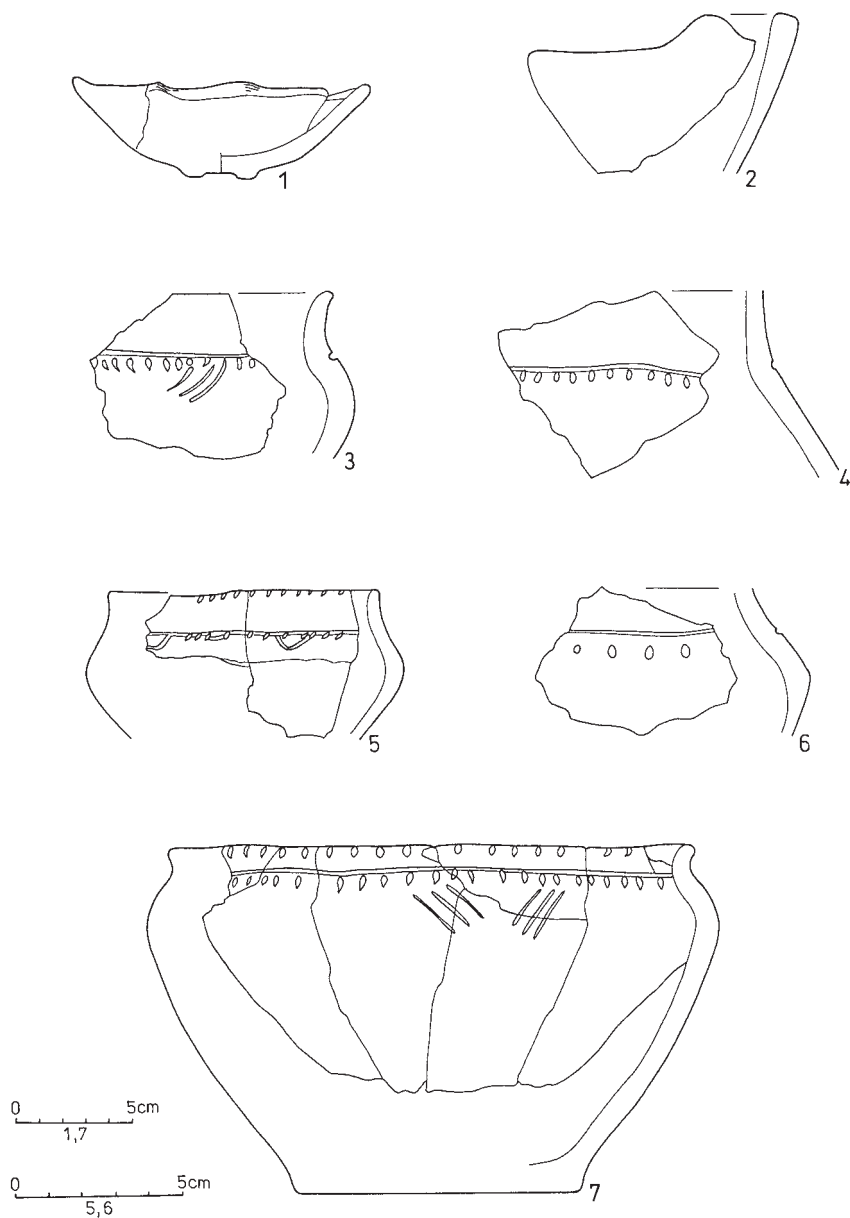


Fig. 12. Tripolye culture phase C I. Middle Dnieper region. Types of decoration of the kitchen pottery, related to Northern region.



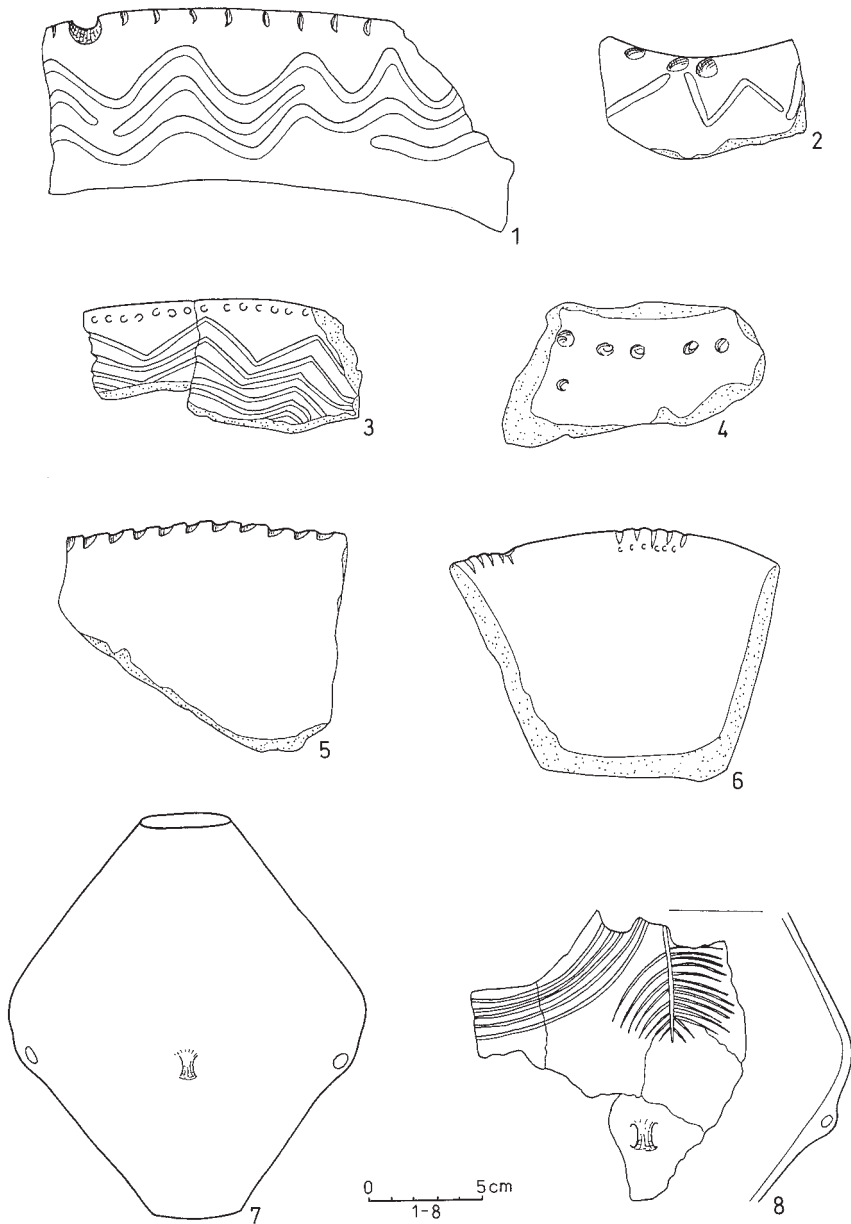


Fig. 13. Tripolye culture phase C I. Middle Dnieper region. Pottery from Kolomiyshchina I with FBC features (after Passek 1940, 1949).

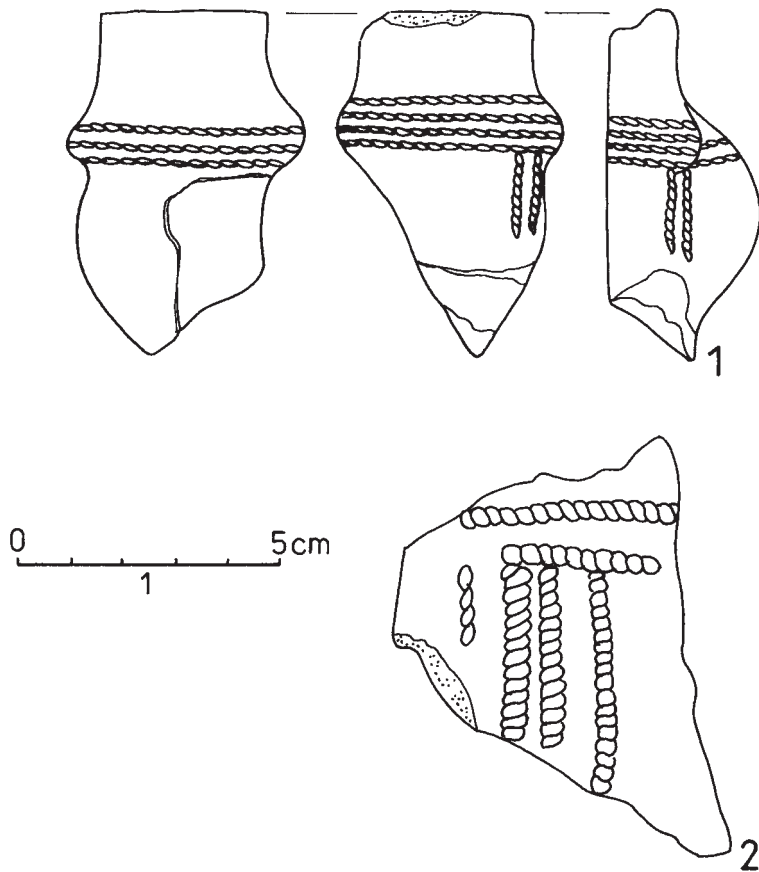


Fig. 14. Tripolye culture phase C I. Middle Dnieper region. Pottery from Kolomiyschchina I with FBC features (after Passek 1940, 1949).

the similarity of ornamental motifs and their details deserves much closer attention, in the form of further research.

Also worth noting is the distribution on ceramics from the territory of the Middle Dnieper of the drawn inverted image of a tree (or plant). Such images are known from settlements of the Kolomiyschchina I and Lukashi types, for example on FBC pots found in the basin of the Vistula. This inverted tree motif is typical for the TC, and so probably appeared in the area of the Dnieper under the influence of FBC communities.

Thus, the first TC materials with features typical for the FBC can be fixed at the CI stage, found mostly on the Middle Dnieper.

## 2. THE SECOND PERIOD: 3500–2750 BC (TRIPOLYE C II)

In this period, the cultural situation on territories occupied by the Tripolye-Cucuteni culture is radically changed. First of all, a number of cultural types of painted pottery disappeared. Moreover, because of the difficulties with identification of many types characteristic for the phases C I and C II, for example between the Lukashi and Sofievka types on the Middle Dnieper, one may surmise that on a number of territories, ‘pure’ TC traditions were broken.

Exceptions to this trend are found in regions on the Middle Dniester and to the east, as well as in a small enclave of Kosenivka type between the Southern Bug and the Dnieper (Fig. 2). In new cultural types of the C II phase from the previous period there are elements such as painted pottery, anthropomorphic plastic ornamentation, and types of house construction. However, these were gradually transformed or almost completely disappeared.

The cultural transformations which took place at approximately the middle of the IV millennium BC, at the beginning of the Copper Age (according to a periodisation adopted in Central Europe) resulted in the distribution of cultures of the Baden-Kostolac-Cernavoda III circle. Already at the initial stage, representatives of these cultures enjoyed strong contacts with eastern territories.

The territories to the east of the Carpathians have conventionally been considered as a source of raw materials — flint and probably copper — what effected the populations’ movements. These factors could also be connected with the appearance at the C II stage of such cultural types as Usatovo, Gordinești, Troyaniv, Gorodsk and Sofievka (Fig. 2). This period also witnessed the penetration to the east of representatives of the FBC and the Globular Amphora culture (GAC). Their traces in cultural types of the Tripolye C II phase can be indicated (Fig. 15-32). The appearance of northern types of the C II phase seems to have been defined by the influence of the Baden, FBC and GAC, with the involvement of a Tripolye cultural component. Below, we shall consider the archaeological materials connected with this question.

### 2.1. THE ‘BADENISATION’ OF TRIPOLYE CII

The issue of the involvement of the Baden culture in the creation of Tripolye C II types was first raised during examinations of materials from cemeteries of the Sofievka type [Kadrow, Koško, Videiko 1995]. The further examination of publications and of

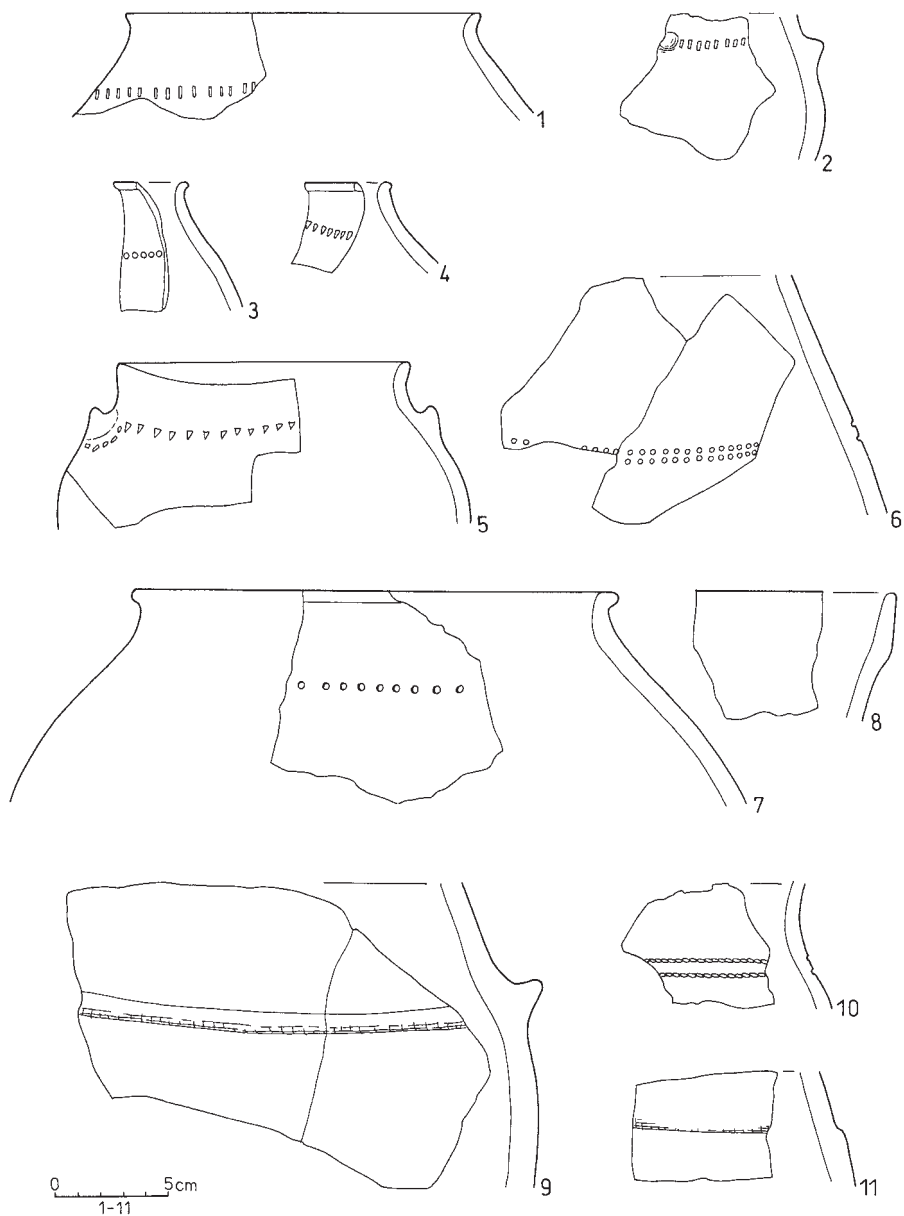


Fig. 15. Tripolye culture phase C II. Volhynia, Troyaniv type. Pottery with the FBC motives of decoration. Troyaniv (excavated by M. Shmagliy).

