

EASTERN EXODUS OF THE GLOBULAR AMPHORA CULTURE PEOPLE

Mikhail M. Charniauski

Stanisław Gołub

Sławomir Kadrow

Wiesław Koman

Wanda Kozak-Zychman

Mykola Kryvaltsevich

Yuriy Maleyev

Boris Pryshchepa

Yuriy Y. Rassamakin

Irina L. Serdyukova

Svyatoslav V. Shelomentsev-Terskiy

Evgeniy A. Shmidt

Marzena Szmyt

Józef Ścibor

BALTIC-PONTIC STUDIES

V O L U M E 4 • 1996

BALTIC-PONTIC STUDIES
61-809 Poznań (Poland)
Św. Marcin 78
Tel. (061) 536709 w. 147 Fax (061) 536-536

EDITOR
Aleksander Koško

EDITORIAL COMMITTEE
Sophia S. Berezanskaya (Kiev), Aleksandra Cofta-Broniewska
(Poznań), Mikhail Charniauski (Minsk), Lucyna Domańska
(Łódź), Viktor I. Klochko (Kiev), Petro Tolochko (Kiev)

SECRETARY
Marzena Szmyt

ADAM MICKIEWICZ UNIVERSITY
EASTERN INSTITUTE
INSTITUTE OF PREHISTORY
Poznań 1996
ISBN 83-86094-03-6
ISSN 1231-0344

EASTERN EXODUS OF THE GLOBULAR AMPHORA CULTURE PEOPLE

Mikhail M. Charniauski
Stanisław Gołub
Sławomir Kadrow
Wiesław Koman
Wanda Kozak-Zychman
Mykola Kryvaltsevich
Yuriy Maleyev
Boris Pryshchepa
Yuriy Y. Rassamakin
Irina L. Serdyukova
Svyatoslav V. Shelomentsev-Terskiy
Evgeniy A. Shmidt
Marzena Szmyt
Józef Ścibor

BALTIC-PONTIC STUDIES

V O L U M E 4 • 1996

© Copyright by BPS and Authors
All rights reserved

Cover Design: Eugeniusz Skorwider

Linguistic consultation: James Grossklag

Printed in Poland

Computer typeset by PSO Sp. z o.o. w Poznaniu

CONTENTS

INTRODUCTION	3
Marzena Szmyt, GLOBULAR AMPHORA CULTURE IN EASTERN EUROPE. PRESENT STATE OF RESEARCH AND POSSIBILITIES FOR FUTURE STUDIES	3
SOURCES	28
Józef Ścibior, Wiesław Koman, GRAVE OF THE GLOBULAR AMPHORA CULTURE FROM SITE NO. 27 IN ŚWIERSZCZÓW (PROV. OF ZAMOŚĆ, POLAND)	28
Stanisław Gołub, GRAVE OF THE GLOBULAR AMPHORA CULTURE FROM SITE NO. 8 IN KRASNYSTAW (PROV. OF CHEŁM, POLAND)	35
Stanisław Gołub, GRAVE OF THE GLOBULAR AMPHORA CULTURE FROM SITE NO. 1 IN ŁOPIENNIK DOLNY KOLONIA (PROV. OF CHEŁM, POLAND)	44
Wanda Kozak-Zychman, ANTHROPOLOGICAL DESCRIPTION OF BONE REMAINS FROM A GRAVE OF GLOBULAR AMPHORA CULTURE IN ŁOPIENNIK DOLNY KOLONIA, SITE 1 (PROV. OF CHEŁM, POLAND)	51
Yuriy Maleyev, SELECTED GRAVES OF GLOBULAR AMPHORA CULTURE FROM VOLHYNIA AND PODOLIA (UKRAINE)	53
Yuriy Maleyev, Boris Pryshchepa GRAVE OF GLOBULAR AMPHORA CULTURE FROM TOVPYZHYN (DISTRICT OF RIVNE, UKRAINE)	62
Svyatoslav V. Shelomentsev-Terskiy, SETTLEMENT OF GLOBULAR AMPHORA CULTURE IN PERESOPNITSA, THE VOLHYNIA REGION (UKRAINE)	70

Evgeniy A. Shmidt, Marzena Szmyt RITUAL COMPLEX OF THE GLOBULAR AMPHORA CULTURE ON THE UPPER DNIEPER BASIN (RUSSIA)	79
Mikhail M. Charniauski, MATERIALS OF GLOBULAR AMPHORA CULTURE IN BELORUS	87
Mykola Kryvaltsevich, GRAVE OF THE MIDDLE DNIEPER CULTURE FROM PRORVA, SITE 1 (GOMEL REGION, BELORUS)	98
ANALYSIS	103
Sławomir Kadrow, Marzena Szmyt, ABSOLUTE CHRONOLOGY OF THE EASTERN GROUP OF GLOBULAR AMPHORA CULTURE	103
Yuriy Y. Rassamakin, ON EARLY ELEMENTS OF THE GLOBULAR AMPHORA CULTURE AND OTHER CENTRAL EUROPEAN CULTURES IN THE LATE ENEOLITHIC OF THE NORTHERN BLACK SEA REGION	112
Irina L. Serdyukowa, CONTRIBUTION TO THE ORIGIN OF THE BRONZE AGE IN THE MIDDLE DNIEPER REGION	133
References	156
List of Authors	170

Editor's Foreword

Globular Amphora culture settlements make one of the most important systems of circulation of cultural patterns in the border zone between the drainage areas of the Baltic and Black Seas. One aspect of this problem, namely the „eastern exodus” mentioned in the title, has seemingly rich historiography. Under closer scrutiny, however, it reveals many intuitive opinions based on weak and insufficiently explored sources. This belief lay behind the present issue of the „Baltic-Pontic Studies”. The papers presented in this issue open new areas of discussion of the problems in question. For the first time, the discussion is set against an incontrovertible scale of absolute chronology. This issue anticipates a broader synthesising presentation to be published in the not too distant future.

Editorial comment

1. All dates in the *B-PS* are calibrated [see: *Radiocarbon* vol.28, 1986, and the next volumes]. Deviations from this rule will be point out in notes.

2. The names of the archaeological cultures (especially from the territory of the Ukraine) are standarized according to the English literature on the subject [e.g. Mallory 1989]. In the case of a new term, the author's original name has been retained.

3. The place names located in the Ukraine have been transliterat from the versions suggested by the author (i.e. from the Belorussian, Ukrainian, Polish or Russian originals).

Irina L. Serdyukowa

CONTRIBUTION TO THE ORIGIN OF THE BRONZE AGE IN THE MIDDLE DNEIPEL REGION

The subject of the present work was determined in connection with the lack of investigation of the given problem on even a level of the statement of a question.

Since the appearance of I. Sveshnikov's monograph [Sveshnikov 1983], it has been recognised as containing the fullest description of the Globular Amphora culture (GAC) objects to that time in the territory of modern Ukraine. Both a qualitative and quantitative increase occurred, which served as a base for an attempt to retrace the participation of GAC in the cultural genetic process that occurred in the Middle Dnieper region in the Middle Bronze Age (following the terminology employed by Ukrainian archaeologists). The presence of only indirect evidence of this phenomenon, expressed in the presence of definite traditions in the ceramic complex of late Catacomb culture (CC) and Middle Dnieper culture (MDC) objects of the region under review, they may be connected only with a characteristic sign, inherited in the ceramic of GAC, which in peculiar complicates the consideration of the problem of the contribution of GAC into the stated processes. The finds of new objects with ceramic of GAC in the territory of the Middle Dnieper region we may consider positive initial data for considering such a problem.

Unfortunately, the lack of reliable dating of the newly found objects, which contain the elements of GAC, prevents us from answering the question as to the time of their origin. And the assumption about the presence of earlier burials and settlements which could be synchronous to known burials and settlements of Volhynia and Podolia and those which may be considered as forebears of the MDC and Catacomb objects among them, must be left on the level of purely logical consideration for the present.

Such a situation is a reflection of the problem of cultural investigations of the Bronze Age in the Middle Dnieper region. In spite of a considerable number of found objects, the base of sources has not hitherto been systematised. Narrow regional investigations are absent from the literature. The consequence of this is the presence of „blank spaces” on the archaeological map. In particular, the objects in the territory of the modern Zhitomir district, in general, are known for excavations in the second half of the nineteenth and the first half of the twentieth century, while

its situation is of undoubted interest. The impulses of Western influences — which can be observed for a period of almost every primitive epoch — which reached Middle Dnieper region, must one way or another be reflected on archaeological objects of just that region.

But a principal complication in interpretation of the problem stated in title of the present article, is a lack of division into periods of the GAC objects in the Ukrainian territory. The conceptions „early, middle, and late stages of GAC”, „the phases of development of GAC”, and the „late level of GAC” are clearly enough defined in the investigations of Western archaeologists [e.g., Wiślański 1966; Czeczczuk 1990:149-168, etc.]. In the Ukrainian historiography the works establishing the periods of GAC are absent (with the exceptions of private observations); hence, it appears that regarding the criteria for chronological signs' dismemberment, these signs characterise the eastern group of GAC. This is connected with the fact that settlements' materials were published only selectively, due to the lack of extensive investigation. This fact hampers one in carrying out a thorough qualitative analysis of ceramic complexes.

Thus, the present work does not aspire to the status of a generalised, systematising investigation, and it must be considered only as a substantiation of the statement of a question as to the contribution of traditional interment in GAC to the material culture of Bronze Age tribes in the Middle Dnieper region. Moreover, these traditions are found first of all in ceramic. Proceeding from the stated purpose, the tasks of the present article are seen as the publication of the objects, which were not a part of the traits of the GAC ceramic complex, which are fixed in ceramics of the Middle Bronze Age cultures in the territory under review. According to the thesis, the late signs of culture are, on the one hand, the elements which we can clearly retrace in the material set of later cultures, while on the other hand, they are not characteristic of its reliable early objects, an attempt was made to plan a final period of the elements GAC existence in the Middle Dnieper region. In this instance, one cannot speak of a late stage of culture, although it would be convenient for establishing a generally accepted scheme of development in view of the lack of the complex of cultural signs in the objects in which we are interested.

First of all, we will elaborate on the existing remarks, which are contained in the literature, dealing with, first — the problem of GAC surviving until the Bronze Age, second — this culture's participation in the genetic process in those territories, where its objects are represented either sporadically or quite absent. The question of GAC components' participation in the making of material culture of tribes in the Middle Dnieper region is considered in just these aspects.

1. EASTERN SETTLEMENTS OF GAC

The GAC objects, known on Ukrainian territory, are attributed to eastern cultural group [Sveshnikov 1983]. The fullest description of eastern objects group are in I.K. Sveshnikov's monograph. The following were taken into consideration: 116 cultural locations, including 7 settlements, 59 points, where burials are found (they formed burial grounds in separate places), accidental finds of things and insufficiently documented tombs.

The investigator has chosen two local variants of the eastern group of GAC — Volhynia and Podolia, which differ in peculiarities of funeral constructions, funeral ceremony, and accompanying stock, and ceramic in general.

The territory of the extension of the eastern GAC group constituted the western regions of Belorussian Polesie, Volhynia, forest and steppe on the right bank of the Dnieper, Podolia, northern Moldavia and eastern Rumania. A boundary line between these areas may be drawn along the watershed of the Western Bug and the Pripiat tributaries on the one hand and the Dniester and the South Bug on the other hand.

GAC's appearance in the territory of Ukraine is interpreted as a result of the eastward settlement of Eneolithic peoples.

The chronological framework of eastern group was defined on the grounds of a small amount of data of a joint finding of GAC ceramic with other cultures' materials. In Volhynia it is synchronous to the Funnel Beaker culture and late Tripolye. As to objects of Podolia, reliable chronological correlations are absent. Data about a joint finding of GAC and Subcarpathian Corded Ware Culture materials in early barrows of Subcarpathian culture [Sulimirski 1968: Figs.19, 21, 141, 142] may not be considered as evidence of their synchronicity.

In the upper stratum of the settlement of the Pit- and Comb culture near Grishevka in the Chernigov district, the vessels' fragments of GAC were found. On these grounds we can synchronise the objects of the eastern group of culture with a late display of Pit- and Comb culture on the Desna [Berezanskaya 1975:148-167]. However, the ceramic fragment which was found, cannot belong to the so-called „lid", which is known in the ceramic complex of GAC. This is, in fact, a fragment of a vessel of a later period. We can assign it to late CC ceramic. This form is widely produced in the settlements of state territory.

The Middle Dnieper region is not in the zone of the expansion of GAC objects. The finds, except for the above-mentioned fragment, which was found in Grishevka, are limited to a tomb in Losyatin in the Vasilkov district of the Kiev region, ceramic fragments, which were found in the Kiev region in the settlement of Tripolye culture and bone goods, probably, from a burial, which was destroyed through the presence of the Kanev HEPS foundation pit.

Thus, the objects of the eastern GAC group were produced in general in burials in Volhynia and Podolia in Ukraine, but they are not found to the east, in

the Dnieper region. The objects are dated within the limits of late Eneolithic, the materials of a small number of settlements corroborate that.

On the other hand, we have data which permit us to suppose that the eastern GAC group survived until a later period, namely the Bronze Age. Direct illustrations are lacking in Ukraine. The burials are known in Moldavia, where they are conducted according to a ceremony of the Yamnaya culture, but GAC pottery is in funeral stock [Yarovoy 1984:35; Manzura, Klochko, Savva 1992]. Indirect evidence may be considered to indicate that the tradition of burying the deceased in stone boxes was retained. This tradition is known to Corded Ware culture (CWC) tribes in Volhynia and Podolia. The genetic connection of separate vessels' forms of CWC in the stated territory with GAC ceramic is also indirect evidence. In Sveshnikov's opinion, the tribes of the eastern group of CWC assimilated into the GAC population, but their cultural traditions and customs remained up to the Middle Bronze Age [Sveshnikov 1957:42].

Opinions exist on GAC participation in the process of adding to Fatyanovo culture [Tallgren 1926; Äyräpää 1933:96], but this problem has not yet been worked out.

