

**RECEPTION ZONES OF
'EARLY BRONZE AGE'
PONTIC CULTURE TRADITIONS:
BALTIC BASIN – BALTIC AND BLACK SEA
DRAINAGE BORDERLANDS,
4/3 mil. TO FIRST HALF 2 mil. BC**

Aleksander Koško

Jerzy Libera

Jan Machnik

Marzena Szmyt

Halina Taras

Stanisław Wilk

Piotr Włodarczak

Anna Zakościelna

BALTIC-PONTIC STUDIES

V O L U M E 19 • 2014

BALTIC-PONTIC STUDIES

61-809 Poznań (Poland)

Św. Marcin 78

Tel. 618294799, Fax 618294788

E-mail: antokol@amu.edu.pl

EDITOR

Aleksander Kośko

EDITORIAL COMMITTEE

Sophia S. Berezanskaya (Kiev), Lucyna Domańska (Łódź),
Elena G. Kalechyts (Minsk), Viktor I. Klochko (Kiev), Mykola
N. Kryvaltsevich (Minsk), Roman Litvinenko (Donieck), Jan
Machnik (Kraków), Przemysław Makarowicz (Poznań), Vitaliy
V. Otroshchenko (Kiev), Marzena Szmyt (Poznań), Petro
Tolochko (Kiev)

SECRETARY

Marzena Szmyt

SECRETARY OF VOLUME

Karolina Harat

Danuta Żurkiewicz

ADAM MICKIEWICZ UNIVERSITY
INSTITUTE OF EASTERN STUDIES
INSTITUTE OF PREHISTORY

Poznań 2014

ISBN 83-86094-19-2

ISSN 1231-0344

**RECEPTION ZONES OF
'EARLY BRONZE AGE'
PONTIC CULTURE TRADITIONS:
BALTIC BASIN – BALTIC AND BLACK SEA
DRAINAGE BORDERLANDS,
4/3 mil. TO FIRST HALF 2 mil. BC**

Aleksander Koško

Jerzy Libera

Jan Machnik

Marzena Szmyt

Halina Taras

Stanisław Wilk

Piotr Włodarczak

Anna Zakościelna

BALTIC-PONTIC STUDIES

V O L U M E 19 • 2014

© Copyright by BPS and Authors
All rights reserved

Cover Design: Eugeniusz Skorwider

Linguistic consultation: Ryszard J. Reisner
Piotr T. Żebrowski

Printed in Poland

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

Printing: Zakłady Poligraficzne TMDRUK in Poznań

CONTENTS

EDITOR'S FOREWORD	5
EDITORIAL COMMENT	6
PART 1 – BALTIC DRAINAGE BASIN	7
Piotr Włodarczak, THE TRAITS OF EARLY-BRONZE PONTIC CULTURES IN THE DEVELOPMENT OF OLD UPLAND CORDED WARE (MAŁOPOLSKA GROUPS) AND ZŁOTA CULTURE COMMUNITIES	7
Aleksander Koško, TRAITS OF 'EARLY BRONZE' PONTIC CULTURES IN THE DEVELOPMENT OF LOWLAND AND EASTERN EUROPEAN FOREST CULTURAL ENVIRONMENTS IN THE BALTIC SOUTHERN DRAINAGE BASIN. AN OUTLINE OF THE STATE OF RESEARCH	53
PART 2 – BALTIC AND BLACK SEA BASIN BORDERLANDS	74
Jerzy Libera, Anna Zakościelna, PONTIC INFLUENCE IN THE TERRITORY OF PRESENT-DAY POLAND AS ILLUSTRATED BY LEAF-SHAPED POINTS WITHOUT A MARKED TANG	74
Jerzy Libera, Halina Taras, IMITATIONS OF EAST EUROPEAN BRONZE DAGGERS IN LUBLIN PROVINCE FLINT WORKING	81
Jan Machnik, TRANSFER OF IDEAS AND CULTURAL (TAXONOMIC) TRAITS BETWEEN THE VISTULA AND DNIEPER IN THE LATE NEOLITHIC. ARCHAEOLOGICAL EVIDENCE ON SUBCARPATHIAN PLATEAUS	87
Marzena Szmyt, FOURTH-THIRD MILLENNIUM BC STONE CIST GRAVES BETWEEN THE CARPATHIANS AND CRIMEA. AN OUTLINE OF ISSUES	107
Halina Taras, INSPIRATIONS AND IMPORTS FROM BRONZE AGE PONTIC CULTURES IN THE DEVELOPMENT OF COMMUNITIES LIVING BETWEEN THE WIEPRZ AND HORYN RIVERS FROM THE 3RD/2ND TO THE MIDDLE OF THE 2ND MILLENNIUM BC	148
Stanisław Wilk, COMMENTS ON THE ORIGINS OF NICHE GRAVES IN THE ZŁOTA CULTURE	157
Anna Zakościelna, Jerzy Libera, THE RECEPTION OF SOUTH-EASTERN CULTURAL PATTERNS: LATE NEOLITHIC AND NASCENT BRONZE AGE FLINT WORKING IN THE VISTULA DRAINAGE BASIN. THE CASE OF TROUGH-LIKE RETOUCH	189
References	202
List of Authors	241

Editor's Foreword

The articles presented in vol. 19 *Baltic-Pontic Studies (BPS)* continue the discussion on 'Pontic Early Bronze Age Civilisations' and their role in the cultural development of prehistoric communities in the Baltic drainage basin or more broadly speaking, present-day central-eastern Europe at the turn of the 3rd mill. through to the 2nd mill. BC. Related issues have been examined in depth in previous BPS volumes, notably 11, 14 and 18 respectively.

The scholarly discussion that constitutes this publication can be divided into two major research questions:

1) evidence of hypothetical markers of Pontic cultures and their attempts at an autogenetic interpretation:

Late Eneolithic and Early Bronze Age taxa for Tripolie culture, Phase CII and Early Bronze Age cultures such as Pit Grave, Catacomb and Babyno in the Baltic basin. These in turn may be divided geographically: physiographic-cultural, Old Upland (Piotr Włodarczak) and Lowland – Silva (Aleksander Koško)

2) the adaptation of Pontic cultural models in terms of differentiated forms of 'neighbours' cohabitation':

taxonomically differentiated communities from the Baltic and Black Sea borderlands (Jerzy Libera, Jan Machnik, Marzena Szmyt, Halina Taras, Stanisław Wilk and Anna Zakościelna).

The present volume of BPS 19 was made possible due to the generous financial support given for undertaking scholarly investigation and associated editing, as well as administration under the aegis of grants from the National Science Centre (no. 2011/01/M/HS3/02142) and the National Programme for the Development of the Humanities (no. (108/NPH3/H12/82/2014).

Professors Viktor I. Klochko and Przemysław Makarowicz kindly reviewed this publication.

Editorial comment

1. All dates in the B-PS are calibrated [BC; see: Radiocarbon vol. 28, 1986, and the next volumes]. Deviations from this rule will be point out in notes [bc].
2. The names of the archaeological cultures and sites are standarized to the English literature on the subject (e.g. M. Gimbutas, J.P. Mallory). In the case of a new term, the author's original name has been retained.
3. The spelling of names of localities having the rank of administrative centres follows official, state, English language cartographic publications (e.g. *Ukraine, scale 1 : 2 000 000*, Kyiv: Mapa LTD, edition of 1996; *Rèspublika BELARUS', REVIEW-TOPOGRAPHIC MAP*, scale 1:1 000 000, Minsk: *BYELORUSSIAN CARTOGRAPHIC AN GEODETIC ENTERPISE*, edition 1993).

Marzena Szmyt

FOURTH-THIRD MILLENNIUM BC STONE CIST GRAVES BETWEEN THE CARPATHIANS AND CRIMEA. AN OUTLINE OF ISSUES

1. INTRODUCTION

The idea of a grave having the form of a stone cist is not a trait which sets apart the period mentioned in the title or the lands stretching from the Carpathians to the Dnieper drainage basin and the Crimea. Quite on the contrary: this concept appeared and materialized on our continent in various periods and places. However, focusing on this special grave form in the chosen time and space context allows the present author to discuss the broader issue of ties between central and eastern European societies, and to relate to the debates in which archaeologists have been engaged for a number of years.

One might well ask what is a stone cist grave (*Steinkiste*, *кам'яний ящик*, *каменный ящик*, *ящичная гробница*). Its descriptions and definitions usually stress that it is a regularly rectangular feature whose walls are made of stone slabs stood on their edge [Beier 1983: 34; Adamik 2012: 12]. Other structural traits are of secondary importance. Thus, a cist may – but does not have to – have a stone floor and/or a cover slab (ceiling). Its walls may be formed by four slabs touching in the corners, but there may be, for instance, six slabs (two slabs along each longer side and one along each shorter side) or more if smaller slabs were used. There are cists with their inner space divided into two or more parts, but features with a single-space chamber dominate. A cist could be placed on the surface of the ground or in a pit dug for this purpose. It could be covered by a mound rising above the ground or be buried under levelled-off ground, etc.

Hence, a regular outline and building material in the form of stone slabs represent two diagnostic elements of the structure under discussion. Below, this narrowing definition shall be adhered to and discussion that follows shall ignore the

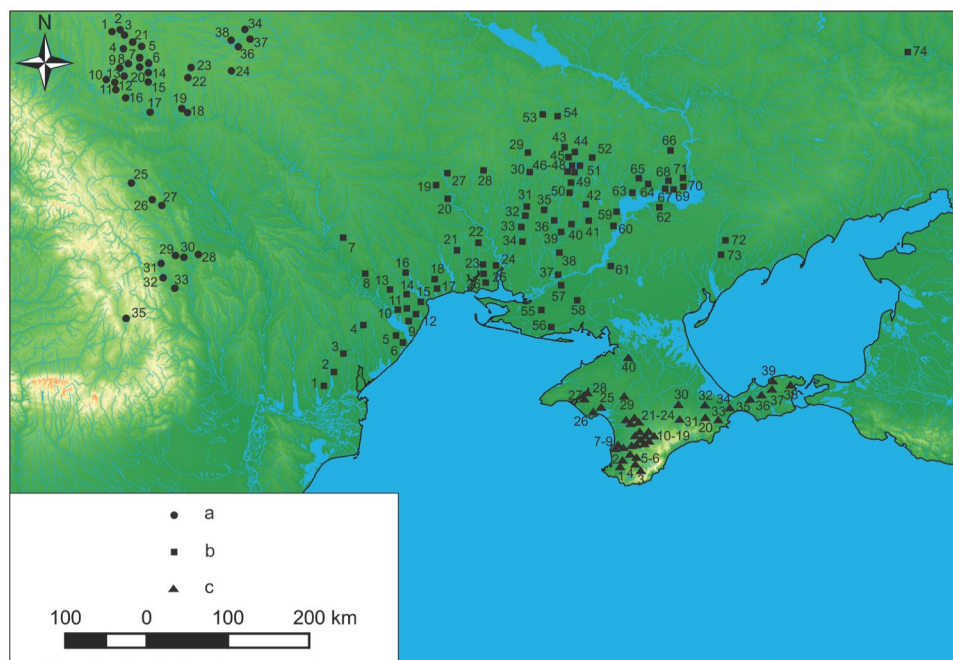


Fig. 1. Distribution of stone cist graves in the 4th and 3rd millennia BC in northern Black Sea areas. Based on maps of Szmyt [1999]; Burtănescu [2002b]; Teslenko [2002]; Rassamakin [2004]; Ivanova, Petrenko, Vetchinnikova [2005]; Toshev [2007]. Key: a – stone cist graves on the forest-steppe area (the Globular Amphora context); b – stone cist graves on the steppe area (Eneolithic and Yamnaya contexts); c – stone cist graves on Crimea (Kemi Oba context). List of sites in Table 1

many derivatives of the structure. They differ from the ideal form in the use of other building material (boulders or pebbles instead of slabs) or in departing from the regular outline.

By reason of their stone structure, cist graves are sometimes included among broadly understood ‘megaliths’, but in detailed classifications [e.g. Beier 1991] they are subsumed under submegalithic features, held to be distinct from both ‘true’ megaliths (*Grossdolmen*) and pseudomegaliths (*Mauergrab*).

Tracing the emergence of stone cist graves in the cultural landscape of the central and eastern Europe of the 4th and 3rd millennia BC, it is worth remembering that they are especially numerous in the north-western Caucasus [Trifonov 2013, here older literature]. North and northwest of the Carpathians, such features occur at that time in the cultures of the Late Neolithic, too, in the drainage basins of the Oder, Vistula and Elbe rivers and in Mecklenburg, e.g. in Walternienburg, Bernburg, and in the Globular Amphora culture (GAC). East of the Carpathians, stone cist graves continued to be built in successive millennia (2nd and 1st millennia BC)

Table 1

List of sites mapped in Fig. 1

No.	Site	No.	Site	No.	Site
	Forest-steppe	14	Baranovo	66	Shirokoe
1	Bavoriv-Zastavye	15	Zatoka	67	Nikopol
2	Tovstolug-Zastinka	16	Katarzhino	68	Kujbyshevo
3	Loshniv	17	Starye Beliary	69	MGOK
4	Dovhe	18	Bolshoj Adzhalyk	70	Verkhnetarasovka
5	Khorostkov	19	Pokrovka	71	Marjevka
6	Gorodnitsa-Vojevodintse	20	Novaja Odessa	72	Akkermen
7	Vorvulintsy	21	Stepovoe	73	Konstantinovka
8	Ulashkivtsy	22	Kovalevka	74	Petrovka
9	Yagolnitsa	23	Ivanovka		Crimea
10	Beremiany	24	Vesniano	1	Skelja (Rodnikovoe)
12	Koshylivtsy	25	Kamenka	2	Aziz-Oba
13	Slobidka Koshylovetska	26	Blagodatnoe	3	Tankovoe
14	Kotsiubintsy	27	Kasperovka	4	Turgenevka
15	Chornikintsy	28	Hovoshmidtovka	5	Pomologicheskij rassad. VIR
16	Khartoniivtsy	29	Berezovka	6	Dolinnoe
17	Glibochok	30	Starorozanovka	7	Uglovoe
18	Velikaya Slobidka	31	Starorogozhenko	8	m. Almoj i Kachej
19	Kolubayevka-Kozavshchina	32	Sokolovka	9	Vilino
20	Uvisla	33	Konstantinovka	10	Kojash (Vodnoe)
21	Luchka	34	Krasnopolje	11	Simferopolskoe vodokhr.
22	Zavadintsy	35	Vinogradnoe	12	Pionierskoe-95
23	Chornivody	36	Visunsk	13	Simferopolskij aeroport
24	Tartak	37	Lvovo	14	Abdal
25	Suceava-‘Spital’	38	Limantsy	15	Zolnoe
26	Basarabi – Preutești	39	Aleksandrovka	16	im. Cherkas
27	Dolchești Mari	40	Baratovka	17	Kalinovka (Kisek-Aratuk)
28	Scheia-‘Muncel’	41	Velikoaleksandrovka	18	st. Pochtovaja
29	Șerbești	42	Staroselje	19	Kazanki-58
30	Bargaoani	43	Mojseevka	20	Pervomajskoe
31	Piatra Neamț	44	Krivoj Rog-‘Dolgaja mogila’	21	Krasnaja Zorka
32	Calu-Piatra Soimului	45	Latovka	22	Novo-Sofievka
33	Mastacan	46	Valovoe	23	im. Genkela
34	Novaja Siniava	47	Dolgintsevo	24	s. Krasnyj
35	Sanmartin-Ciuc	48	Vojkovo	25	pos. Kievskij
36	Letychev-Zavovk	49	Rakhmanovka	26	Ujutnoe
37	Lepesivka	50	Zelenyi Hay	27	Veselovka
38	Gorbasiv	51	Krivoj Rog-‘Tri bratja’	28	Natashino
	Steppe area	52	Andrusovka	29	Mamaj
1	Kubej	53	Korystivka	30	Gut Gott-Chotty
2	Kholmokoe	54	Aleksandrija	31	Kemi-Oba
3	Tatarbunary	55	Bursunka	32	Diatlovka
4	Sarata	56	Skadovsk	33	Beregovoe
5	Alkaliya	57	Sofievka	34	Primorskij
6	Zatoka	58	Chernjanka	35	Ilichevo-75
7	Krasnoe	59	Zolotaja Balka	36	Astanino
8	Novo-Kotovsk	60	Novokairi	37	Nizhnezamorsko
9	Sanzheyka	61	Liubimovka	38	Novoe
10	Velikodolonskoe	62	Balki	39	Artezjan
11	Beljaevka	63	Ordzhonikidze	40	Dolinka (Kurban-Bayram)
12	Efimovka	64	Shevchenkovskij karjer		
13	Velikoziminovo	65	Bogdanovskij karjer		

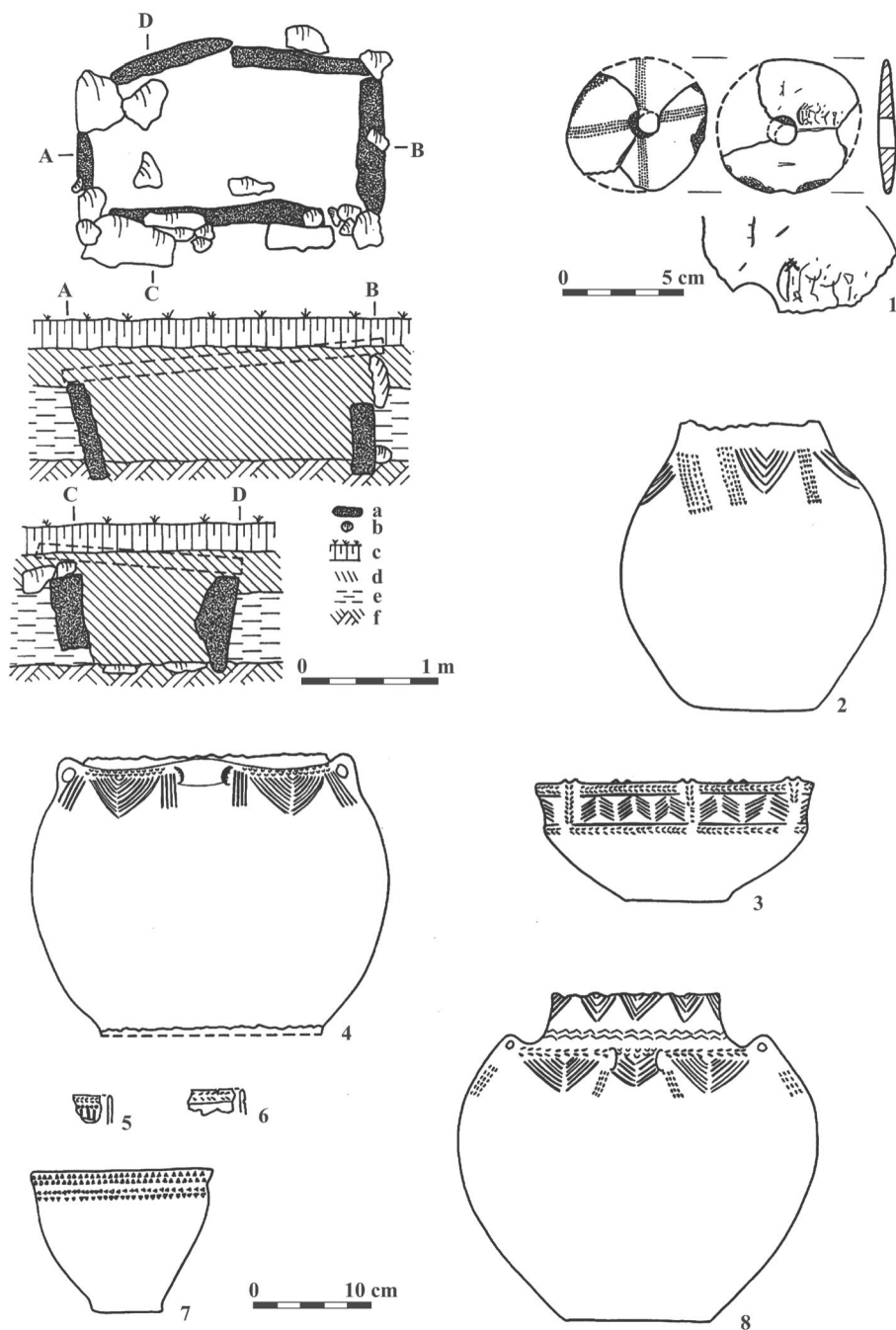


Fig. 2. Stone cist grave of the Globular Amphora culture, Volhynian sub-group: Ivanye. Plan and cross-sections of the grave and artefacts (1 – amber; 2-8 – clay). *Foll. Sveshnikov* [1983]; *Szmyt* [1999]. Key: a – slabs; b – stones; c – arable layer; d – chernozem; e – sandy clay; f – rock-bed

in such cultures as Strzyżów, Komarov, Monogavalikovaya, Srubnaya and Wysoc-ka [Adamik 2012, see here for older literature].