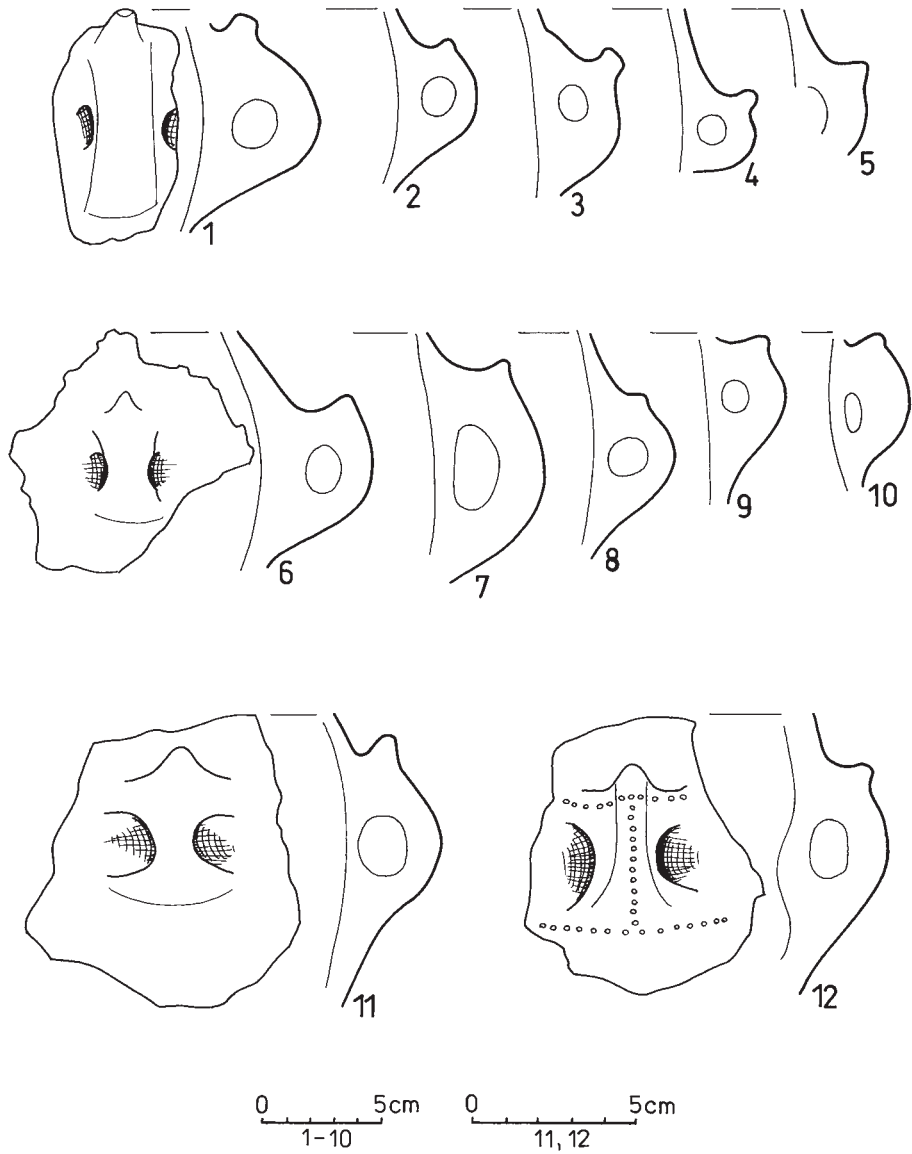


Fig. 16. Tripolye culture phase C II. Volhynia, Troyaniv type. Handles of amphorae from Troyaniv (excavated by M. Shmaglyi).

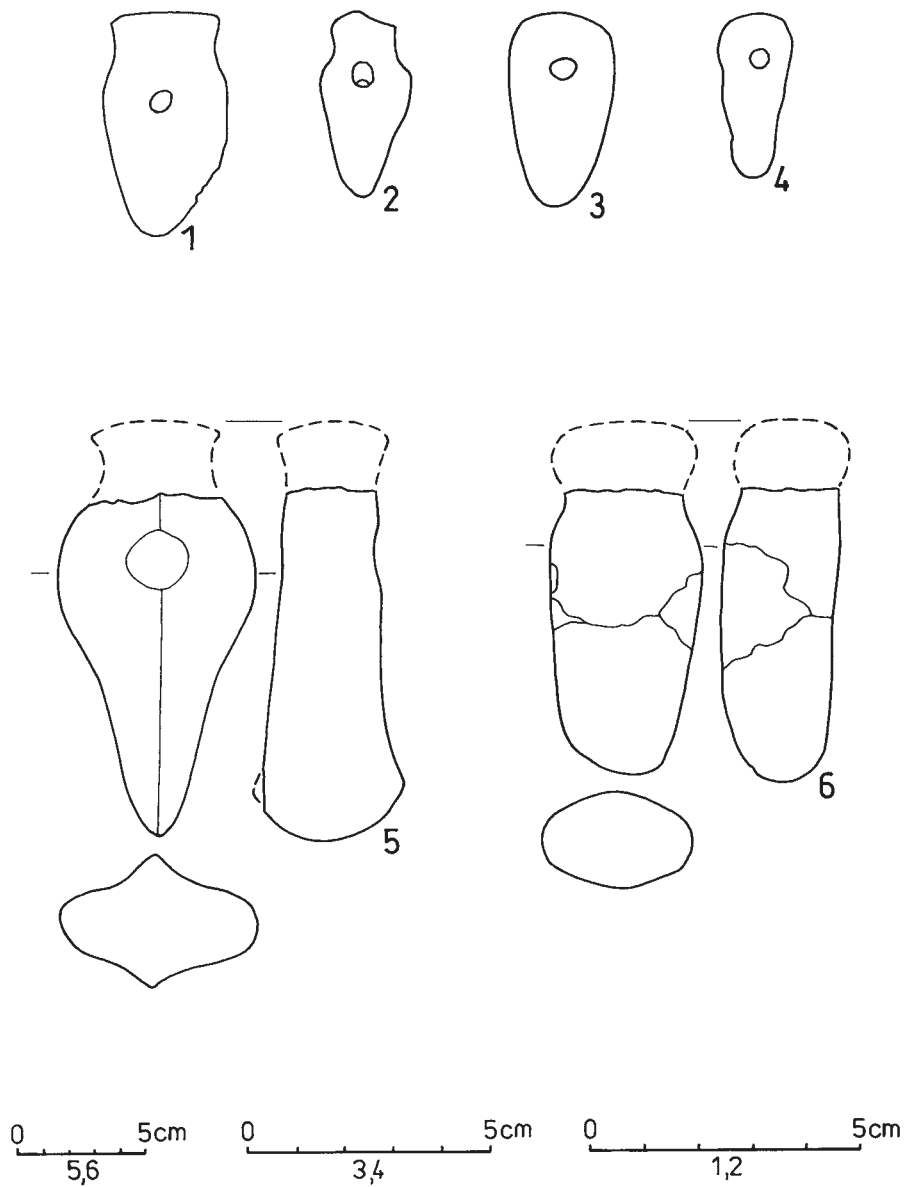


Fig. 17. Tripolye culture phase C II. Volhynia, Troyaniv type. 1 - 6 Troyaniv; 1-4 - clay models of hammer-axes; 5-6 - stone hammer-axes (excavated by M. Shmaglii).

materials from other monument types excavated in Volhynia has shown that Baden cultural elements are present in the Troyaniv, Gorodsk, Gordinești and Koshylivtsy types. We consider the point of departure of the processes of the ‘badenisation’ of the TC to have been the Gordinești type (Fig. 2).

Below, we will consider the documented types of the late TC (C II), from the west to the east.

#### 2.1.1. THE DNIESTER REGION

Traits indicative of the Baden culture are present in materials of the Koshylivtsy type, which existed at the end of the C I stage. They include vessels forms, such as beakers with loop handles (Fig. 32), and ornamentation motifs applied to painted pottery (Fig. 32:4-6). Beakers from Koshylivtsy are decorated with an oblique grid pattern (Fig. 32), which in the Baden culture was made by incised lines. Analogies to this same culture are also known for composition consisting of oblique lines (Fig. 32:5, 7).

Also found in Koshylivtsy were fragments of so-called ‘kitchen’ ceramics similar to Baden pottery (Fig. 18). One fragment belongs to a small goblet with a rounded form. It was decorated with three lines converging at an angle (Fig. 18:1). Similar goblets, together with vessels with ‘horned’ handles, are found on another Koshylivtsy type monument — in Bilche Zolote (Verteba cave). Similar types of pottery and ornamentive motifs are characteristic of the Baden culture from phase 1b [Němejcová-Pavůková 1981:Fig. 11:B2; Fig. 12:O a, c, d; P a, c, d, etc.].

The most distinctive Baden culture features can be observed in ceramics from settlements of the Gordinești type. At the C II stage, Gordinești type ceramics were widespread across the area between the Prut and Dniester rivers, and also between the Dniester and the Southern Bug (Fig. 2). According to V.A. Dergachev, this type was generated as a result of interaction between the late TC and the late LC [Dergachev, Manzura 1991:13]. However, the LC ceased to exist long before the beginning of the C II phase of the TC. In the first half of the III millennium BC, the Carpathian Mountains region was inhabited by a Baden culture, with which one should link the creation of a number of features of material culture of the Gordinești type, such as kitchen ceramics, ceramics decorated with incised lines, and also vessel forms and ornamentive motifs [see Dergachev 1980:Fig. 31].

On the territory of Ukraine, monuments of Gordinești type are rare: the settlements in Sandraki and Nova Chartorya in the basin of the Southern Bug (Fig. 2) are among the most closely investigated. The ceramic of these sites reveals numerous traits of the Baden culture, which are presented below.

##### *1. Shoulder-placed and profiled handles.*

This type of handle is recorded in the late Baden, both in the Carpathian Basin [Kalicz 1963:Fig. VI:4 — Center] and in Małopolska [Godłowska 1968:Fig. XXVI:6;



Fig. 18. Tripolye culture phase C II. Pottery with features of Baden culture: 1-2 - Koshlyvtsi, 3-6 - Troyaniv (excavated by N. Shmagliy).



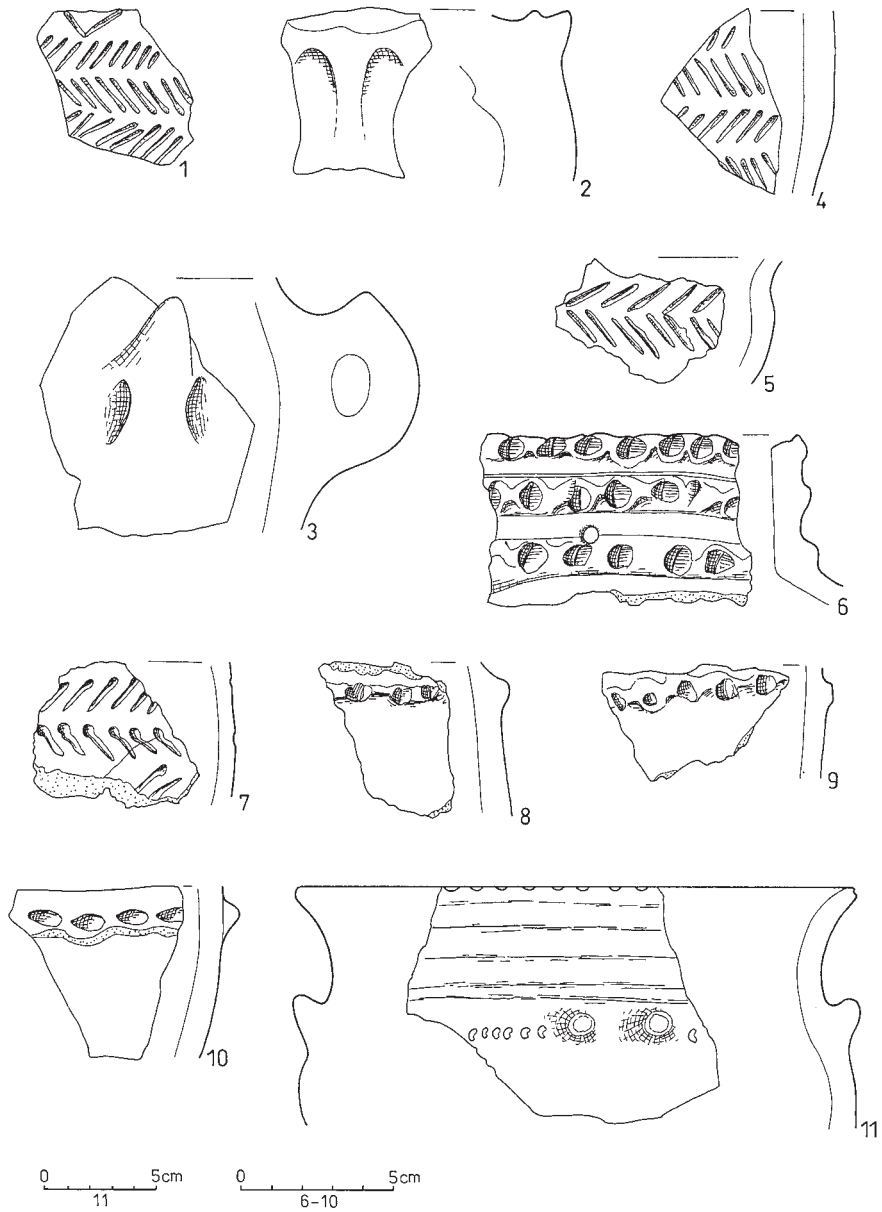


Fig. 19. Tripolye culture phase C II. Volhynia, Gorodsk type. Pottery with features of Baden culture: Gorodsk (after Makarevich 1952; Petrov 1940; Krichevskiy 1940).