N. Nikolayeva and V. Safronov appear as the greatest proponents of GAC's contribution to a considerable extent to the cultural genesis of the northern region of the Black Sea and also the north-west Caucasus. They hold that the appearance of objects such as Novosvobodnaya of the Kemi-Oba culture, partly of the Kuban-Terskaya culture, which was distinguished by Nikolayeva and Safronov, is a result of GAC tribes' expansion in a south-easterly direction, under the western influence of GAC.

In spite of this idea's cause for amusement, however, the argument of the authors does not stand up to criticism. The authors demonstrate not more than tactlessness of analogies, operating with the names „Saksonian-Turingian” and „Kuyavian amphora” in conformity with an absolutely independent ceramic group [Nikolayeva, Safronov 1974:31-42; Nikolayeva 1981:77-100].

And that is all, in fact, as to attempts to determine the GAC contribution to cultural genesis in the territory of Ukraine. This problem is not well-enough defined for the Volhynia and Podolia districts. But as is generally known, the Middle Dnieper region was not at all considered in this light.

Now let us begin the examination of this question from the point of view of the description of the new materials found on the eastern end of GAC and on the Dnieper.

The materials can be divided into various groups. The first is the variant that the settlements were found on the east end of Volhynian. Their availability proves that GAC tribes cultivated the Volhynia lands. According to the small saturation of cultural stratum the tribes lived briefly in one place that was connected with seasonal cattle-breeding.

The descriptions of the ceramics are the main point because they represent a culturally defined trait and phase in the construction of periodization and appor-

tionment of local groups. The second group is to mark out as the result of cabinet work, and consists of a number of potsherds which were found in the Middle Dnieper region. The distinguishing feature of are that the ceramic contains traits of GAC and native cultures. The first group of the sites is situated in Eastern Volhynia, and in the territory of the present Khmel'nitsk and Zhitomir regions. The small number of these settlements do not reflect the real situation of settlement on the right side of the Dnieper by the tribes of GAC. The main reason that the settlements of GAC are poorly explored was the poor investigation of these regions. The poor and small cultural stratum made the settlements subject to easy destruction by people and nature. The sand dune where these sites are situated had been settled by late cultures, which also contributed to their destruction.

Thus, the information about the settlement is incomplete.

Khmel'nitsk region. In 1970 the site near Slavuta was found by V. Pyaseckiy. It was situated on the right bank of the river Utkha. Some potsherds of GAC (Fig. 1:1,3) and flint bits and part of a flint axe were found there [Berezanskaya, Pyaseckiy 1979:75-82].

Zhitomir region. In 1973-1974 the traces of four settlements were found by V. Pyasetskiy.

Khichiv (Volodarsk-Voliynski district). The settlement was found one kilometre to the west of the village on the lower part of a sand cape, that extended forward to the bank of the right tributary of the river Irsha. The square where the cultural stratum was discovered was approximately 100 m x 50 m. A pit (1 x 1 m) was made where the largest number of artefacts were concentrated. The cultural stratum was in grey sand with a small amount of ashes. at a depth of 0.3-0.4 m and in with what appears to be slim tears dark-grey linse. Artefacts were presents of ceramic, flint bits, and some small animal bones (Fig. 1:2, 4-10). 200 m up the river from the named point some pieces of ceramic, similar to that described above, were discovered in pits.

Neverovka (Volodarsk-Volinski district). Two kilometres to the east of the village in the marsh's lowest part some dunes are situated. A small number of ceramic pieces (Fig. 2:1,3) and flint wares in particular, and the storage of a four-angle axe were found on one of them, namely on the highest.

Vorovskoye (Volodarsk-Volinski district). The traces of the settlement were found 0.7 kilometres to the south of the central seat, on the south of a small elevated slope of marshy lower land, today covered with drain channels. Some pieces of ceramic, a large number of characteristic grey flint bits, a part of a grey flint axe and an arrowhead were gathered (Fig. 2:2,4)

Gorbulov-2. The settlement is situated one kilometre to the east of the village on a low sand dune. The cultural stratum is poor. Bits, plates from characteristic grey flint, and some pieces of ceramic were found (Fig. 2:5, 6).

Gorbulov-4. The settlement is situated one-and-a-half kilometres to the east wavelooking height is stretch. The village road crosses at this height. The square of the height is 300 m x 100 m. During the brief excavation two pits, 1.5 m in diameter

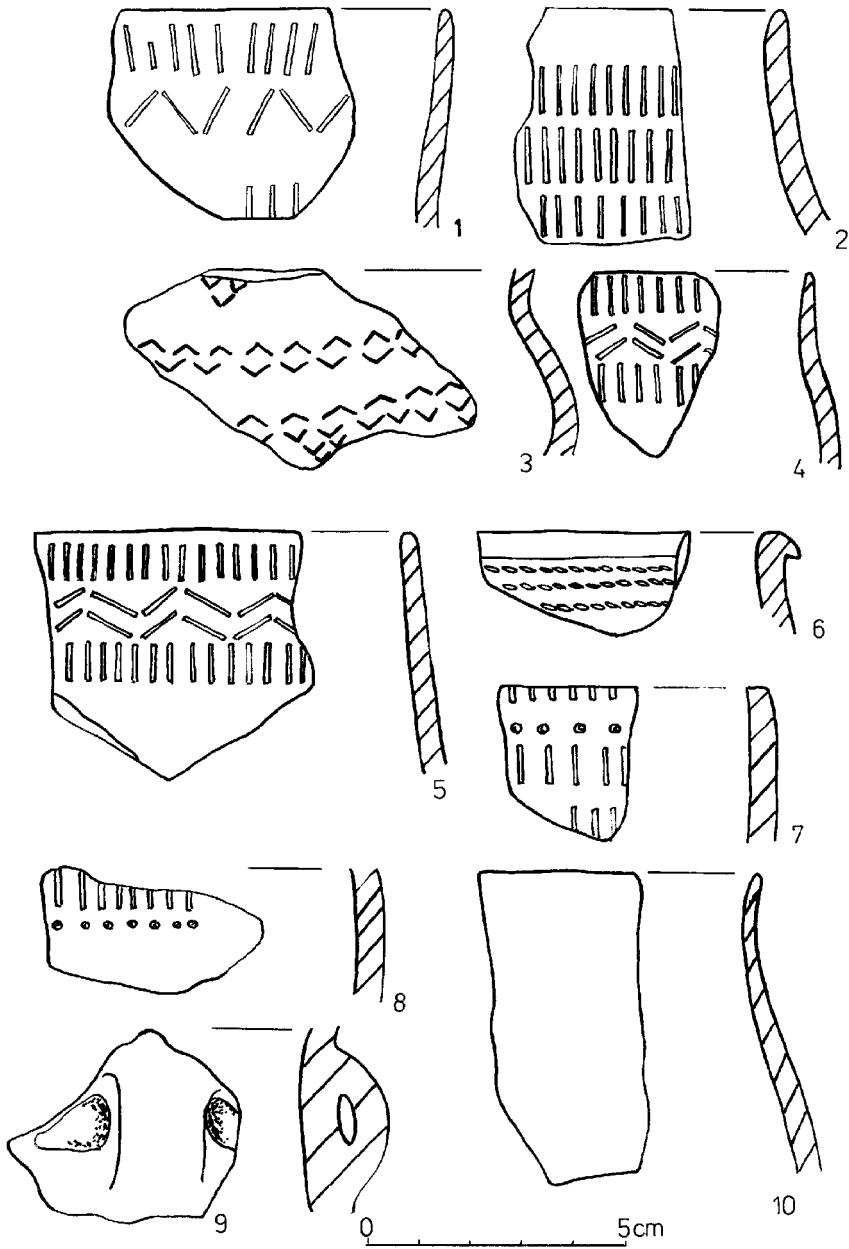


Fig. 1. Pottery from the eastern part of GAC territory. 1,3 - Slavuta, 2,4-10 - Khichiv

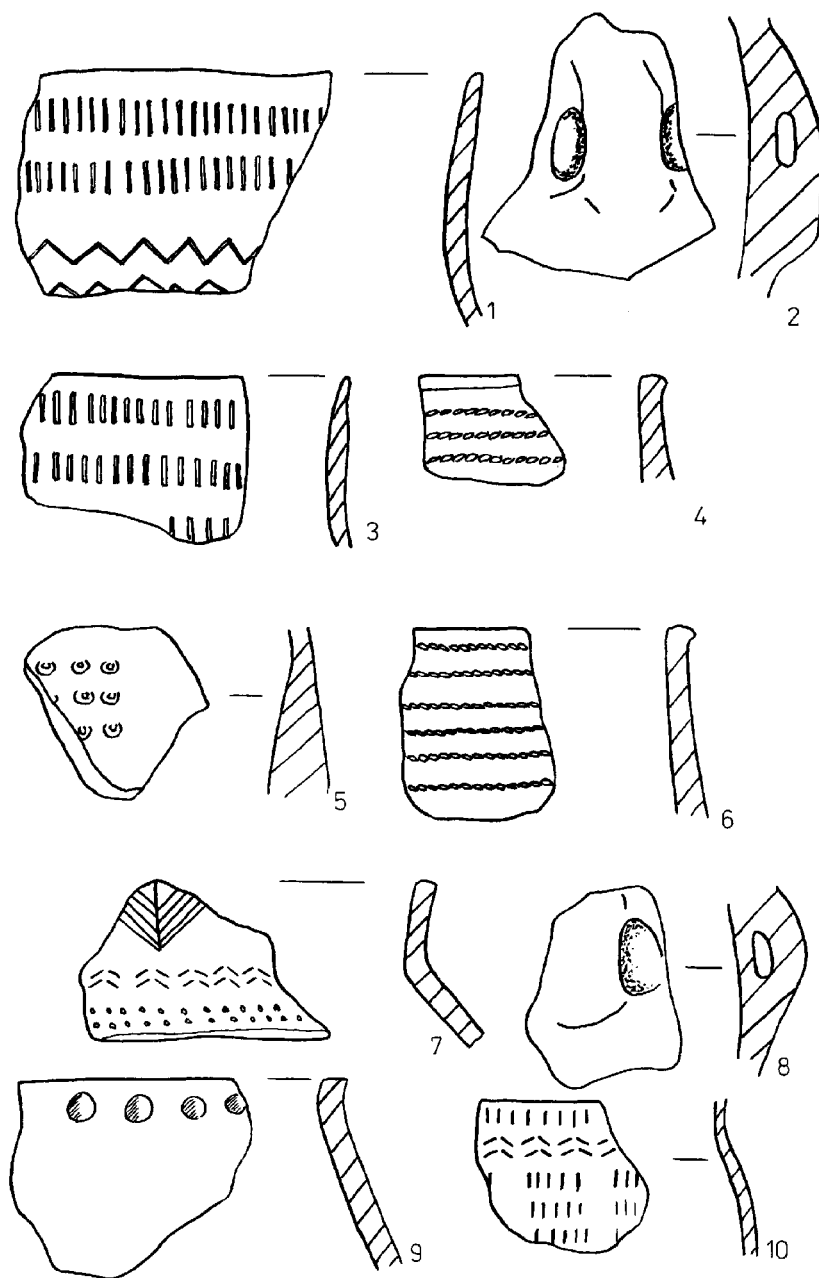


Fig. 2. Pottery from the eastern part of GAC territory. 1,3 - Neverovka, 2,4 - Vorovskoye, 5-10 - Gorbulov

were uncovered. They were filled with sand, ashes, and charcoal. The pieces of GAC vessels, flint axes, bits, and plates, were found in the pits. The half of a wheel, tooth-like in appearance, and made of clay (ceramic stamp) was found. The settlement was investigated many times, so the ceramic, except the pits, were discovered in weak cultural stratum, not more than 10 cm in strength.

The ceramic collection of the Gorbulov settlement although not large, but make presentation about shape of vessels from one side and show the identical with materials of settlements, that were described before (Fig. 2:7,10;3).

All points settlements are situated in the same topographical conditions, in an environment of meadows, marshes, peateries, near water and pasture. The small number of cultural remnants and weak cultural strata prove that they were short-lived.

In terms of identification and chronology, the ceramics of the settlements display no discernible differences. Vessels are slim-walled, the thickness of walls usually being 0.3-0.4 cm. The admixture was quartzite and ilmenite, minerals that were widely spread in this region, and that proved the ceramics were produced here. Bare is unequal. The colour of the surface is from light-grey to black, although there were present some pieces with a red surface.

All ceramic is clearly divided into two groups. One of them is well-represented in the materials of graves and distinguished by its rich decorations. Most of the pieces belong to the amphoraes and amphoraes-looking vessels with a high narrow neck, convex body and flat bottom. The neck is usually sharpened. Many pieces have handles with oval across orifices. As we can imagine, the neck and upper-part of the vessel were covered with ornaments.

This ceramic group is decorated with imprints of a firmly straight-angle stamp (wooden or bone). It has a strict size: width — 1.5 mm, length 1-2 cm. With this stamp some (two-four) rows on the neck were decorated, parallel to the of neck. Often rows are interchanged with zigzag-looking lines or circles, done with a round-ended stick.

The rarer finds are those pieces that are decorated with „fish-scales”, most part of them having been found near the town Slavuta in the Khmielnitsk region.

The second ceramic group, initially called kitchen, is decorated monotonously, with little pits under the halo and in the middle of the body. The pits have different shapes, and were impressed with fingers or sticks. The surface of these ceramics is rough, without any polishing [Berezanskaya, Pyaseckiy 1979:78].

It is necessary to dwell on the particular ceramic group decorated by a cord. There are pieces of necks decorated by horizontal rows of slim cord imprint. The walls of these pieces are a little thicker than others, the neck is decorated originally (Figs. 1:6; 2:4, 6; 3:3). The structure of the dough and the treatment of the surface are identical to that of other items, but some morphological signs distinguish it.