2. DISTRIBUTION OF STONE CIST GRAVES BETWEEN THE CARPATHIANS AND CRIMEA IN THE 4TH AND 3RD MILLENNIA BC

Between the Carpathian and Crimea, stone cists, as a relatively easily recognizable grave form, have been described and documented since the late 19th century. However, due to the broad time bracket of their occurrence mentioned above (4th–1st millennium BC), only some of these features can be related to the 4th and 3rd millennia BC. Any study is made more difficult by the fact that a large number of graves, of which we have very little information, do not have a determined chronology. Nonetheless, owing to the work of many archaeologists, we have a set of data permitting a general description of the distribution of stone cist graves in the selected period of time. The attached map (Fig. 1) compiles all available data gathered from Moldavian, Polish, Romanian and Ukrainian publications [Dergachev 1986; Subbotin 1995; Szmyt 1999; Burtănescu 2002b; Teslenko 2002; Rassamakin 2004; Ivanova, Petrenko, Vetchinnikova 2005; Toshev 2007; Melnyk, Steblyna 2013].

Generally speaking, stone cist graves were recorded – beginning in the west – in Volhynia, Podolia, on the Moldavian Upland, in the Crimea and on Black Sea steppes. There are large concentrations of such features numbering from over a dozen to several dozen cists. They are found for instance between the Prut and Seret rivers, in central Podolia, in western and central Volhynia [Sveshnikov 1983; Szmyt 1999; Mihailescu-Bîrliba 2001; Burtănescu 2002b], northwest of the Black Sea – between the Danube and Dniester rivers [Subbotin 1995; Ivanova, Petrenko, Vetchinnikova 2005; Ivanova 2012], between the Inhul and Dnieper rivers [Teslenko 2002] and in Crimean foothills [Toshev 2007].

3. CULTURAL CONTEXTS OF STONE CIST GRAVES IN THE 4TH AND 3RD MILLENNIA BC BETWEEN THE CARPATHIANS AND CRIMEA

Between the eastern arch of the Carpathians, and the Dnieper and Crimea, 4th-3rd-millennium-BC stone cist graves are associated with several units of ar-

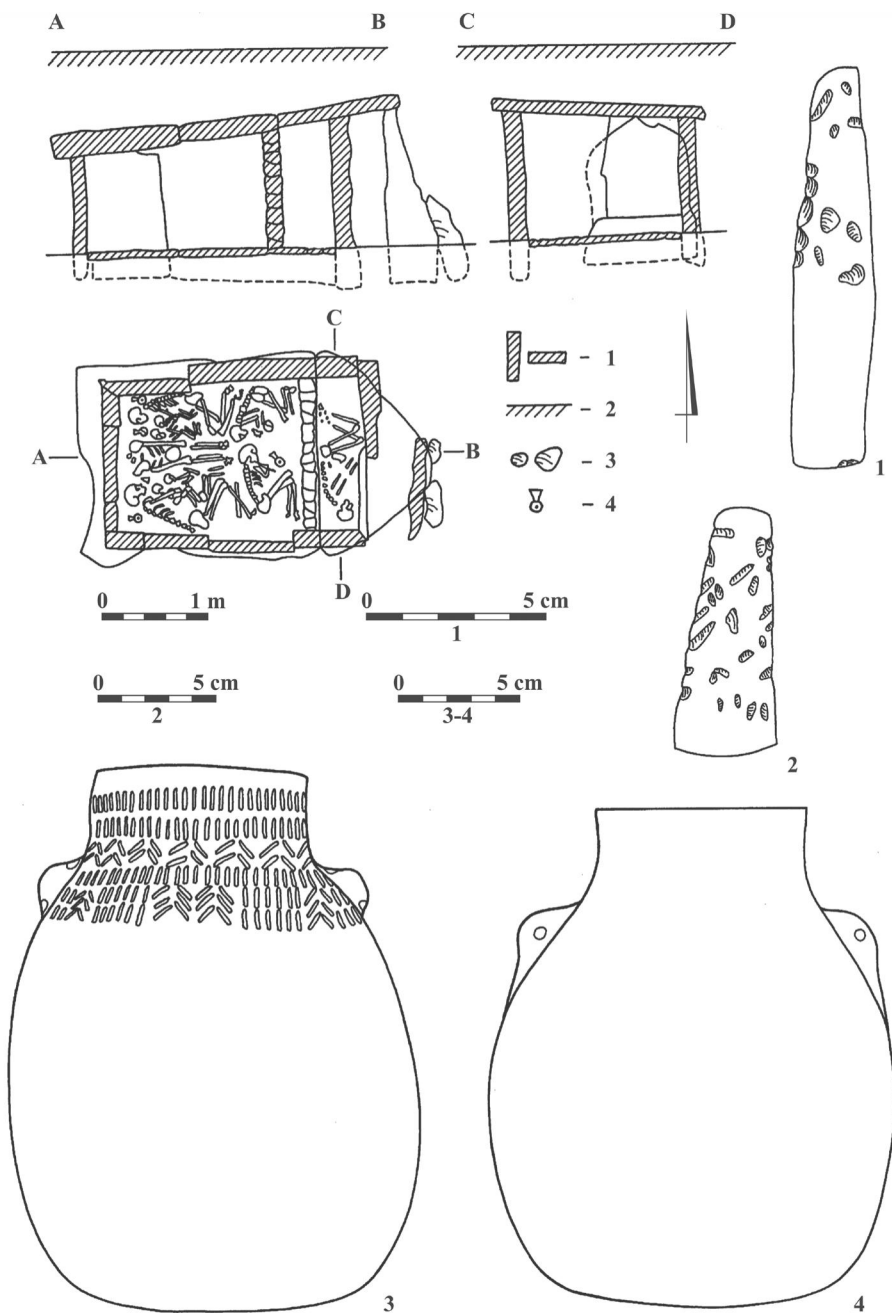


Fig. 3. Stone cist grave of the Globular Amphora culture, Volhynian sub-group: Kolodiezno II. Plan and cross-sections of the grave and artefacts (1-2 – flint; 3-4 – clay). *Foll.* Levytskyi [1930]; Sveshnikov [1983]; Szmyt [1999]. Key: 1 – slabs; 2 – present surface; 3 – stones; 4 – vessel

chaeological taxonomy: GAC, steppe Eneolithic and the broad circle (community) of the Yamnaya culture. Within the last-mentioned unit, Budzhak [Ivanova 2012] and Kemi Oba [Toshev 2007] cultures are considered. Interestingly enough, both Eneolithic stone cist graves and those associated with the Yamnaya culture are found in the southern belt of the steppes: from the Danube to Dnieper. East of the latter, only few such graves are located (Fig. 1).

The following review of the above-mentioned cultural contexts in which stone cist graves were constructed covers only selected regions for which comprehensive publications are available.

3.1. FOREST-STEPPE (VOLHYNIA, PODOLIA, AREA BETWEEN THE PRUT AND SERET RIVERS): GLOBULAR AMPHORA CONTEXT

Stone cist graves are one of the most important diagnostic traits of the GAC in all its territorial groups. In the area under discussion, an eastern group of the GAC is distinguished. It covered Volhynia, Podolia, the Moldavian Upland and the western part of the Middle Dnieper basin. Three principal site concentrations, forming the nuclei of three separate sub-groups of the eastern GAC, are distinguished: Volhynian, Podolian and Moldavian. Further east and southeast, single sites are dispersed, with two having been identified even on the east bank of the Dnieper [Sveshnikov 1983; Szmyt 1999; 2000; Rozdobudko, Yurchenko 2005; Szmyt 2009; Łysenko, Szmyt 2011]. West of the area occupied by the Moldavian (Seret) sub-group, on the west side of the Carpathians in Transylvania, only one grave has been identified so far: in Sânmartin-Ciuc [Székely 2002].

The chronological brackets of the GAC eastern group, i.e. its rise and decline, are roughly determined, although precise dates are subject to discussion [Szmyt 1999; 2001; 2003; 2009; Mihailescu-Bîrliba, Szmyt 2003]. Probably in the late 4th millennium BC (in its final century?), GAC populations arrived in western Volhynia from the Lublin Upland. As shown by the currently available radiocarbon age determinations of grave assemblages from Podolia and the Moldavian Upland, the settling of these areas proceeded rather quickly, possibly within a single century. In contrast, a slower pace was kept by population shifts towards eastern Volhynia and the middle Dnieper. The decline of the GAC eastern group took place around the middle of the 3rd millennium BC.

Stone cist graves are considered one of the principal distinctive traits of the GAC eastern group and represent a considerable percentage of grave forms in each of its sub-groups: Volhynian, Podolian and Moldavian [Sveshnikov 1957;

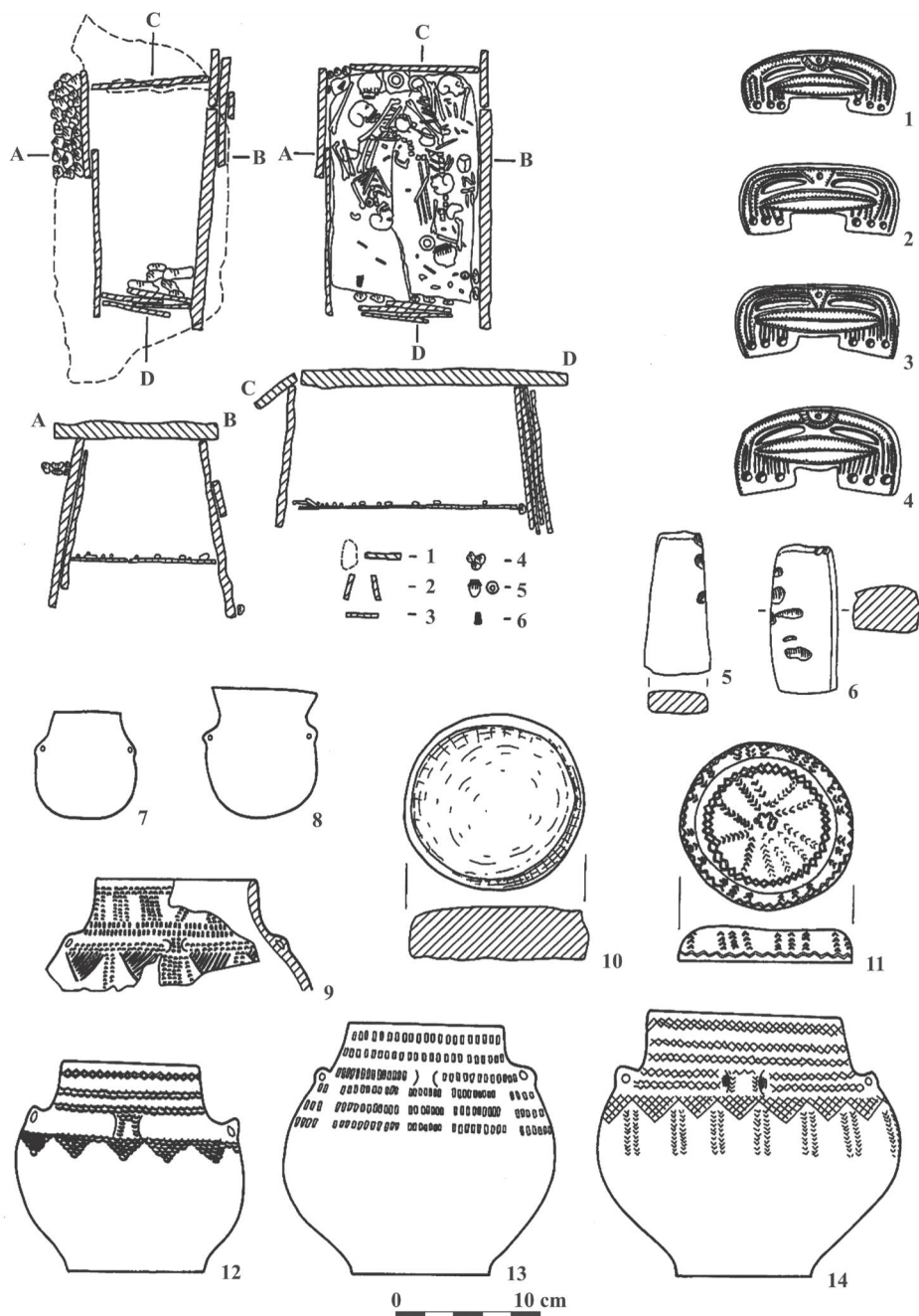


Fig. 4. Stone cist grave of the Globular Amphora culture, Podolian sub-group: Khartoniivtsy II. Plan and cross-sections of the grave and artefacts (1-4 – bone; 5-6 – flint; 7-13 – clay). *Foll.* Sveshnikov [1983]; Szmyt [1999]. Key: 1-3 – slabs; 4 – stones; 5 – vessels; 6 – flint axes

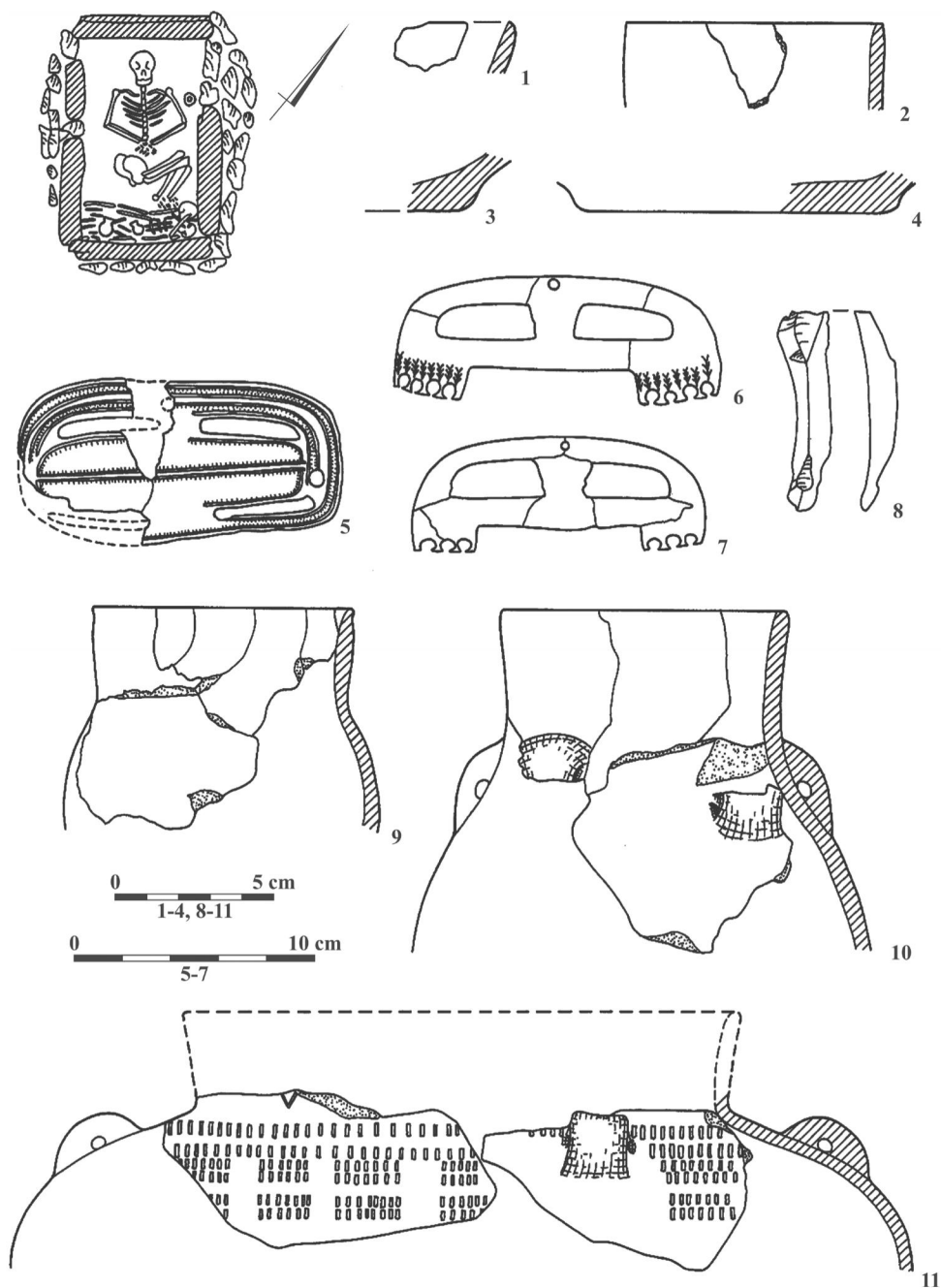


Fig. 5. Stone cist grave of the Globular Amphora culture, Podolian sub-group: Uvisla. Plan and cross-sections of the grave and artefacts (1-4, 9-11 – clay; 5-7 – bone; 8 – flint). *Foll.* Antoniewicz [1938]; Szmyt [1999]