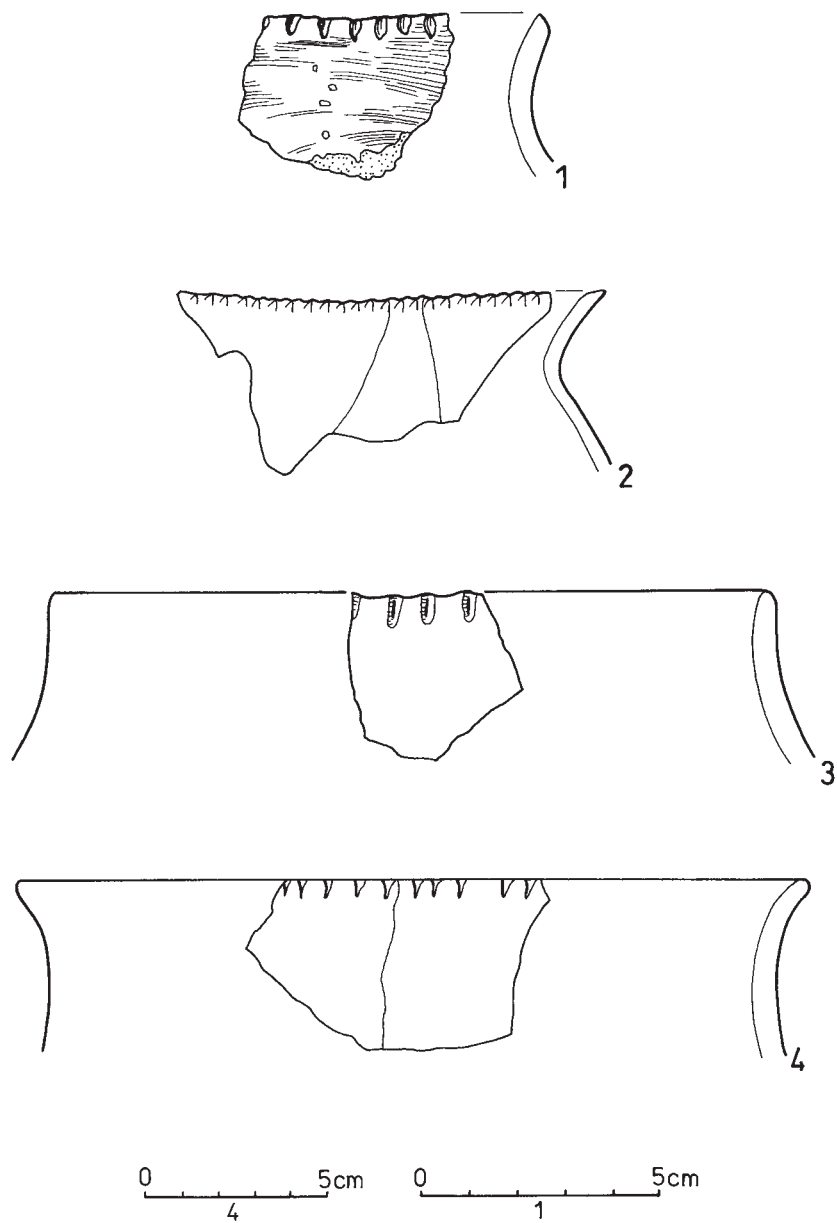


Fig. 20. Tripolye culture phase C II. Volhynia, Gorodsk type. Pottery with features of Baden culture: Gorodsk (after Makarevich 1952; Petrov 1940; Krichevskiy 1940)

1979:Fig. 187:7 — Kraków-Nowa Huta-Zesławice], as well as in the material from Sandraki (Fig. 24:1-5) and Nova Chartorya (Fig. 28:2).

*2. Ornamentation applied around and below the rim.*

Such ornamentation was found at settlements of Gordinești type in Moldova [Der-gachev 1980:Fig. 31] and Ukraine — at Sandraki and Nova Chartorya (Fig. 25:12), and analogous decorations can be observed in the late Baden in the Carpathian Basin [Kalicz 1963:Fig. V:1 — Center; Roman, Nemeti 1978:Fig. 62:1, 2, 7, 8 — Cehalut] and in Małopolska [Godłowska 1968:Fig. XXVIII:27].

*3. Belly and shoulder ornamentation, most often in the form of horizontal lines (less frequently in the form of more complicated patterns) pressed using a 'point-like' die.*

This type of ornamentation was recorded in the late Baden of the Carpathian Basin [Novotný 1958:Fig. XLVI:3-5 — Nitranski Hrádok; XLVIII:4 — Hurbanowo; Kalicz 1963:Fig. VI:5 — Center; Roman, Nemeti 1978:Fig. 3:6-11, 14, 15, 20 — Arad 'Gai'; 17:4-6; 18:1, 2 — Berea; 46:1, 3-5 — Salacea 'Dealul Vida'] and of Małopolska [Kozłowski 1966:Fig. IV:37; 10:h, k, l, — Witkowice II; Godłowska 1968:Fig. III:5; IV:13; XIII:5, 12 ], as well as in the Kostolac and Coțofeni cultures.

Ornamentation of this type is present in the Gordinești type settlements in Sandraki and Nova Chartorya.

*4. Belly decorations, mainly on the shoulders, in the form of 'points', 'bars' or 'line sections'.*

Dome-like, conical, elongated and corrugated bosses are observed on vessels of the Lublin-Volhynia culture and the whole Polgár circle.

This type of decoration was also recorded in the late Baden of the Carpathian Basin [Novotný 1958:Fig. XLIX:1 — Drevenik, Roman, Nemeti 1978:Fig. 4:7] and of Małopolska [Kozłowski 1966:Fig. IV:2; Godłowska 1968:Fig. II:13; XIII:5, 12; XXVII:3 — Kraków-Nowa Huta-Zesławice], as well as in the Kostolac and Coțofeni cultures. An unusual abundance of this type of decoration was recorded at sites of the last of the above-mentioned cultures.

Such bosses also appear in the cemetery in Sofievka [Kadrow, Koško, Videiko 1995:Fig. 2:10-13], and are attributed to the Gordinești, Troyaniv and Gorodsk types (Fig. 15:2, 5, 9; 18:4; 19:8-11; 21:9; 22:8).

All of the above-mentioned elements (1-4) occur quite frequently on the settlement in Cernavoda of the Cernavoda II culture [Berciu, Morintz, Roman 1973].

*5. Ceramics covered by red engobe or red paint.* A similar finishing process is characteristic of utensils of the Baden culture.

Large quantities of such ceramics are present on settlements of the Gordinești, Troyaniv and Gorodsk types, such as Sandraki, Gorodsk, Lozy and Nova Chartorya (Fig. 18:5-6; 23:7-8; 24:7-16). Among the forms, bowls of conical and hemispherical form predominate. There are fragments of large vessels with externally curved rims (Fig. 23:7, 8; 24:8, 11, 16), and also bowls, amphorae and pots (Fig. 18:5, 6; 24:9, 10, 15). On some of the large vessels, there are poorly executed flutes (Fig. 24:11). A fragment of a dish

has also been found (Fig. 24:7). Pottery forms close to those described above are known in the Baden culture, from phases I-II onwards [Němejcová-Pavúková 1981:Fig. 11:h, j, n, o; Fig. 12:g, h, o; Fig. 33:g, n].

The above-mentioned analogies indicate some connections of the Gordinești type of the late TC with a broad circle of Balkan-Carpathian cultures, most probably with the horizon of the Baden-Kostolac-Coțofeni-Cernavoda II. It is possible to speak about the 'eligibility' of a number of traditions of the previous, Polgár circle of cultures.

#### 2.1.2. THE DNIESTER-DNIEPER REGION. VOLHYNIA.

*The Troyaniv type.* This type of monument is considered to be the basis of the Gorodsk type. It is widespread in eastern Volhynia along the upper reaches of the rivers Rostavitsya, Teteriv, Sluch and Horyn. In total, about 25 settlements have been identified. The majority are situated in high, naturally protected locations, for example Troyaniv and Pavoloch. The features of their topography and designs have been described in detail by M.M. Shmagliy [Shmagliy 1960]. Such topography is characteristic of monuments of the Baden culture [Točík 1987:5-29].

Of particular interest is the distribution of settlements with unconventional dwelling constructions sunk into the ground. These are from 6 to 15 metres in length and 2-4 metres in width, and sunk at a depth of up to 1,2 m below the present surface. Such constructions were excavated by M.M. Shmagliy in Troyaniv [Shmagliy 1966]. They were heated by open fireplaces. Such dwellings are typical of settlements of the Baden culture in Slovakia.

The ceramics of settlements of the Troyaniv type also display characteristic Baden traits. All the features 1-5 described above and devoted to the Gordinești type are present here. A large number of 'horned' handles (Fig. 16) were found. In one of the dwellings there were found large amphorae with two such handles and belly ornamentation (Fig. 18:5). Similar vessels, although without handles and with *truncated* rims are known from the excavation of settlements of the early Baden culture [Němejcová-Pavúková 1981:Fig. 11 n, o; Fig. 12:o; Fig. 33:n, o].

The Troyaniv settlement revealed a bi-conical vessel with belly ornamentation, reminiscent of Baden specimens (Fig. 18:6), and characteristically Baden ornamentations of triple conical sticks (Fig. 18:4). There are also vessels with stuck beads (Fig. 15:9; 18:5). A large number of ceramics are covered by red engobe or paint. Also of interest is the find of typically Baden bowls with handles like a closed loop (Fig. 18:3).

*The Gorodsk type.* This type of monument inherited many features characteristic of the Troyaniv type, which preceded it on the territory of eastern Volhynia, including a similarity with the Baden culture. In total, about 10 settlements of this type are known

(Fig. 2). They also had a topography which was selected with the interests of defence in mind, even including artificial fortifications. The Zhorniv and Lozy settlements possessed ditch defences [Dergachev 1980:127]. On settlements of the Gorodsk type, sunken dwellings of the 'Baden' type predominate.

About 86% of pottery belongs to so-called 'kitchen' ceramics. It displays a number of characteristic features of the Baden culture: a layer of red engobe or paint, a polished surface, and vessel forms — pots, bowls, and amphorae with 'horned' handles (Fig. 19:2, 3; 23:1-3, 7). Vessels with belly ornamentations divided by 'pinches' (Fig. 19:8, 9, 10), and vessels with 'pinched' ornamentation rims are also found (Fig. 20).

On the Gorodsk settlement, during the excavation of 1936-1940, many fragments of ceramics decorated with incised ornamentations (Fig. 19:1, 4, 5, 7) were discovered. Such ornamentation is also known in the Baden culture [Němejcová-Pavúková 1981:Fig. 12:O — a, c; P — a, c, d; Fig. 33:H-5, 7; N-3; Fig. 34:O — a, c, d, e-g; P — a, c-e; Cheben 1984:Fig. 9:14; Fig. 10:15; Šiška 1997:Fig. 1:1-5; Fig. 3:2].

Also on the settlement in Gorodsk were found fragments of pottery which, in our opinion, can be considered as direct Baden imports. They include a fragment of the rim of a kitchen pot decorated with three 'pinched' shoulder ornamentations (Fig. 19:6). Such ornamentation is known among finds from Baden settlements in Slovakia [Cheben 1984:Fig 7:3; Němejcová-Pavúková, 1981:Fig. 11:P:6; Fig. 33:P:5, 6; Šiška 1997:Fig. 2:1, 2, 6]. In the collections of the National Museum of History in Kiev, there is a large fragment of the upper part of a vessel decorated with flutes (Fig. 18:11). The vessel is of black colour and made of clay with quartz and sand admixtures. Four examples of flutes were preserved. On the rim, there are die impressions. The body of the vessel has two horn-like ornamentations on the shoulders. The lower part of the vessel is decorated with vertical flutes. There was also a fragment with four horizontal flutes from another, similar vessel. Similar vessels and receptions of their ornamentation are known in the Baden culture and in cultures which came under its influence, for example on the Bronocice IV-V settlement [Cheben 1984:Fig. 2:O-4; Fig. 3:11; Fig. 4:1, 7; Fig. 8:16; Fig. 9:2-4; Němejcová-Pavúková 1981:Fig. 33:G; Kruk, Miliskauskas 1983]. These analogies are not contradicted by the isotope dating, which places the Gorodsk settlement at the second half of the IV millennium.

### 2.1.3. THE MIDDLE DNEPHER REGION

It is worth noting the finds of vessels with profiled handles (Fig. 32:3) on settlements of the Kolomiyshchina type at the C I phase of Tripolye. Such handles are typical of vessels from the early phases of the Baden culture in Slovakia [Němejcová-Pavúková 1981:Fig. 12:B-G-c, d, e].

In the period under consideration, monuments of the Sofievka type (Fig. 2) were widespread along the Dnieper. Experts consider this type of monument to have been generated under the influence of the Gordinești and Troyaniv types [Dergachev 1980]. This could explain the presence in one complex in this region of pottery of practically all the types characteristic of the Baden culture in western territories, i.e. types 1-4 described above. Such materials from cemeteries of the Sofievka type were considered in detail at the time of their publication in *B-PS* [Kadrow, Koško, Videiko 1995]. It should also be noted that similar materials are known from excavations of Sofievka type settlements [Kruts 1977:Fig. 54:1, 3, 4, 13, 14; Fig. 55:11, 12, 16 and others].

In addition to parallels in ceramics, one should also note similarities in weapon forms, funeral rite [cf. Koško, Videiko 1995], types of fortifications (round ditches, such as those in Kazarovichi), and dwellings types (sunken constructions with open fireplaces).

The available <sup>14</sup>C dates indicate a chronological gap between monuments of the Sofievka type and the earlier Lukashi type. It may suggest the complete or almost complete changes in populating the Dnieper area during the C II phase. According V.O. Dergachev, pottery forms characteristic of the Troyaniv and Gorodsk types account for up to 50% of the whole pottery collection in complexes of the Sofievka type [Dergachev 1980:142]. Therefore, the Sofievka type on the Dnieper can be considered as a secondary derivation with features of Baden circle cultures.

## 2.2. THE TRIPOLYE CULTURE AND THE FUNNEL BEAKER CULTURE

Earlier researchers noted the absence of any return influence of the FBC on the TC. However, in our opinion, it is based on the questionable synchronisation of these cultures and on limited representations of FBC ceramics. In addition, on the territory of Ukraine, FBC settlements of defined chronological horizons have been investigated which do not reflect the complete range of materials of this culture. The incomplete nature of the publications of materials from excavations of FBC settlements in Volhynia makes such comparisons problematic.

Despite this, there are numerous materials which reflect the relations between the TC and the FBC. These include painted pottery, ceramics with cord impressions, and the remains of houses, all based on TC technology. The problem concerns the influence of TC copper metallurgy and flint industry.

The examination of materials from excavations of FBC sites on the territory of Poland, combined with the analyses of numerous publications and collections from excavation and archival materials of M.M Shmaglii, led M.L. Makarevich to the idea to expand the range of sources relevant to the issue of FBC influence on the TC at the C II stage.

## 2.2.1. THE DNIESTER REGION

The finds of painted ceramics imported onto FBC territory from the Dniester area suggest that it would be logical to search for evidence of a reverse influence. It should be pointed out, however, such traces can be observed in limited finds from the settlement in Zhvaniets. T.G. Movsha, who investigated this spectacular monument, found here a number of pots and fragments [Movsha 1985a] which are direct imports from the FBC environment (Fig. 30). She also opened, on this same settlement, a large complex of furnaces for painted pottery of that type, which was exported to adjacent territories, including the territory of the FBC [Jastrzębski 1985:Fig. 2-4; Gumiński 1989:Fig. 40, 53, 54].