This ceramic is representative of the contact area between the sites of the Podolia and Dnieper, that would be described later. S. Berezanskaya considered that this ceramic could not be included in the GAC ceramic complex.

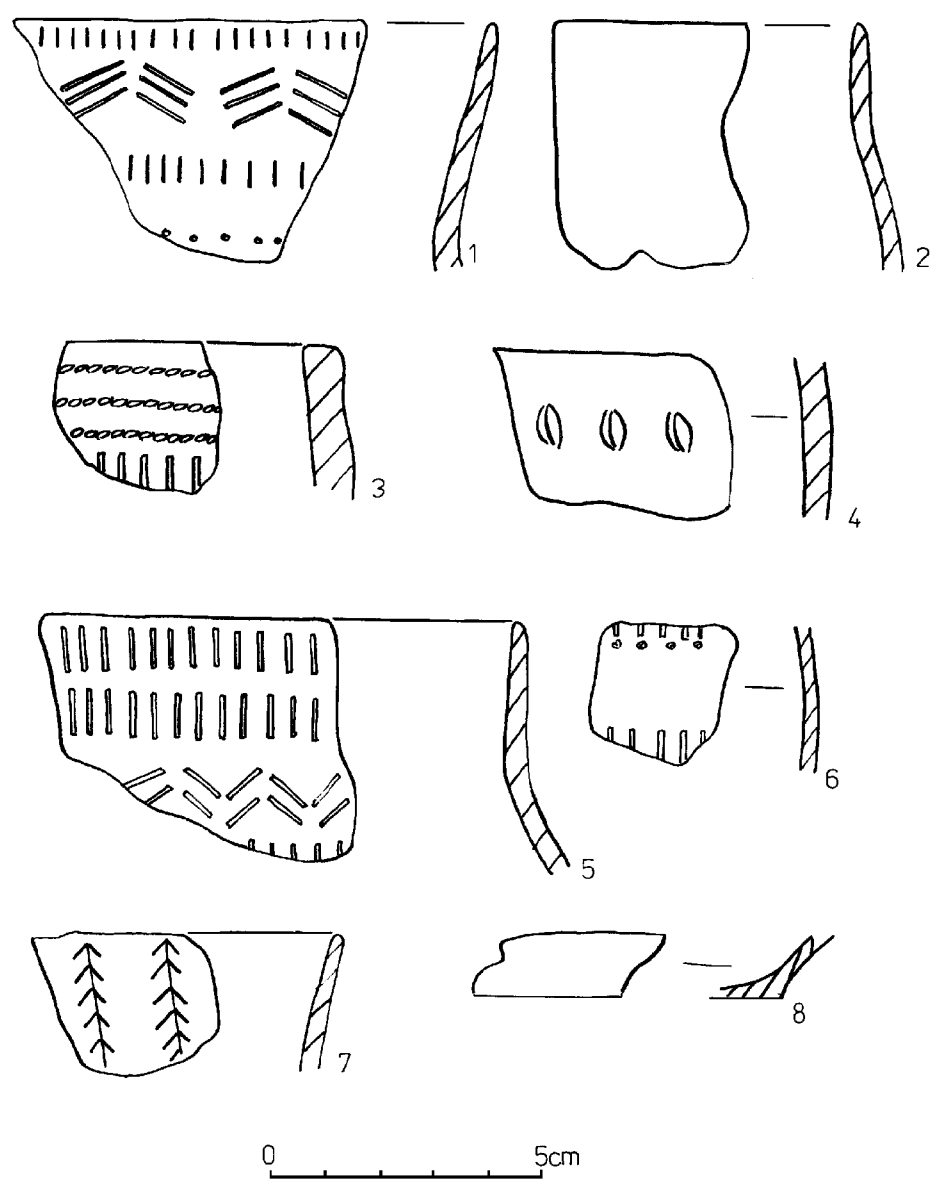


Fig. 3. Pottery from the eastern part of GAC territory. 1-10 - Gorbulov

The settlements could not be dated by the artefacts but they were synchronous with the cemeteries known in the Zhitomir region. Thus, this group of sites did not exist in time with the Volhynian and Podolian variants of the eastern group of GAC, which belongs to the late Neolithic period.

The settlement described above did not provide new information about the eastern group of GAC in the context of basic knowledge of this problem. It is interesting that the eastern part of the eastern group of GAC was well settled. This region took an active part in the economic life of GAC.

The next sites group is unique. This uniqueness is explained by two things. First, this group is situated in the main area of GAC — the northern part of the Zhitomir region, the Chernigov region, and the Kanev district of the Cherkasy region. Second, the features of pottery are distinguished and do not resemble classic GAC ceramic.

These sites were found in the territory of the Middle Dnieper region which was settled by the Yamnaya culture in the Early and Middle Bronze Age. The settlements of these tribes are unexplored, but sites with Yamnaya culture ceramic are well-known. Such a situation makes it impossible to describe the contacts of these tribes and the GAC population and to synchronise them in time. The pottery of these two cultures was never found together. The sites of this group are not well-presented in terms of information. They are mixed and usually have materials of different ages. Pottery that illustrates the independence of the named sites was chosen for its similarity with the classic eastern group GAC ceramics. But the question of its belonging to the GAC is open, so we may therefore label it „ceramic with GAC elements”. The eleven sites with this ceramic were explored.

Zhitomir region, Narodichi district.

Khristinovka. Potsherds of four vessels which belong to the GAC ceramic.

1. A fragment of amphorae with lug. The thickness of the wall is 0.6 cm. It is pasty with a chamotte admixture. It was decorated with a classic right-angled stamp, but with some changes (Fig. 4:1).

2. Potsherd of a neck. The thickness of the wall is 0.5 cm. It is pasty with a chamotte admixture. It was decorated with right-angled stamp and prints of a round stick (Fig. 4:2).

3. A potsherd of a bowl. The thickness of the wall is 0.3 cm. It is pasty with a chamotte admixture. It is decorated with three rows of stamp that form a „fir-tree” (Fig. 4:3).

4. A potsherd of the bottom part. The thickness of the wall is 0.4 cm. It is pasty with a chamotte admixture. It is decorated with two rows of right-angled stamps (Fig. 4:4).

Zvzdale. Two fragments of GAC ceramic.

1. A potsherd with bend. The thickness of the wall is 0.4 cm. It is decorated with two prints of a cord and a row of stamps (Fig. 5:1).

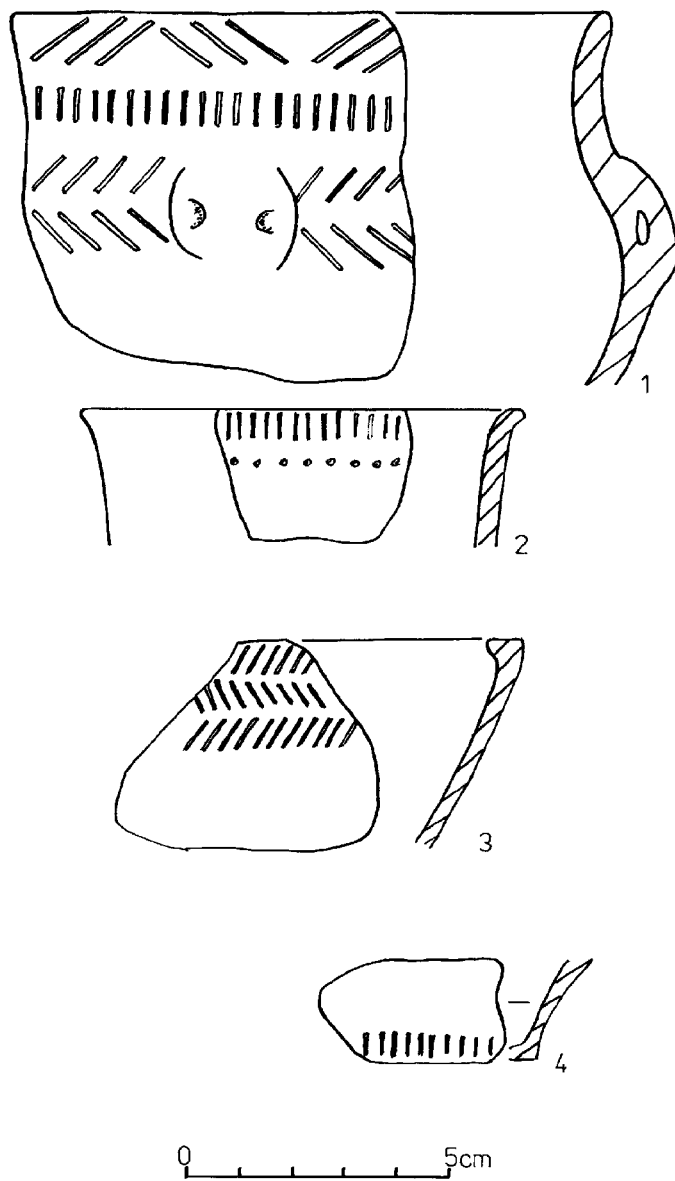


Fig. 4. Pottery with GAC elements. 1-4 - Kristinovka

2. A potsherd of a neck. The thickness of the wall is 0.4 cm. It is decorated with a right-angled stamp and a row of corded-crosses (Fig. 5:2).

Grezya. Three fragments of GAC ceramic.

1. A potsherd of shoulder with lug. The thickness of the wall is 0.7 cm. It is pasty with a chamotte admixture (Fig. 5:3).

2. A potsherd of a neck. The thickness of the wall is 0.4 cm. It is pasty with a chamotte admixture. It is decorated with three rows of comb-stamps (Fig. 5:4).

3. A potsherd of the lid (?). It is pasty with a quartzite admixture. It is decorated with a right-angled stamp. (Fig. 5:5).

Kiev region. Konche-Zaspa. Two fragments of one vessel.

1. A potsherd of amphora (?). The thickness of the wall is 0.3 cm. It is pasty with a quartzite admixture. It is decorated with a right-angled stamp that forms the „parquet” pattern (Fig. 6:1).

Starosele (Baryshev district). Fragments of five vessels.

1. A potsherd of a neck. The thickness of the wall is 0.4 cm. It is pasty with a chamotte admixture, and 9 cm in diameter. It is decorated with a right-angled stamp (Fig. 6:2).

2. A potsherd of a neck (amphorae). The thickness of the wall is 0.3 cm, 12 cm in diameter. It is decorated with a row of right-angled stamps, a row of zigzag printed by a stamp, and on the body a row of right angled stamps (Fig. 6:3).

3. A potsherd decorated with rows of right-angled stamps, a round stick and comb-stamp zigzag (Fig. 6:4).

4. A potsherd of a neck. The thickness of the wall is 0.4 cm. It is pasty with a chamotte admixture. It is decorated with a right-angled stamp (Fig. 6:5).

5. A potsherd of a neck. The thickness of the wall is 0.5 cm. It is decorated with a nail-print (Fig. 6:6).

Kozintsy. (Pereyaslav-Khmelnyski district). On the Zagay site were found two potsherds of a vessel. The thickness of the wall is 0.3 cm. It is decorated with a comb-stamp and a row of round-sticks (Fig. 7:1, 2).

Cherkasy region. Kanev. A potsherd of a vessel. The thickness of the wall is 0.3 cm. It is pasty with a chamotte admixture. It is decorated with right-angled stamps and a comb-stamp zigzag [Bondar 1974] (Fig. 7:3).

Khmelna (Kanev district). On the Dubrovka site were found two fragments of a vessel with lugs, decorated with a right-angled stamp. The thickness of the wall is 0.5 cm. It is pasty with a chamotte admixture (Fig. 7:4).

Chernigov region. Obmachevo (Bakhmach district). Three fragments of GAC ceramic.

1. A potsherd of a neck. The thickness is 0.5 cm, and it is 14 cm in diameter. It is decorated with a row of right-angled stamps, zigzag with lines (Fig. 7:5).