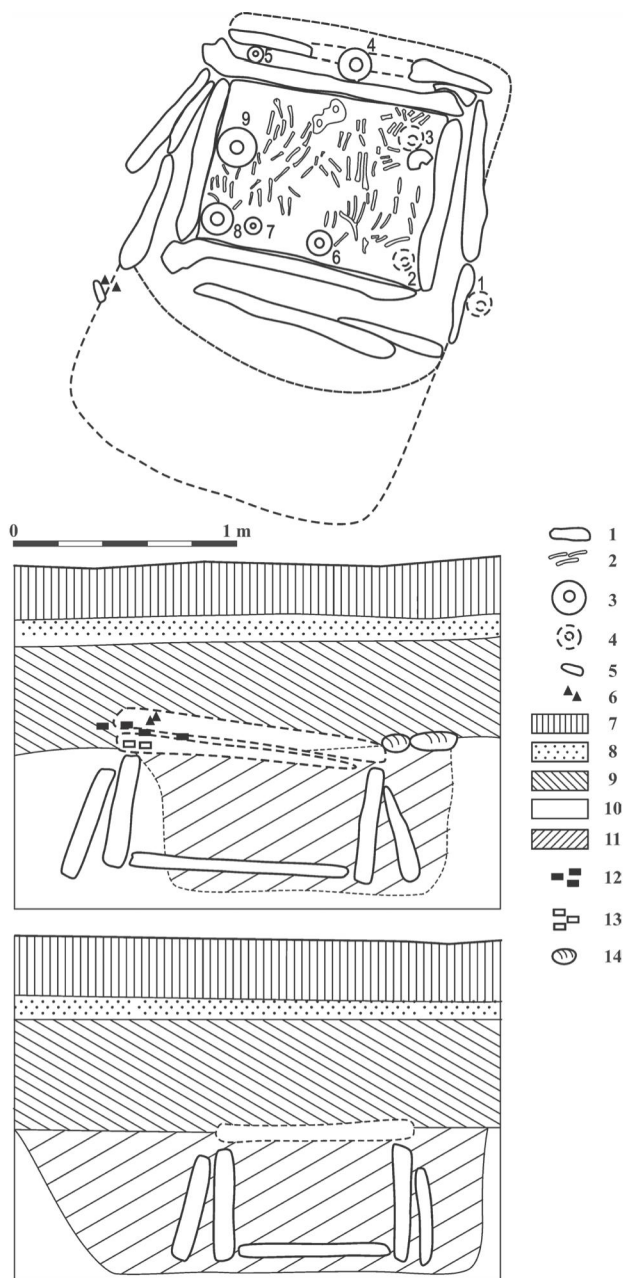


Fig. 6. Stone cist grave of the Globular Amphora culture, Moldavian (Siret) group: Mastacăn. Plan and cross-sections of the grave. *Foll. Mihailescu-Bîrliba* [2001]. Key: 1 – stone slabs; 2 – bones; 3 – clay vessels; 4 – broken vessels; 5 – flint axe; 6 – pottery shards; 7 – arable layer; 8 – brown soil with yellow spots; 9 – black soil with pottery shards and daub; 10 – yellow rock-bed; 11 – compact black soil; 12 – daub; 13 – pottery shards; 14 – pebbles

1983; Wiślański 1966; Szmyt 1999]. Examples of cist graves from Volhynia include Ivanye, Kolodiezchno, Tovpyzhyn or Ulvivok (Fig. 2 and 3). In Podolia, most of the local well-documented graves can be considered as cist features. Their principal traits can be illustrated by such features as those found in Dovhe, Gorbasiiv, Khartonivtsy I, Khartonivtsy II, Uvisla or Velika Slobidka (Fig. 4 and 5). In the Moldavian sub-group, too, cist graves account for the majority of assemblages discovered so far, as for instance in Calu-Piatra Soimului, Bargauani or Mastacăn (Fig. 6). A stone cist may also be observed in the form of the grave from Sânmartin-Ciuc, Transylvania, mentioned earlier [Székely 2002].

Describing eastern-group cist graves in 1999, this author discussed their structure, size, number of deceased individuals, manner of corpse deposition and grave goods [Szmyt 1999: 25-30]. This information shall be repeated below in brief with necessary additions.

As a rule, the principal form of such graves everywhere is a rectangular or trapezium-shaped cist; an oval variety is found in Volhynia (Skolobiv). Moreover, only in Volhynia, are entrance structures adjoining the cist encountered (Kolodiezchno II). Differences in the building material used for constructing cist graves can be noticed in Podolia and on the Moldavian Upland where these are in the form of stone slabs (often inclined inwards), while in Volhynia stone blocks were used as well. Gaps between slabs or blocks are sometimes filled with fine stones (Ivanye), which were also used for propping up slabs/blocks on the outer side, more often in Podolia (Khartonivtsy I and II, Uvisla) than in Volhynia (Tovpyzhyn). Another special 'Podolian' trait consists in adjoining additional slabs on the outside to prop up or reinforce grave walls (Dovhe, Gorbasiiv, Khartonivtsy I and II). It is also in this region that the grave chamber bottom as a rule was paved with a stone slab(s) and the chamber was covered in a similar manner. These additional elements are absent from most Volhynia features. Relatively often, the entrance wall was higher than the others (Aneta, Ivanye, Kolodiezchno II and Skolobiv in Volhynia, and Dovhe in Podolia).

The dimensions of Volhynia cists remain between 1.5×0.7 m (Vysokoe) and 2.26×1.28 m (Kolodiezchno II) or 3.0×0.95 m (Ostrog-Karpaty), but the most common length is approx. 2.0 m and width approx. 1.0 m. Podolia grave measurements vary from 1.3×0.7 m (Bavoriv-Zastavye 1) to 2.2×1.7 m (Zavadyntsy) and 2.5×1.0 m (Hlybochok), with $1.5\text{--}2.0 \times 1.0$ m being the most common dimensions.

The clearly predominant burial rite was inhumation. The body was most often laid in anatomical order, but in collective graves, this rule is often departed from. There are no obvious rules of corpse deposition either: various positions are encountered albeit a crouched position on the left or right side dominates (Aneta, Basarabi, Bavoriv-Zastavye I, Khartonivtsy I), with the extended (supine) position being less frequent (Uvisla). Very infrequently, the body could be placed in a seated position (Dovhe, Khartonivtsy II). Few sex determinations of the dead prevent researchers from finding out whether the burial rite differed in regard to sex.

Cist graves held the burials of one to several individuals (up to 10 in Volhynia and 6-7 in Podolia and the Moldavian Upland). Approximately 30 percent of Volhynian and Podolian graves contained a single burial, whilst this proportion rises to almost 60 percent in the Moldavian Upland. The second most common category was burials of 2-3 individuals – recorded in 40 percent of graves in Podolia, 45 percent in Volhynia, and only 16 percent in the Moldavian Upland. Graves with more than one individual buried accounted for almost 30 percent of features in Podolia, over 20 percent in Volhynia, and 25 percent in the Moldavian Upland [Szmyt 1999: 28; 2002: 222-223 and Fig. 26].

In several instances, traces of the recurrent use of graves can be identified whereby successive bodies were deposited at certain time intervals. For instance, in Velikaya Slobidka, the remains of two individuals lay within the chamber, and on the outside, by one of the southern walls, a third skeleton was found [Sveshnikov 1983: 51]. The remains of five bodies were discovered in Khartonivtsy II (Fig. 4) where the arrangement of the bones indicates the multiple laying of the dead in the grave [Sveshnikov 1983: 48-50].

Various cases are known, too, in which several bodies were deposited in a grave at the same time to form an elaborate arrangement. The best known of these is the well-known feature at Kolodiezchno II (Fig. 3), where nine bodies were placed in the main chamber in a ‘heraldic’ formation, with another male, aged about 30, laid in the antechamber [Levytskiy 1930].

A significant distinction is clearly visible in the orientation of burial chambers between features from Volhynia and those from Podolia. In Volhynia, the chambers were most often orientated latitudinally: W-E or E-W, although other orientations were also used (NE-SW, NW-SE, S-N). In Podolia, meanwhile, NW-SE and N-S orientations predominated, with less frequent occurrence of NE-SW, E-W and SE-NW orientations.

Grave goods comprised mostly vessels (usually a few), flint axes (one or a few) and bone artefacts (various blades, so-called buckles or wild boar tusks). Sporadically, there are encountered fine flint tools and, in Volhynia and Podolia graves, amber artefacts. In several instances colorants were identified such as ochre, and white and yellow clay. For example, in Kolodiezchno II and Ostrog-Karpaty the bodies were dusted with ochre, in Suyemtsy II, ochre was sprinkled around the body, while in Skolobiv only small lumps of ochre were found. White clay was sprinkled on the deceased in Aneta, whereas yellow was applied to a grave in Zavadyntsy, Podolia, where rolls of this substance were placed on a male corpse. Also animal remains were discovered in all of the more thoroughly examined cist graves, which most commonly proved to be bones of domestic animals, mainly pigs, less frequently cattle and sheep or goats. In this particular context, very infrequently (Dovhe, Podolia), traces of fire were identified in the chamber, causing the bones lying there to be burnt [Sveshnikov 1983: 40].

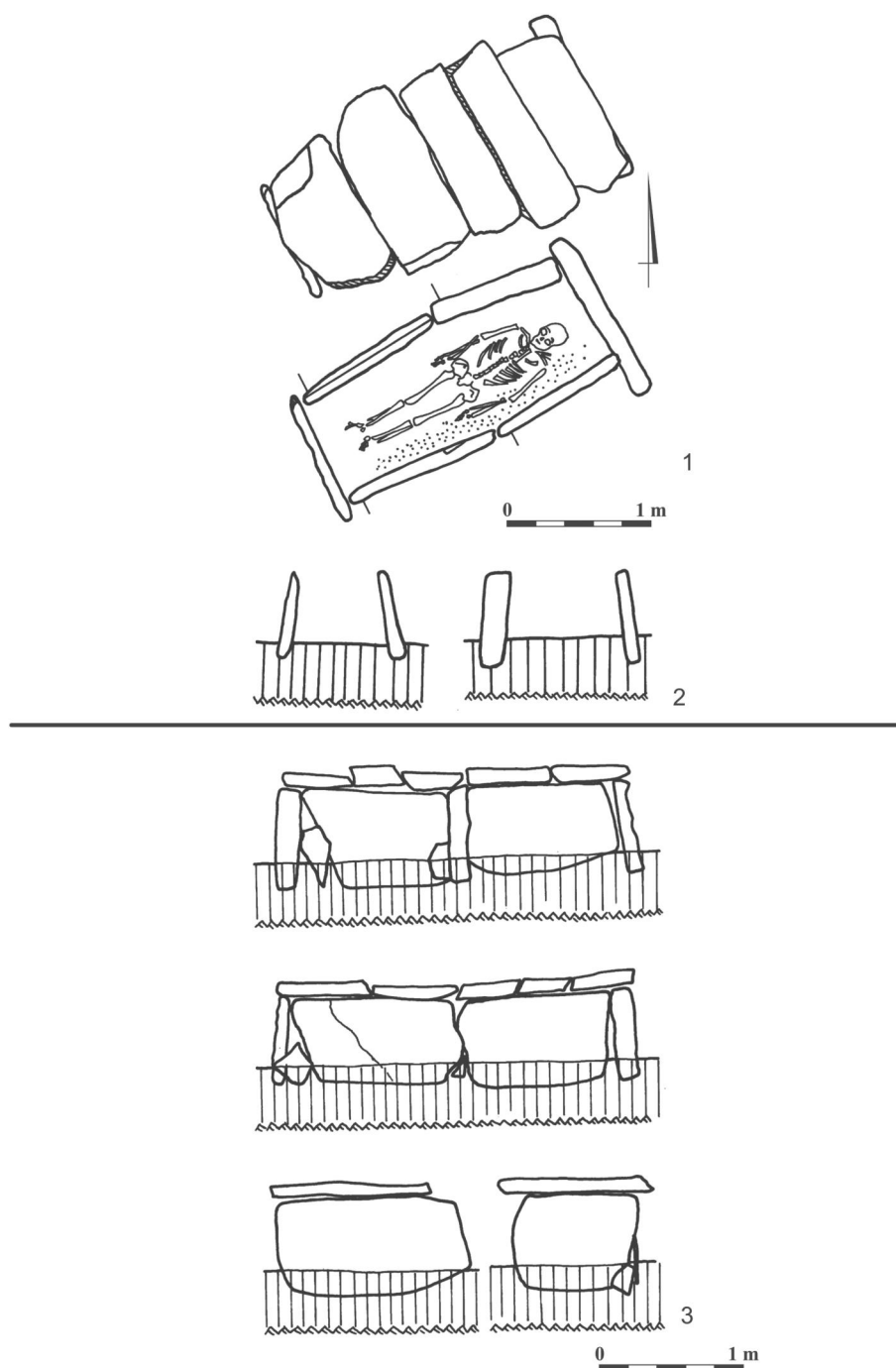


Fig. 7. Eneolithic stone cist grave of group I: Maryevka, kurgan 14, grave 7. *Foll.* Rassamakin [2004]. Key: 1 – plan; 2 – cross-sections; 3 – walls of the grave

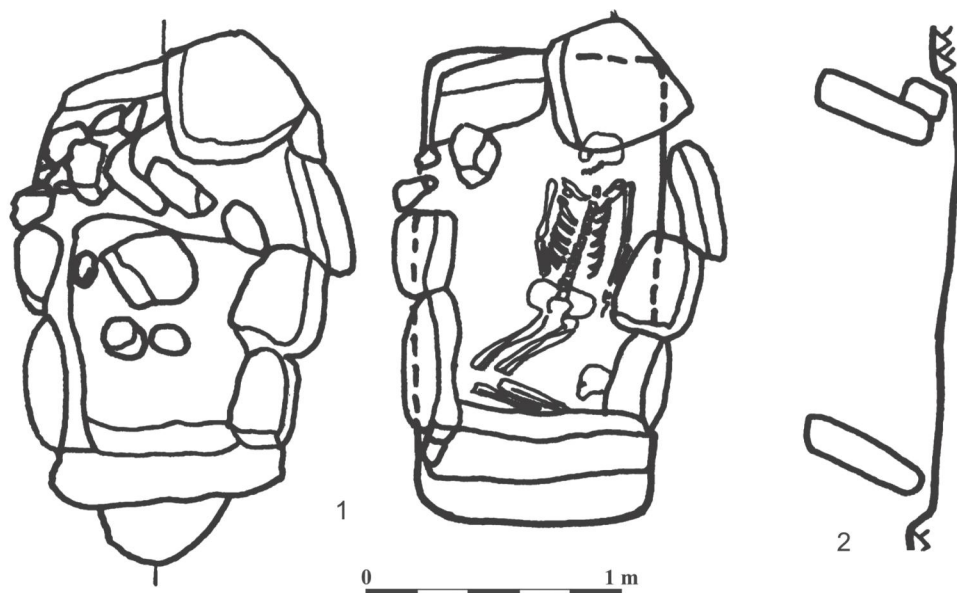


Fig. 8. Eneolithic stone cist grave of group IIA: Starorogozheno, kurgan 1, grave 28b. *Foll. Rassamakin* [2004]. Key: 1 – plan; 2 – cross-section

A comparison of stone cists with other GAC grave forms reveals similarities and differences between them. The latter include the number of bodies laid in the grave. Whereas the remains of one to three people are discovered in both cists and features with other stone elements or ones without any such structures, burials of a greater number of dead individuals were found only in cist graves. Furthermore, grave goods in stone cists tend to be richer than those placed in graves of a different structure, but the basic set of artefacts (vessel(s) + flint axe) remains the same. Rare stoneless graves, deprived of any grave goods, are an exception [Szmyt 1999: 26].

3.2. BLACK SEA STEPPES: ENEOLITHIC CONTEXT (‘PRE-YAMNAYA’ GROUPS)

Among the sepulchral features of the so-called steppe Eneolithic, stone cist graves represent a small percentage: among 983 such features included in Rassamakin’s catalogue [2004], there are only 26 stone cist graves. According to the current knowledge, they appeared in the Late Eneolithic, in ‘pre-Yamnaya’ traditions referred to as post-Mariupol, post-Stog, Nizhna Mikhailivka and Zhivotilovka

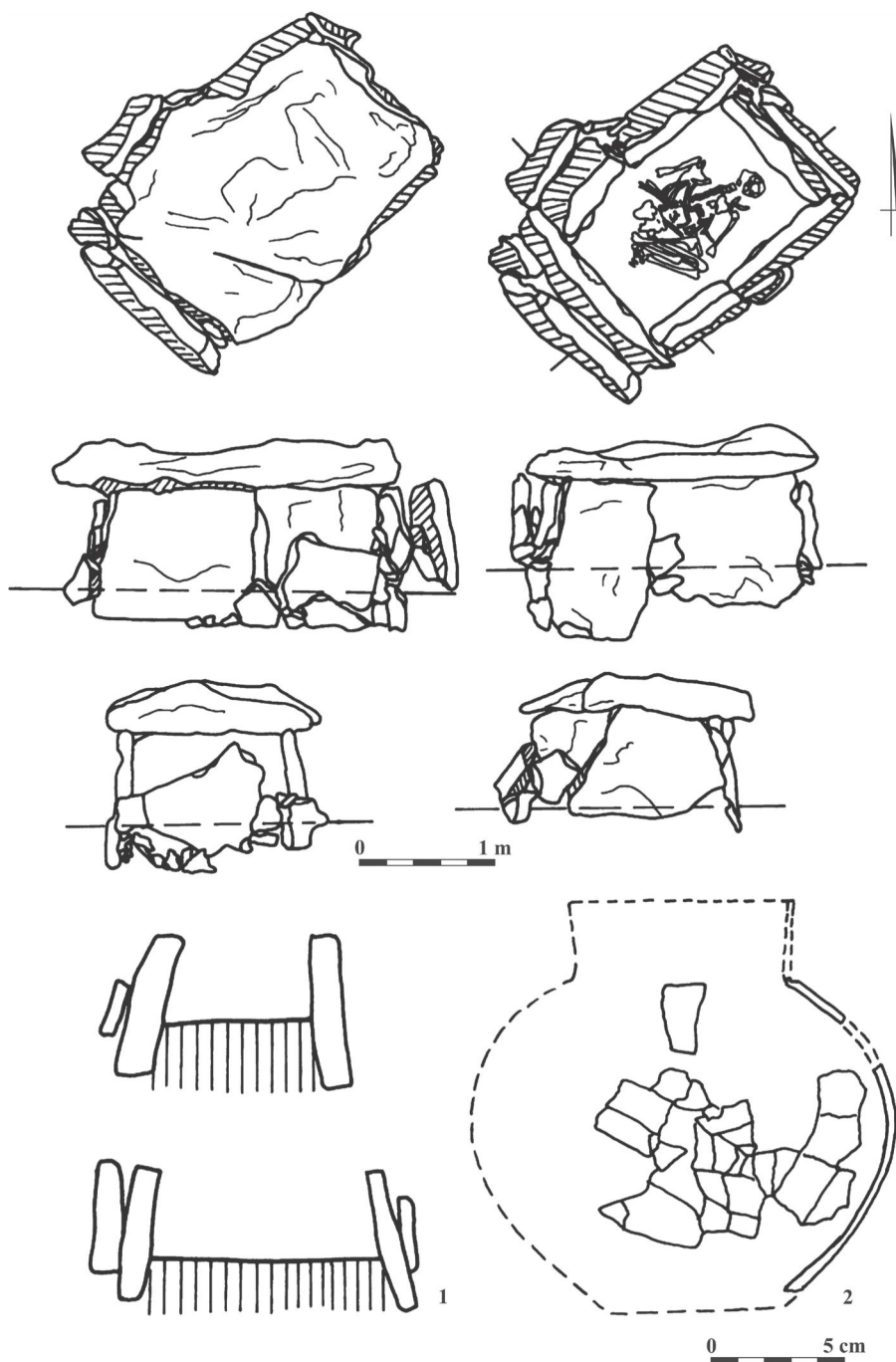


Fig. 9. Eneolithic stone cist grave of group IIIA: Liubimovka, kurgan 14, grave 7. *Foll.* Rassamakin [2004]. Key: 1 – plan and cross-section of the grave; 2 – clay vessel