Unfortunately, the incomplete publication of materials from TC monuments located on the Dniester provides an inadequate basis on which to speak about the presence of pure FBC influence on TC ceramics. The TC on the Dniester appears to be rather monolithic, which allows one to assume that it was resistant to penetration or to serious influence from the outside.

## 2.2.2. THE DNIESTER-DNIEPER REGION. VOLHYNIA.

The FBC materials on settlements of the TC here are represented primarily by finds of ceramics on several settlements, which were published by Y.M. Zakharuk 1959.

On examining the ceramics from excavations of O.F. Lagodovska, M.M. Shmagliyi and others on settlements of the Troyaniv and Gorodsk types, we find a number of imitations of FBC ceramics.

These can be divided into five groups.

*1. Ceramics with impressions of a circular or a rectangular form, typical for FBC*

Similar vessels or their fragments are found on settlements of the Troyaniv, Gorodsk and Gordinești types. They originate from excavations on the settlements in Troyaniv (Fig. 15:1, 7), Gorodsk (Fig. 21:10, 14), Lozy (Fig. 23:6), Sandraki (Fig. 25:6, 7, 10) and Nova Chartorya (Fig. 28:3).

*2. Broken line ornamentation under the rims or on the body of a vessel*

This ornamentive motif is characteristic of the FBC, and also widespread in the GAC [Jankowska 1980:Fig. 15:9, 16; Fig. 20:16; Rybicka 1995:Fig. 11:23; Fig. 12:57-62; Fig. 30:23; Szmyt 1996:Fig. 15:2; 19:6,7; 25:1 and others].

Fragments of pottery with such ornamental motifs have been found on Gorodsk type settlements (Fig. 15:1, 7).

### 3. Rims with a 'collar'

These are characteristic for the whole period of FBC existence [Czerniak 1994:Fig. 27:4, 14; Fig. 32:18; Rybicka 1995:Tab. I:3; Tab. XL:8, etc.].

Similar fragments of rims with a 'collar' have been found on settlements of the Gordinești type in Nova Chartorya (Fig. 28:1) and also of the Troyaniv type (Fig. 15:8).

### 4. Bowls with rectangular die ornamentation under the rim

Such bowls are characteristic for the whole period of FBC existence [Czerniak 1994:Fig. 28:21; Fig. 32:13, 17; Rybicka 1995:Tab. V:3, 6; Tab. VI:4; Tab. XXVII etc.].

Fragments with such ornamentation have been found on settlements of the Gordinești, Troyaniv and Gorodsk types — i.e. Sandraki (Fig. 25:8, 9); Lozy (Fig. 23:5); and Gorodsk (Fig. 21:11, 12).

### 5. Ceramics decorated with cord impressions

It deals with the following two types of pottery and ornamentation compositions:

#### a) Bowls with rims decorated with parallel or two-stranded oblique cord impressions

Such specimens are found on settlements of the Gordinești type — Sandraki (Fig. 26:7, 8, 9) and Nova Chartorya (Fig. 29:5) — and have analogies in pottery from FBC settlements [Rybicka 1995:163; Tab. XI, XII, XXV, XXXII, LX, LXI, LXV].

#### b) Motifs consisting of several parallel lines of cord impressions (3-4 and more), which are divided by die impressions

Such motifs have been found on settlements of the Gordinești and Gorodsk types, such as Sandraki (Fig. 26:1, 3, 4-6), Nova Chartorya (Fig. 29:2) and Gorodsk (Fig. 26:5) [Passek 1949:Fig. 82, 94; Dergachev 1980:Fig. 31-33 and others], and have analogies in pottery from FBC and GAC settlements [Rybicka 1995:Fig. 12:116, ; Fig. 31:31; Tab. XXII:14; LXI:4].

This type of ornamentation has conventionally been considered by scientists studying the FBC as the result of TC influences. For example, fragments were found on the FBC settlement in Gródek Nadbużny which referred to the Gorodsk type [Gumiński 1989:Fig. 55:e-j; Jastrzębski 1991:Fig. 5:6, 8, 10]. I personally consider that the issue of the appearance in the C II phase of the TC of ceramics decorated with cord impressions cannot yet be unambiguously solved.

M.M. Shmagliy, Y.M. Zakharuk and V.A. Kruts have all considered the use of cord ornamentation at the C II stage as a continuation of traditions of the TC of the stages B II and C II. Thus, they linked the appearance of corded ornamentation in the TC with the influence of 'steppe' cultures. The steppe cultures of an appropriate time are represented by materials from the settlements in Molukhiv Bugor, Alexandria and Dereivka. These have all been attributed to the Seredni Stog culture, or cultural group [Telegin 1973:120]. In such circumstances, it is difficult to explain the appearance of cord ornamentation on settlements of Chapaevka type of the B II stage and of Kolomiyschchina type of the C I stage. It is significant that these types, as has recently become clear, are slightly earlier



than the settlements of the Seređni Stog culture listed above. As regards a solution to the problem of the origins of cord ornamentation, we propose to clarify on what types of vessels and in what compositions it is present on TC ceramics.

Initially, we shall consider research into FBC ceramics on the territory of Poland. A. Bronicki and S. Kadrow, studying pottery from the settlement in Nowy Majdan in the Chełm Region, selected traits which appeared under the influence of the TC, i.e. centrally-sheared bowl rims and cord impression ornamentation. The authors synchronise this complex with phases Bronocice II-III, and date it to 3600-3500 BC [2800-2700 conv. BC — Bronicki, Kadrow 1988:128]. However, this being the case, the ceramic traits listed above could not have appeared under the influence of the TC. It is important to note that the bowls with such rims and cord ornamentation have analogies among materials of the Gordinești and Gorodsk types, attributed to the C II phase and dated between 3000-2750 BC. Therefore, it seems more likely that the bowls in question here appeared in the TC under the influence of the FBC.

This conclusion is supported in the works of other Polish researchers. D. Jankowska considers that the tradition of cord ornamentation observed in the settlements of the northern group of the FBC began approximately 3700 BC [3000 conv. BC — Jankowska 1990:Fig. 29:1, 49]. The forms of bowls and cord ornament, similar to TC traits, are present among materials from the Radziejów region in Kujawy. These settlements have been dated by M. Rybicka at between 3600/3500-3350/3150 BC — [2800/2700-2600/2500 BC - conv. Rybicka 1995:163], which means that FBC materials also occurred at an earlier period than ceramics of the Gorodsk and Gordinești types.

If we accept that the origins of this type of cord ornamentation on FBC ceramics predate the TC, it would seem more logical to connect its appearance on monuments of the Gorodsk and Gordinești types with influences from the Vistula basin and bordering territories.

A number of types of cord impressions, such as a sinuous line, or slanting bars, have analogies in the Złota and Rzucewo cultures and in the GAC. Fragments featuring such ornamentation have been found on the settlements in Sandraki (Fig. 27:1, 2) and Nova Chartorya (Fig. 29:6).

The appearance of dishes with profiled rims should probably be linked to the FBC, since they are known from finds on FBC settlements [Kukawka 1991:Tab. XV:11; Tab. XIX:6; Tab. XXI:5]. Such dishes, either unornamented or with cord impressions, are found on TC settlements (Fig. 26:1, 2; 25:1, 3).

Rarer finds are also worth noting. On the Nova Chartorya settlement, a fragment of a vessel decorated using a cylindrical stick and impressions of a narrow rectangular die was found (Fig. 28:6). An analogy to this fragment was found far from TC territory on a settlement of the FBC in the Vistula basin [Rączkowski 1987:Tab. XIII:9-10, 12].

More widespread are finds of clay models of battle-hammer-axes, typical for the FBC [Gurba 1957:114-115], on the Troyaniv and Gorodsk type settlements of the C II phase of the TC (Fig. 17:1-4) in Lozy [Peleshchyshyn 1973:Fig. 4:15, p. 62] and Nova

Chartorya [Zakharuk 1959:66]. During excavations in Troyaniv, in addition to clay models of axes and their fragments, there were found numerous fragments of full-scale stone battle-axes (Fig. 17:5, 6). M.M. Shmagliy considered these finds as evidence of contacts with the FBC of the population which left monuments of the Troyaniv and Gorodsk types [Shmagliy 1966]. It should be noted that prototypes of such battle-hammer-axes are known not only in the FBC environment, but also to the east of the Carpathians [Klochko, Koško 1995:Fig. 1, 2]. Thus, we have much evidence of interaction between the FBC and the Gordinești, Troyaniv and Gorodsk types, reflected in pottery forms and ornamentation, as well as in other categories of finds. There are reasonable grounds to speak about mutual influence between Tripolye cultures and the FBC. The problem consists in differentiating between traits of FBC and GAC Tripolye materials coexisting within a defined interval of time (above all in ceramics).

### 2.3. THE TRIPOLYE CULTURE AND THE GLOBULAR AMPHORA CULTURE

Previous publications have presented some materials which could testify to the co-existence of the TC and GAC. They were found on territory from the Prut up to the Dnieper. T.G. Movsha and Y.N. Zakharuk have published details of fragments of GAC ceramics found in the TC settlements of Tovtri (Bramka), Verkhnya Slobidka (Khreshchate II) and Costești IV (Fig. 31). Contacts between the GAC and the TC were later considered by T.G. Movsha [Movsha 1985:27-29].

A small number of materials which are possibly connected with the GAC have been discovered from an examination of ceramics from cemeteries of the Sofievka type on the Middle Dnieper [Kadrow, Koško, Videiko 1995:Fig. 5]. We discovered additional materials which could be relevant to this issue on examining a number of collections of the Institute of Archaeology in Kiev.

#### 2.3.1. THE PRUT-DNIESTER REGION. VOLHYNIA

The authors discovered the following GAC traits on ceramics of TC types (C II stage) at Gordinești, Troyaniv and Gorodsk.

*1. Ornamentation of handles of amphorae and vessels using cord impressions or round-headed die*

This type of ornamentation is characteristic of the GAC [Czebreszuk, Szmyt 1992: Fig. 31:2; Fig. 37:5; Rybicka 1995:Tab. LXXXI:1; Szmyt 1996:Fig. 4:5].

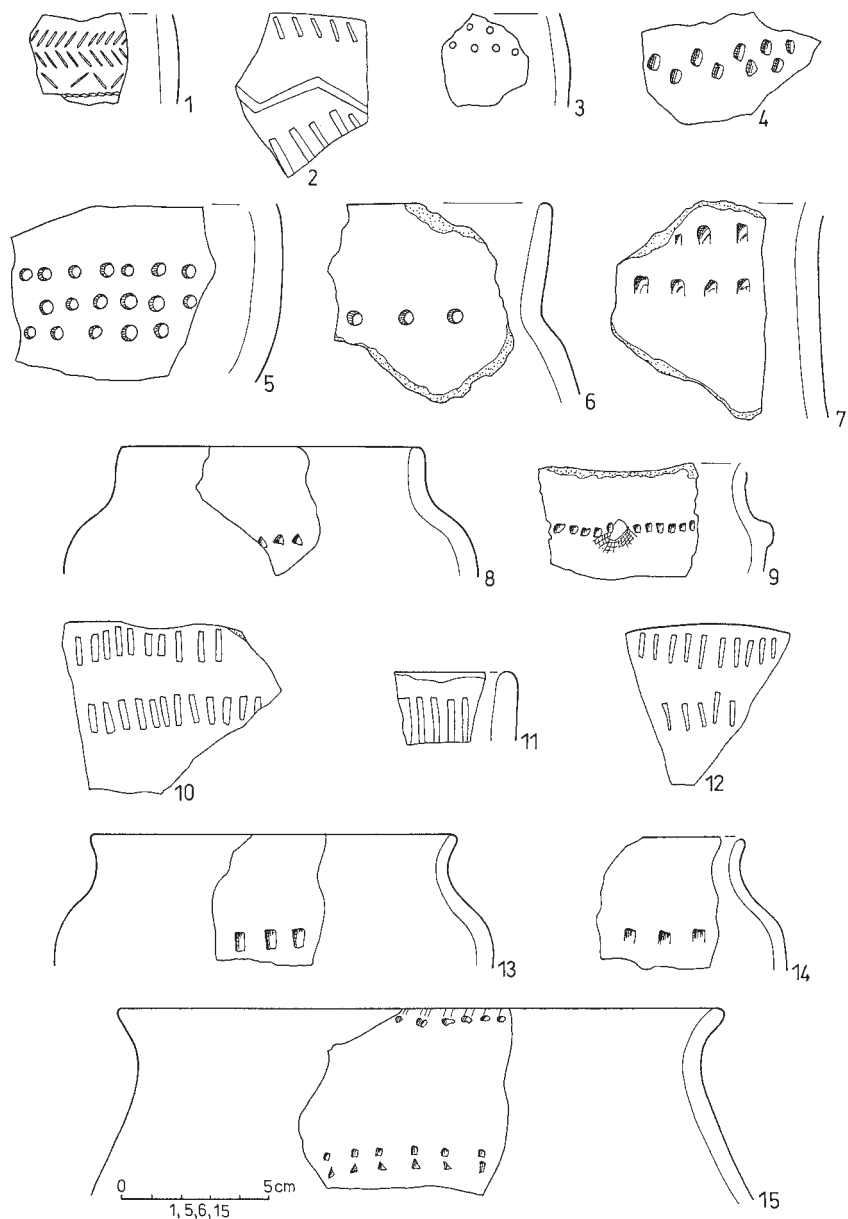


Fig. 21. Tripolye culture phase C II. Volhynia, Gorodsk type. Pottery with features of Northern cultures. Gorodsk (after Makarevich 1952; Petrov 1940; Krichevskiy 1940)