2. A potsherd of a vessel decorated with rows of cord-stamps and right-angled zigzag stamps (Fig. 7:7).

3. A potsherd of a neck. It is decorated with cord-lines. The thickness of the wall is 0.4 cm (Fig. 7:6).

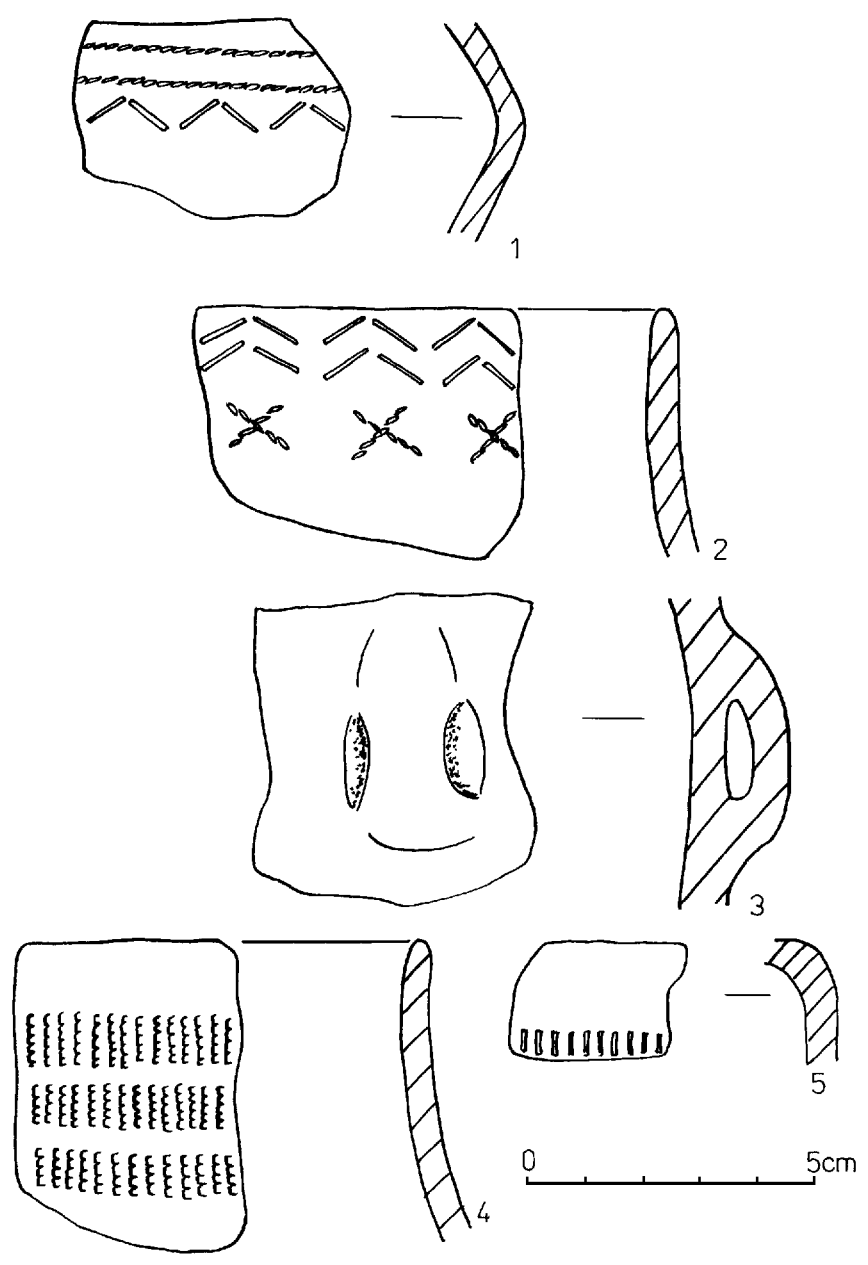


Fig. 5. Pottery with GAC elements. 1-2 - Zvizdale, 3-5 - Grezlya

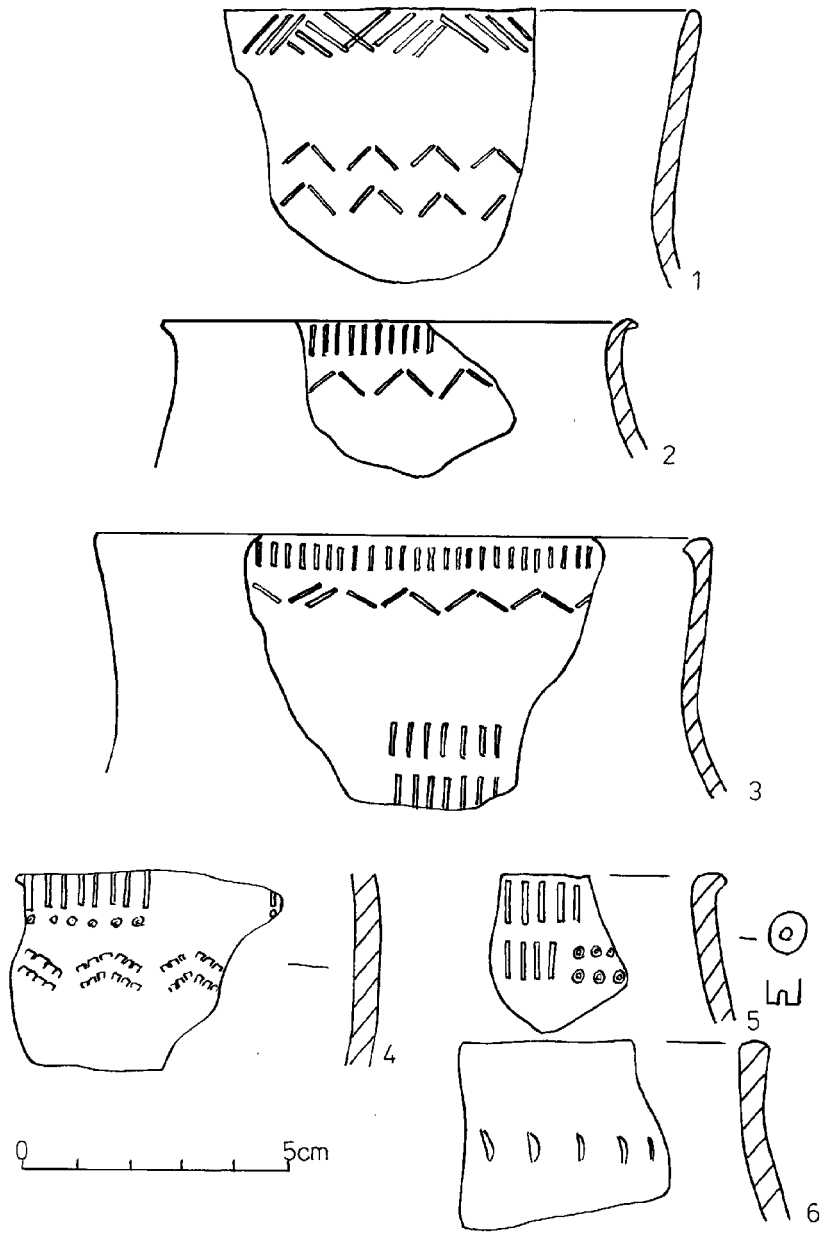


Fig. 6. Pottery with GAC elements. 1 - Konche-Zaspa, 2-6 - Starosele

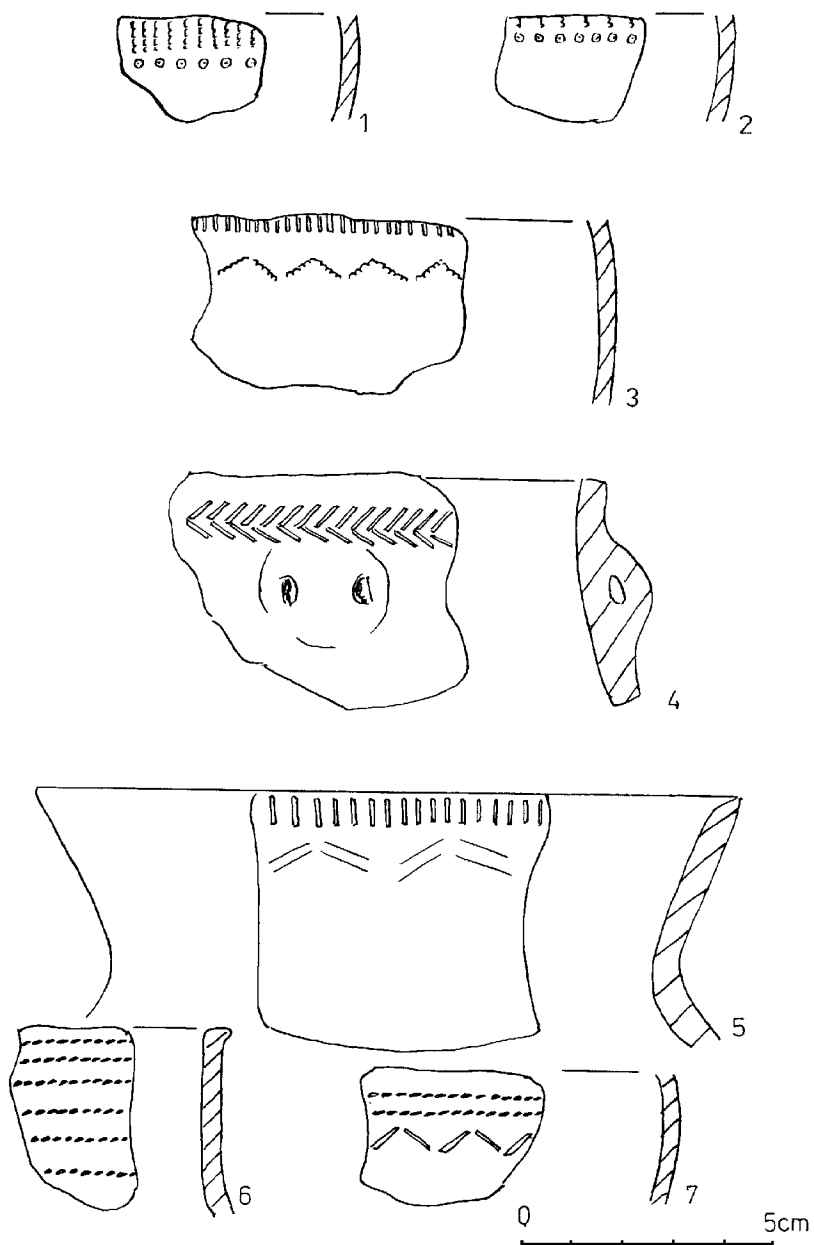


Fig. 7. Pottery with GAC elements. 1-2 - Kozintsy, 3 - Kanev, 4 - Khmelna-Dubrovka, 5-7 - Obmachevo

One-and-a-half kilometres up the river on the left bank of the river Seym one fragment of GAC ceramic was found. The thickness of the wall is 0.4 cm. It is decorated with a right-angled stamp and drawn-lines.

The new sites force us to re-examine the processes that took place in the Middle Dnieper region during the Eneolithic-Bronze Age. All pottery was found in the same topographical situation as the settlements of the eastern group of cultures. But the character of these sites is not determined. Their context is also unknown.

Thus we could not name these sites settlements, but we can state that they were well-known in the whole territory of GAC.

The named artefacts also belong to the ceramic tradition of GAC. But they have some distinguishing features. Call them:

1. Moulding of the vessels: a/ Drawing off the end of the neck (Figs. 4:2; 6:2, 3, 5; 7:6); b/ Bend of the wall, forming the rib (Fig. 5:1); c/ Saddling of the neck, which makes it salient (Fig. 6:3); d/ Bi-conic body (Fig. 5:1); e/ Socket-neck of the vessel (Fig. 7:5).

2. Technique of decoration: a/ Comb-stamp (Fig. 5:4; 6:4; 7:1, 3); b/ Round-stamp with salient inside — „bird's feather” (Fig. 6:5).

Decoration: a/ Chosen composition by transposition of the links (Fig. 5:2, 6:1); b/ Horizontal „fir-tree” ornament (Fig. 4:1; 7:4); c/ Rows of oblique stamps (Fig. 4:1,3); d/ „oblique cross” (Fig. 5:2); e/ „parquet” ornament (Fig. 6:1); h/ Vertically drawn lines between squares formed with a right-angled stamp.

The technological features are present in a great number of vessels with chamotte admixture and red colour of pottery surface.

These materials very expressive, but not numerous, so any conclusions are premature. These sites need thorough archaeological exploration. We can assume that this ceramic represents the link between classic GAC and its ceramic tradition in the time of Middle Bronze Age.

Concerning the graves, we have no information. Possibly, some graves in pits did not belong to the Yamnaya culture (as we know in Moldavia). Only one GAC grave is known in the steppe zone of Ukraine.

In the forest-steppe and forest Dnieper investigations leading to the apportionment of different ethnic groups among the burials in its is only beginning. The possibility of determining such groups of burials, which may be connected with GAC's bearers, is not excluded. The finds of the axes made of grey stone, characteristic for the GAC in the territory of this region, are positive data for such a statement of the problem. Three such finds are known to the author: one axe is from the Cherkasy region, two of them are from the Kiev region. Unfortunately, the conditions of their discovery are not documented, goods are found by chance, and it is impossible to connect them with any complex. But the fact finds in themselves is evidence of the accuracy of the statement of the problem that the GAC's elements, probably, are not apportioned from the series of burials which are attributed to the Yamnaya culture at present.

2. ELEMENTS OF GAC IN THE BRONZE AGE STRUCTURES IN THE MIDDLE DNEIPER REGION

We turn to the description of objects in the Middle Dnieper region, which in our opinion have the elements inherent in the tradition of GAC in ceramic complex.

The question will be about numerous settlements of the Middle Bronze Age known in the Middle Dnieper region (they belonged to the Early Bronze period in the system of European chronology, according to dating of GAC in Europe).

The data about settlements were accumulated from the end of the last century, and systematic excavations and prospects began in the forest-steppe of the Dnieper region in 1945. T. Passek, investigating the locations in the Kanev area (Cherkasy district), dated them to the time of CC, taking into account specific forms and ornamentation of ceramic, with which one can consider Catacomb ceramic [Passek 1945:14-28]. At the same time, prudent opinion, obviously, was conditioned by the presence of particular elements of forms and pottery ornamentation not connected with the Catacomb tradition.

The number of those supporting the idea that the settlements belonged to the Catacomb tradition increased along with the accumulation of materials. T. Popova distinguished the particular Middle Dnieper variant of CC, where corded ceramic, ceramic with multi-rolled ornamentation, and pottery with the impression of right-angled stamps was considered as an indivisible complex [Popova 1955:67-73].

From the beginning of excavations on a wide-scale in the Kanev area in the nineteen sixties, the situation in the determination of the assignment of cultural monuments was changed. Excavations made at the object Iskovshchina (in Kanev) [Berezanskaya, Bondar 1964:32-51] served as a determinant in *volte-face*. In settlements the fragments of several potteries among more than 200 ceramic units were found. They are analogous to funeral stock sets of MDC, which were picked-out according to the materials of graves on right side of the Dnieper [Gorodtsov 1914]. Based on the finds of such ceramic in the settlement Iskovshchina, the leaders of excavations included this monument in the range of objects of MDC.

For the time being, the revision of cultural attribution of these monuments is continuing. The works of S. Berezanskaya, I. Artemenko, and N. Bondar, dealing with settlements such as Iskovshchina, are devoted to the evidence of their belonging to MDC. A similar point of view, however, was accepted only later by investigators of the Bronze Age in Ukraine.

O. Shaposhnikova did not agree with the unconditional assignment of monuments such as Iskovshchina to CWC [Shaposhnikova 1971:28-42], and she offered as a matter of fact a point of view aiming at a compromise. According to this point of view, the Middle Dnieper region was occupied by tribes of the CWC and CC during the Bronze Age. Paying attention to the similarity of several monuments and materials of CC on the Middle Dnieper and materials of settlements such as Perun in Nadporozhye, where the presence of Catacomb components is incontestable, the

author points out the ceramic's peculiarities in settlements of the Middle Dnieper region. She connects them with the presence of MDC elements.