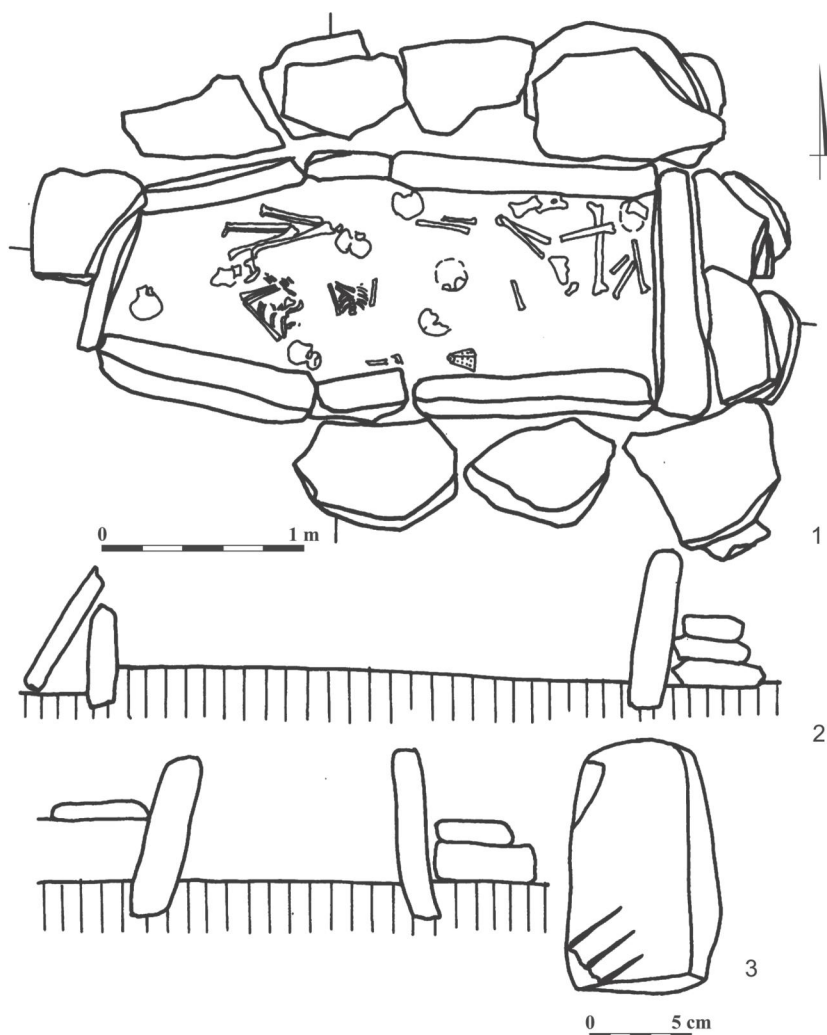


Fig. 10. Eneolithic stone cist grave of group IIIC: Baratovka, kurgan 1, grave 6. *Foll.* Rassamakin [2004]. Key: 1 – plan; 2-3 – cross-sections

[Teslenko 2002: 79-80; Rassamakin 2004: 204-209]. As a rule, they are discovered under barrows or in their mounds, but are also found in flat cemeteries (without barrows). Rassamakin provides descriptions of many stone or wooden cists, ascertaining their presence in the following groups and varieties he distinguished: I, II, IIA, IIB, IIC, IIIA and IIIC respectively; only group IIB is found to lack any cists. Stone cist graves therefore, are not a trait that sets apart or co-defines any steppe tradition. This observation is highly significant for further discussion.

Group I (first tradition, after Rassamakin) comprises nine stone cist graves [Rassamakin 2004: Tab. B]. The cists were built on the ground surface and covered with barrows. These are both primary graves and ones dug into an existing barrow. As an example may serve a grave from site Marievka, kurgan 14, grave 7 [Rassamakin 2004: 45]. It was placed in the centre of a cromlech, on the original surface of the ground, orientated NE-SW and measuring 2.1×0.8 m (Fig. 7). The cist was built of six dressed slabs; at least one was dressed in situ as seen from chipped-off fragments. Two kinds of material were used: granite for the side walls and shell limestone for headwalls. The NE wall was more massive than the SW one. The slabs were sunk into the original ground for 0.2 m, slightly inclined inwards and propped up with smaller stones. The inner surface of the NE-wall slabs was coloured with ochre. The grave was sealed at the top with five slabs. In the chamber, on the bed of bark sprinkled with chalk, a single adult individual lay supine, with the head pointing NE. His or her bones were coloured with ochre and bore traces of tar.

In group II (second tradition), in barrowless cemeteries, five stone cists were discovered. They are represented by a grave from Olkhovatka, kurgan 1, grave 4 [Rassamakin 2004: 71]. A rectangular cist, measuring 2.0×1.6 m, had probably been placed in a pit. Its walls were made up of over a dozen thin slabs, while the cover consisted of two slabs separated by a layer of clay. The chamber held the remains of two adults lying flexed on their backs, heads pointing W. At burial 2, one retouched flint and goat bones were found.

In group IIA (second tradition), in barrows, three stone cists were discovered [Rassamakin 2004: 40-41] whose characteristics are illustrated by a feature from Starorogozhenko, kurgan 1, grave 28b (Fig. 8). A rectangular cist, orientated NE-SW stood on the original surface of the ground and was sealed by a barrow [Rassamakin 2004: 97]. The cist was covered with a single slab. Inside, one burial was identified (the body lay supine, slightly turned to the right, with the legs flexed and the head pointing NE), covered with ochre. In addition, the skull of another individual and a lump of ochre were found.

Group IIB (second tradition) comprises a single cist which was explored on site Zolotaya Balka [Rassamakin 2004: 101]. The cist, placed inside a cromlech and orientated N-S, was rectangular and measured $1.75 \text{ m} \times 0.75$ m inside. It contained a single flexed burial with the head pointing S.

Group IIC (second tradition), in turn, holds two stone cist graves [Rassamakin 2004: 118 and Tab. F]; both come from a barrow in Kichkas. One of the cists was built of seven gneiss slabs and covered with similar slabs. It measured 2.65×0.96 m. Inside, a dead adult lay supine with his or her legs flexed and head pointing SE. The earth inside the chamber was coloured with ochre and at the individual's legs, three ornamented bone beads were found.

Group IIIA (third tradition), comprising barrow burials, includes three stone cists [Rassamakin 2004: Tab. G]. Their characteristics may be illustrated by one from Liubimovka, kurgan 14, grave 7, which was the primary grave in the barrow

[Rassamakin 2004: 122]. A cist (Fig. 9), measuring 2.5×1.6 m and 1.35 m high inside, orientated NE-SW, was placed in the centre of a stone structure and covered with a single huge slab (dimensions: 2.4×1.8 m; thickness: 0.4 m). Its walls consisted of six slabs (dressed on the inside) sunk into the chernozem for 0.3-0.5 m and slightly inclined inwards. Gaps between the slabs were sealed and the walls were propped up with additional slabs on the outside. The chamber held a single burial; the body must have been laid crouched on the left side, with the head pointing NE. There were also two vessels. The chamber bottom was covered with ochre. The traces of white bedding have survived as well.

In group IIIC (fourth tradition), composed of barrow burials, four stone cists were recorded [Rassamakin 2004: 57]. One was discovered in Starorogozhenno, kurgan 1, grave 9 [Rassamakin 2004: 153]. It was subrectangular, measured 1.3×0.9 m and was orientated N-S. Its walls of limestone slabs were topped by a single slab. The bottom was sunk 0.2 m below the bottom edges of the slabs. The chamber held two burials sprinkled with ochre: one of an adult and the other of an adolescent. The former had been laid in the crouched position on the left side, with the head pointing NE, while the latter was contracted and lay on the right side, with the head pointing S.

A feature of group IIIC, which stands out owing to the number of burials, is a stone cist from Baratovka, kurgan 1, grave 6 [Rassamakin 1996: 120-128; 2004: 152-153]. Sunk into an older barrow, the cist had the shape of an elongated trapezium, measuring 3.05×1.3 m on the outside and 2.65×1.0 m on the inside (Fig. 10). Above the cist, 1.25-1.0 m above the original surface of the ground, there was a 'pavement' of slabs and smaller stones, occupying an area of about 4.0 m in diameter. The cist, orientated W-E, stood on the original surface of the ground into which slabs were dug 0.15-0.2 m deep. Its walls were built of eight slabs (three slabs on each of the long sides and one slab on each short side). Inner slab surfaces were dressed and gaps between the slabs were smeared over with clay mixed with earth. The upper edges of the slabs rose to 0.62-0.8 m above the original ground surface, with the E wall rising the highest. The N, S and E walls were propped up on the outside by rows of horizontally placed slabs. Only at the W wall, possibly the entrance one, was there a single obliquely placed slab, covering the slit between the wall and 'pavement'. In the grave chamber, the remains of six bodies were found. One skeleton lay in the north-eastern corner, four in the cist centre, and one at the western wall. A considerable number of mixed bones were found in the eastern part of the chamber. Only two skeletons in the western part were preserved in situ, although their skulls were missing. One belonged to an adult, lying crouched on the right side, with the neck pointing SSE. The other was observed to be a child deposited probably in the embryonic position and orientated similarly to the previous one. The remains of both dead individuals were sprinkled with ochre. The chamber held a single element of grave goods: a piece of ochre 14.3 cm high with shaped and smoothed-out surfaces.

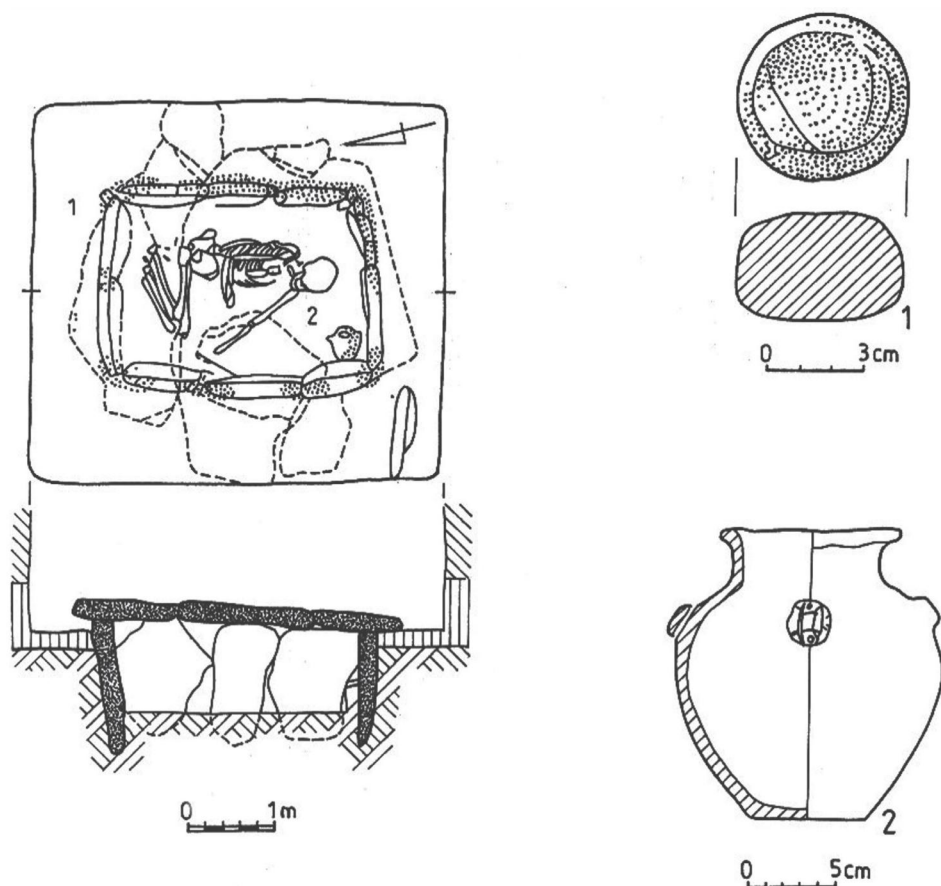


Fig. 11. Stone cist grave of the Budzhak culture: Tatarbunary. *Foll. Subbotin* [1988]. Key: 1 – plan and cross-section of the grave; 2-3 – artefacts (2 – stone; 3 – clay)

As regards chronology, stone cists emerge in stone sepulchral architecture in the course of the late Eneolithic, in the period corresponding to stage CII of the Tripolie culture, i.e. in the final centuries of the 4th and the beginning of the 3rd millennia BC [Rassamakin 2004: Fig. 125 and 126; Teslenko 2007: 80]. They are unevenly distributed over the steppes: most fit into the southern steppe belt, between the Danube and Dnieper rivers, including the eastern (left) bank of the latter [Teslenko 2002: 107]. The greatest concentration is found between the Boh and Dnieper, primarily in the drainage basin of the Inhulets and its tributaries. The stone cists of group IIIA (Nizhna Mikhailivka) are concentrated in the drainage basins of the Inhul, Inhulets and Dnieper rivers. On the Inhul and Inhulets, underneath one barrow, there were even several such features (in Starorogozheno and

Baratovka). Cists associated with the post-Mariupol tradition are located in the centre of the Inhulets drainage basin. Cists included in the Zhivotilovka group, in turn, are situated in the same regions as the other grave forms of this group [Teslenko 2002: 107-109].

As shown by Teslenko [2002: 107] and confirmed by the review of data compiled by Rassamakin [2004], cist graves in terms of other traits of the funerary rite and their inventories do not differ from other grave types linked to the steppe Eneolithic.

To make the picture complete, it has to be mentioned that stone cist graves are known also in the Usatovo culture – a steppe variety of the Tripolie culture from its stages CI and CII, albeit there are few of them (information of only two such features has been published so far). One is grave 1 (central) from barrow I-2 in Usatovo, described as a rectangular cist built of four slabs, measuring $1.2 \times 0.9 \times 0.9$ m and covered with a single slab [Petrenko 1989: 94]. The other ‘Usatovo’ cist may be identified with a feature from barrow 10 in Efimovka [Teslenko 2007: 80].

3.3. STEPPE ZONE IN THE DNIESTER-DANUBE BASIN: CONTEXT OF THE BUDZHAK CULTURE

In the Budzhak culture – a north-western branch of the Yamnaya culture circle found between the Dniester and Danube rivers [Ivanova 2012, here older literature] – the share of stone cists in the overall number of ‘pit’ graves is small. According to Ivanova’s calculations, there are over 2,632 of the latter, while cist features number below 20, i.e. less than one percent [Ivanova, Petrenko, Vetchinnikova 2005: 132-145; Ivanova 2012: 110]. They concentrated east of the Dniester. Apart from the stone structure, all other traits of the funerary rite correspond to what is observed in the other graves of the Yamnaya culture circle, including the Budzhak culture [Ivanova, Petrenko, Vetchinnikova 2005: 141; Ivanova 2012: 109].

In terms of barrow stratigraphy, only the Velikozimenovo feature proved to be a primary grave over which a barrow was raised. All the others were placed in already existing older barrows. Cists were usually placed in depressions made in barrow mounds, which were deepened in their central portion to make space for slabs [Ivanova, Petrenko, Vetchinnikova 2005: 135-138].

All graves discussed here were rectangular in plan and their chambers were surrounded by four to ten usually rectangular or subrectangular slabs. Gaps between wall slabs were filled with fine stones and smeared over with clay. Cist dimensions varied from 1.0×0.8 m (‘Soldatskaya slava’) to 2.4×1.2 m (Velikozimenovo) [Ivanova, Petrenko, Vetchinnikova 2005: 138]. Bottoms were usually

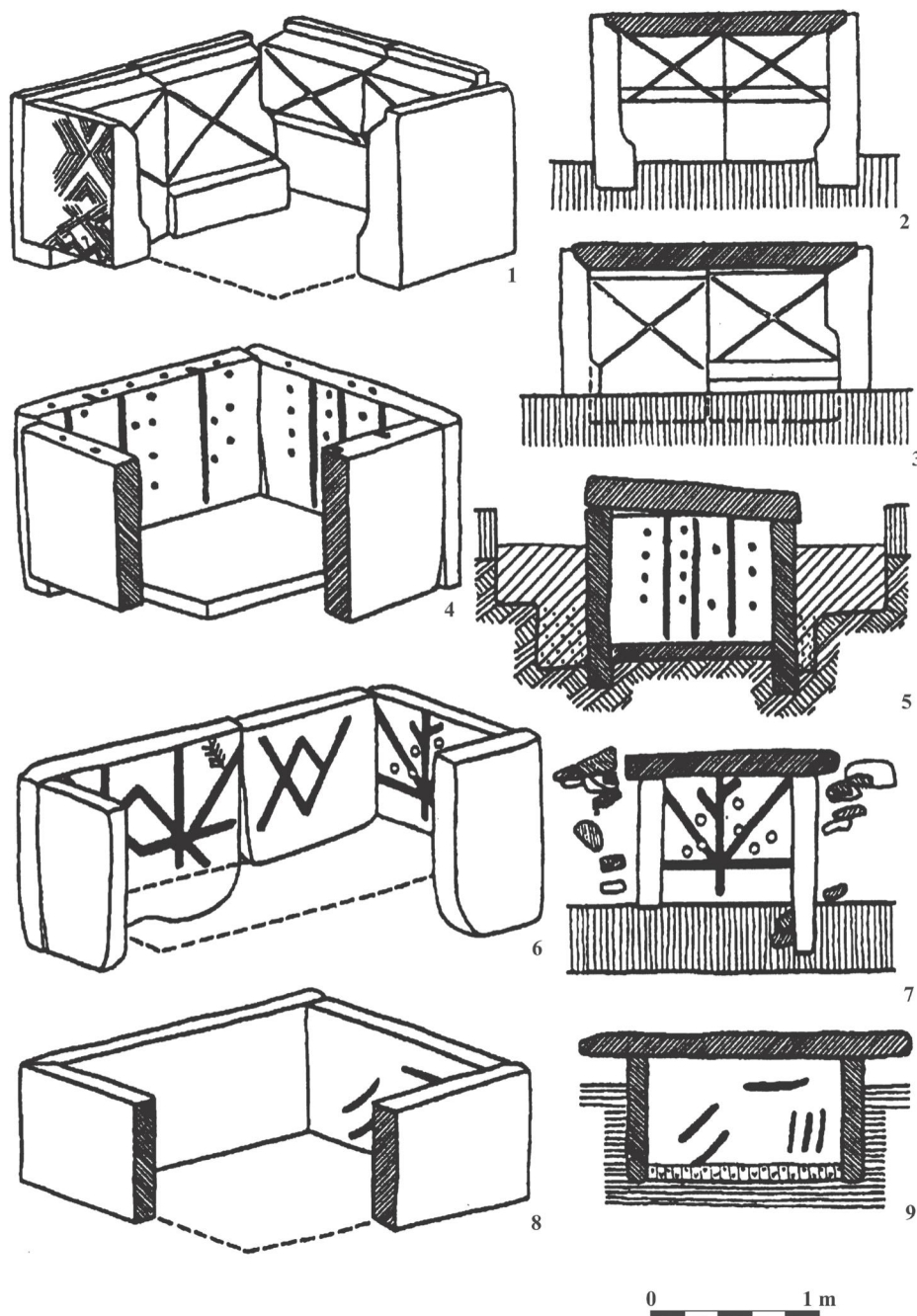


Fig. 12. Stone cist graves of the Budzhak culture. *Foll. Subbotin* [1995]. Key: 1-3 – Velikodolinskoe, kurgan 1, grave 1 (a reconstruction); 4-5 – Starye Beliary, kurgan 1, grave 14; 6-7 – Velikozi-menovo, kurgan 1, grave 1; 8-9 – Alkaliya – ‘Gostra mogila’, kurgan 33, grave 3