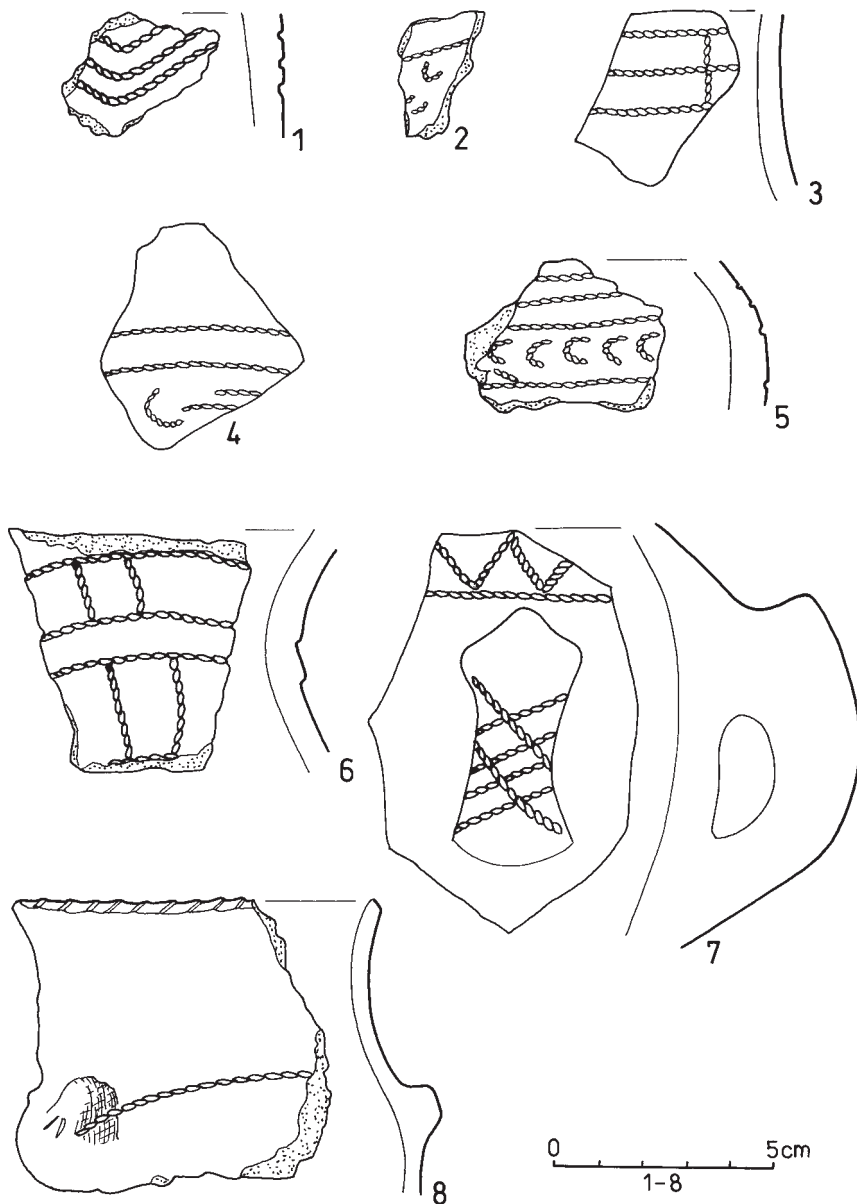
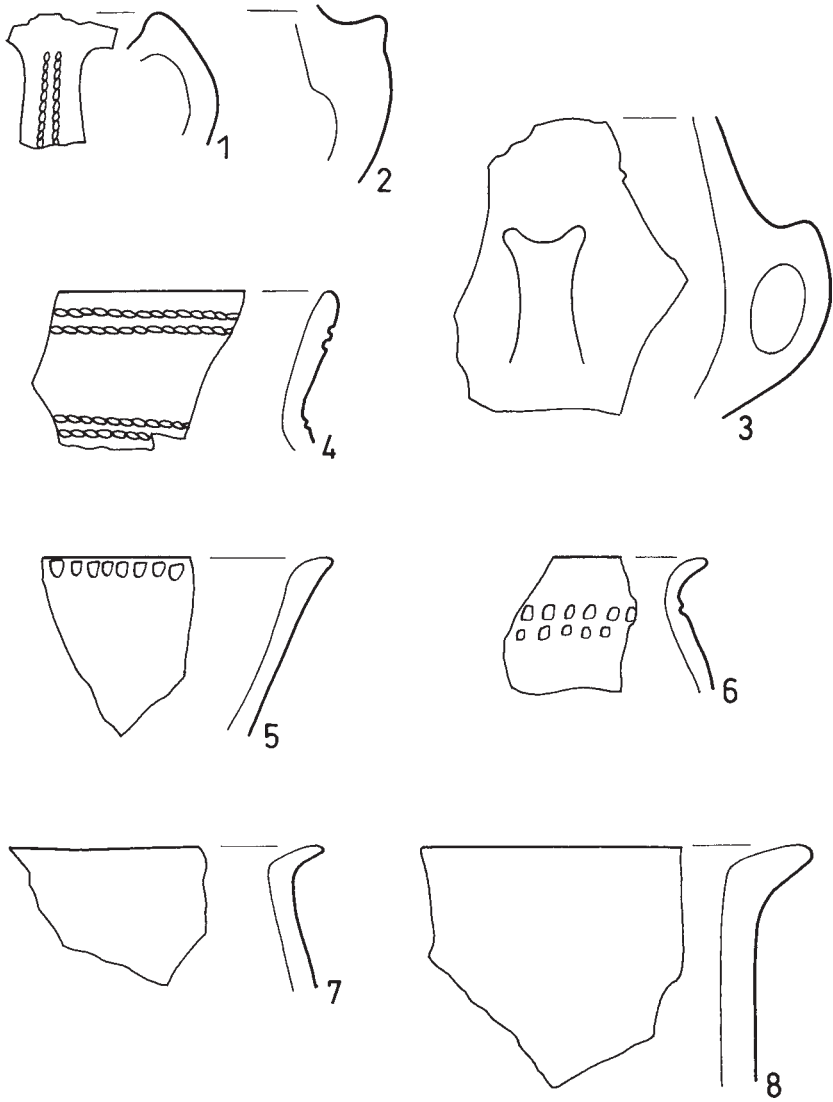


Fig. 22. Tripolye culture phase C II. Volhynia, Gorodsk type. Pottery with cord ornament. Gorodsk (after Makarevich 1952; Petrov 1940; Krichevskiy 1940)



0 5cm  
7,8

0 5cm  
1-4,6

0 5cm  
5

Fig. 23. Tripolye culture phase C II. Volhynia, Gorodsk type. Pottery with Baden and Northern features. Lozy (after Shmagliy).

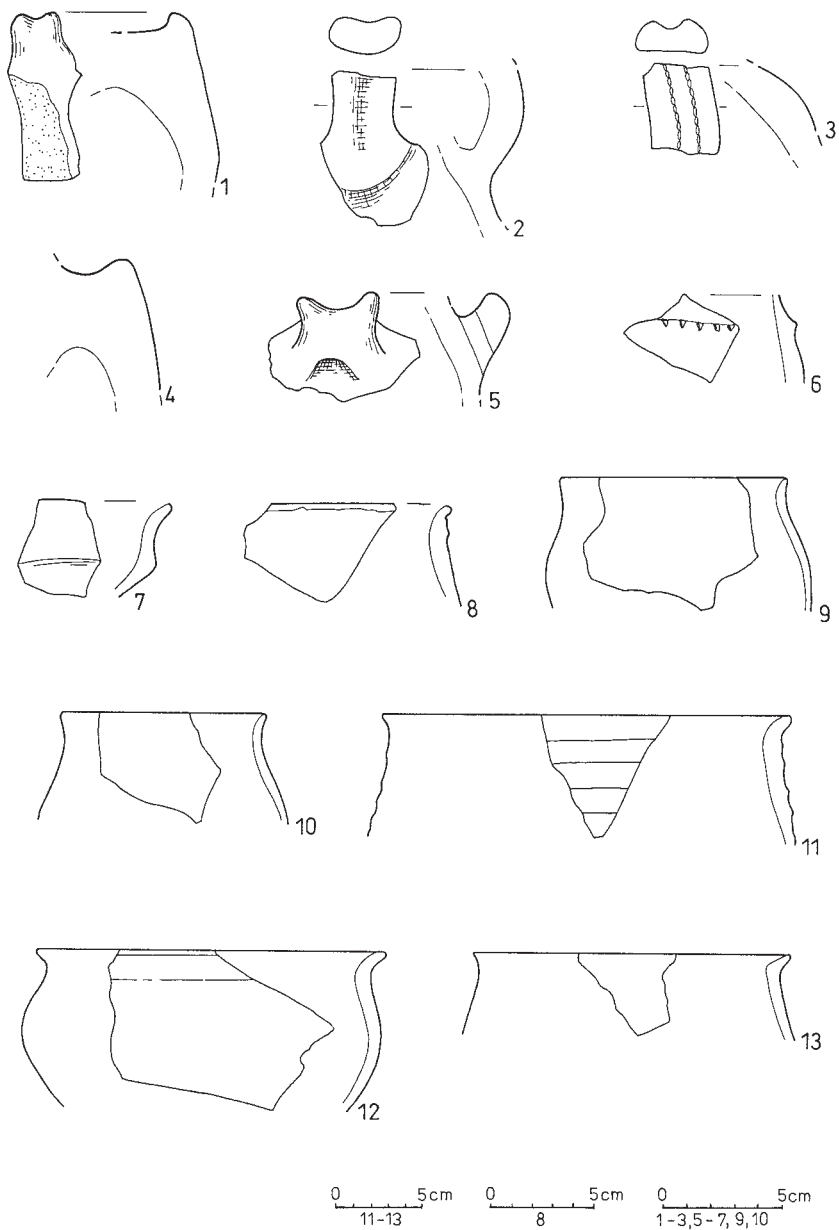


Fig. 24. Tripolye culture phase C II. Volhynia, Gordinești type. Pottery with Baden features. Sandraki (excavated by O. Lagodovska).

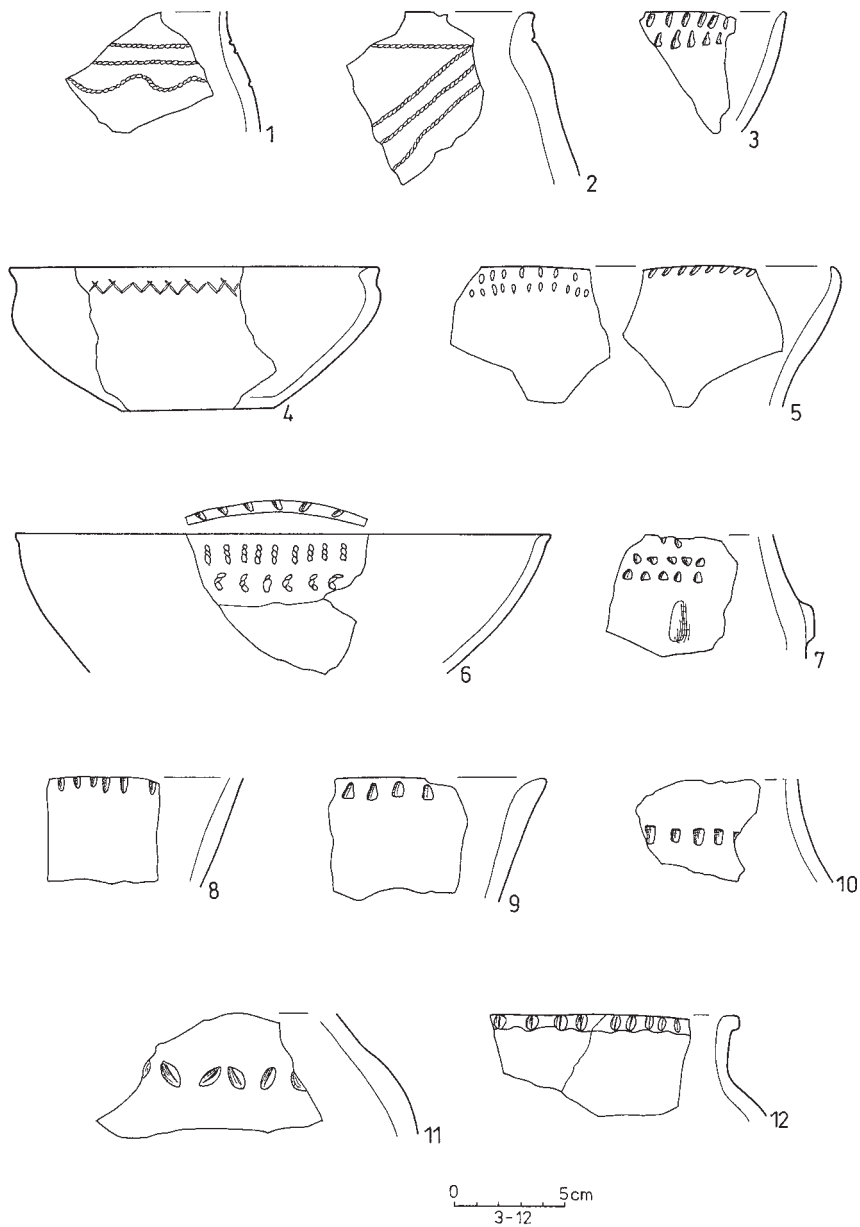


Fig. 25. Tripolye culture phase C II. Volhynia, Gordinești type. Pottery with Northern features. Sandraki (excavated by O. Lagodovska).

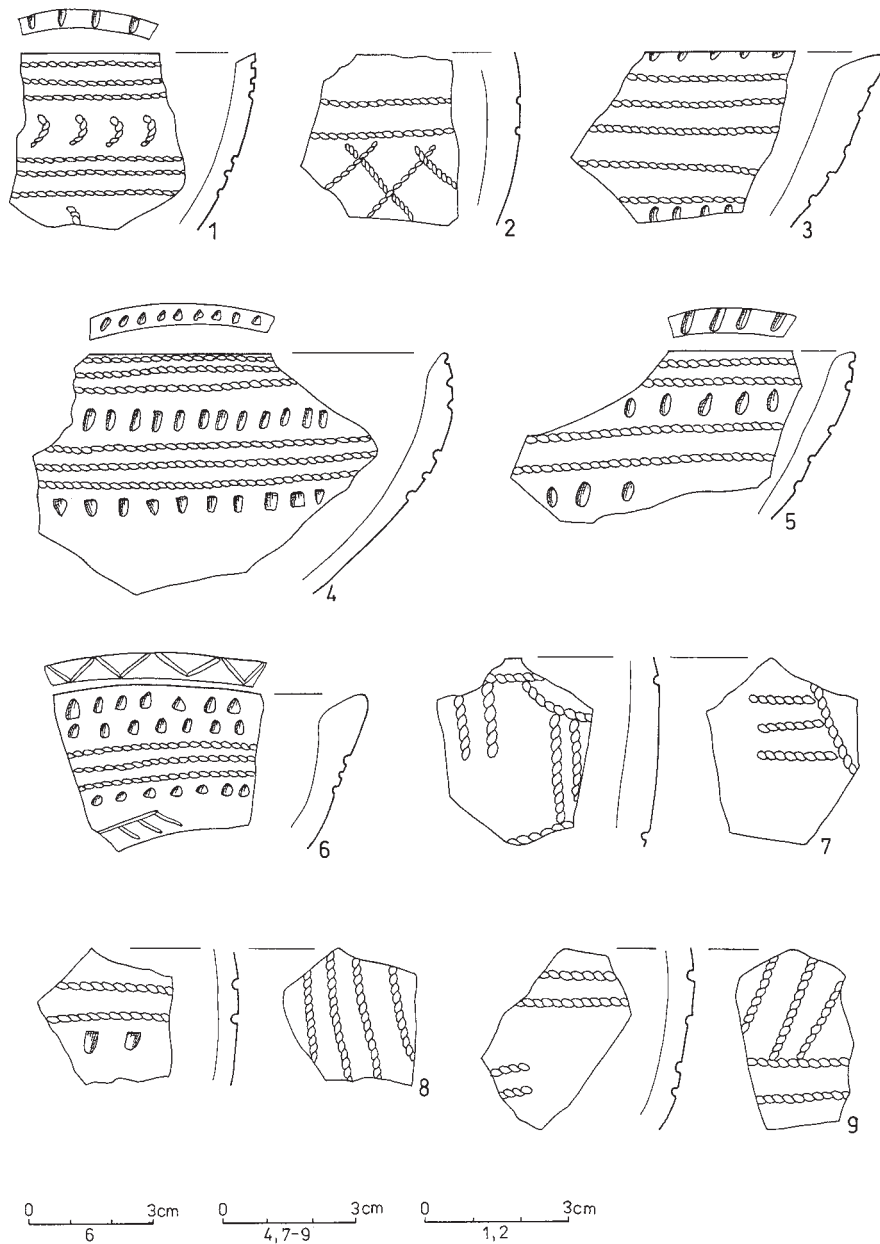


Fig. 26. Tripolye culture phase C II. Volhynia, Gordinești type. Pottery with cord ornament. Sandraki (excavated by O. Lagodovska).