S. Bratchenko recognised the presence of a Catacomb population in the forest Middle Dnieper region to a certain degree. This article dealing with the addition of Mnogovalikovaya culture (Babinskaya, following the author's terminology) is about the participation of a Catacomb component in this process. This component is noted for the monuments of the country between the Don and Dnieper. As a whole, the article was not dedicated to the evidence of Catacombs belonging to the monuments of the Middle Dnieper region and the author did not corroborate this thesis by detailed argumentation [Bratchenko 1977:36].

After the article had appeared languid discussion was discontinued. The following works, dealing with archaeology and the history of the region, including generalised editions and training aids, consider forest Dnieper as having been settled by tribes of MDC. The forest Dnieper was found excluded from the territory which the Catacomb population inhabited. The northern boundary of the CC was drawn along the frontier of steppe and forest-steppe [Bratchenko, Shaposhnikova 1975:403-420].

I. Artemenko offered a scheme of adding stages of cultural development, determined the chronological framework of its existence, and considered economic and social aspects of MDC tribes' lives [Artemenko 1985:364-375; 1987:35-51] in his concluding works dealing with the research of the monuments of the Early Bronze Age.

As to noticeable Catacomb indications of ceramic in settlements, the author settled the problem by means of choosing a contacting zone between Corded and Catacomb tribes in the southern belt of the forest-steppe. Since that time such a view has not been called into question, except for single corrections regarding chronology, and the cultural assignment of the monuments.

But the paradox of the situation is that archaeological material decidedly contradicts what previously seemed to be a harmonious and clear system of ideas about the archaeology of Middle Dnieper region during the period of the Bronze Age. It is necessary to revise almost all the field's theses: a monument's origin, chronology, division into periods, even assignment to a culture of all similar settlements. The task of investigators is one that can be worked out only by using new methods to approach the problem.

The materials of the settlements of the Iskovshchina-type are divided into groups. Ninety percent of the vessels belong to the CC — historical community — and the last group belongs to the MDC, pieces of which were found only in a few sites [Serdyukova 1989:206-207; 1994:1-17].

The appearance of Catacomb tribes in the Middle Dnieper region is necessary to make a connection with the population's advancement from Nadporozhye, reserving the objects of the Perun type, up the Dnieper. The riverside regions and left-bank tributaries are developed. The ceramic complex of the Catacomb population occurs in an already formed appearance in the territory of the Middle Dnieper

region, and it has no local prototypes. The funeral complexes which are found in the region, and numerous accidental finds of Catacomb goods, do not contradict the Catacomb categorisation of the objects under review. On the other hand, the CWC objects in the Middle Dnieper region are heterogeneous. There are such objects which may be attributed to the early CWC complexes among them. They are: burial with amphora of type „A” in Grishentsy, the complexes with Strzyżów ceramic, the burial of the Subcarpathian culture’s early period at Volodarka, and also ceramic, found at the settlement, which may be attributed to the materials of the MDC [Serdyukova 1994:8].

Thus, the picture of the settlement process in the Middle Dnieper region during the time of our interest is more complicated than it seemed before. The complication of its perception is connected with the fact that the traits, looking alien both to the Catacomb, and to the MDC’s ceramic traditions, are in the ceramic complex of the settlements. These traditions cannot be connected with Yamnaya culture, which is considered as having been present previous to the objects of the Iskovshchina type in the given territory. Some elements, inherent in Catacomb objects in the region to the north of Kiev, may be considered Maryanovka, which appeared owing to contacts of the alien Catacomb population and the Maryanovka tribes, living in Desna.

The other specific traits which in our opinion must be carefully regarded in light of the Catacomb interpretation of the objects should be connected, probably, with ceramic traditions of GAC.

Let us consider how such traditions became apparent in CC ceramic.

Four types of vessels are distinguished. These vessels are inherent in the ceramic complexes of settlements such as Iskovshchina: high-neck pots (the ratio of the neck height to the diameter of the rim = 1:6, 1:7), middle-neck pots (the ratio of the neck height to the diameter of the rim = 1:8 – 1:10), short-neck pots (the ratio of the neck height to the diameter of the rim 1:11 – 1:20), without neck pots.

High-neck vessels have a three-part profile, socket neck, and salient sides. Such pots are known in late Catacomb objects of the territory between the rivers Don and Dnieper and are distinguished by specific ornamentation, made by single-line and polyline cord, by different stamp impressions, pressing, and drawn lines. Their ornament is also original: horizontal lines on their necks, triangles, zigzag, and semi-circumference on the trunk. The vessels are often decorated by horizontal lines of impressions of different stamps, disposed like a „fir-tree” (Fig. 8:2). This system of picture and method of an ornament’s placement are characteristic of all late Catacomb potteries. However, we also meet other graphic devices on the vessels of this type in the Middle Dnieper region, and these devices are not known in the other territories occupied by Catacomb tribes.

The distinctive peculiarity is an application of a right-angled stamp, standing vertically. It is also characteristic that the frequency of its placement on the pottery reiterates the traditions, known in GAC ceramic. Both compositions, especially those

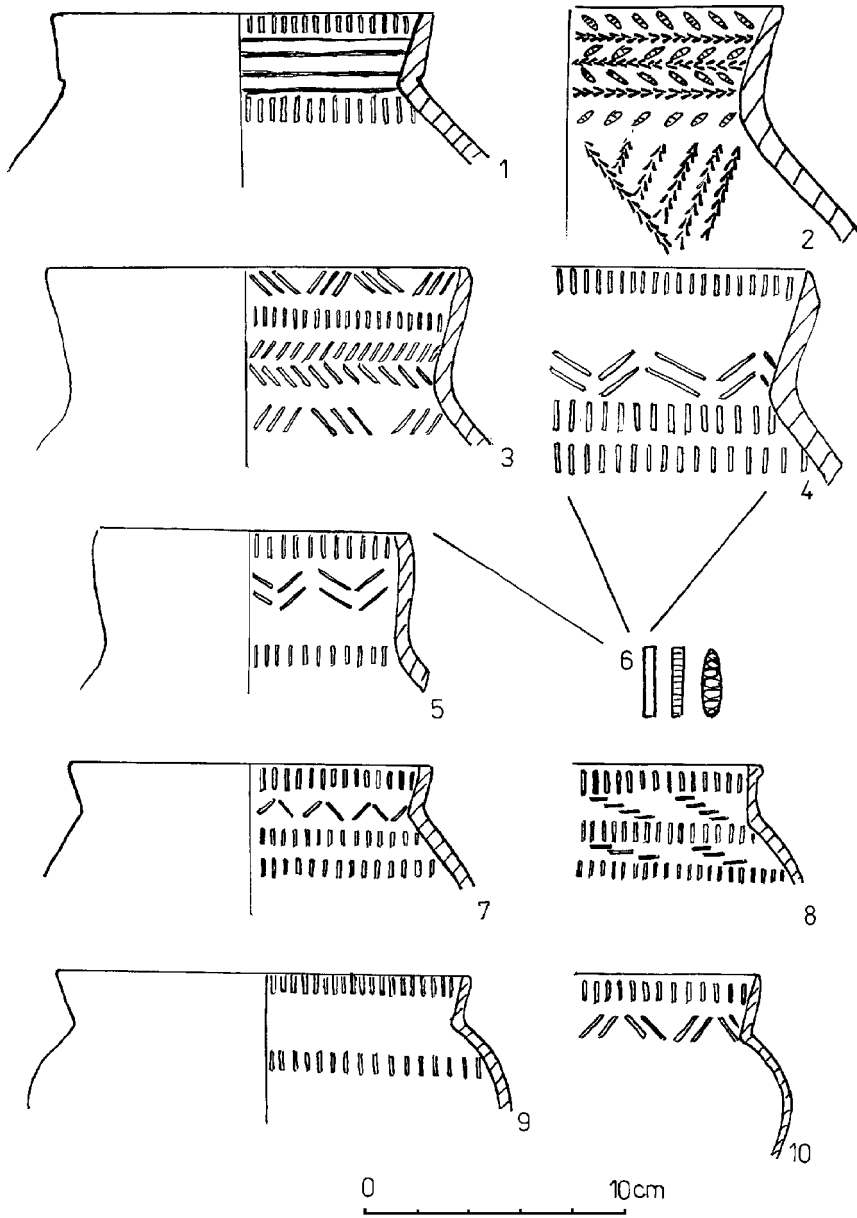


Fig. 8. Elements of the tradition of GAC at the Catacomb culture's pottery from Middle Dnieper region

peculiar to the Catacomb graphic style, and those which reiterate the peculiarities of the GAC style, are imprinted with this stamp (Fig. 8; 9:1-9).

Wide-spread composition of GAC amphorae — the alternation of vertically standing impressions of a right-angled stamp and the lines of zigzags — both single and double all become characteristic of the graphic manner of Catacomb objects in the region. It should be noted that such a transmission of an imprint is taken by Catacomb ceramic complex so much that the subject is implemented by a right-angled stamp interwoven by thread, a comb-shaped stamp, or a so-called „caterpillar”. The ornamentation with a vertically standing stamp is used for other subjects — all surfaces of the pottery or part of it is covered with this stamp.

The same graphic methods become characteristic of other types of vessels, especially for the pots with a short neck. We observe different modifications of the subject which is popular in GAC — the alternation of vertically standing right-angled stamps and zigzags (Fig. 9:1-8). It should be noted that the manner of decoration by the stated subjects is not peculiar to Catacomb ceramic, and it has the characteristic horizontal placing of elements alternating with the motif „fir-tree”, also disposed horizontally.

Some less but expressive-enough such methods of imprint are represented on the short-neck and without neck (Fig. 8:7-10; 9:9).

The application of the graphic methods described above is distributed unevenly throughout the Middle Dnieper region. It is represented to a lesser degree in the objects of the Kanev group than in the objects of the Kiev group.

In the Kiev group we meet a modification of high-neck vessels' type — these pots have straight, at times somewhat salient sides. Vessels are ornamented also in a manner which shows the development of graphic methods, ascending to the GAC tradition (Fig. 8:5). As a rule, these pots are thin-walled (the wall thickness is less than 0.5 cm), and their surface is smoothed, at times to a polished state.

To a far less degree we meet another motif, characteristic of the GAC graphic tradition: alternations of lines with vertically standing right-angled stamps impressions below (Fig. 9:6).

MDC ceramics are found a little at the settlements of the Iskovshchina type. However, we observe some elements of the GAC ceramic style on the glass-shaped vessels found in the settlement Kozintsy and Trakhtemirov. Such an application of a right-angled stamp, standing vertically, the character of the stamp's dimensions and impressions (their frequency) are those most closely co-ordinated with GAC traditions (Fig. 9:10, 11).

There are such elements in the ornamentation of Catacomb ceramic which are general for many Eneolithic cultures in the Bronze Age in Europe, including GAC — these are triangles, the lines of inclined lines, framed by fringe. There is no point in connecting them genetically, but the community of imprint, probably, reflects also the community of ideology. Therefore, the adoption of seemingly alien subjects in the ornamentation of pottery looks to be an organic occurrence.

Thus, on the one hand, we have substantial evidence as to the presence of

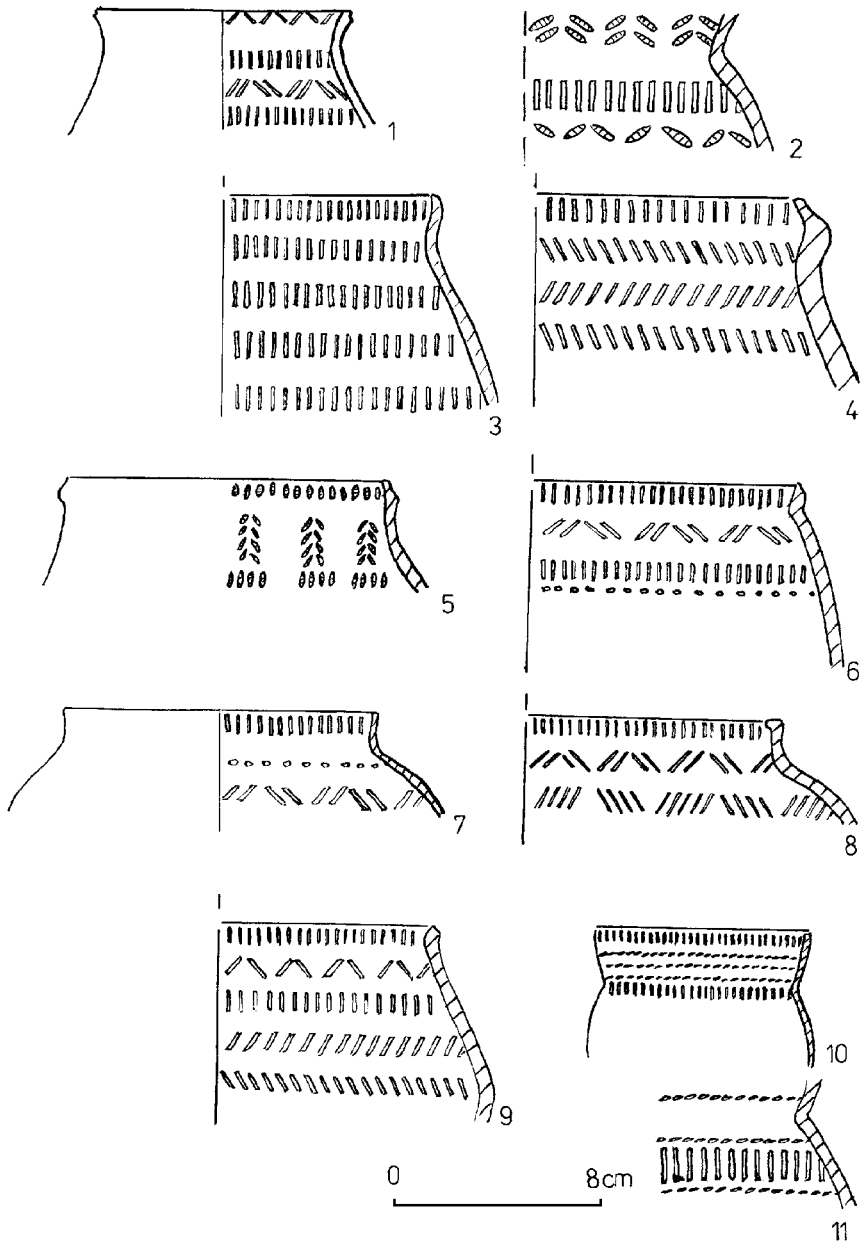


Fig. 9. Elements of the tradition of GAC at the Catacomb culture's pottery from Middle Dnieper region

GAC ceramic elements among a small number of finds in the Middle Dnieper region (the second group of the objects, described above); on the other hand, we see how graphic traditions of GAC are grasped and interpreted in the ceramic of the settlements in the Middle Bronze Age in the region under review. The confusion as to the concepts Early and Middle Bronze Age is connected with the fact that, for the present, MDC objects are considered as having formed the range of GAC objects, as they were included in the European system of division into periods, and they should be attributed to the division into periods in Ukraine and included in the middle period of the Bronze Age in the presence of the view of them as belonging to the Catacomb culture-historical community.