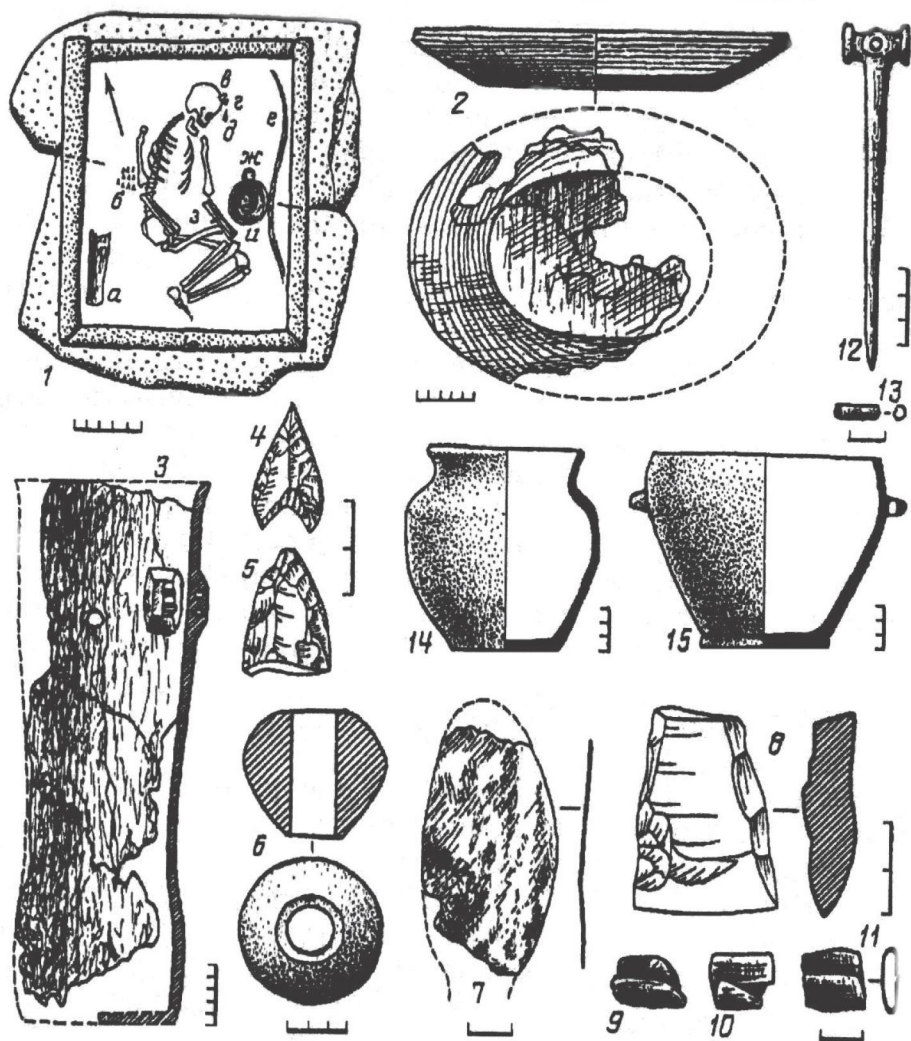


Fig. 13. Stone cist grave of the Budzhak culture. *Foll. Subbotin* [1995]. Key: 1-11 – a grave plan (1) and artefacts from Alkaliya – ‘Gostra mogila’, kurgan 33, grave 3 (2-3 – wood; 4, 5, 8 – flint; 6 – stone; 7, 9-11 – bronze); 12-15 – artefacts from Starye Beliary, kurgan 1, grave 14 (12 – bone; 13 – bronze?; 14-15 – clay)

earthen; slab-reinforced bottoms were encountered only in two locations: Starye Beliary and perhaps in an Odessa barrow. Cover slabs had various shapes. In Starye Beliary, an anthropomorphic stela was even used for this purpose [Subbotin 1988] and in Velikozimenovo, the grave was covered by a stela fragment [Ivanova, Petrenko, Vetchinnikova 2005: 49, Fig. 31].

In seven features, the inner surface of wall slabs was decorated with ochre: Alkaliya – ‘Gostra mogila’ (barrow 33, grave 3), Beliaevka (barrow 1, grave 9), Katarzhino (barrow 1, grave 1), Kubey (barrow 21, grave 14), Starye Beliary (barrow 1, grave 14), Sverdlovo (barrow 1, grave 4), Velikozimenovo (barrow 1, grave 1) [Subbotin 1995: 193-196; Ivanova 2012: 107]. In turn, in Velikodolinskoe (barrow 1, grave 1), slabs bearing carved (not painted!) ornaments were recycled in a Yamnaya culture grave¹ [Subbotin 1995: 193; Ivanova, Petrenko, Vetchinnikova 2005: 136].

As a rule, in a grave chamber, a single body was laid, only in Starye Beliary, were two bodies buried. Most bodies were deposited in the flexed position (an exception: one individual from Starye Beliary), on their back (slightly turned to the left) or on the left side (only in Sanzheyka, on the right) [Ivanova, Petrenko, Vetchinnikova 2005: 138].

In Katarzhino, the remains of a leather bedding have survived on which the body was laid; in other features, organic traces were identified on the bones (‘Soldatskaya slava’). In Alkaliya there was also found a 10-cm-thick layer of chernozem and ash on the bottom in some features [Ivanova, Petrenko, Vetchinnikova 2005: 139]. Ochre was often used to sprinkle bodies (in Starye Beliary, only heads) and chamber bottoms, and to decorate walls (see above).

Grave goods were found in a half of the features in question [Ivanova, Petrenko, Vetchinnikova 2005: 139]. They included ceramic vessels (from one to three) found in four graves (Tatarbunary, Kubey, Starye Beliary and ‘Soldatskaya slava’) and other objects retrieved from single cists: wooden painted sticks (Velikozimenovo), a stone ‘bolas’ (grinder? – Tatarbunary), a small antler hammer mace (Starye Beliary). In Alkaliya and Starye Beliary, the dead individuals were given beads of rolled fragments of copper or bronze sheet metal [Subbotin 1995: 193-196]. Exceptionally varied grave goods were deposited in a stone cist grave in Alkaliya [Subbotin 1995: 195-196; 2003: Suppl. 2] discussed below.

Examples of cist graves from the Dniester area, the descriptions of which illustrate the diversity of the form under discussion, are found in Tatarbunary, Starye Beliary and Alkaliya – ‘Gostra mogila’.

Grave 2 from Tatarbunary [Subbotin 1988] has a rather well established position in the history and stratigraphy of the barrow it was sunk into. It was built in the third phase of the use of the barrow, after an older series of Yamnaya culture graves (nos. 7, 6, 4 and 3) and after an enlarging of the mound over graves 3 and 4, but before a Catacomb culture grave (8). A stone cist (Fig. 11), measuring inside 1.4×0.95 m, was placed at the bottom of a pit, which was over-deepened in its bottom part. The upper part of the pit, sunk 0.45 m into the ground, was rectangular, measuring 2.4×2.2 m and orientated SE-NW. Whereas its bottom part, sunk 0.6 m into the ground, measuring 1.6×1.25 m

¹ A similar case is known from the steppes on the Boh river [Shaposhnikova, Fomenko, Dovzhenko 1986: 124, Fig. 46, 5-11].

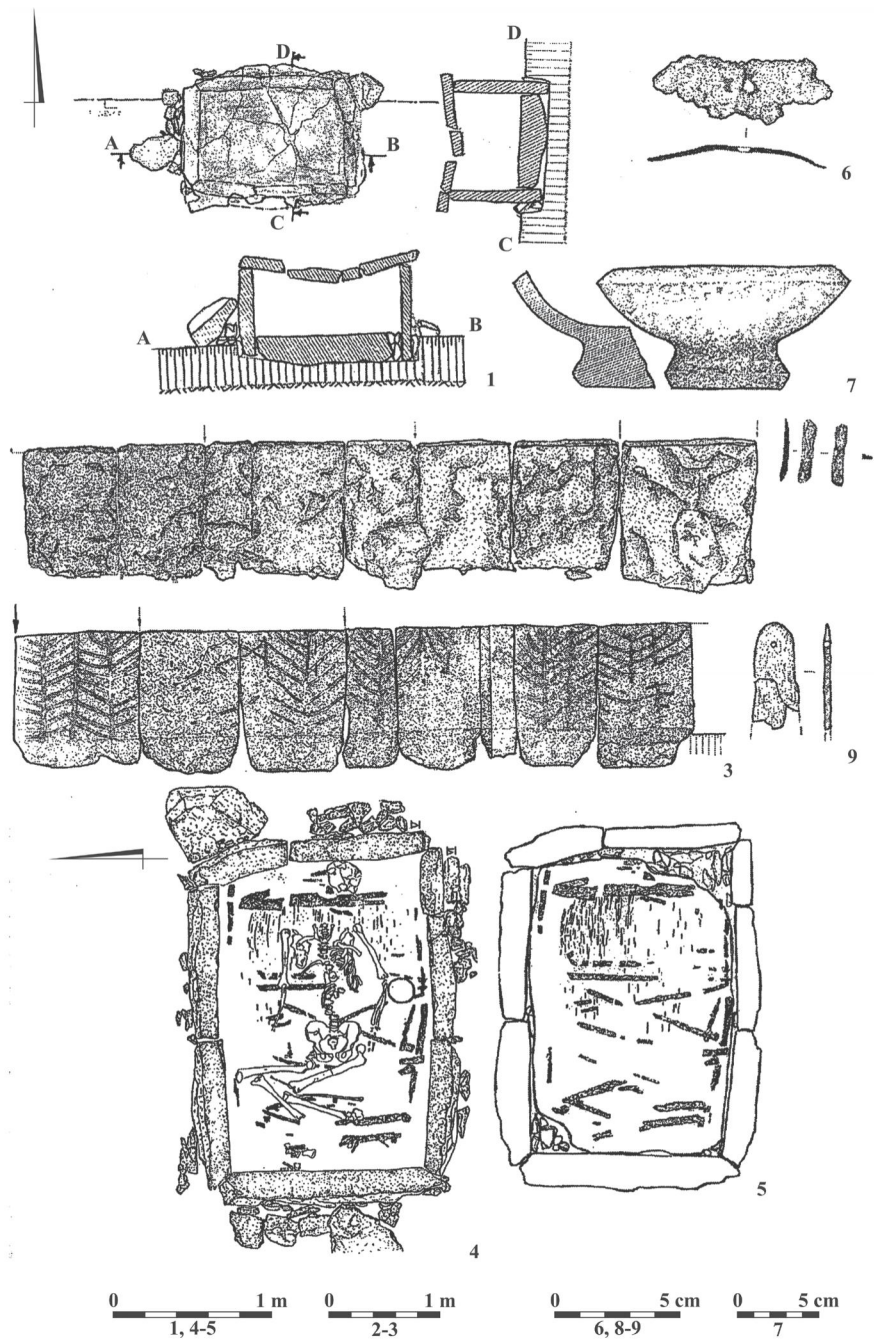


Fig. 14. Stone cist grave of the Yamnaya culture in Ingulets area: Zelenyi Hay, kurgan 5, grave 4. *Foll. Melnyk, Steblyna* [2012]. Key: 1, 4, 5 – plan and cross-sections of the grave; 2-3 – outer and inner surface of stone walls; 6-9 – artefacts (6, 8 – copper; 7 – clay; 9 – wood)

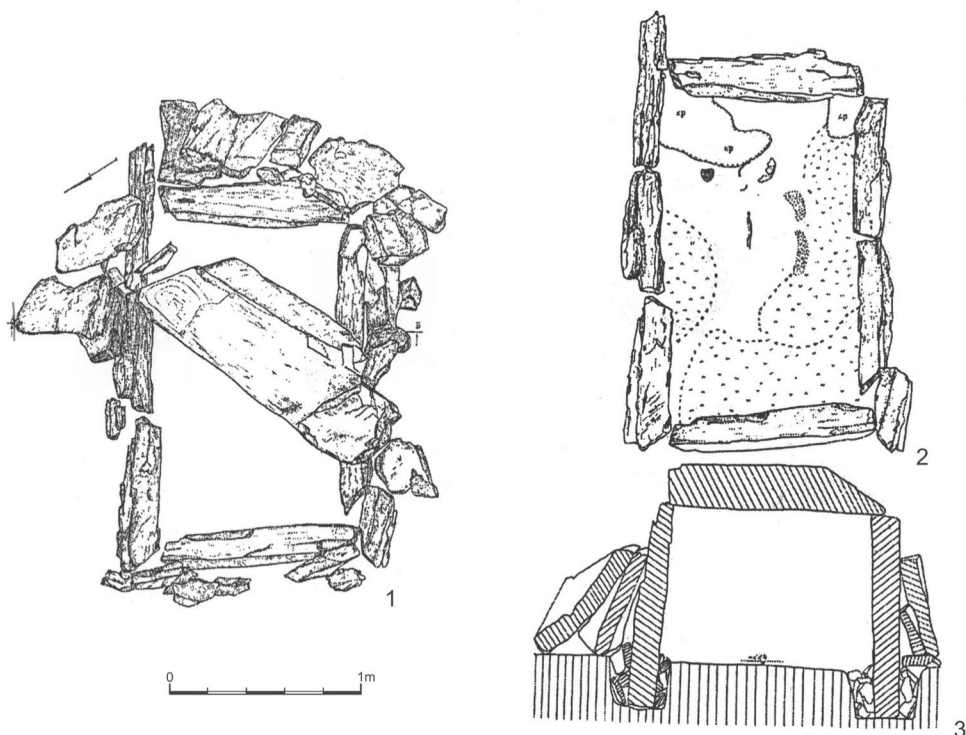


Fig. 15. Stone cist grave of the Yamnaya culture in Inhulets area: Nedayvoda, kurgan group “Tri bratia”, kurgan 1, grave 2. *Foll. Melnyk, Steblyna* [2012]. Key: 1 – plan of the upper part (ceiling); 2 – plan of the lower part (cist); 3 – cross-section

was orientated SW-NE. The cist consisted of ten flat, subrectangular sandstone slabs (0.1-0.15 m thick). They were sunk 0.05-0.2 m below the pit bottom, with the N wall rising 0.1 m above the others. Gaps between the slabs were filled with fine stones and smeared over with green clay. Clay covered also the upper edges of the slabs. The cist was covered by three large slabs laid in parallel and making up a cover, measuring 2.3 × 1.9 m. At the bottom, traces of an organic bedding were identified, on which an individual had been laid crouched on the left side, with the head pointing S-SW. Behind its back, there was a lump of ochre, while in front of the head, in the SW corner of the grave, a vessel stood. In the fill of the upper portion of the pit, a stone object was found and interpreted to be a ‘bolas’.

Grave 14 from barrow 1 in Starye Beliary [Subbotin 1995: 193-194] contained a cist, measuring 1.7 × 1.3 m and consisting of a rectangular bottom slab and four wall slabs covered by an anthropomorphic stela. Gaps between the slabs were smeared over with green clay. The inner surfaces of the wall slabs bore a geometric ornament made with red ochre (Fig. 12:4-5). The cist stood in a pit over-deepened

in its central part, with the wall slabs having been dug into the pit bottom. The grave chamber held two individuals. The remains of one of them, his or her head pointing W-NW, did not keep anatomical order; while the other had been laid in the crouched position on the left side, with the head pointing NW. The bones of both individuals show traces of ochre. By the side of the other individual, there lay three elongated beads made of bronze(?) sheet metal and an antler hammer mace. In a cist corner, behind this individual's head, there was a vessel; another was found close to the cist, at the bottom of the upper part of the pit (Fig. 13:12-15). From the bones of the second individual a ^{14}C date was obtained: Kiev-11209, 4030 ± 80 BP [Ivanova, Petrenko, Vetchinnikova 2005: 142].

A cist was also unearthed in grave 3, kurgan 33 ('Gostra mogila'), Alkaliya cemetery [Subbotin 1995: 195-196]. It was embedded in the barrow mound and measured 1.6×1.3 m (Fig. 12:8-9). Its walls were made of four well-fitted slabs, the inner surfaces of which were ornamented with red ochre motifs. The grave was covered with two slabs, while its earthen bottom was hidden under a vegetable bedding on top of which there was a 10-cm-thick layer of chernozem mixed with ash. The body lay crouched on the left side, with the head pointing NE and was accompanied by rich grave goods (Fig. 13:1-11). On the left hand, it displayed a bracelet with three bronze or copper plates threaded on a leather strap (leather remains have survived), at the forehead, a bronze plate (knife?) lay accompanied by a retouched flint flake and a flint axe, while behind its back, there were 11 flint arrowheads.² Further away, at the chamber wall, a wooden quiver lay. In front of the body, a wooden vessel and a stone mace head stood; behind them, at the E wall, a bow was found. The Alkaliya grave is unique, standing out in terms of plurality and diversity of grave goods.

Stone cist graves, known from the Budzhak culture, are associated with both its early and late phases. Radiocarbon age determinations of human bones from Starye Beliary [Ivanova, Petrenko, Vetchinnikova 2005: 142] and from three graves discovered in the Akkembetskiy barrow³ [Szmyt, Cherniakov 1999: 197, Tab. 1] date these features to ca. 2600-2200 BC [Ivanova 2012: Fig. 4.18 and 4.22].

² In Subbotin [2003: Suppl. 2], a slightly different set of flint, stone and metal artefacts is given. Here, Subbotin [1995] is relied on.

³ Due to the death of I.T. Cherniakov, a planned publication of materials from this barrow did not materialize. Cf. a short note: Cherniakov [2004].