Known in the Gordinești, Troyaniv and Gorodsk types, it is present on amphorae from Troyaniv (Fig. 16:12), Lozy (Fig. 23:1), Gorodsk (Fig. 22:7), Stina I [Movsha 1971:Fig. 2] and others.

## 2. *Round die impressions in one or more lines*

This type of ornamentation is known in the GAC [Czebreszuk, Szmyt 1992:Fig. 34:2; Fig. 40:2; Szmyt 1996:Fig. 4:2, 8; Rybicka 1995:Fig. 31:4], and is present on fragments found on the settlements in Troyaniv (Fig. 15:6, 7) and Gorodsk (Fig. 21:3, 5, 7).

## 3. *An ornamental composition of horizontal cord impressions and vertical closed loops — 'bows'*

This type of ornamentation is characteristic of the GAC [Czebreszuk, Szmyt 1992: Fig. 40:1; Rybicka 1995:Fig. 31:17, 18; Tab. LXXXI:4; Szmyt 1996:Fig. 4:5].

The earliest samples of 'bows' originate from the Troyaniv settlement. They are also present on ceramics from settlements and cemeteries of both the Gordinești and, later, Usatovo types. It deals with finds on the Stina I settlement [Movsha 1971:Fig. 2:8] and the Danku I cemetery [Dergachev, Manzura 1991:Fig. 28:4, Fig. 29:5, 6].

## 4. *Ornamentive 'slanting grid' motifs made using cord impressions*

This kind of motif is found on ceramics from monuments of the Gordinești type: a fragment of a bowl from Sandraki (Fig. 26:2) and fragments of bowl and dish from Nova Chartorya (Fig. 29:1, 4).

## 5. *Profiled dishes decorated externally with an incised 'broken line'*

Dishes with such a motif are known in the GAC.

On the Sandraki settlement of the Gordinești type, a fragment of a bowl whose top was decorated externally with such ornamentation was found (Fig. 25:4), as well as a fragment of a dish on which such a line is drawn directly on the rim (Fig. 26:6). It is possible that the fragments of ceramics from Gorodsk which were described in the previous section are linked with GAC influence (Fig. 21:1, 2).

## 6. *Vessels with a rounded body and a ledge over the bottom, sometimes decorated at the top with rectangular die impressions*

Pots of this type are characteristic of the GAC [Czebreszuk, Szmyt 1992:Fig. 28:d, e, f; Szmyt 1996:Fig. 17:15, 16; Fig. 19:8, 9].

Fragments and the bottom parts of such vessels have been found on settlements of the Gordinești, Troyaniv and Gorodsk types, such as a fragment from the Nova Chartorya settlement (Fig. 28:5).

## 7. *Horizontal 'horned' handles*

This type of handle is known in the GAC [Szmyt 1996:Fig. 2:9, 10; Fig. 19:8, 9], and was found in the Gordinești type settlement in Sandraki on kitchen pots and painted vessels (Fig. 24:5).

## 8. *Horizontal lines of surface 'pinches'*

Such ornamentation is known in the GAC [Czebreszuk, Szmyt 1992:Fig. 42:17-21; Fig. 43:6, 7, 10, 22, 27; Rybicka 1995:Tab. LXXXVII:7, 8], and was also found on kitchen pots in Sandraki (Fig. 25:11).

## 2.3.2. THE MIDDLE DNEPER REGION

On the Middle Dnieper, settlements and cemeteries of the Sofievka type have been found which are connected with GAC influence. Fragments of pottery displaying the traits 1, 2, 6 and 8 listed above were discovered on the settlements in Pidgirtsy, Kazarovichi and Bortnichy.

The set of traits which are classified as ‘circumbaltic’, found in cemeteries of Sofievka type, includes relatively few ornamentive elements: incised zigzag and ‘bird’s feather’ motifs on the vessel belly, and motifs of a ‘hole’ made mainly under the rim. The widest assortment of the abovementioned elements was found at the cemetery in Krasny Khutor and at locations in Chernin and Sofievka [Kadrow, Koško, Videiko 1995:Fig. 5].

Materials with GAC traits in the TC environment are rare. However, taking into account the current state of research into this question, it appears possible that new evidence may be found. In any case, the contribution of the ‘northern’ cultures to the creation of the Gordinești, Troyaniv, Gorodsk and Sofievka types seems to be more substantial than has previously been assumed.

### 3. THE BASIS OF THE PROCESSES OF ‘POLGÁRISATION’ AND ‘BADENISATION’ IN THE TRIPOLYE CULTURE

Previous researchers have already determined a number of reasons which could have led to the wide distribution in the east of cultural units of Central Europe in the period between 4200-2750 BC. It should be remembered that the most ancient evidence of contacts between the populations of West and East relate to the exchange of raw materials — flint, stone and metal. At the same time, a similarity has been noted in separate units of material culture, such as elements of exchange, ceramics and plastics.

The process of the creation of TC A — Pre-Cucuteni is considered to be a synthesis of a number of cultural traditions, as is indicated by the influence of cultures from the Carpathian Basin and of its environment (Tisza, Lengyel, Petrești and Malice) on the phases A and B I of the TC.

Traits of cultures from Central Europe are also present later in the TC. At the beginning of the Lengyel-Polgár cultural circle, a range of these materials are known — from imports to imitations. Thus, TC complexes can be divided into two groups: the first where imports and imitations are present in the context of a purely Tripolye cultural

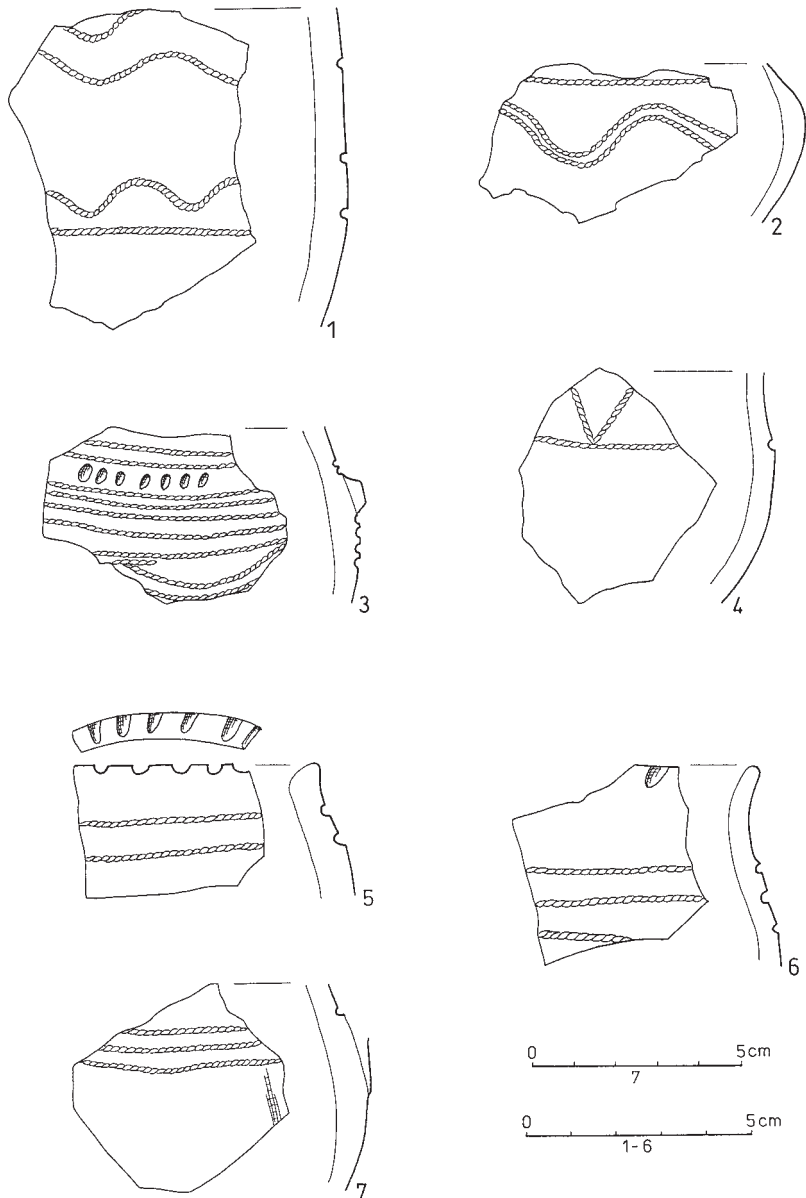


Fig. 27. Tripolye culture phase C II. Volhynia, Gordinești type. Pottery with cord ornament. Sandraki. (excavated by O. Lagodovska).

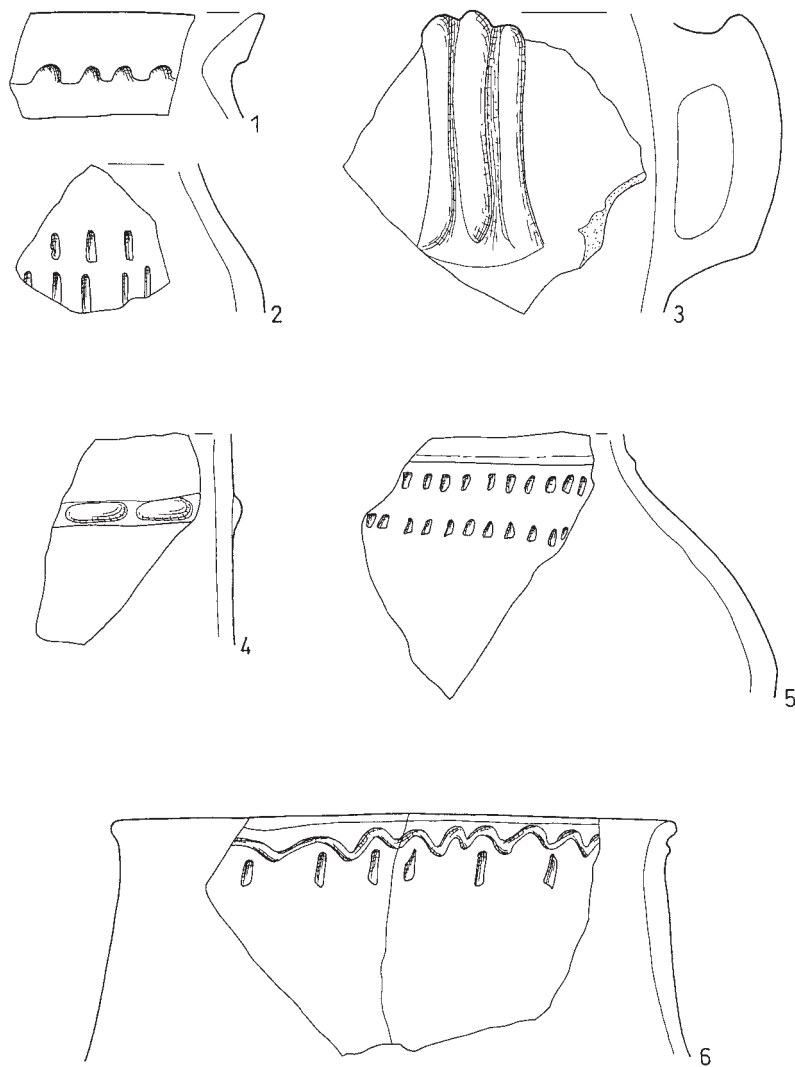


Fig. 28. Tripolye culture phase C II. Volhynia, Gordinești type. Pottery with Baden and Northern features. Nova Chartorya (excavated by O. Lagodovska).

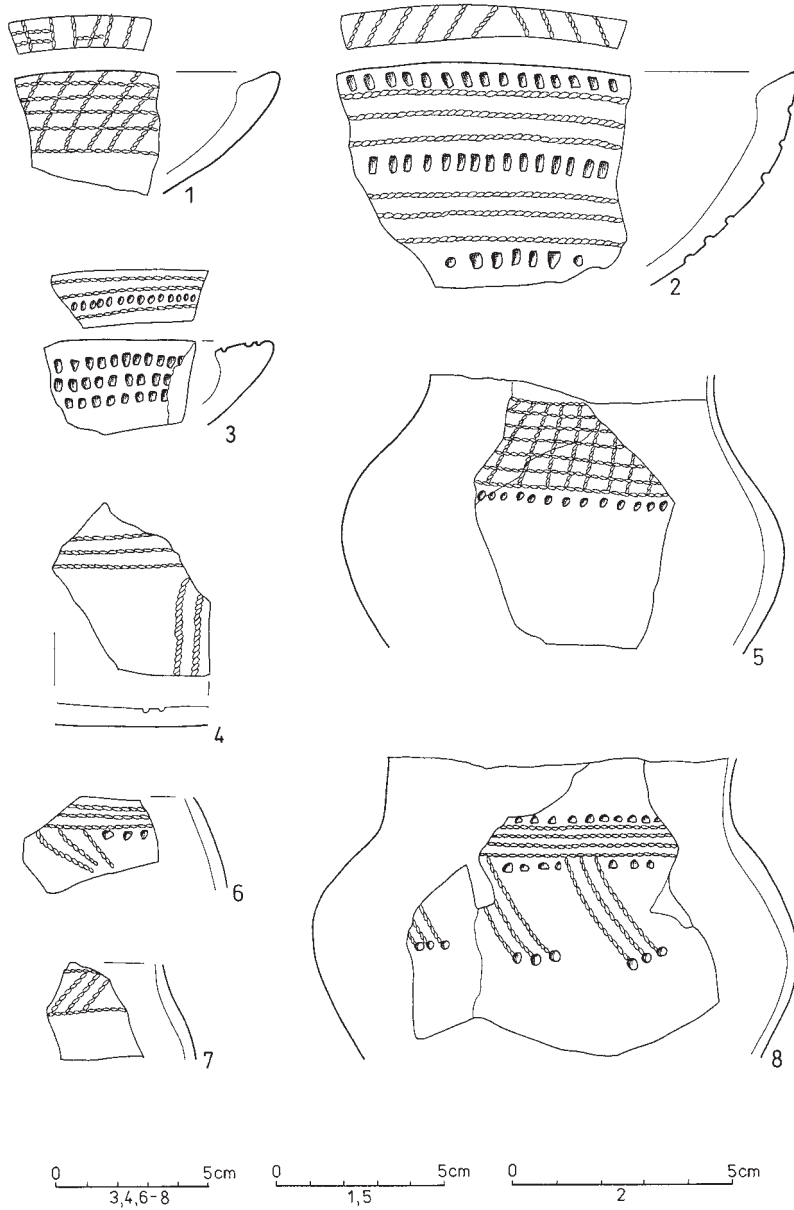


Fig. 29. Tripolye culture phase C II. Volhynia, Gordinești type. Pottery with cord ornament. Nova Chartorya (excavated by O. Lagodovska).