3. CONCLUSIONS

The problem of the inclusion of GAC ceramic traditions into the ceramic complex of cultures in the Middle Dnieper region is open for the present. The fortune of GAC tribes living in on Ukrainian territory is not completely clear. As is generally known, GAC objects extended to the upper reaches the Dnieper [see in this volume: Shmidt, Szmyt, Ritual...]. Probably, the influence on Ukrainian regions should be connected with Belorussian territory, where the settlement of GAC were found. The presence on the ceramic fragments of GAC elements of signs, known in the ceramic complex of the Bronze Age cultures in the Middle Dnieper region (the application of a comb-shaped stamp, the design of a halo's brim by different bulges, biconic form of the profile and the rest), is probably evidence of the coexistence of separate GAC groups with bearers of the Middle Bronze Age cultures. In such a case, subsequent efforts to solve this problem must be connected with the search for criteria for the apportionment of the late period of GAC existence. It is necessary to conduct systematic investigations of this type in the stated territory.

Translated by the author and James Grossklag

ABBREVIATIONS

AAC	– Acta Archaeologica Carpathica, Kraków.
AO	– Arkheologicheskiye otkrytiya, Moskva.
BPS	– Baltic-Pontic Studies, Poznań.
JIES	– The Journal of Indo-European Studies, Berkeley.
KSIA	– Kratkiye soobshcheniya Instituta Arkheologii, Moskva.
KSIA AN USSR	– Kratkiye soobshcheniya Instituta Arkheologii AN USSR, Kiev.
MIA	– Materialy i issledovaniya po arkheologii, Moskva.
SA	– Sovetskaya Arkheologia, Moskva.

REFERENCES

- Antoniewicz W.
1938 Z dziedziny archeologii ziem Polski. *Światowit* 17 (1936): 341-422.
- Arkheologiya
1985 *Arkheologiya Ukrainiskoy SSR*, 2nd edition, vol.1. Kiev.
- Artemenko I.
1985 Srednedneprovskaya kultura. In: *Arkheologiya Ukrainiskoy SSR*, vol.1, 364-375. Kiev.
1987 Kultury rannego bronzovogo veka yuzhnoy polosy lesov Evropeyskoy chasti SSSR. In: *Epokha bronzy lesnoy polosy SSSR*, 35-51. Moskva.
- Äyräpää A.
1933 Über die Streitaxtkulturen in Russland. *Eurasia Septentrionalis Antiqua* 8: 1-160.
- Beier H.J.
1988 *Die Kugelamphorenkultur im Mittelbe-Saale-Gebiet und in der Altmark*. Veröffentlichungen des Landesmuseums für Vorgeschichte in Halle, Band 41. Berlin.
- Berezanskaya S.
1975 Neolitieskaya stoyanka u khut. Grischevka na Sredney Desne. *SA* 2: 148-167.
- Berezanskaya S., N. Bondar
1964 Poselennya epokhi rannoy bronzy v Kanevi. *Archeologiya* 17: 32-51.
- Berezanskaya S., V. Pyasetskiy
1979 Pershe poselennya kultury kulyastykh amfor na Ukraini. *Archeologiya* 30: 75-82.

- Bondar N.
1974 *Poseleniya Srednego Podneprovya epokhi ranney bronzy*. Kiev.
- Bratchenko S.
1977 K voprosu o slozheni babinskoy kultury mnogovalikovoy keramiki. In: *Vilnyanskiye kurgany v Dneprovskom Nadporozhye*, 21-42. Kiev.
- Bratchenko S., O. Shaposhnikova
1985 Katakombnaya kulturno-istoricheskaya obshchnost. In: *Arkheologiya Ukrainskoy SSR*, vol.1, 403-420. Kiev.
- Breunig P.
1987 *14C – Chronologie des vorderasiatischen, südost- und mitteleuropäischen Neolithikums*. Köln-Wien.
- Bryusov A.
1952 *Ocherki po istorii plemen evropeyskoy chasti SSSR v neolicheskuyu epokhu*. Moskva.
- Charniauski M.M. (Cherniavski M.M.)
1969 Pogrebeniye bronzovogo veka vozle m.Kuranets. In: *Tezisy dokladov k konferentsii po arkheologii Belarusii*, 59-62. Minsk.
1972 Mogilnik na Rosi. In: *Pomniki gistory i kultury Belarusi* 4.
1979 *Neolit Belaruskaga Paniamonnya*. Minsk.
1987a Kamenniy i bronzoviy veka Poniemanya i Podvinya. In: *Belorusskaya Arkheologiya*, 37-48. Minsk.
1987b The Neolithic in north-western Byelorussia. In: T.Wiślański (Ed.) *Neolit i poczatkii epoki brązu na ziemi chełmińskiej*, 429-440. Toruń.
1992 Mogilniki kultury sharapadobnykh amfar na Grodzenshchynie. In: *Z glybi vyakov. Nash Kray*, 5-15. Minsk.
1995 BY 1 Krasnaselsky, Grodna Province. By 2 Karpautsy, Grodna Province. Ancient flint mines in Belarus. *Archaeologia Polona* 33: 263-269.
- Charniausky M.M., V.Y. Kudrashov, V.L. Lipnitskaya
1996 *Starazhytniya shakhtsyory na Rosi*. Minsk.
- Chernysh E.K.
1982a Eneolit Pravoberezhnoy Ukrainy i Moldavii. In: *Eneolit SSSR*, 166-252. Moskva.
1982b Pamyatniki sinchronnykh Tripolyu kultur Yugo-Zapada SSSR. In: *Eneolit SSSR*, 253-263. Moskva.
- Childe V.G.
1925 *The Dawn of European Civilization*. London.
1930 *The Danube in Prehistory*. Oxford.
- Czebreszuk J.
1990 Late horizon of the Globular Amphorae culture versus other cultural structures of the Neolithic-Bronze Age interstage. Problem of system disintegration. In: *New tendencies in studies of Globular Amphora culture*. Archaeologia Interregionalis 14, 113-136. Warszawa-Kraków-Poznań.

Czebreszuk J., P. Makarowicz

- 1993 The problem of amber buttons with V-shaped perforation in the Bell Beaker culture. In: *Actes du XIIe Congrès International des Sciences Préhistoriques et Protohistoriques*, 1-7 Septembre 1991, vol.2, 529-532. Bratislava.

Dergachev V.A.

- 1982 *Materialy raskopok arkheologicheskoy ekspeditsii na Srednem Prute (1975-1976)*. Kishinev.

- 1986 *Moldavia i sosedniye territorii v epokhu bronzy*, Kishinev.

Dergachev V.A., I.V. Manzura

- 1991 Evropeyskiy komponent maykopskoy kultury v kontekste vzaimosvyazyey tsentralno- i vostochnoevropeyskikh obshchnostey. In: *Maykopskiy fenomen v drevney istorii Kavkaza i Vostochnoy Evropy*, 55-58. Leningrad.

Dinu M.

- 1960 K voprosu o kulture sharovidnykh amfor na territorii Moldavii. *Dacia* 4: 89-106.

Dolukhanov P.M., A.M. Miklayev

- 1979 Kulturno-istoricheskiye osnovy postroyeniya absolutnoy khronologii neolita i ranney bronzy v bassejne Zapadnoy Dviny. *KSIA* 157: 73-81.

Dolukhanov P.M., Tretyakov V.P.

- 1979 Dnepro-donetskiy neolit i kultura voronkovidnykh kubkov k severu ot Karpat. *AAC* 19: 37-50.

Gereta I.P.

- 1970 Noviye nakhodki kultury sharovidnykh amfor v zapadnom Podolye. *AO 1969 goda*, 231. Moskva.

Gereta I.P., E.A. Kharitonov

- 1970 Doslidzhennya novykh arkheologichnykh pamyatok v Zakhidnomu Podilli. In: *Materialy Tryetyoy Podilskoy Istoriko-Krayeznavchoy Konferentsii*, 153-158. Lviv.

Gimbutas M.

- 1956 *The Prehistory of Eastern Europe*, vol. 1, Cambridge.

- 1977 The First Wave of Eurasian Steppe Pastoralists into Copper Age Europe. *JIES* 4: 277-339.

- 1980 The Kurgan Wave #2 (c. 3400-3200 BC) into Europe and the Following Transformation of Culture. *JIES* 8: 273-315.

- 1985 East Baltic Amber in the Fourth and Third Millennium B.C. *Journal of Baltic Studies* 16(3): 231-256.

- 1991 *The Civilization of the Goddess. The World of Old Europe*, San Francisco.

Głósik J.

- 1968 Kultura strzyżowska. *Materialy Starożytność* 11:7-114.

Gorodtsov V.

- 1915 Kultury bronzovoy epokhi v Sredney Rossii. In: *Otchet istoricheskogo muzeya za 1914 g.* Moskva.

- Gurba J.
1957 Materiały do badań nad neolitem Małopolski. *Annales UMCS Sectio F* (1954) 9: 129-178.
- Gurina N.N.
1976 *Drevniye kremnedobyvayushchiye shakhty na territorii SSSR*. Leningrad.
- Halicki M.
1970 Cmentarzyska kultury amfor kulistych i kultury pucharów lejkatych w Klementowicach, pow. Puławy na stanowisku IV. *Wiadomości Archeologiczne* 35(3): 303-325.
- Haüsler A.
1964 Die Gräber der ältesten Ackerbauern in der Ukraine. *Wissenschaftliche Zeitschrift der Martin-Luther Universität Halle-Wittenberg* 12(11/12).
1966 Die Gräber der Kugelamphorenkultur in Wolhynien und Podolien und die Frage ihres Ursprungs. *Jahresschrift für mitteldeutsche Vorgeschichte* 50: 115-140.
1974 Die Bestattungssitten des Früh- und Mittelneolithikums und ihre Interpretation. In: F.Schlette (Ed.) *Evolution und Revolution im Alten Orient und Europa*, 101-119. Berlin.
1989 Zur Problematik des Bestattungsrituals im Äneolithikum Mitteleuropas. In: *Das Äneolithikum und die früheste Bronzezeit (ca 3000-2000 BC)*. *Præhistorica* 15:163-166. Praha.
1994 Die Majkop-Kultur und Mitteleuropa. *Zeitschrift für Archäologie* 28: 191-246.
- Hensel W.
1974 *Ur- und Frühgeschichte Polens*. Berlin.
- Jahn A.
1956 *Wyżyna Lubelska. Rzeźba i czwartorzęd*. Warszawa.
- Jastrzębski S.
1989 *Kultura Cucuteni-Trypole i jej osadnictwo na Wyżynie Wołyńskiej*. Lublin.
- Kadrow S.
1995 Absolute chronology of the Sofievka type in the light of "wiggles matching" analysis. In: *Cemeteries of the Sofievka type: 2950-2750 BC*, BPS 3:141-147.
- Kadrow S., A. Kośko, M. Videiko
1995 Pottery stylistics of the Sofievka type, genetic-cultural qualification. In: *Cemeteries of the Sofievka type: 2950-2750 BC*, BPS 3:200-213.
- Kalechyts E.G.
1987 *Pamyatniki kamennogo i bronzovogo vekov Vostochnoy Belorussii*. Minsk.
- Kavalskaya K., M. Charniauski
1988 Starazhitnaye pakhavannye. In: *Pomniki gistorii kultury Belarussii*, 17-18. Minsk.

Kempisty E.

- 1971 Kultura amfor kulistych na Mazowszu i Podlasiu. *Materiały Starożytne i Wczesnośredniowieczne* 1: 7-34.

Kirkowski R.

- 1984 Z badań nad recepcją tradycji kulturowych strefy nadczarnomorskiej wśród społeczeństw Nizy Polski u schyłku III tysiąclecia p.n.e. *Archeologia Polski* 29(1): 57-67.

Kirkowski R., J. Sosnowska

- 1987 Kultura amfor kulistych na ziemi chełmińskiej. In: T. Wiślański (Ed.) *Neolit i początki epoki brązu na ziemi chełmińskiej*, 185-200. Toruń.

Kiyashko V.Y.

- 1974 *Nizhneye Podonye v epokhu eneolita i ranney bronzы*. Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata istoricheskikh nauk. Moskva.

- 1994 Mezhdru kamnem i bronzoy. Nizhneye Podonye v V-II tys. do n.e. *Donskiye drevnosti* 3:8-129. Azov.

Kiyashko V.Y., A.V. Kiyashko

- 1992 K voprosu o svyazyakh plemen Podonya-Priazovya i Kavkaza v bronzovom veke. In: *Istoricheskaya geografia Dona i Severnogo Kavkaza*, 3-8. Rostov.

Kokowski A., W. Koman

- 1984 Badania ratownicze na terenie gmin Hrubieszów i Horodło w woj. zamojskim. In: *Sprawozdania z badań terenowych Archeologicznego Ośrodka Badawczo-Konserwatorskiego w Lublinie w 1984r.*, 19. Lublin.