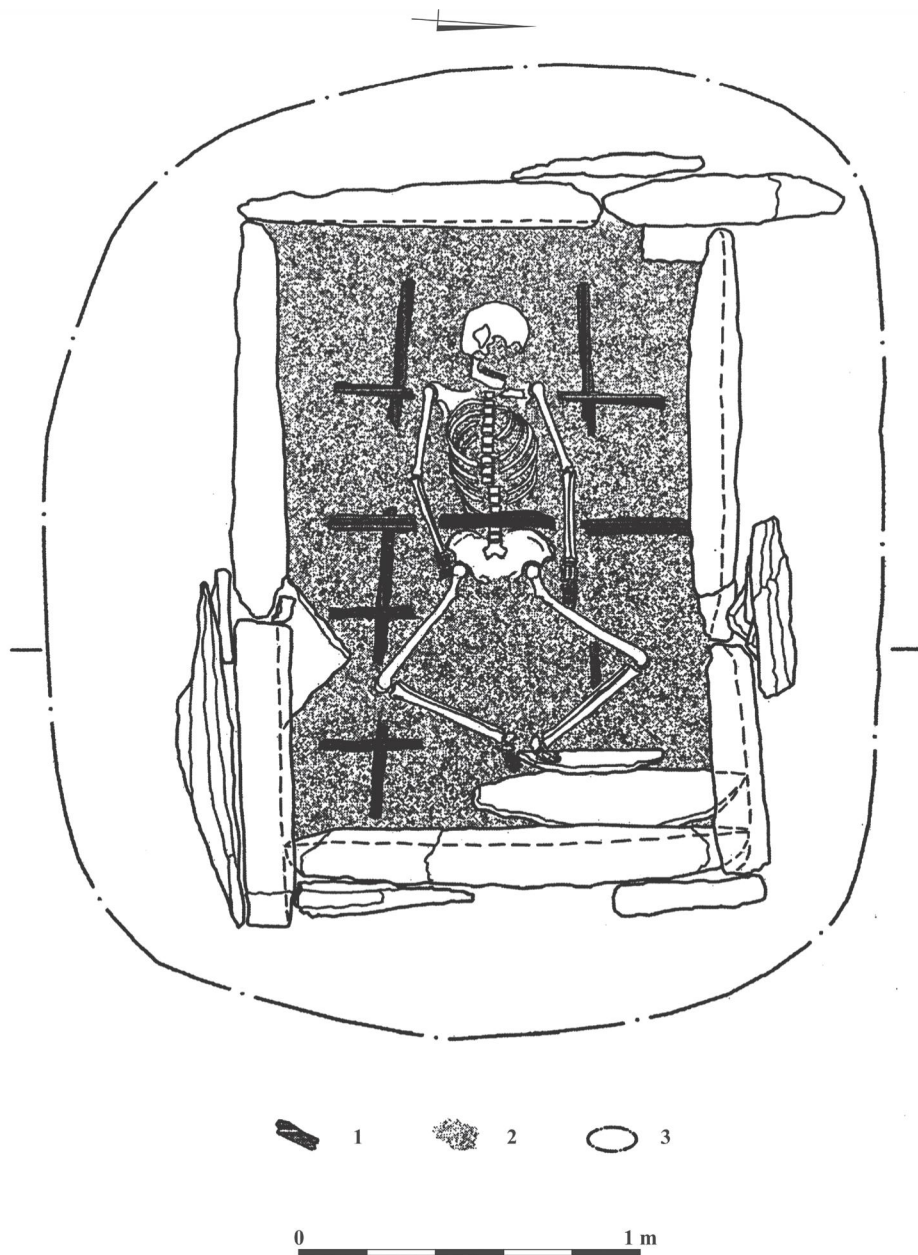


Fig. 16. Stone cist grave of the Yamnaya culture in Inhulets area: Aleksandriya, kurgan 2, grave 1.
Foll. Rassamakin, Evdokimov [2011]. Key: 1 – wood; 2 – organic bedding and chalk powder

3.4. STEPPE ZONE IN THE INHULETS DRAINAGE BASIN: CONTEXT OF THE YAMNAYA (PIT-GRAVE) CULTURE

The description of features located on the Inhulets River is based on the publication of Yamnaya culture graves found along the middle course of the river, in the vicinity of the city of Kryvyi Rih [Melnyk, Steblyna 2012; 2013]. Relying on this detailed compilation, it is possible to consider this portion of the steppe as a test area for the entire drainage basin, keeping in mind, however, that the cited publications do not exhaust the subject [e.g. Androsova, Melnik 1991].

Thus, among 386 Yamnaya culture sepulchral features, which were discovered in 82 barrows, only 10 contained stone cists [Melnyk, Steblyna 2013: 66-76]. Three were found in primary graves (Zelenyi Hay kurgan 1, grave 4; Dovha Mogila; Nedayvoda kurgan 1, grave 1 – Fig. 14 and 15). The rest were sunk into existing barrow mounds, but their stratigraphic positions varied: one cist was built on the original surface of the ground outside the oldest mound; two others were sunk into a mound above Eneolithic graves, while several ended the sequence of Yamnaya culture burials.

The graves held exclusively single bodies: 7 *adultus*, 1 *iuvenis* and 2 *infans*.⁴ In a single case (Rakhmanivka), in the same barrow 4, there were two cists (graves 4 and 9), containing one infant burial each. In the latter (no. 9), chamber inner walls were ornamented [Melnyk, Steblyna 2013: 69].

The cists were built of local rock material: limestone, sandstone, quartzite, green heliodor, granite and iron ore. Chamber walls were built with the following number of slabs: four (2 graves), six (2 graves), seven (2 graves), eight (two graves), ten (1 grave) and even fourteen (1 grave). In six graves, wall slabs were propped up with smaller slabs or lumps placed on the outside. In four cists, bottoms too were covered with stone slabs. Cist dimensions varied from 1.3 × 0.75 m to 3.0 × 2.0 m, but a half stayed in the bracket of 1.5 × 0.85 m to 1.85 × 1.15 m, and three in the bracket of 2.1 × 1.5 to 2.2 × 1.6 m. Covers were single slabs (Dolgintsevo 6) or several more or less precisely fitted slabs or even a whole pile of slabs.

Six cist graves contained grave goods. In three, it was a single object (antler, flint or wood object), in one grave, these were beads, and in another – beads and a flint artefact. On two occasions, formed ochre lumps were found. Only in Zelenyi Hay, kurgan 5, grave 4, did the inventory comprise a greater number of objects: a clay vessel (*kurylnitsa*), a bone plate, and two bronze or copper plates (Fig. 14). In seven graves, ochre was sprinkled over the body and chamber bottom. The traces of an organic bedding were identified in seven cists, in two, those of chalk beddings could be seen while charcoals were found in one grave. In four cists, built of lime-

⁴ This may be significant when viewed against the data for all 386 Yamnaya culture graves out of which 24 held the remains of more than one individual. In 19 cases, these were two burials in a grave, in three cases – three burials, and in one case, two complete burials and two skulls of other individuals [Melnyk, Steblyna 2013: 28].

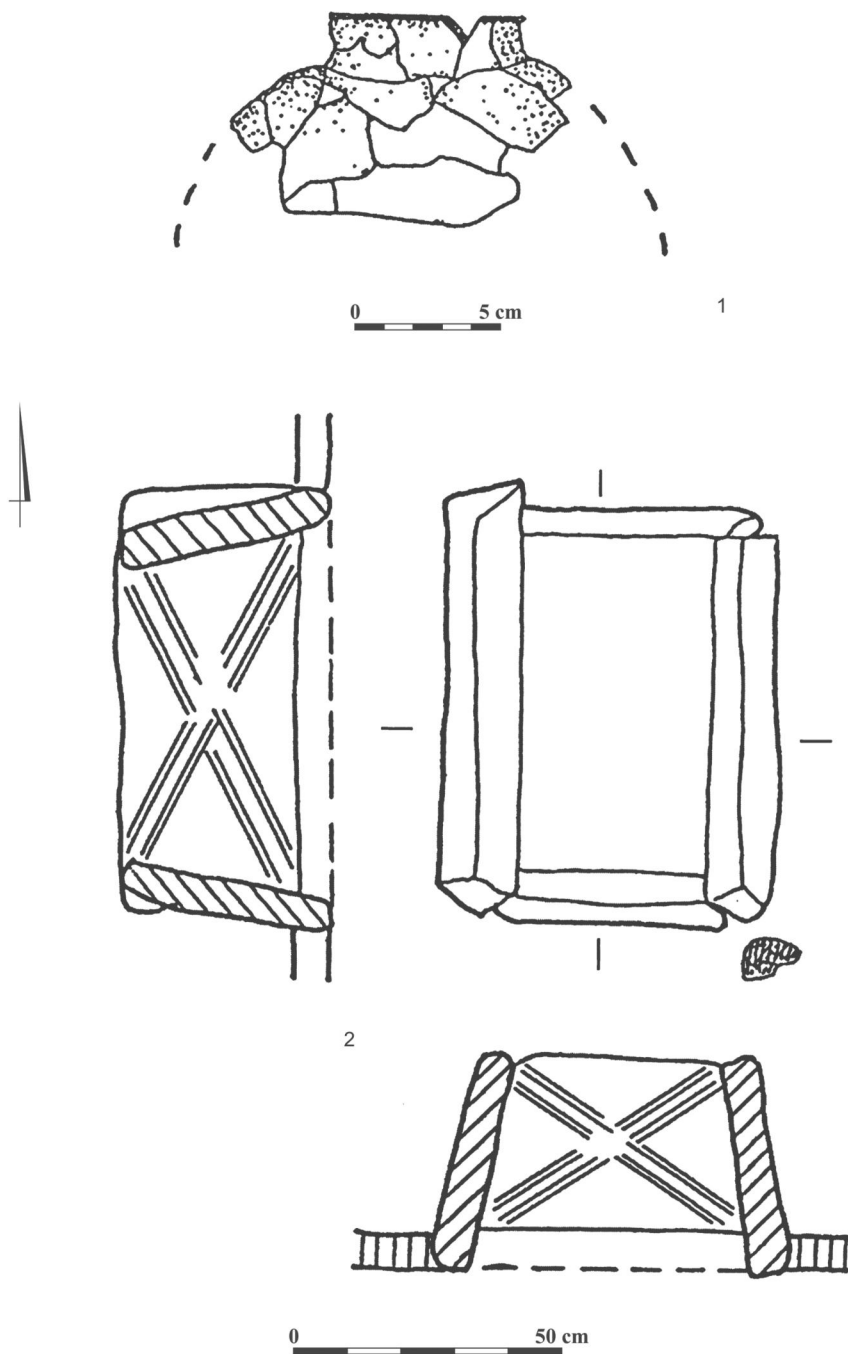


Fig. 17. Stone cist grave of the Kemi Oba culture, type 1: Uglovoe 1983, kurgan/grave 1. *Foll.* Häusler, Toshev [2009]. Key: 1 – a vessel; 2 – plan and cross-sections of the grave

stone slabs, the inner wall surfaces were covered in geometric ornaments painted with ochre.

In terms of stratigraphic position, size, burial forms and grave goods, stone cists resemble other Yamnaya culture graves. What makes stone cists different is the stone structure only.

North of the concentration of stone cists discussed above, associated with the Yamnaya culture, there are more features of this kind. Two are the northernmost 'Yamnaya' graves of this construction: Aleksandriya, kurgan 2, grave 1, and Voynovka (Korystivka), kurgan 16, grave 2 [Rassamakin, Evdokimov 2011].

In Aleksandriya barrow 2 was raised over grave 6 and the cromlech encircling the grave, probably still in the Eneolithic [Rassamakin, Evdokimov 2011: 80-89]. Into this original mound, grave 5 was sunk followed by the barrow enlargement. Into the enlarged mound, grave 1 was sunk. First, a large pit was dug (7×4.5 m), next, in its centre, a rectangular depression was made measuring 2.9×2.3 m, the bottom of which reached down 0.4 m below the pit floor. In the depression, a rectangular cist was placed, measuring 2.2×1.6 m, orientated E-W (Fig. 16). Its walls were made of seven granite slabs sunk into the ground 0.15-0.3 m deep below the depression bottom. It was found that the material came from deposits located 3 km away from the barrow [Rassamakin, Evdokimov 2011: 82, footnote 4]. Gaps between the slabs were sealed with fine stones. On a probably wooden cover, stone slabs rested. The grave chamber held the body of a single adult, lying supine, with the head pointing west, knees bent and legs having fallen to the sides. Both the human remains and cist bottom were sprinkled with ochre, especially profusely at the head. Underneath the skeleton, the traces of organic bedding and chalk powder have survived. Next, the barrow was extended further still by adding the third mound.

A trapezium-shaped cist from barrow 16, Voynovka (Korystivka) [Tupchienko 1993: 136; Rassamakin, Evdokimov 2011: 93], inside which a primary grave was found, stood on the surface of the ground and was orientated E-W. It measured 1.6×1.2 - 1.4 m and was 0.6-0.7 m high. Its walls were built of 1-2 granite slabs sunk 0.4-0.5 m deep into the ground. Gaps between them were sealed with fine stones. In the corners, obliquely to the cist axis, smaller slabs were placed. The inner wall surfaces were covered in geometric ornaments painted with ochre. The cist cover consisted of four granite slabs, with gaps between them smeared over with clay. The bottom was lined with organic bedding. The chamber held a child burial, lying supine in the flexed position, with the head pointing W. Grave goods included three flint flakes. The cist plates must have been worked in situ while being fitted, which is shown by stone waste lying at the outer side of E and SE cist walls [Tupchienko 1993: 136-137 and Fig. 59].

In the Rakhmanivka barrow discussed above, two cist graves were placed. This is not often encountered, but analogies can be found in other areas too. For instance, on site Vesnianoe, in the lower Boh drainage basin, the barrow contained

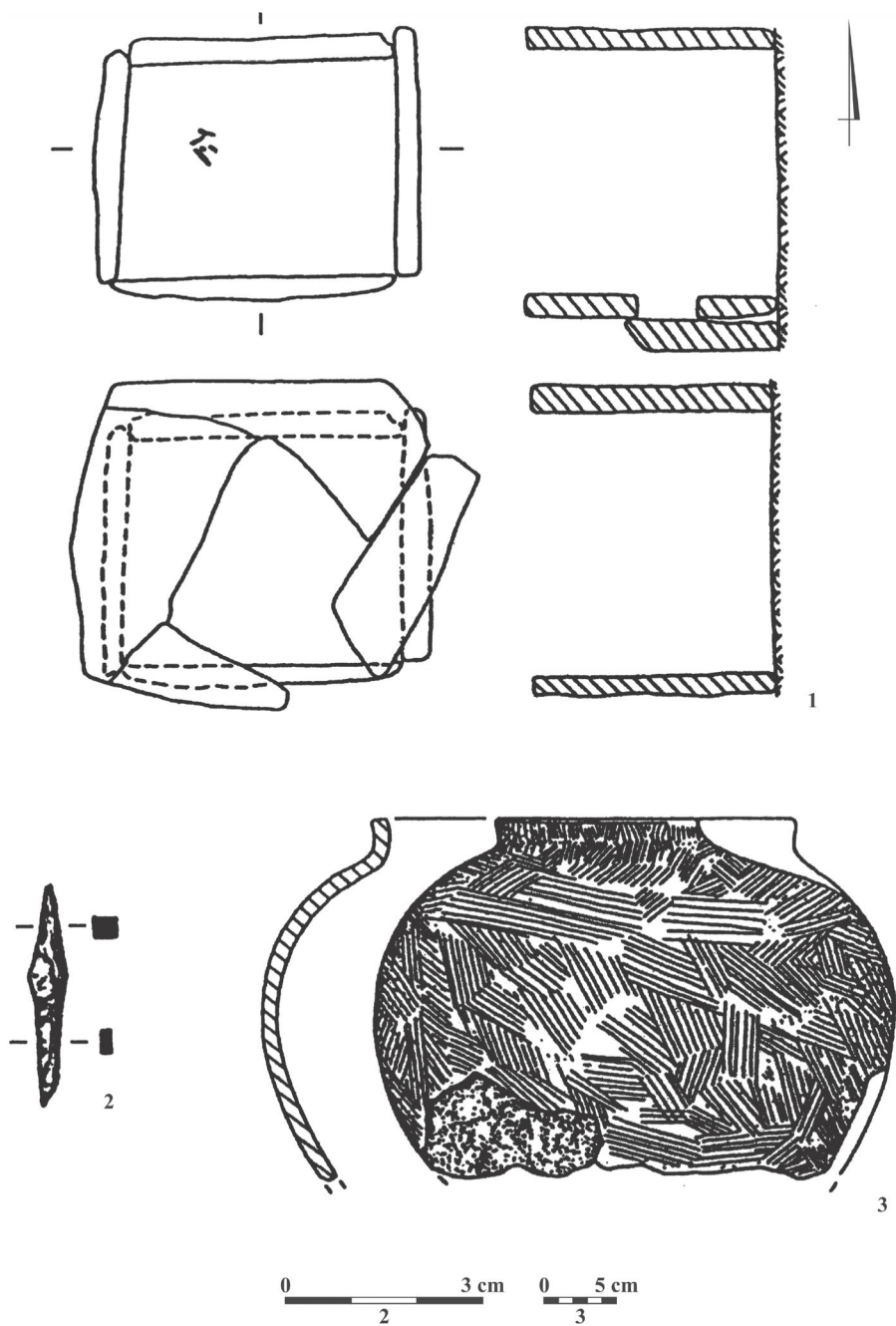


Fig. 18. Stone cist grave of the Kemi Oba culture, type 2: Vilino 1980, kurgan/grave 4. *Foll. Häusler, Toschev [2009]*. Key: 1 – plan and cross-sections of the grave; 2-3 – artefacts (2 – copper/bronze; 3 – clay)

three stone cist graves [Teslenko, Grebennikov 2002]. Except for the stone structure, other traits of the burials corresponded to the Yamnaya culture characteristics. In the stratigraphy of the barrow, all three cists fitted between the primary grave (the oldest), representing the Yamnaya culture, and later graves, belonging to this culture as well.

3.5. CRIMEA: KEMI OBA CONTEXT

Distinguished by A. Shchepinskiy, the Kemi-Oba culture, believed to be a separate entity by him until his death [Shchepinskiy 1963; 1966; 1971; 1985], is now the object of fundamental research, including above all the publication of sources, which have been lacking until recently. Owing to the work of G. Toshev, materials from old investigations have been published [Shchepinskiy 2002], including sources from the eponymous barrow Kemi Oba [Shchepinskiy, Toshev 2001]. Generally speaking, it follows from the ongoing discussion that the Kemi Oba culture should justifiably be included in the cultural-historical Yamnaya community [Toshev 2007: 59-93; Ivanova 2012: 101-109].

At present, Shchepinskiy's conception of the broad range of the Kemi Oba culture, extending across a vast expanse of the steppes from the Taman River in the east to as far as the mouths of the Boh and Dnieper rivers [Shchepinskiy 1985: 332] is not supported anymore. Some artefacts which the cited author included in the Kemi Oba culture are now considered in other cultural contexts [Toshev 2007: 63]. Other graves mentioned by Shchepinskiy have no documentation, thus there is no way to verify his assessments. To make matters worse, it is hardly possible to determine a reliable number of features, forming the Kemi Oba source base. Shchepinskiy [2002: 55] wrote about 491 graves, but in the opinion of Toshev [2007: 65 and Tab. VIII] one should limit the study to 45-50 complexes published since the 1960s [e.g. Häusler 1964; 1976; Stoliar, Shchepinskiy 1981; Gavrilo 1991; Koltukhov, Toshev 1998; Häusler, Toshev 2007]. On the map of the Crimea he published, there are 39 localities marked where stone and wooden cist graves were discovered [Toshev 2007: Fig. 24]. There are ten wooden cists and about 30 stone ones, but the number is growing owing to new discoveries [Häusler, Toshev 2007; Gavrilo 2012].

Most cists were discovered in the Crimean foothills. Some were found in original (primary) graves over which barrows were raised (Kemi Oba, Vilino-80 and Dolinka barrows), while others were revealed in graves sunk into the mound of an older kurgan (e.g. barrow 1 in Pionierskoe-94 and Krasnaya Zorka) [Toshev 2007: 65]. Usually, a barrow contained one cist, but there are exceptions, e.g. Kemi Oba, Vilino or Pionierskoe barrows [Shchepinskiy, Toshev 2001; Häusler, Toshev 2007].

There are three types of Kemi Oba cist graves [Toshev 2007: 65-67]: (1) a stone cist with a cover where cist wall slabs are sunk into the ground; (2) a stone or wooden cist, over which stones (blocks, slabs, etc.) were piled up and (3) a stone cist placed in an excavated pit and covered with a stone slab or wooden logs.