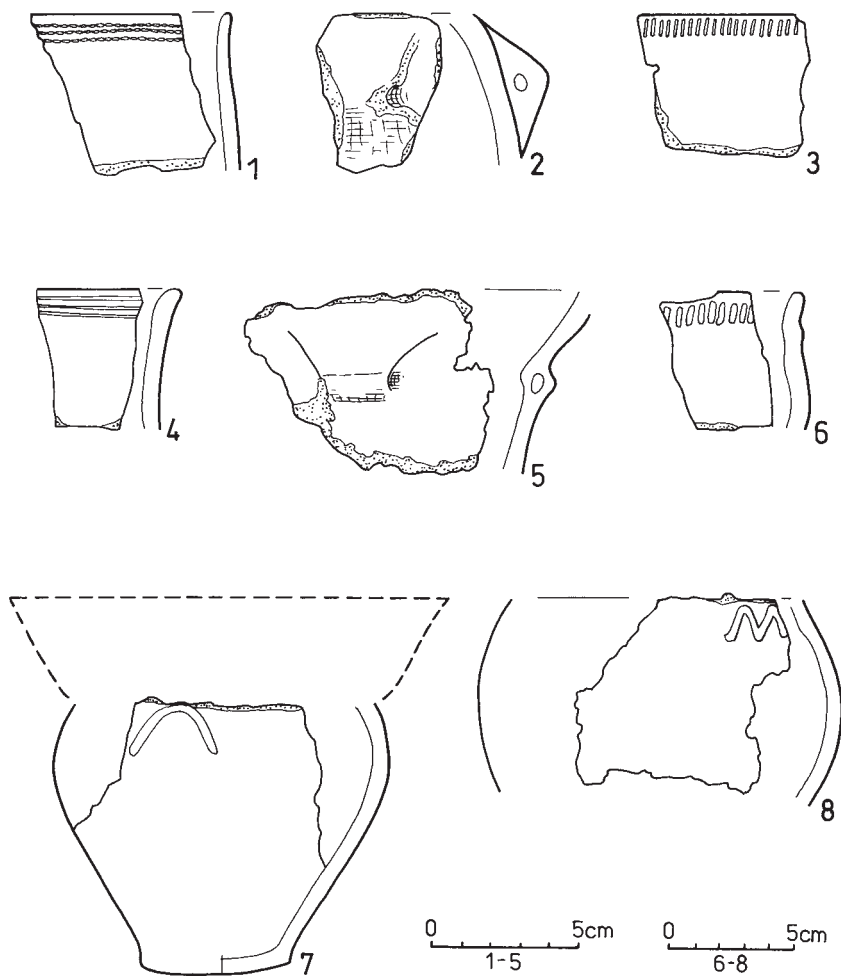


Fig. 30. Tripolye culture phase C II. Dniester region. FBC pottery from Zhvaniets-Shchovb (after Movsha 1985).

appearance; and the second where the units of adjacent cultures are integrated into the cultural complex of the TC.

In the opinion of the authors, the period between the B I-II and C I phases of the TC witnessed an integration of populations from western territories (cultures of the Lengyel-Polgár circle) in Tripolye, with a similar process occurring in the C II period concerning populations from territories of the Bodrogkeresztúr, Baden, FBC and GAC

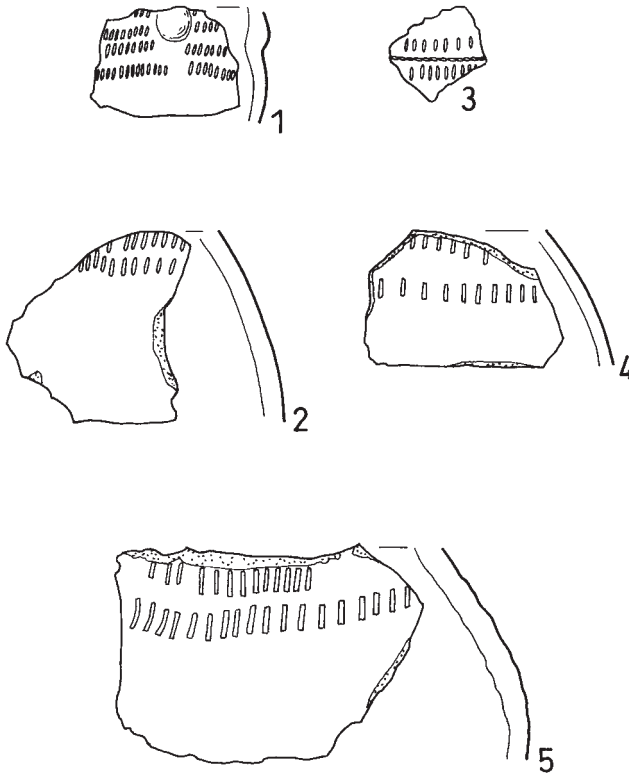


Fig. 31. Tripolye culture phase C II. Dniester region. GAC pottery from Tripolye culture settlements (after Movsha 1985).

cultures. These processes occurred initially between the Prut and Dniester rivers, later spreading into Volhynia and further up to the Middle Dnieper.

It concerns the traits of material culture (types of settlements and dwellings, the form and ornamentation of ceramics, weapon and tools) and traditions (cult practice and burial customs). In some territories, the newcomers significantly influenced the purely TC traditions. This is manifest mainly in the large proportion of ceramics made with clear Baden culture traits (up to 70%), as well as in the transformation of dwelling types. Between 4200-2750 BC, we can distinguish the following waves of migration, which are connected with particular cultures in the West:

1. Lengyel — Polgár; 2. Bodrogkeresztúr; 3. FBC; 4. Baden; 5. GAC.

The scale of these migratory movements, and thus their influence on types of the TC, was various. The last three waves almost coincided in time. As a result, there were

a number of TC types with similar features — the Gordinești, Troyaniv, Gorodsk and Sofievka types.

V.O. Dergachev united these types in a ‘common Tripolye’ horizon, with common types of ceramics and weapons being distinguished. He considered the appearance of this horizon as a corollary of the consolidation of the TC in the face of external threat [Dergachev 1980:154], usually considered as coming from cultures of the Steppe zone. The Baden culture and adjacent cultures (with the exception of the GAC) were not considered to be a source of threat or of serious cultural impulses for the Tripolye of the C II phase.

The processes of the ‘badenisation’ of cultures in the region of the Carpathians, especially to north, have been well examined, especially in the areas of the FBC, GAC and Złota culture [Kruk, Miliskauskas 1983; Sochacki 1980:171; Szmyt 1996:257-261]. It is now clear that similar process took place to the east of the Carpathians, in the Forest-Steppe zone on the territory of Ukraine. Traits of the late Tripolye types in this region were also defined by the involvement of the FBC and GAC, as well as of the TC population from the Prut-Dniester region.

There is a significant amount of evidence of contacts and interaction of a broad circle of cultures on the territories to the east of the Carpathians and to the south of the Upper Vistula, the reasons behind which require further study. A set of possible factors in these processes were long ago defined:

- (1) the search for sources of raw materials (stone, flint, metal) and the exchange processes;
- (2) the exchange of copper artifacts;
- (3) agrarian colonisation;
- (4) the influence of cult practice (ideology) and customs.

Below, we will try to analyse these factors in the light of the results of our previous research.

### 3.1. THE SEARCHES FOR SOURCES OF RAW MATERIALS (STONE, FLINT, METAL) AND THE EXCHANGE PROCESSES

**a) Flint.** From an early phase, the representatives of TC territories with large deposits of high-quality flint on the Dniester are recorded [Petrougne 1995:Fig. 1]. Later, at the B I-II stage, the exploitation of flint deposits in Volhynia began. These deposits were heavily exploited by the Tripolye population [Bibikov 1966:3-6; Konopla 1990a:21-25; 1998; Peleschishin 1990:27, 32-34; 1998a:95].

According to A. Zakościelna and S. Jastrzębski, cultures from the region of the Vistula sent flint deposits to Volhynia earlier than the TC. They consider it improbable that flint was distributed to the north and west of the TC region. Only the export of tech-



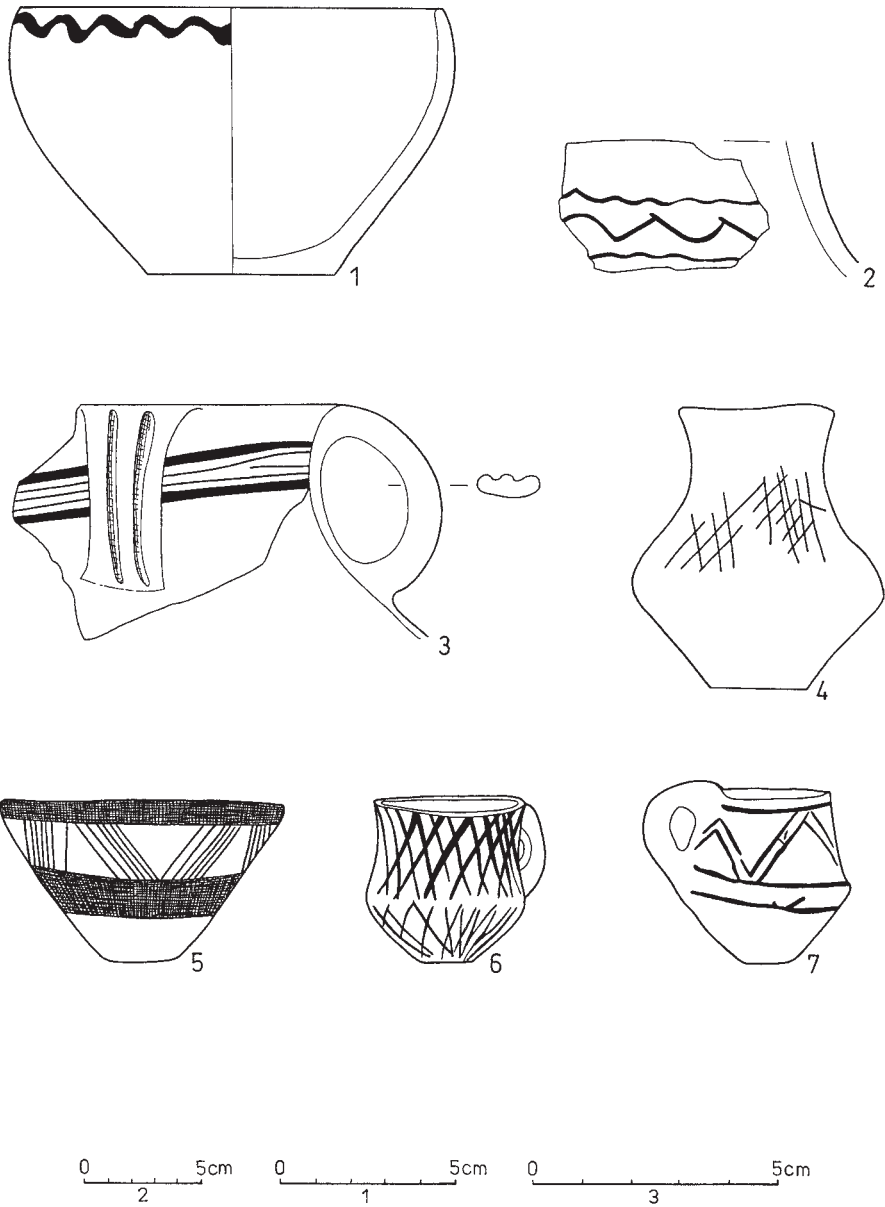


Fig. 32. Tripolye culture phase C I and C II. Simulation in painting and forms features of Northern (FBC, GAC) (1 - 2) and Baden cultures (4-7): 1- Sandraki, 2- Gorodsk, 3- Khomine, 4-7 - Koshlyivtsy.

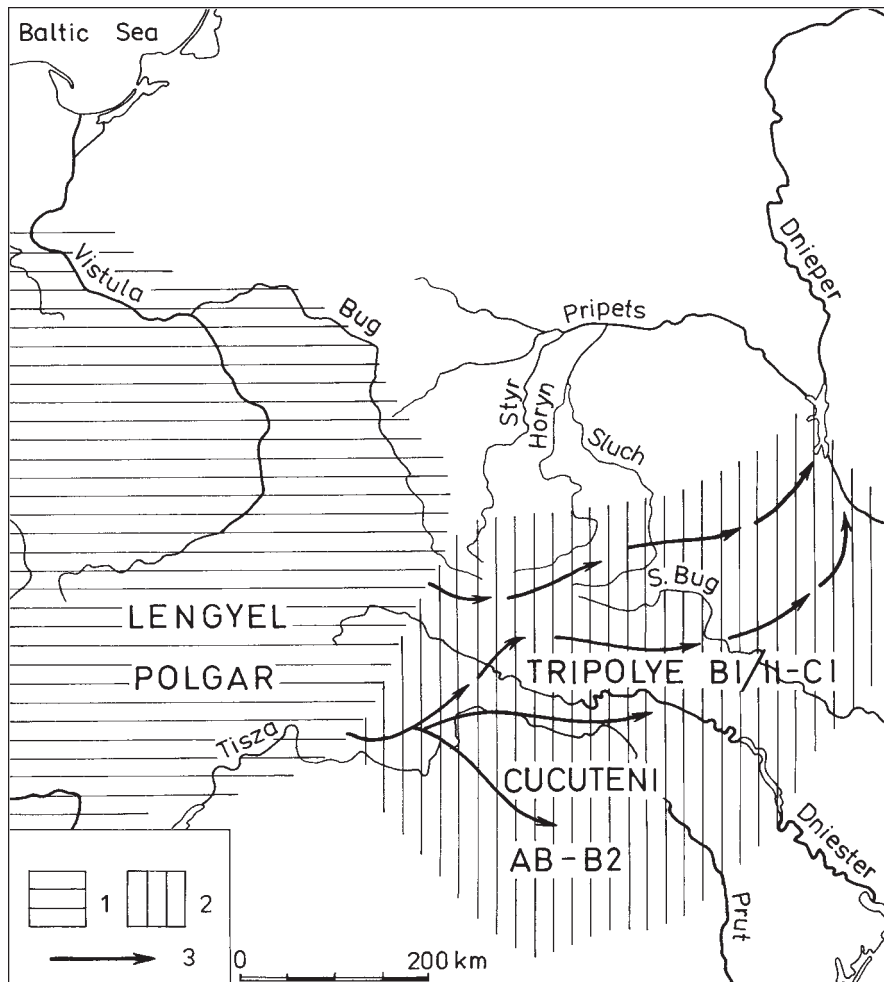


Fig. 33. Cultural situation and interactions between cultures in period 4200 - 3500 BC. Time of Tripolye culture, phases B I-II, B II, C I. Key: 1 - Lengyel and Polgár cultures, 2 - Tripolye culture, 3 - directions of interactions.

nology expressed in the macrolithisation of the flint industry does not raise doubts. The flint mining in Volhynia is claimed to have been undertaken by different cultures, with a key role being played by the Lublin-Volhynia culture [Jastrzębski 1985:101; Zakościelna 1985]. This reasoning appears to be quite justified.