- 1985 Świerszczów, gm. Hrubieszów, woj. zamojskie, stanowisko 27. *Informator Archeologiczny*. Badania 1984, 38. Warszawa.

Kokowski A., J. Ścibior

- 1990 Bemerkungen zur regionalen Gliederung der Kugelamphorenkultur in Polen. *Acta Praehistorica et Archaeologica* 22: 37-55.

Kossinna G.

- 1910 Der Ursprung der Urfinnen und der Urindogermanen und ihre Ausbreitung nach Osten. *Mannus* 2: 59-108.

Kostrzewski J.

- 1948 Od mezolitu do okresu wędrówek ludów. In: *Prehistoria ziem polskich* (ed. 1939-1948), 118-359. Kraków.

Kośko A.

- 1979 *Rozwój kulturowy społeczeństw Kujaw w okresach schyłkowego neolitu i wczesnej epoki brązu*. Poznań.

- 1981 *Udział południowo-wschodnioeuropejskich wzorców kulturowych w rozwoju niżowych społeczeństw kultury pucharów lejkowatych*. Poznań.

- 1985 Influences of the "pre-Yamnaya" ("pre-pitgrave") communities from the Black Sea steppe area in western European cultures. In: *L'énéolithique et le début de l'âge de bronze dans certain régions de l'Europe*, 57-72. Wrocław-Warszawa-Kraków-Gdańsk-Łódź.

- 1990 The Migration of Steppe and Forest-steppe Communities into Central Europe. *JIES* 18(3-4): 309-329.
- 1991 The Vistula-Oder basins and the North Pontic region. *JIES* 19(3-4):235-257.
- Kovaleva I.F.
- 1978 Pogrebeniya zhivotilovskogo tipa v Prisamarye. In: *Kurganniye drevnosti stepnogo Podneprov'ya II-I tys. do n.e.*, 2:45-55. Dnepropetrovsk.
- 1991 Pogrebeniya s maykopskim inventarem v Levoberezh'yi Dnepra (k vydele-niyu zhivotilovskogo kulturnogo tipa). In: *Problemy arkheologii Podnepro-v'ya*, 69-88. Dnepropetrovsk.
- Kovalyukh N., M. Videiko, V. Skripkin
- 1995 Chronology of the cemeteries of the Sofievka type: archaeological and isotopic one. In: *Cemeteries of the Sofievka type: 2950-2750 BC*, BPS 3: 135-140.
- Kowalczyk J.
- 1968 Dwa zespoły neolityczne datowane radiowęglem. *Wiadomości Archeologiczne* 33: 372.
- Kowalski A.
- 1988 Mit w obrzędzie pogrzebowym. Próby etnograficznej analizy materiału archeologicznego. *Lud* 72: 113-126.
- Kozłowski L.
- 1921 Groby megalityczne na wschód od Odry. *Prace i Materiały Antropologiczno-Archeologiczne i Etnograficzne* 2.
- 1924 *Młodsza epoka kamienna w Polsce*, Lwów.
- 1939 *Zarys pradziejów Polski południowo-wschodniej*, Lwów.
- Kruk J.
- 1980 *Gospodarka w Polsce południowo-wschodniej w V-III tysiącleciu p.n.e.* Wrocław-Warszawa-Kraków-Gdańsk.
- 1993 Rolnictwo pierwotne jako czynnik kształtowania krajobrazu. *Sprawozdania Archeologiczne* 43: 301-308.
- Kukawka S., J. Sosnowska
- 1994 Z badań nad kulturą amfor kulistych na ziemi chełmińskiej. In: *Neolit i początki epoki brązu na ziemi chełmińskiej*, 199-204. Grudziądz.
- Kukhareno Y.V.
- 1969 *Arkheologiya Polshy*. Moskva.
- Levickiy I.F.
- 1929 Pamyatki megalitichnoy kultury na Volini. *Antropologija* 2: 192-222.
- 1930 Domovina kinca neolitichnoy dobi na poberezh'yi serednoy techi r. Sluchi (c. Kolodyazhnoye na Volini). *Zapiski vseukraïnskogo arkheologichnogo komitetu* 1: 159-178.

Loze I.

- 1988 *Poseleniya kamennogo veka Lubanskoy Niziny. Mezolit, ranniy i sredniy neolit.* Riga.

Machnik J.

- 1978 Wczesny okres epoki brązu. In: *Prahistoria ziem polskich. III. Wczesna epoka brązu*, 9-136. Wrocław-Warszawa-Kraków-Gdańsk.
- 1979a Krąg kulturowy ceramiki sznurowej. In: *Prahistoria ziem polskich. II. Neolit*, 337-411. Wrocław-Warszawa-Kraków-Gdańsk.
- 1979b Ze studiów nad kulturą ceramiki sznurowej w dorzeczu górnego Dniestru. *AAC* 19: 51-71.
- 1987 *Kultury z przelomu eneolitu i epoki brązu w strefie karpackiej.* Wrocław-Warszawa-Kraków-Gdańsk-Łódź.

Maksimenko V.E.

- 1973 Noviye materialy po epokhe ranney bronzы na Nizhnem Donu. *SA* 1: 24-27.

Maleyev Y.M.

- 1971 Megalitichni grobnitsy na Ternopilshchini. *Arkheologiya* 2: 53-67.
- 1980 Vostochniye rubiezhy rasprostraneniya kultury sharovidnykh amfor. In: *Problemy eneolita stepnoy i lesostepnoy polosy Vostochnoy Evropy. Tezisy dokladov*, 30-31. Orenburg.
- 1986 Pokhovannya kulturi kulyastikh amfor na Khmielnichchini. *Visnik Kiiivskogo Universitetu. Istorichni Nauki* 28:98-103.

Maleyev Y.M., V.I. Yakubovskiy

- 1974 Raskopki grobnitsy kultury sharovidnykh amfor na Yuzhnom Buge. *AO* 1973 goda, 305.

Mallory J.P.

- 1991 *In Search of the Indo-Europeans. Language, Archaeology and Myth.* London.

Malyukevich A.E., V.G. Petrenko

- 1993 Usatovskiy kompleks s figurnymi pronizyami iz kurgana v nizovyakh Dnestra. In: *Drevneye Prichernomorye*, 25-30. Odessa.

Manzura I.

- 1990a O rasprostranienii gordineshtskikh kulturnykh elementov v Severnom Prichernomorye. In: *Arkheologicheskiye issledovaniya molodykh uchenykh Moldavii*, 25-39. Kishinev.
- 1990b *Perehodniy period ot eneolita k epokhe bronzы v Nizhnem Podniestrovye i Popruye.* Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata istoricheskikh nauk. Kishinev.
- 1992 Stepniye vostochnoevropeyskiye obshchnosti eneolitaranney bronzы v khronologicheskoy sisteme Balkano-Dunayskikh kultur. In: *Materialy i issledovaniya po arkheologii i etnografii Moldovy*, 87-101. Kishinev.
- 1993 The east-west interaction in the mirror of the eneolithic and early bronze cultures in the Northwest Pontic. *Revista Arheologica* 1: 23-53.

- 1994 Cultural groups from the steppes of Eastern Europe in the Eneolithic period and Early Bronze Age. *Oxford Journal of Archaeology* 13(3): 265-277.
- Manzura I., E. Klochko, E. Savva
1992 *Kamenskiye kurgany*. Kishinev.
- Manzura I., E. Savva, L. Bogataya
1995 East-West Interactions in the Eneolithic and Bronze Age Cultures of the North-West Pontic Region. *JIES* 23(1-2): 1-51.
- Mazurowski R.F.
1983 Bursztyn w epoce kamienia na ziemiach polskich. *Materiały Starożytne i Wczesnośredniowieczne* 5: 7-130.
- Miclea I., R. Florescu
1980 *Preistoria Daciei*. Bucuresti.
- Miklayev A.M.
1992 *Kamenniy-zhelezniy vek v mezhdureche Zapadnoy Dviny i Lovati*. Avtoreferat dissertatsii na soiskaniye uchenoy stepeni doktora istoricheskikh nauk. Sankt Petersburg.
- Movsha T.G.
1972 Periodizatsiya i khronologiya serednogo ta piznogo Tripilla. *Arkheologiya* 5: 3-24.
1984 Khronologiya Tripolya-Cucuteni i stepnyye kultury epokhi rannego metalla v yeye sisteme. In: *Problemy arkheologii Podnieprovya*, 60-83. Dnepropetrovsk.
1985a Pozdnyy etap tripolskoy kultury. In: *Arkheologiya Ukrainskoy SSR*, vol. 1, 223-263. Kiev.
1985b Vzaemovidnosyny Tripilla-Kukuteni s sinkhronnymi kulturami Tsentralnoy Evropy. *Arkheologiya* 51: 22-31.
1993 Vzaemovidnosyny stepovykh i zemlerobskikh kultur v epokhu eneolitara-ranniego bronzovogo viku. *Arkheologiya* 3: 36-51.
- Nagel E.
1985 *Die Erscheinungen der Kugelamphorenkultur im Norden der DDR*. Berlin.
- Nechytailo A.L.
1991 *Svyazi naseleniya stepnoy Ukrainy i Severnogo Kavkaza v epokhu bronzy*. Kiev.
- Neustupny E.
1966 Kugelamphorenkultur. In: J.Filip (Ed.) *Enzyklopädisches Handbuch zur Ur- und Frühgeschichte Europas*, Band 1, 652-653. Praga.
- Nikolayeva N.
1981 Periodizatsiya kubano-terskoy kultury. Istoricheskiye sudby KTK v katakombnyu epokhu. In: *Katakombniye kultury Severnogo Kavkaza*, 77-100. Ordzhonikidze.

Nikolayeva N., V. Safronov

- 1974 Proiskhozhdeniye dolmennoy kultury Severo-Zapadnogo Kaukaza. In: *Voprosy okhrany, klassifikatsii i ispolzovaniya arkheologicheskikh pamyatnikov*, 174-198. Moskva.

Nosek S.

- 1955 Kultura amfor kulistych na Lubelszczyźnie. *Annales UMCS Sectio F* (1954-1955) 5:55-158.
1967 *Kultura amfor kulistych w Polsce*. Wrocław-Warszawa-Kraków.

Optołowicz J., Z. Ślusarski

- 1962 *Muzeum w Krasnymstawie. Archeologia, historia, kultura ludowa (katalog)*. Lublin.

Passek T.S.

- 1945 Selishcha epokhi bronzy v rayone Kaneva. *Kratkiye Soobshcheniya Instituta Istorii Materialnoy Kultury* 25:14-28. Kiev.
1949 *Periodizatsiya tripolskikh poseleniy*. MIA 10.

Peleshchysyn M.A.

- 1976 Raskopki na Volini. *AO 1975 goda*, 376. Moskva.

Petrenko V.G.

- 1989 Pamyatniki eneolita i povorot epokhi k bronzovomu veku v Severno-Zapadnom Prichernomorje. In: *Istoriya i arkheologiya Nizhnego Podunavya*, 18-19. Reni.

Popandopulo Z.H.

- 1992 Pervomayskiy kurgannyj mogilnik u s. Primorskoye. *Drevnosti stepnogo Prichernomorja i Kryma* 3: 82-98.

Popova T.

- 1955 *Katakombnaya kultura*. Moskva.

Prinke D., M. Szmyt

- 1996 Ze studiów nad problematyką regionalizacji kulturowej w późnym neolicie na Kujawach. In: A. Kośko (Ed.) *Z badań nad genezą regionalizmu kulturowego społeczeństw Kujaw*, 39-60. Poznań-Kruszwica-Inowrocław.

Rassamakin Y.Y.

- 1986 Eneolitieskiye pogrebeniya r. Molochnoy i ikh otnositelnaya khronologiya. In: *Khozyaystvo i kultura doklasovykh i ranneklasovykh obshchestv*, 121-122. Moskva.
1987a Eneolitieskiye pograbeniya basseyna r. Molochnoy. In: *Drevneyshiy skotovody stepy yuga Ukrainy*, 31-43. Kiev.
1987b K probleme izucheniya eneolitieskikh podkurgannykh pograbeniy. In: *Aktualniye problemy istoriko-arkheologicheskikh issledovaniy*, 138-139. Kiev.
1988 Otnositelnaya khronologiya pozdneeneolitieskikh pogrebeniy basseyna r. Molochnoy. In: *Noviye pamyatniki yamnoy kultury stepnoy zony Ukrainy*, 14-27. Kiev.