Type 1 cists (Fig. 17), to which 28 features were assigned, were placed on barrow mounds or on the original ground surface under a barrow. Cist walls were made of four to seven slabs. They were placed either upright or slightly inclined inwards. The cover was usually made of a single slab, less often of two. Cist inner dimensions varied; length between 1.0 and 1.8 m, width between 0.96 and 1.5 m, while height stayed below 0.85 m. Gaps between the slabs were sealed with fine stones and/or smeared over with clay. The cist bottom was most often earthen, although bottom slabs, either single or double, did occur. In 11 cists, their inner surfaces were covered with painted ornaments. Bodies were usually laid crouched on the left side, with the head pointing W. In three cists, ochre dust or lumps were recorded. These graves had hardly any goods placed in them. These were only clay vessels, which were found in two graves, and flint, stone, bronze and bone objects in single cases. An exception is the grave from Dolinka (barrow Kurban-Bayram) which contained copper and arsenical bronze weapons: a shaft-hole axe, chisel, adze, knife and a two-horned mace head.

Type 2 cists (both stone and wooden ones) are represented in 20 complexes (Fig. 18 and 19). A cairn, measuring in diameter from 5-7 to 10 m and being from 2.4 to 4.0 m high, constructed over the cist could be accompanied by other stone structures. The cists were of similar size to those of type 1. In this respect grave 4 from Vilino, stands out, which measured 2.12×1.68 m as well as grave 6, barrow 6, Simferopol bay area, which measured 2.45×2.35 m. The dead were laid in the flexed position on their back (their heads pointing NW or NE), less often on the left side (head pointing W or SW). In grave 14, Vilino-83, the body was dismembered. Grave goods were rather meagre: two stone shaft-hole axes, stone grinder, flint objects, clay vessels and an indeterminate clay object.

Type 3 cists were recorded nine times [Toshev 2007: 67]. Pits in which a cist was placed were excavated in earth or – less often – in limestone or marl. Chamber bottoms are sometimes covered with a pebble layer of a varied thickness. Such graves yielded three vessels, bronze and flint goods, animal bones, etc.

In sum, cist grave inventories are richer than those of other Yamnaya culture graves, but the categories and object forms are the same.

In stone and wooden cists, inner wall surfaces are often ornamented. Usually, these are geometric motifs painted using a red, yellow, black or white colorant. Such ornaments were recorded in 36 graves in the Crimea, most often belonging to type 1, less often to type 2 [Toshev 2007: 78].

The stratigraphic situation of Kemi Oba cist graves and other Yamnaya culture burial forms varies in the Crimea. It was shown that cists could be older than Yamnaya culture graves and vice versa [Toshev 2007: 77-78].

One conclusion that can be drawn is that in principle various Yamnaya community grave forms, including stone cists and pit graves, were contemporaneous. This thesis, however, is not founded on any archaeometric data; the deficit of radiocarbon age determinations concerning Kemi Oba features is very strongly felt in this regard.

4. STONE CIST GRAVES BETWEEN THE CARPATHIANS AND CRIMEA: SIMILARITIES AND DIFFERENCES

The review of the forms of stone cist graves on the forest-steppe and steppe between the Carpathians, Crimea and Dnieper in the 4th and 3rd millennia BC reveals that these features are similar in some aspects but also that they differ significantly. The list of similarities and differences presented below is open-ended and as such is a point of departure for further studies as part of a research project to be pursued in the near future.

As similar and often identical traits of stone cist graves discussed above can be considered, in the first place, certain formal and technical properties of such structures such as:

- basically their rectangular shape (rarely trapezium-shaped, very rarely square)
- an effort taken to close the chamber space (sides, bottom, cover) and isolate it from the surroundings, which can be seen in the sealing of gaps between structural elements
- an effort to stabilize the structure seen in the propping-up of walls or their slight inclination inwards
- maintenance of standard sizes: features 1-2 m long and 0.7-1.7 m wide dominate; however, these dimensions are occasionally exceeded in all areas discussed above.

Another significant similarity is the placing of uncremated bodies in cist graves (single cases of cremation occur in the GAC).

In turn, differences can be divided into two groups related either to the availability of raw materials or cultural patterns prevailing in specific communities.

The differences in building material appear to be an effect of its availability in nature. This is true of both the material as such (granite, sandstone, limestone, etc.) and its type (slabs or blocks) and the number of elements making up walls, the bottom and cover. Single cases of the detailed identification of raw material and its deposits suggest that locally available materials were used that were found within the radius of several kilometres from the grave construction site (*see* the example from the Inhulets area in Aleksandriya, cited in 3.4 above). Building material sets

apart especially cist graves from Volhynia, which were built mostly of rock blocks. It is also in this region that features lacking a stone bottom and cover occur the most often. Although, it cannot be ruled out that wood was used to cover graves and that it had not been preserved until the time of discovery.

The traits depending on the cultural patterns prevailing in the communities building cist graves seem to include the following:

- grave location and orientation, as well as connection with other structures
- the sequence of pre-funeral, funeral and post-funeral actions, including for instance the manner of cist use, spatial organization in the grave chamber, deposition of the body and accompanying objects, etc.

Specific differences concern the following aspects:

- placing cists on the ground surface or below it (in pits)
- connecting a cist to a barrow (building a mound over a cist or sinking it into an older barrow) is rather common on the steppe; however, there are exceptions: cists on Eneolithic flat cemeteries representing tradition II according to Rassamakin; connections to a barrow are absent from GAC contexts
- accompanying of a cist grave by other stone structures (curbs, circles – cromlechs)
- placing of cairns over cists or covering them with stone mounds
- ornamenting of the inner wall surfaces of chambers or not
- maintaining the possibility of entering the chamber or its permanent sealing off
- varying the number of the dead interred in a grave (single individual, two individuals, a larger number of individuals)
- arranging of bodies (keeping anatomical order or not)
- positioning of bodies (extended supine, flexed supine, crouched on a side, etc.)
- preparing of an underlayer (mats, beddings, etc.) on which the body was laid, or not
- using of colorants (chiefly ochre but also others) or not
- varying of grave goods (clay vessels, tools and weapons made of flint, stone, bone or metal, ornaments-amulets or emblems, animal meat, etc.).

Already now, before meticulous analyses are over, some general observations can be made. First, the prevalence or even outright domination of certain traits in specific cultural contexts is noticeable. From this point of view, the greatest differences emerge between GAC stone cist graves and those known from the steppes and Crimea. Thus, in terms of the number of the dead, the former clearly stand out. 30 to 70 per cent contained the remains of two or more dead individuals, with 20-30 per cent of features holding more than three bodies. It was also in these graves that the non-anatomical order of human remains was frequent. Whereas in the steppe zone and Crimea, graves containing more than two bodies are rare (*see* the example from Baratovka dated to the Eneolithic discussed above) and anatomical order absolutely dominates. In turn, on the steppes and in Crimea, cist graves were most often

located in connection to a barrow (underneath it or in its mound). By contrast, no such connection is observed in Volhynia, Podolia and the Moldavian Upland, where cist graves were usually placed below the original ground surface. Moreover, on the steppes, in both Eneolithic cists and those associated with the Yamnaya circle, the remains of underlayers, beddings or mats, on which a body had been laid, were often identified. No such observations were made in respect of GAC graves. It is also to the steppes and Crimea that other elements of stone sepulchral architecture are limited, so characteristic of the steppe Eneolithic. Likewise, the custom of constructing cairns or stone mounds over cists is confined in principle to the Crimea only. Next, covering inner chamber walls with ornaments is a distinct characteristic of the Yamnaya circle, especially the Kemi Oba culture, whereas it is very rare in Eneolithic features. Practically all GAC graves contained some grave goods, with the most typical assemblage containing a clay vessel, flint axe, bone or amber ornament/emblem. By contrast, in the steppe zone and Crimea, the absence of any grave goods is the rule and features containing any are by far in minority. Only very rarely do graves hold a diversified and multi-component assemblage of grave goods (*see* features discussed above from sites Starye Beliary and Alkaliya – ‘Gostra mogila’ (part 3.3), Zelenyi Hay on the Inhulets (part 3.4) or Dolinka (part 3.5).

In this context, it is worthwhile to comment on the relationship between stone and wooden cists [Toshev 2002]. In terms of design, these features are similar in size but different when it comes to material used to build them. However, it must have taken more time and effort to make a stone cist than a wooden one and the difference in durability between them was considerable. In theory therefore, the collective effort of people involved in the construction of stone and wooden features may have differed, likewise their social valorisation. However, the examples of stone and wooden cists from the Crimea, specifically their co-occurrence in barrows, seem to suggest a radically opposite phenomenon, namely a raw-material substitution, with the high valorisation of the cist grave itself remaining unchanged.

5. THE IDEA OF STONE CIST GRAVES IN THE 4TH AND 3RD MILLENNIA BC BETWEEN THE CARPATHIANS, CRIMEA AND DNIEPER: CONCEPTIONS TO DATE AND RESEARCH OBJECTIVES

The questions related to stone cist graves between the Carpathians, and the Dnieper and Crimea, or – more broadly – between the Carpathians and Caucasus, have been discussed by many researchers since the 1920s and 1930s, above all in the context of the origins and dispersion of this peculiar sepulchral form. The advanced conceptions were concerned with its developmental correlations or inde-

pendence, directions of inspirations and the range of possible adaptations in specific cultural milieus. For many years, the debate focused on arguments in favour of the existence of genetic ties, joining cist graves from central and eastern Europe with those from the Crimea and Caucasus (however, in various configurations) and considering them in the context of the history of Indo-European peoples. However, other opinions could be heard as well, stressing the peculiarity of cist graves in individual areas; recently this trend has been gaining momentum. Earlier approaches stand exposed to revision as another research trend gains ground, contesting previous taxonomic proposals in general and questioning the grounds for distinguishing the Kemi Oba culture in particular (*see* part 3.5 above).

5.1. A REVIEW OF CONCEPTIONS TO DATE

Generally speaking, there are three principal positions on the origins and dispersion of the idea which materialized in stone cist graves. The positions, to put it simply, can be referred to as eastern, western and local.

The conceptions arguing in favour of the eastern origins of stone cist graves emphasize the chronological priority of Caucasian and steppe features over those found in the forest-steppe and central Europe [e.g. Childe 1925; Forssander 1933]. The foremost exponent of this conception was Marija Gimbutas [1997a; 1997b] who held that stone cist graves in central Europe (especially features in barrows) were an effect of the second invasion wave by ‘Kurgan cultures’, triggered off by the expansion of the Maikop culture of the Caucasus. This thesis forms an element of Gimbutas’ overall conception, according to which stimuli coming from the circle of steppe cultures (referred to by her by the overall name of ‘Kurgan culture’) were the prime mover of cultural transformations in Europe in 4400-2800 BC [Gimbutas 1997a; 1997b]. Steppe stimuli took the form of three migration waves – or ‘invasions’ rather – of ‘Kurgan culture’ populations: (1) ca. 4400-4200 BC, (2) ca. 3400-3200 BC and (3) ca. 3000-2800 BC. The source of wave 2 was the Maikop culture, to be precise, Mikhailovka I, considered its early phase. According to the cited author, a part of the Maikop culture was also Kemi-Oba. The steppe populations supposedly redrew the cultural map of central and south-eastern Europe. A cycle of new cultures took shape then with a substantial share of ‘Kurgan culture’ tradition such as Usatovo, Ezero, Baden, Coțofeni, as well as the GAC. In the opinion of Gimbutas:

There is a complete congruence between the burial rites of the Globular Amphora people and those of the Kurgans of the Mikhajlovka I stage of the Maikop culture in the North Pontic region: mortuary houses built of stone slabs, cromlechs, and stone stelae, engravings on stone slabs, ritual burial of horses, cattle and dogs; also human

sacrifice in connection with funeral rites honoring high-ranking males [Gimbutas 1997b: 283].

Advanced by Gimbutas, the conception of steppe invasions, supposedly stimulating the transformations of European societies in the 5th-3rd millennium BC, met with strong criticism [e.g. Häusler 1996] and is no longer supported. The latest research into relationships between central and south European, and steppe cultures has produced far more nuanced and less explicit results [e.g. Mallory 1989; Anthony 2007; Hansen 2010].

In recent years, an Ukrainian archaeologist, M. Bandrivskiy [2007a; 2007b] has attempted to show that cist graves in Podolia and the entire Podolia GAC group originated in the steppes. He cites structural similarities between Podolia and steppe cists, ignoring however, their differences (*see* part 4 above) and grievously erring in his analysis of both grave goods (especially pottery) and chronological issues.

The second group of hypotheses assumes that central European patterns (or even population groups), originating with the GAC circle or the Funnel Beaker culture, contributed to the rise of Black Sea and Caucasus groups.⁵ This idea was aired already in the early 20th century [e.g. Spitsyn 1903]. Äyräpää [1933: 121] suggested that GAC populations, constructing megalithic tombs in Volhynia and Podolia, could be linked to the builders of the so-called north-Caucasus dolmens. These views were revived in the 1970s and have been rehashed to this day. The most extreme position on the question under discussion was adopted by N. Nikolaeva and V. Safronov [1974], who assumed a direct connection between Novosvobodnaya-type artefacts in the Caucasus with the GAC. The cited authors stressed the absence of any genetic link between Novosvobodnaya and Maikop. Considering megalithic graves the most important trait of the Novosvobodnaya type (associated by them with the ‘Dolmen culture’ of the northern Caucasus), they looked for the closest analogies to them in the Kemi-Oba and Usatovo cultures. Since, however, these units, in their opinion, were foreign to earlier local traditions, they considered the GAC Volhynia-Podolia group to have been the ultimate source of the megalithic rite. It was from there that the migration of people allegedly started who, having taken part in the engendering of new Pontic (Usatovo) and Crimean (Kemi-Oba) groups, ultimately reached the Caucasus and left there their footprint in the form of Novosvobodnaya-type features and northern Caucasus dolmens [of the Kuban-Terek culture according to Nikolaeva 1981]. Despite the fact that Nikolaeva and Safronov’s conception was considered highly controversial, or even utterly unfounded already many years ago [Maleev 1980; Sveshnikov 1983: 20; Markovin 1990; Häusler 1994; Munchaev 1994], these theses have been recently elaborated on [Nikolaeva 2011].

⁵ The possible role of Mediterranean stimuli in the origins of the stone mortuary architecture of the Caucasus is beyond the scope of the present discussion [Trifonov 2013].

In the 1990s, a heated debate was sparked off by the hypothesis advanced by A. Rezepkin, according to which the Novosvobodnaya type not only genetically differs from sources associated earlier with the older stage, but is also contemporaneous with them [Rezepkin 1991a: 189-197; 1991b]. This author believed that the rise of the Novosvobodnaya type was related to the functioning of a so-called block of cultures with black-glossy pottery in the lands from central Europe to the north-western Caucasus [Rezepkin 1987: 29-30; 1991a: 173]. The block, taken to be a cultural trend deriving from central Europe, would include the Mikhailovka I culture, while Novosvobodnaya-type assemblages would represent its easternmost segment. The central European link of the block was supposedly the Funnel Beaker culture with some share of the GAC [Rezepkin 1987: 29; 1991a: 173]. Rezepkin's hypothesis, in particular the position of Novosvobodnaya-type assemblages in the life of the Maikop culture and the role of central European communities in the stimulation of cultural processes in the North Pontic Area and Caucasus, has been strongly opposed [Munchaev 1994; Häusler 1994].

The third group comprises conceptions according to which stone cist graves or – more broadly – ‘megalithic’ grave architecture had local roots and was an outcome of the evolution of cultural structures in particular areas (forest-steppe, steppe, Crimea, Caucasus), hence it appeared there independently [e.g. Rassamakin 1991; Häusler 1994]. A certain adjustment of the conception involves a distinction between ‘central European’ cist graves (i.e. related to the GAC) and ‘eastern European’ ones linked to Kemi-Oba and Caucasian groups or possibly to the steppe Eneolithic (in the Mikhailovka I version). Among the latter features, developmental correlations are considered [e.g. Burov 2007; Toshev 2007; here older literature].

5.2. RESEARCH OBJECTIVES

In spite of the long debates, which were briefly outlined above, a satisfactory pool of fundamental findings is still unavailable. This is largely due to the dispersion of research projects and the absence of systematic investigations employing the latest research methods. A matter particularly strongly felt, the deficit of reliable determinations concerning the absolute chronology of stone cist graves from the Crimea and the steppes contrasts with a large series of radiocarbon determinations for GAC features in Volhynia, Podolia and the Moldavian Upland. However, the above series should be systematically expanded nonetheless. Abandoning typochronology in favour of chronometry should be reflected in the systematics of stone cist grave traits in the area under discussion. It is highly desirable that

bioarchaeological data be introduced into the debate. They have been completely left out so far despite the fact that archaeogenetic data in particular could be very helpful.

An optimal solution would be to concentrate research on selected areas, crucial for the study of relationships between central and eastern European communities, and – looking further afield – Caucasian ones, in the forest-steppe and steppe zones. Such areas may include the lands on the Dniester, Prut and Seret rivers and the drainage basin of the Inhulets. In the drainage basins of these longitudinally flowing rivers, crossing both the forest-steppe and steppe, the presence of the patterns that could be conventionally called ‘eastern’ and ‘western’ was observed already earlier, as well as diverse varieties of cultural syncretisms [Rassamakin 2004; Szmyt 2011; Ivanova 2012]. It is recommended that, on the one hand, old source complexes be reanalyzed and on the other, new sources assemblages be obtained, offering an opportunity to fill the collective hiatus in our knowledge of prehistoric cultures mentioned earlier.

Translated by Piotr T. Żebrowski

REFERENCES

Adamik J.

- 2012 *Idea skrzyni kamiennej jako formy grobu na terenie ziem polskich w późnej epoce brązu i wczesnej epoce żelaza. Collectio Archaeologica Ressorvian-sis XVIII*. Rzeszów.

Alekseeva I.L.

- 1992 *Kurgany epokhi paleometalla v severo-zapadnom Prichernomorie*. Kiev.

Androsov A.V., Marina Z.P., Zavgorodniy D.I.

- 1991 Eneoliticheskiy kurgan u sela Boguslav v Prisamare. In: I.F. Kovaleva (Ed.) *Problemy arkheologii Podneprovia*, 4-19. Dnepropetrovsk.

Androsov A.V., Melnik A.A.

- 1991 Kurgany rannego bronzovogo veka Krivorozhia s zoomorfnymi konstrukt-siyami. In: *Problemy arkheologii Podneprovia*, 35-50. Dnepropetrovsk.

Anthony D.

- 2007 *The Horse, The Wheel, and Language. How bronze-age riders from the Eurasian steppes shaped the modern world*. Princeton and Oxford.

Antoniewicz W.

- 1925 Eneolityczne groby szkieletowe we wsi Złota w pow. Sandomierskim, *Wiadomości Archeologiczne* 9: 191-242.

Apel J.

- 2001 *Daggers. Knowledge & Power. The Social Aspects of Flint Dagger Technology in Scandinavia 2350-1500 cal BC*. Uppsala.
- 2008 Knowledge, Know-how and Raw Material. *The Production of Late Neolithic Flint Daggers in Scandinavia, Journal of Archaeological Method and Theory* 15: 91-111.

Artemenko I.I.