There is a great deal of evidence concerning the distribution of flint raw material from the territory between the Prut and the Dniester to the east of the Carpathians.

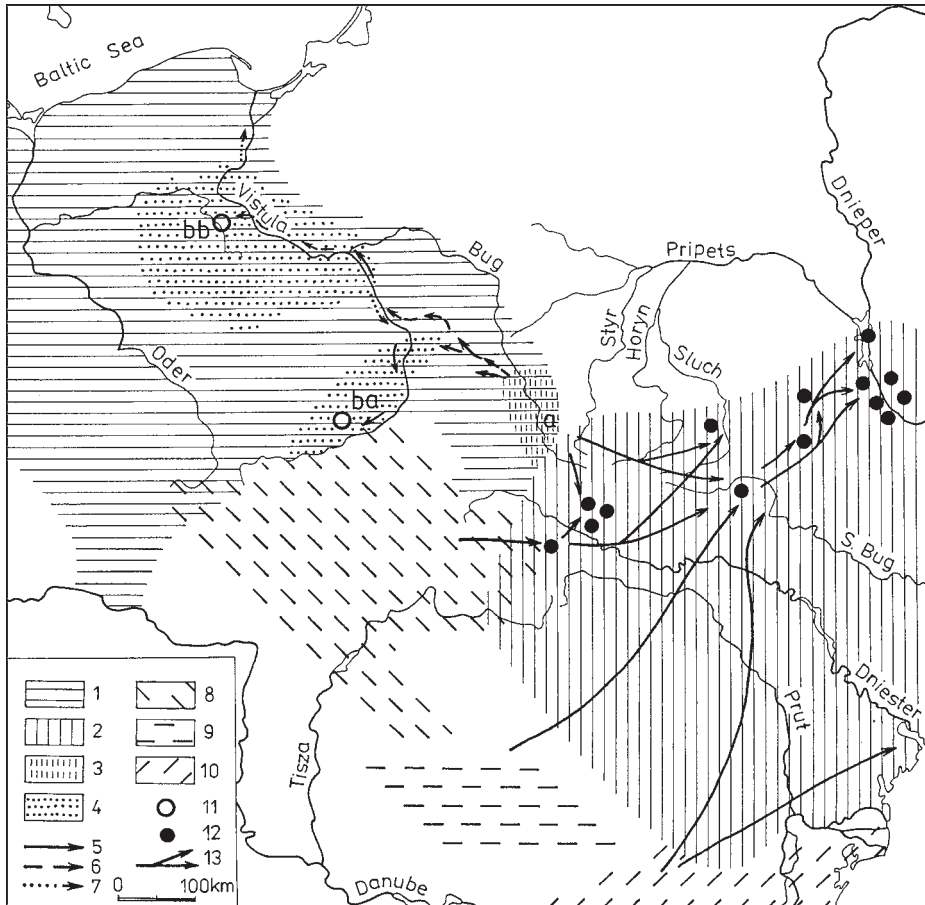


Fig. 34. Cultural situation and interactions between cultures in period 3500 - 2750 BC. Time of Tripolye culture, phase C II (base on the map from Koško 1981). Key: 1 - FBC; 2 - Late Tripolye culture; 3 - Tripolye influences; 4 - Tripolye cultural samples spreading; 5 - ways of Tripolye samples infiltration; 6 - supposed road of Tripolye samples infiltration; 7 - morings of Maṭwy cultural complex; 8 - Baden culture; 9 - Coțofeni culture; 10 - Cernavoda culture; 11 - centres of regions; 12 - Tripolye sites (with "western traditions"); 13 - supposed roads of central and south European cultures infiltration.

This is supported by the absence there of high-quality flint. For this reason, flint from Prut and Dniester deposits became a major component of the Neolithic flint industries of Carpathian Basin cultures. Later, in the period of the Baden culture, Dniester flint is represented by single tools or blades [Kaczanowska, Kozłowski, Šiška 1993:110]. Experts indicate the important role of the TC in the development of the flint production [Balcer 1983].

In our opinion, the flint deposits in the Prut-Dniester region were an important factor that effected the 'polgarisation' processes of the TC in the phases BI-II.

**b) Stone.** Stone raw materials were never so important as flint deposits for the industry of the Copper Age cultures. There is much evidence of imported stone artifacts [Petroigne 1995:195-199].

**c) Copper.** It has traditionally been considered that the raw material for the manufacture of copper artifacts was imported onto TC territory from Balkan and Carpathian regions. This is indicated by the spectral analysis of the copper products which have been found. However, recent evidence suggests that the copper metallurgy in the TC, from the B I stage onwards, could partially be oriented towards local raw material. Such a conclusion was reached by N.V. Ryndina, following an examination of Tripolye copper products [Ryndina 1998:193-195]. This conclusion has been confirmed by research into artifacts discovered on the Glibochok settlement of the B I stage (excavated by M. Sokhatskiy), located on the Middle Dniester. As new research has revealed, deposits of copper ore of an excellent quality, as well as of native copper are broadly represented from Volhynia up to Dniester. Only a part of the copper objects found on Sofievka type settlements and cemeteries is made from this metal [Klochko et al., Issues. . . , in this volume].

We would like to focus particular attention on the numerous evidence of contacts on the Middle Dniester between the TC and western regions, especially with Transylvania, from the TC A phase onwards. The role of Transylvania in the development of ancient metallurgy is well known. It may be assumed that populations spanning two thousand years, represented by the various archaeological cultures of the Carpathian region, were very interested in the copper ore deposits in the region of the Dniester River and Volhynia.

### 3.2. THE EXCHANGE OF COPPER ARTIFACTS

It has long been known that the majority of copper objects found on settlements and cemeteries of the TC of various stages have prototypes in Central Europe [Ryndina 1998:126-136, 193-195]. At the same time, there are numerous records of the local production of imported traits. Thus, the types of product are identical, the only difference lying in the technology applied. As N.V. Ryndina considered, external contacts became the stimulus for the development of local metal processing in the TC [Ryndina 1998:190-192].

### 3.3. AGRARIAN COLONISATION

Due to the sizeable amount of traits of other cultures in the material culture of separate types of the TC, we can probably speak about a 'seeping-in' of the population from the outside. It should be noted that the above-mentioned waves of migration are connected to cultures with similar economic models to Tripolye. Their economy was based on agriculture and animal husbandry. The constant corollary of such an economic system was the growth of the population. At the same time, practically all the listed cultures were located in regions where the biological resources necessary for a complex production economy were limited.

Whilst it may have been possible to make up a lack of raw resources with the help of exchange or occasional 'trade' expeditions, the problem of poor soil could only be solved by migration to the east. Most probably, it was these expeditions in search of raw materials that led to routes being opened from Central Europe to the East, and created the basis for the interaction of a wide circle of cultures in VI-III millennia BC.

The scale of migrations was different at different periods. The most sizeable can be connected to cultures of the Lengyel-Polgár circle and the Baden culture. The region of the Middle Dnieper could also have been the object of expansion of the Lublin-Volhynia, FBC and GAC cultures. It is indicative, that the mixed cultural types placed on the frontiers of the most powerful TC groups, which as a rule are located to the south of a particular region, substantially influenced the Central European cultures.

### 3.4. THE INFLUENCE OF CULT PRACTICE (IDEOLOGY) AND CUSTOMS

An explanation for some finds can be found in the spheres of cult practice (ideology) and ancient customs. This may be the case with the distribution in the TC of defined types of anthropomorphic clay plastics, whose prototypes are to be found in the Lengyel and Vinča cultures (it deals with the forms and ornamentation of clay figurines, particular their poses and the gestures of their hands). The same refers to the ornamentation, mostly in the painted form, adopted from other cultural systems, like the LC, Tiszapolgár, FBC, Baden and GAC. It is likely that all these elements were related to defined cult practice or ancient magic.

The same explanation should be given for the distribution of some artifacts, such as clay models of battle-hammer-axes, which are characteristic of complexes of FBC cult practice. This was accompanied by the broad distribution of their stone prototypes in the TC.

The outlined picture, thus, makes it possible to consider the appearance of TC influences in adjacent cultures: for example, TC houses — ‘ploshchadka’ type — on the FBC settlement in Gródek Nadbużny. It is significant that the houses have links to the TC not only in their construction, but also in the ideology associated with their burning. Thus, the transformation of customs on the Middle Dnieper could reflect the loss of ancient tradition under the influence of the newcomers with other cultural norms.

## CONCLUSIONS

First of all, it is important to note the mutual nature of the process of exchange in the fields of economy and culture between ancient societies and communities in Central Europe belonging to different cultural groups. After close examination of materials of the Lengyel-Polgár circle, Baden, FBC and GAC in Poland and Slovakia, I was able to perceive interesting new sources for further detailed research into the intercultural processes in the Forest-Steppe zone from the Carpathians up to the Middle Dnieper.

During the Middle and Late Copper Age in the region of TC distribution, processes occurred which periodically resulted in the creation of new cultural types. It is possible to distinguish two main stages of this process.

1. The stage of ‘polgárisation’ (Fig. 33). This is connected to cultures of the Lengyel-Polgár circle, and covers the phases B I-II, B II and C I of the TC. The final phase saw the influence of early phases of the Baden culture. There was probably migration from the territory of the eastern Carpathian Basin, and later from the territory of the Lublin-Volhynia culture in western Volhynia.

2. The stage of ‘badenisation’ (Fig. 34). This covers the C II phase of the TC. Migratory processes, mainly of the population of the Carpathian Basin, resulted in the appearance of the Gordineşti, Troyaniv and Gorodsk cultural types. Their subsequent translocation to the east gave rise to the Sofievka type. The FBC and GAC participated in these intercultural processes.

Similar processes occurred to the north of the Carpathians, on territory of the distribution of the FBC and GAC [Kruk, Miliskauskas 1983; Sochacki 1980:171; Szymt 1996:257-261].

All these processes had economic causes. As A. Koško considers, during the Late Copper Age, economic systems became more extensive. The increasing role of cattle breeding in the economy of ‘boundary’ communities resulted in less settled way of life and, consequently, peoples’ movements (Fig. 34). Also important was the growth and development of exchange [Koško 1981:165].

In our opinion, in the Late Copper Age, the main role in the creation of new cultural types in the East was played by the interaction between the TC and cultures of Central Europe. The role in these processes of the so-called 'steppe' cultures of this period was more modest than has previously been considered. But the question of the interaction of high civilisations with the steppe environment is a subject for separate research.

*Translated by author and John Comber*

## ABBREVIATIONS

AP	– Archeologia Polski, Warszawa
APS	– Archeologia Polski Środkowowschodniej, Lublin
BPS	– Baltic-Pontic Studies, Poznań
KSIA	– Kratkiye soobscheniya Instituta Arkheologii, Moskva
KSIA AN USSR	– Kratkiye soobscheniya Instituta Arkheologii Akademii Nauk Ukrainskoy SSR, Kiev
KSIIMK	– Kratkie soobshcheniya Instituta Istorii Materyalnoy Kultury Akademii Nauk SSSR, Moskva.
MIA	– Materialy i issledovaniya po arkeologii SSSR, Moskva
NA IA NANU	– Naukovy Arkhiv Instituta Arkheologii Natsionalnoi Akademii Nauk Ukrainy, Kiev
SA	– Sprawozdania Archeologiczne, Kraków
SCIVA	– Studii și Cercetări de Istorie Veche și Arheologie, Bucarest
WA	– Wiadomości Archeologiczne, Warszawa
Zapiski NTS	– Zapiski Naukovogo Tovarystva imeni T. Shevchenka, Kiev

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Żaki A.

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## LIST OF AUTHORS

Janusz Budziszewski  
Muszłowa 3-45  
01-357 Warsaw  
Poland  
E-mail: jbkb@polbox.com

Larisa V. Demchenko  
State Scientific Center of Environmental  
of Nuclear Geochemistry  
Palladin Avenue 34  
252142 Kiev  
Ukraine

Stawomir Kadrow  
Institute of Archaeology and Ethnology  
Polish Academy of Sciences  
Stawkowska 19  
31-016 Kraków  
Poland  
E-mail: slawek@archo.pqn.krakow.pl

Viktor I. Klochko  
Institute of Monument Preservation  
and Research  
Ministry of Culture  
and Arts of Ukraine  
Petropavlovskaya Street 15  
04086 Kiev  
Ukraine  
E-mail: archo@naver.kiev.ua

Aleksander Koško  
Institute of Prehistory  
Adam Mickiewicz University  
Św. Marcin 78  
61-809 Poznań  
Poland  
E-mail: koskom@man.poznan.pl

Sergey A. Kozak  
State Scientific Center of Environmental  
of Nuclear Geochemistry  
Palladin Avenue 34  
252142 Kiev  
Ukraine

Vladimir A. Kruts  
Institute of Archaeology  
Ukrainian Academy of Sciences  
Geroiv Stalingrada 12  
254655 Kiev  
Ukraine

Viktor N. Kvasnitsa  
State Scientific Center of Environmental  
of Nuclear Geochemistry  
Palladin Avenue 34  
252142 Kiev  
Ukraine

Jerzy J. Langer  
Faculty of Chemistry  
Adam Mickiewicz University  
Grunwaldzka 6  
60-780 Poznań  
Poland  
E-mail: langer@main.amu.edu.pl

Vyacheslav I. Manichev  
State Scientific Center of Environmental  
of Nuclear Geochemistry  
Palladin Avenue 34  
252142 Kiev  
Ukraine

Tamara G. Movsha  
Institute of Archaeology  
Ukrainian Academy of Sciences  
Geroiv Stalingrada 12  
254655 Kiev  
Ukraine

Sergey M. Ryzhov  
Institute of Archaeology  
Ukrainian Academy of Sciences  
Geroiv Stalingrada 12  
254655 Kiev  
Ukraine

Mikhail P. Sokhatskiy  
State Scientific Center of Environmental  
of Nuclear Geochemistry  
Palladin Avenue 34  
252142 Kiev  
Ukraine

Marzena Szmyt  
Institute of Eastern Studies  
Adam Mickiewicz University  
28 Czerwca 1956 no. 198  
61-486 Poznań  
Poland  
E-mail: marzena@main.amu.edu.pl

Taras Tkachuk  
Sorokhteya 9B/35  
28400 Ivano-Frankovsk  
Ukraine

Olena V. Tsvek  
Institute of Archaeology  
Ukrainian Academy of Sciences  
Geroiv Stalingrada 12  
254655 Kiev  
Ukraine

Mihailo Y. Videiko  
Institute of Archaeology  
Ukrainian Academy of Sciences  
Geroiv Stalingrada  
254655 Kiev  
Ukraine  
E-mail: videiko@mail.i.com.ua

Anna Zakościelna  
Chair of Archaeology  
Maria Curie-Skłodowska University  
Pl. M. Curie-Skłodowskiej 4  
20-029 Lublin  
Poland

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