- 1991 O sootnoshenii stepnykh i novosvobodnenskiikh pamyatnikov. In: *Maykopskiy fenomen v drevney istorii Kavkaza i Vostochnoy Evropy*, 52-55. Leningrad.
- 1993 Eneolit stepnogo Prichernomor'ya i Priazov'ya (po pogrebalnym pamyatnikam). In: *The Fourth Millennium B.C.*, 5-28. Sofia.
- 1994 The main directions of the development of early pastoral societies of the Northern Pontic zone: 4500–2450 BC (Pre-Yamnaya cultures and Yamnaya culture). In: *Nomadism and pastoralism in the circle of Baltic-Pontic early agrarian cultures: 5000–1650 BC*, BPS 2: 29-70.
- 1996 Pozdneeneoliticheskiye komplekсы na Ingultse v svete novykh issledovaniy (in press).
- Rassamakin Y.Y., A. Kubyshev
- 1990 Ob odnoy gruppe pozdneeneoliticheskikh pogrebeniy v Priazov'ye s elementami tripolskoy kultury. In: *Rannezemledielcheskiye poseleniya-giganty tripolskoy kultury na Ukraine*, 72. Talyanki-Veseliy Kut-Majdanetskoye.
- Renfrew C.
- 1987 *Archaeology and Language. The Puzzle of Indo-European Origins*. London.
- Rezepkin A.D.
- 1987 K interpretatsii rospisi iz grobnitsy maykopskoy kultury bliz stanitsy Novosvobodnaya. *KSI* 192: 26-33.
- 1989 *Severo-Zapadnyy Kavkaz v epokhu ranney bronzy (po materialam pogrebeniy novosvobodnenskogo tipa)*. Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata istoricheskikh nauk. Leningrad.
- 1991 Kurgan 31 mogilnika "Klady". Problemy genezisa i khronologii maykopskoy kultury. In: *Drevniye kultury Prikubanya*, 167-197. Leningrad.
- Rimantiené R.
- 1992a The Neolithic of the Eastern Baltic, *Journal of World Prehistory* 6(1): 97-143.
- 1992b Neolithic hunter-gatherers at Šventoji in Lithuania. *Antiquity* 66: 367-376.
- Rimantiené R., G. Česnys
- 1990 The late Globular Amphora Culture and its Creators in the East Baltic Area from Archaeological and Antropological Points of View. *JIES* 18(3-4): 339-358.
- Rumjancev A.N.
- 1974 Geneza kultury środkowodnieprzańskiey i jej związki ze strefą karpacką. *AAC* 14: 57-67.
- Safronov V.A.
- 1989 *Indoeuropeyskiye prarodiny*. Gorkiy.
- Serdyukova I.L.
- 1989 K voprosu ob izmenenii granits rasseleniya katakombnykh plemen. In: *Problemy istorii ta arkheologii davnego naselennya Ukrainskoy RSR*, 206-207. Odessa.

- 1994 Plemena katakombnoy kultury Nadporozhya i Lesostepnogo Podneprovya (manuscript). Kiev.
- Serova H.L., E.V. Yarovoy
1987 *Grigoryopolskiye kurgany*. Kishinev.
- Shaposhnikova O.
1971 O kulturnoy prinadlezhnosti poseleniy epokhi ranney bronzy Stepnogo Pridneprovya. *Materialy po archeologii Severnogo Prichernomor'ya* 7: 28-42. Odessa.
- Shcheglova V.V., Cherniavski M.M.
1976 Fauna iz mogilnikov kultury sharovidnykh amfor u pos. Krasnoselski Volkovytskogo rayona. In: *Doklady AN BSSR* 20(7): 627-629.
- Shchepinsky A.A.
1985 Kemi-obinskaya kultura. In: *Arkheologiya Ukrainskoy SSR*, vol.1, 331-336. Kiev.
- Shilov I.
1988 "Grot byka" po materialam drevneyshikh kurganov. In: *Noviye pamyatniki yamnoy kultury stepnoy zony Ukrainy*, 42-59. Kiev.
- Shmagliy N.M.
1966 Grodsko-volynskiy variant piznotripil'skoy kultury. *Arkheologiya* 20: 15-37.
- Shmidt E.A.
1992a Mogilnik kultury kulyastykh amfor poblizu Smolenska u verkhivnykh Dni-pri. *Arkheologiya* 2: 120-124.
1992b Pogrebalniy kompleks kultury sharovidnykh amfor v verkhovnykh Dnepra. *Rossiyskaya Arkheologiya* 4: 156-162.
- Skibiński S.
1958 Znaleziško zabytków kultury amfor kulistych w Stadarni, pow. Chełm. *Wiadomości Archeologiczne* 24(4): 384-385.
- Sobczuk E.
1994 Najciekawsze odkrycia archeologiczne z Krasnegostawu i okolic. In: *Zapiski Krasnostawskie*, 9-18. Lublin.
- Stuiver M., P.J. Reimer
1993 Radiocarbon Calibration Program, ver. 3.0.3, University of Washington, Quaternary Isotope Lab. *Radiocarbon* 35: 215-230.
- Subbotin L.V.
1982 Dva kurgana epokhi bronzy v Bugo-Dnestrovskom mezhdurechie. In: *Arkheologicheskiye pamyatniki Severo-Zapadnogo Prichernomor'ya*, 100-110. Kiev.
1988 Megaliticheskoye pogrebeniye u s. Tatarbunary. In: *Noviye pamyatniki yamnoy kultury stepnoy zony Ukrainy*, 124-130. Kiev.
- Sulimirski T.
1959 *Polska przedhistoryczna*, t. 2, (1957-1959), Londyn.

- 1968 *Corded Ware and Globular Amphorae North-East of the Carpathians*, Londyn.
- 1970 *Prehistoric Russia*. An outline, Londyn.
- Sveshnikov I.K.
- 1957 *Megalitychni pokhovannya na Zakhidnomu Podilli*. Lviv.
- 1971 Kultura kulyastykh amfor. In: *Arkheologiya Ukrainskoy RSR*, vol. 1, 240-250. Kiev.
- 1973 Noviye pokhovannya kultury kulyastykh amfor u Rovenskiy oblasti. *Arkheologiya* 11: 69-72.
- 1974 *Istoriya naselennya Peredkarpattya, Podilla i Volini v kinci III — na pochatku II tis. do n.e.* Kiev.
- 1983 *Kultura sharovidnykh amfor*. Svod arkheologicheskikh istochnikov V1-27. Moskva.
- 1985a Kultura sharovidnykh amfor. In: *Arkheologiya Ukrainskoy SSR*, vol. 1, 280-291. Kiev.
- 1985b Gorodoksko-zdolbitskaya kultura na Volini. In: *Arkheologiya Ukrainskoy SSR*, vol. 1, 381-384. Kiev.
- 1990 Kultura sharovidnykh amfor. In: *Arkheologiya Prikarpatya, Volini i Zakarpata (eneolit, bronz a i ranneye zhelezo)*, 43-49. Kiev.
- Sveshnikov I.K., Nikolchenko Y.M.
- 1982 *Dovidnyk z arkheologii*. Rovenska oblast. Kiev.
- Szmyt M.
- 1996 *Spolecznosci kultury amfor kulistych na Kujawach*, Poznań.
- Sztandar Ludu
- 1961 Ciekawe odkrycie archeologiczne w Łopienniku Dolnym. *Sztandar Ludu* (21.II.1961) nr 44 (5284). Lublin.
- Ścibior J.
- 1986 [rec.] Igor K. Svešnikov, Kultura šarovidnych amfor. *Sprawozdania Archeologiczne* 38: 348-365.
- 1991 Kultura amfor kulistych w środkowowschodniej Polsce. Zarys problematyki. In: J.Gurba (Ed.) *Schylek neolitu i wczesna epoka brązu w Polsce środkowowschodniej*, 47-65. Lublin.
- 1993 Die Trichterbecherkultur und die Tripolje-kultur auf der Wolynien-Hohebene. In: *Actes du XIIIe Congrès International des Sciences Préhistoriques et Protohistoriques*, 1-7 Septembre 1991, vol.2, 522-528. Bratislava.
- Ścibior J., A. Kokowski, W. Koman
- 1991 Zespoły grobowe kultury amfor kulistych z zachodniej części Wyżyny Wołyńskiej. *Sprawozdania Archeologiczne* 43: 79-108.
- Ścibior J., J.M.Ścibior
- 1990 Sandomierz 78 — wielokulturowe stanowisko z przełomu neolitu i epoki brązu. Badania ratownicze w 1984 roku. *Sprawozdania Archeologiczne* 42: 157-201.

Świeżyński K.

- 1966 Szczałki kostne z grobów zwierzęcych kultury amfor kulistych na Kujawach. In: Wiślański T., *Kultura amfor kulistych w Polsce północno-zachodniej*, 268-278. Wrocław-Warszawa-Kraków.

Tallgren A.

- 1926 La Pontide prescythique apres l'introduction des metaux. *Eurasia Septentrionalis Antiqua* 7: 5-246.

Telegin D.Y.

- 1971 Eneolitychni stely i pamyatky nizhniomikhaylovskogo tipu. *Arkheologiya* 4: 32-54.
1977 Ob absolutnom vozraste yamnoy kultury i nekotoriye voprosy khronologii eneolita yuga Ukrainy. *SA* 2: 5-19.

Terskiy S.V.

- 1993 Novi pamyatky pivnichno-zakhidnogo porubizh Trypils'koy kultury. In: *Trypilska kultura Ukrainy. Tezy dopovidey i povidomlen mizhnarodnoy konferentsii*, 64-66. Lviv.

Terskiy S., V. Terskiy

- 1994 Litopysna Peresopnitsa abo przyabute misto nad Stublou. *Rodovid* 7: 47-53.

Toshchev G.N.

- 1991 Zapadniy areal pamyatnikov katakombnoy kultury. In: *Katakombnyye kultury Severnogo Prichernomor'ya*, 85-100. Kiev.

Weninger B.

- 1986 High-Precision Calibration of Archaeological Radiocarbon Dates. *Acta Interdisciplinaria Archaeologica* 4: 11-53. Nitra.

Wieliczko M.

- 1961 Łopiennik Dolny Kolonia, pow. Krasnystaw. *Z Otchłani Wieków* 27(3): 232.

Wiślański T.

- 1966 *Kultura amfor kulistych w Polsce północno-zachodniej*. Wrocław-Warszawa-Kraków.
1970 The Globular Amphora Culture. In: *The Neolithic in Poland*, 179-231. Wrocław-Warszawa-Kraków.
1979 Dalszy rozwój ludów neolitycznych. Plemiona kultury amfor kulistych. In: *Prahistoria ziem polskich, II. Neolit*, 261-299. Wrocław-Warszawa-Kraków-Gdańsk.

Yarovoy E.V.

- 1979 Nakhodka sharovidnykh amfor v Moldavii. In: *Problemy epokhi bronzy Yuga Vostochnoy Evropy*, 35. Donetsk.
1981 Pamyatniki yamnoy kultury Pruto-Dnestrovskogo mezhdurech'ya. In: *Aktualniye problemy arkheologicheskikh issledovaniy v Ukrain'skoy SSR*, 33-34. Kiev.
1985 *Drevneyshiy skotovodcheskiy plemena Yugo-Zapada SSSR*. Kishinev.
1990 *Kurgany eneolita — epochi bronzy Nizhnego Podnestrovyia*. Kishinev.

Yelagina N., V.G. Petrenko

1968 Otchet ob arkheologicheskikh raskopkach, proizvedennykh Inguletskoy stepnoy ekspeditsey letom 1968 goda. (Nauchniy arkhiv Instituta Arkheologii Akademii Nauk Ukrainy, N 1968/54). Kiev.

Zaginailo A.I., I.T. Chernyakov, V.G. Petrenko

1987 Karolino-Bugazskiy mogilnik. In: *Noviye issledovaniya po arkheologii Severnogo Prichernomorya*, 99-108. Kiev.

Zakharuk Y.N.

1962 Voprosy khronologii kultur eneolita i ranney bronzy Prikarpatya i Volini. *KSI A AN USSR* 12: 48-52.

1971 Tripilska kultura. In: *Arkheologiya Ukrainskoy RSR*, vol. 1, 177-179. Kiev.

Zbenovich V.I.

1972 Khronologiya piznogo Tripilla. *Arkheologiya* 7: 3-25.

1976 Pozdneye Tripolye i yego svyaz s kulturami Prikarpatya i Malopolshi. *AAC* 16: 21-58.

1987 Mesto tripolskoy kultury v eneolite Prichernomorya. In: *Kavkaz v sistemie paleometallicheskih kultur Evrazii*, 109-119. Tbilisi.

Zhivopisnaya Rossiya

1882 Zhivopisnaya Rossiya. Litovskoye i belorusskoye Polesye. Sankt-Peterburg-Moskva.

LIST OF AUTHORS

Mikhail M. Charniauski
Institute of History
Academy of Sciences of Belarus
Minsk 220072
F. Skaryna Str. 1
Belarus

Stanisław Gołub
22-100 Chełm
Powstańców Warszawy Str. 3/26
Poland

Sławomir Kadrow
Institute of Archaeology and Ethnology
Polish Academy of Sciences
31-016 Kraków
Sławkowska Str. 19
Poland

Wiesław Koman
State Service of Preservation of Monuments
22-400 Zamość
Staszic Str. 29
Poland

Wanda Kozak-Zychman
Chair of Archaeology
Maria Curie-Skłodowska University
20-031 Lublin
M. Curie-Skłodowska Square 4
Poland

Mykola Kryvaltsevich
Institute of History
Academy of Sciences of Belarus
Minsk 220072
F. Skaryna Str. 1
Belarus

Yuriy Maleyev
Chair of Archaeology
State University
252033 Kiiv
Vladimirovskaya Str. 64
Ukraine

Yuriy Y. Rassamakin
Institute of Archaeology
Ukrainian Academy of Sciences
252014 Kiiv
Vydubitskaya Str. 40
Ukraine

Irina L. Serdyukova
Institute of Archaeology
Ukrainian Academy of Sciences
252014 Kiiv
Vydubitskaya Str. 40
Ukraine

Svyatoslav V. Shelomentsev-Terskiy
Museum of History
290038 Lviv-8
Rynok 6
Ukraine

Evgeniy A. Shmidt
214013 Smolensk
Kirova 15/19
Russia

Marzena Szmyt
Eastern Institute
Adam Mickiewicz University
61-734 Poznań
Nowowiejski Str. 55
Poland

Józef Ścibior
District Museum – Castle
22-600 Sandomierz
Poland

Vol.1: *Weapons of the tribes of the Northern Pontic zone in the 16th–10th centuries B.C.*, by Victor I. Klochko.

Vol.2: *Nomadism and pastoralism in the circle of Baltic–Pontic early agrarian cultures: 5000–1650 BC*, edited by Aleksander Koško

Vol.3: *Cemeteries of the Sofievka type: 2950–2750 BC*, edited by Aleksander Koško

Orders regarding B-PS should be addressed directly to the Editorial Office (Baltic-Pontic Studies, Institute of Prehistory, Św. Marcin 78, 61-809 Poznań, Poland).
--

The publication is carried out within the research project No 1 P108 067 04 financed in the years 1993-1995 by Committee for Scientific Research and supplied with funds of Ministry of National Education.

ISBN 83-86094-03-6

ISSN 1231-0344