- 1967 Plemena Verkhnego i Srednego Podneprovia v epokhu bronzы. In: *Materialy i issledovaniya po arkheologii SSSR* 148. Moskva.

Äyräpää A.

- 1933 Über die Streiaxtkulturen in Russland. *Eurasia Septentrionalis Antiqua* 8.

Bagińska J.

- 2006 Cmentarzysko kultury pucharów lejkowatych na stanowisku 25 w Łubczu, pow. Tomaszów Lubelski. In: J. Libera, K. Tunia (Eds), *Idea megalitycz-*

na w obrządku pogrzebowym kultury pucharów lejkowatych, 421-430. Lublin-Kraków.

Bagińska J., Machnik J.

- 2001 Wyniki ratowniczych badań zniszczonego kurhanu na stan. 31 w Werszczy, pow. Tomaszów Lubelski na Grzędzie Sokalskiej: wyodrębnienie grupy sokalskiej kultury ceramiki sznurowej, *Archeologia Polski Środkowo-wschodniej* 6: 38-57.

Bajka M.

- 2010 Kolejny grób kultury złockiej z Sandomierza, *Zeszyty Sandomierskie* 30: 2-8.
- 2012 *Sprawozdanie z ratowniczych badań wykopaliskowych przeprowadzonych w lipcu 2012 r. w Święcicy, pow. sandomierski, stan. 30, w miejscu przypadkowego odkrycia grobu z okresu późnego neolitu. Archiwum WUOZ Delegatura w Sandomierzu*. Sandomierz

Balcer B.

- 1983 *Wytwórczość narzędzi krzemiennych w neolicie ziem polskich*. Wrocław–Warszawa–Kraków–Gdańsk–Łódź.

Balcer B., Machnik J., Sitek J.

- 2002 *Z pradziejów Roztocza na ziemi zamojskiej*. Kraków.

Banasiewicz E.

- 1990 *Badania na cmentarzysku kultury strzyżowskiej w Hrubieszowie-Podgórzu, woj. Zamość w latach 1983-1986*, *Sprawozdania Archeologiczne* 42: 213-226.

Banasiewicz-Szykuła E., Gołub I., Grochecki K., Koman W., Mączka G., Wetoszka B.

- 2010 *Sprawozdanie z działalności w zakresie ochrony zabytków archeologicznych w województwie lubelskim w 2009 roku*, *Wiadomości Konserwatorskie Województwa Lubelskiego* 12: 7-76.

Banasiewicz-Szykuła E., Gołub I., Koman W., Mączka G., Zieniuk P.

- 2012 *Sprawozdanie z działalności w zakresie ochrony zabytków archeologicznych na terenie województwa lubelskiego w 2011 roku*, *Wiadomości Konserwatorskie Województwa Lubelskiego* 14: 7-86.
- 2013 *Sprawozdanie z działalności w zakresie ochrony zabytków archeologicznych na terenie województwa lubelskiego w 2012 roku*, *Wiadomości Konserwatorskie Województwa Lubelskiego* 15: 7-76.

Banasiewicz-Szykuła E., Gołub I., Mączka G., Koman W., Zieniuk P.

- 2011 Sprawozdanie z działalności w zakresie ochrony zabytków archeologicznych w województwie lubelskim w 2010 roku, *Wiadomości Konserwatorskie Województwa Lubelskiego* 13: 7-70.

Bandrivskiy M.

- 2007a Vplyv skhodu na rozvytok rannioho – Puchatku serednioho periodiv epokhy bronzy na zakhodi ukrayinskoho lisostepu. *Zapysky Naukovoho tovarystva im. Shevchenka* CCLIII: 154-205.
- 2007b Pokhovannia piznioeneolitychnoho chasu v seli Luka na Ternopilschyni ta problema vidnosnoyi i absolutnoyi khronolohiyi mehalitychnykh hrobnys Podillia (Z rozkopom Ihora Gerety 1996 roku. *Zapysky Naukovoho tovarystva im. Shevchenka* CCLIII: 226-243.

Bargieł B.

- 2006a Kultura strzyżowska w świetle znalezisk grobowych, *Wiadomości Archeologiczne* 58: 65-99.
- 2006b Materiały z wielokulturowych stanowisk w Horodysku, pow. chełmski, *Archeologia Polski Środkowowschodniej* 8: 351-361.
- 2009 Z problematyki występowania grocików krzemiennych na przykładzie znaleziska z Mydlowa, pow. opatowski, woj. świętokrzyskie. In: H. Taras, A. Zakościelna (Eds), *Hereditas praeteriti. Additamenta archaeologica et historica dedicate Ioanni Gurba Octogesimo Anno Nascendi*, 195-208. Lublin.

Bargieł B., Florek M.

- 1990 Grób kultury złockiej w Starym Garbowie na stan. 3, woj. Tarnobrzeg, *Sprawozdania Archeologiczne* 41: 77-83.

Bargieł B., Libera J.

- 1997a Z badań nad formami bifacjalnymi w Małopolsce. In: J. Lech, D. Piotrowska (Eds), *Z badań nad krzemieniarstwem epoki brązu i wczesnej epoki żelaza. Materiały sympozjum zorganizowanego w Warszawie 20-22 października 1994 r.*, 145-161. Warszawa (= Polska Akademia Nauk. Komitet Nauk Pra- i Protohistorycznych, Prace 2).
- 1997b Zabytki kamienne „typu północnego” odkryte w międzyrzeczu Wisły i Bugu, *Archeologia Polski Środkowowschodniej* 2: 263-268.
- 2004 „Groty typu strzyżowskiego” – mit a rzeczywistość. In: J. Libera, A. Zakościelna (Eds), *Przez pradzieje i wczesne średniowiecze. Księga jubileuszowa na siedemdziesiąte piąte urodziny docenta doktora Jana Gurby*, 169-187. Lublin.
- 2005a Kultura strzyżowska na Lubelszczyźnie w świetle znalezisk grobowych. In: V.V. Otroschenko *et al.* (Eds), *Na poshanu Sofiyi Stanislavivny Berezhanskoyi*: 197-211. Kyiv.

- 2005b Zespoły grobowe z krzemiennymi płoszczami w Małopolsce i na Wołyniu, *Wiadomości Archeologiczne* 57 (2004-2005): 3-27.
- 2006 Krzemienne „groty” znalezione w środkowej Polsce – ich chronologia i przynależność kulturowa. In: A. Stępień-Kuczyńska, M. Olędzki (Eds), *Cultura et politica. Studia i rozprawy dedykowane Profesorowi Jerzemu Kmiecińskiemu*, 31-50. Łódź.
- Bátora J.
- 2003 Kupferne Schaftlochhäxte in Mittel-, Ost- und Südosteuropa. *Slovenská Archeológia* 51(1): 1-38.
- 2006 *Štúdie ku komunikácii medzi strednou a východnou Európou v dobe bronzovej*. Bratislava.
- Bąbel J. T.
- 2013 *Cmentarzyska społeczności kultury mierzanowickiej na Wyżynie Sandomierskiej*. Część 1. Obrządek pogrzebowy. Część 2. Źródła. Rzeszów.
- Beier H.J.
- 1983 *Die Grab-und Bestattungssitten der Walternienburger und Bernburger Kultur*. Halle.
- 1991 *Die megalithischen, submegalithischen und pseudomegalithischen Bauten sowie die Menhire zwischen Ostsee und Thüringer Wald. Beiträge zur Ur- und Frühgeschichte Mitteleuropas 1*, Wilkau-Haßlau.
- Berezanska S.S., Okhrimenko G.V., Piasetskiy V.K.
- 1987 Novi pamiatky skhidnotshynetskoyi kultury na Volyni. *Arkheolohiya* 60: 50-58.
- Bogatyriew P.
- 1979 *Semiotyka kultury ludowej*. Warszawa.
- Bratchenko S.N.
- 2001 *Donetska katakombna kultura rannioho etapu*. Luhansk.
- 2007 Katakombne “baroko” s ovami ta petliamy v sistemi ornamentatsiyyi. In: *Materialy ta doslidzhennia z arkheolohiyi Skhidnoyi Ukrainy* 7, 103-109. Luhansk.
- 2012 *Leventsovskaya krepost. Pamiatnik kultury bronzovogo veka*. Kiev.
- Bronicki A.
- 1991 Późnoneolityczne i wczesnobrązowe toporki kamienne z obszaru województwa chełmskiego. In: J. Gurba (Ed.) *Schyłek neolitu i wczesna epoka brązu w Polsce środkowowschodniej*, 297-340. Lublin.

Bronicki A., Kadrow S.

- 1998 Schyłkowe neolityczne topory kamienne z terenu województwa chełmskiego. *Metrologia. Zagadnienie utylizacji egzemplarzy uszkodzonych i destruktywów, Archeologia Polski Środkowowschodniej* 3: 260-275.

Bronicki A., Kadrow S., Zakościelna A.

- 2003 Radiocarbon Dating of the Neolithic Settlement in Zimne, Volhynia, in Light of the Chronology of the Lublin-Volhynia Culture and the South-Eastern Group of the Funnel Beaker Culture. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 4000-1000 BC. Baltic-Pontic Studies* 12: 22-66.

Budziszewski J., Tunia K.

- 2000 A Grave of the Corded Ware culture Arrowheads Producer in Koniusza, Southern Poland. Revisited. In: S. Kadrow (Ed.) *A Turning of Ages. Im Wandel der Zeiten. Jubilee Book Dedicated to Professor Jan Machnik on His 70th Anniversary*, 101-135. Kraków.

Budziszewski J., Włodarczak P.

- 2010 *Kultura pucharów dzwonowatych na Wyżynie Małopolskiej (z udziałem Elżbiety Haduch i Antonina Přichystala)*. Kraków.

Buko A.

- 1988 Sandomierski „Kopiec” Salve Regina w świetle wyników ostatnich badań, *Archeologia Polski* 28: 137-165.

Buniatian K.P.

- 2005 Khronolohiya ta periodyzatsiya pokhovan seredniodniprovs'koyi kultury pravobezhnoyi Ukrainy, *Arkheolohiya* 4: 26-36.

Buniatian K.P., Nikolova A.V.

- 2010 Kurhany yamnoyi kultury na trypil'skykh poselenniakh Dobrovody i Talianky. In: *Kolektsiyyi Naukovykh fondiv Instytutu arkheolohiyi NAN Ukrainy. Materialy ta doslidzhennia, Arkheolohiya i davnia istoriya Ukrainy*, 34-50. Kyiv.

Bunyatyan K.P., Samolyuk V.

- 2009 Manifestations of Middle Dniepr Culture in the Volyn territory and the issue of ancient routes. In: A. Koško, V.I. Klochko (Eds), *Routes between the seas: Baltic-Bug-Boh-Pont from the 3rd to the Middle of the 1st millennium BC, Baltic-Pontic Studies* 14: 252-268.

Burchard B., Włodarczak P.

- 2012 Złota culture graves at site 1 in Samborzec, Sandomierz District, *Sprawozdania Archeologiczne* 64: 269-296.

Burov G.M.

- 2007 Kemi-obinskaja kultura – realnost' Ili fantazja? In: *Materiali ta doslidzhen-nya z archeologii Skhidnoi Ukraini* 7: 73-75. Lugansk.

Burtănescu F.

- 2002a *Epoca timpurie a bronzului între Carpați și Prut*. București.
2002b Globular Amphora culture in Moldavia between the Carpathians and Prut. Current state of evidence, *Thraco-Dacica* 23(1-2): 119-152.

Bydłowski A.

- 1905 Mogiły w Jackowicy, w powiecie lipowieckim, w gub. kijowskiej, *Światowit* 6: 8-30.

Chachlikowski P.

- 1996 Ze studiów nad pochodzeniem i użytkowaniem surowców importowanych w wytwórczości kamieniarskiej społeczności wczesnorolniczych Kujaw. In: J. Bednarczyk, A. Koško (Eds), *Z badań nad genezą regionalizmu kulturowego społeczeństw Kujaw*, 121-153. Poznań-Kruszwica-Inowrocław.

Chebotarenko G.F., Yarovoy E.V., Telnov N.P.

- 1989 *Kurgany Budzhakskoy Stepі*. Kishiniev.

Cherniakov I.T.

- 2004 Akkembetskiy kurhan. In: S.M. Liashko, N.B. Burdo, M. Yu. Videyko (Eds), *Entsyklopediya trypil'skoyi tsyvilizatsii* 2, 11-13. Kyiv.

Chernysh E.K.

- 1951 Tripolskie orudiya truda s poselenia u. s. Vladimirovki. *Kratkie soobsche-niya Instituta Istorii Materialnoy Kultury* 40: 85-95.
1982 Eneolit Pravoberezhnoy Ukrainy i Moldavii. In: V.M. Masson, N. Ya. Mer-per (Eds), *Eneolit SSSR, Arkheologiya SSSR* 4, 165-320. Moskva.

Chernykh E.N. = Chernykh Y.N.

- 1976 *Drevniaya metalloobrabotka na Yugo-Zapade SSSR*. Moskva.
1977 Ob evropeyskoy zone Tsirkumpontiyskoy metallurgicheskoy provintsii (CMP), *Acta Archaeologica Carpathica* 17: 29-54.
1978a *Gornoe delo i metallurgiya v drevneyshey Bolgarii*. Sofia.
1978b Metallurgicheskiye provintsii i periodizatsiya epokhi rannego metalla na territorii SSSR, *Sovetskaya Arkheologia* 4: 53-82.
1992 *Ancient Metallurgy in the USSR. The Early Metal Age*. Cambridge.

Chernykh E.N., Avilova L.I., Orlovskaya L.B.

- 2000 *Metallurgicheskie provintsii i radiouglerodnaya khronologia*. Moskva.

Childe V.G.

- 1925 *The Dawn of European Civilization*. London.

Chochorowski J.

- 1976 Pochówek szkieletowy kultury ceramiki sznurowej z Kietrza, woj. Opole, *Sprawozdania Archeologiczne* 28: 125-131.
- 1999 Łowcy i pasterze w dobie brązowego oręża – epoka brązu na obszarach Euroazji. In: J.K. Kozłowski (Ed.) *Prehistoria, Encyklopedia Historii Świata*, vol. I 253-303. Kraków.

Cucoş S.

- 1985 Cultura amforelor sferice din depresiunea subcarpatica a Moldovei, *Memo-ria Antiquitatis* 9-11 (1985): 141-161.

Czebreszuk J.

- 2001 *Schyłek neolitu i początki epoki brązu w strefie południowo-zachodnio-bałtyckiej (III i początki II tys. przed Chr.). Alternatywny model kultury.* Uniwersytet im. Adama Mickiewicza w Poznaniu. Seria Archeologia 46). Poznań.

Czebreszuk J., Kozłowska-Skoczka D.

- 2008 *Sztylety krzemienne na Pomorzu Zachodnim.* Szczecin.

Czopek S. (Ed.)

- 2011 *Autostradą w przeszłość.* Rzeszów.

Dąbrowski J.

- 2006 Groby kultury łużyckiej z Siedliszcza, pow. chełmski. *Archeologia Polski Środkowowschodniej* 8: 275-291.

Dergachev V.A.

- 1975 *Bronzovye predmety XIII-VIII vv. do n.e. iz Dnestrovsko-Prut'skogo mezh-durechia.* Kishinev.
- 1982 *Materialy raskopok arkheologicheskoy ekspeditsii na Srednem Prute (1975-1976 gg.),* Kishinev.
- 1986 *Moldavia i sosedniye territorii v epokhu bronzы.* Kishinev.
- 2002 *Die äneolitischen und bronzezeitlichen Metallfunde aus Moldavien. Prähis-torische Bronzefunde XX/ 9.* Stuttgart.

Dergachev V.A., Manzura I.V.

- 1991 *Pogrebalnye komplekсы позднего Tripolia.* Kishinev.

Domańska L.

- 1995 *Geneza krzemieniarstwa kultury pucharów lejkowatych.* Łódź.
- 2013 *Krzemieniarstwo horyzontu klasycyznowióreckiego kultury pucharów lej-kowatych na Kujawach.* Łódź.

Ecsedy I.

- 1979 *The People of the Pit-Grave Kurgans in Eastern Hungary.* Budapest.

Engovatova A. V.

- 1994 *Kremnevaya industriya tripolskoy kultury (po materialam pamiatnikov dnestro-dneprovskogo mezhdurechia)*. (Avtoreferat dissertatsii na soiskanie uchonyy stepeni kandidata istoricheskikh nauk). Moskva.

Florek M.

- 2012 Badania archeologiczne w Złotej koło Sandomierza w latach 2002-2004 i 2012, *Zeszyty Sandomierskie* 33: 66-69.

Florek M., Libera J.

- 1994 Pierwszy sezon badawczy przykopalnianych pracowni w rejonie wychodni krzemienia świciechowskiego w Kopcu. In: J. Gurba (Ed.) *Sprawozdania z badań terenowych Katedry Archeologii UMCS w 1993 roku*, 3-14. Lublin.

Florek M., Zakościelna A.

- 2005 Cmentarzysko ze schyłku neolitu i początku epoki brązu w Wilczycach, pow. Sandomierz, *Archeologia Polski Środkowowschodniej* 7: 42-54.

Forssander E.J.

- 1933 *Die schwedische Bootaxtkultur und ihre kontinentaleuropäische Voraussetzungen*. Lund.

Furholt M.

- 2003 Die absolutchronologische Datierung der Schnurkeramik in Mitteleuropa und Südsandinavien. *Universitätsforschungen zur Prähistorischen Archäologie* 101. Bonn.

Gajewski L.

- 1972 Zabytki ze zniszczonego grobu kurhanowego (?) z miejscowości Ostrówek, pow. Lubartów, *Wiadomości Archeologiczne* 37(2): 226-227.

Gancarski J., Valde-Nowak P.

- 2011 Inwentarze „grobowe” kultury ceramiki sznurowej w nasypach kurhanów w Karpatach. In: H. Kowalewska-Marszałek, P. Włodarczak (Eds), *Kurhany i obrządek pogrzebowy w IV-II tysiącleciu p.n.e.*, 279-289. Kraków, Warszawa.

Gardawski A.

- 1951 Niektóre zagadnienia kultury trzcinieckiej w świetle wykopalisk w miejscowości Łubna, pow. Sieradz, *Wiadomości Archeologiczne* 18(1-2): 1-84.
1959 Plemiona kultury trzcinieckiej w Polsce, *Materiały Starożytne* 5: 7-189.

Gardawski A., Rajewski Z.

- 1956 Znaleźiska archeologiczne w Hrubieszowie i okolicy, *Wiadomości Archeologiczne* 23(1): 104-111.

Gavrilov A.V.

- 1991 Kurgan epokhi bronzы u sela Donskoe v Krymu. In: *Problemy Arkheologii Severnogo Prichernomoria*, 52-60. Cherson.

Gavrilov A.V., Toshev G.N.

- 2012 Novye pamiatniki epokhi bronzы v Krymu. *Starozhytnosti stepovogo Prichernomoria i Krymu* 16: 63-94.

Gazda L.

- 2009 Analiza zabytków kamiennych z grobów podkurhanowych na Grzędzie Sokalskiej. In: J. Machnik, J. Bagińska, W. Koman (Eds), *Neolityczne kurhany na Grzędzie Sokalskiej w świetle badań archeologicznych w latach 1988-2006*, 303-308. Kraków.

Gąsowska E.

- 1962 Nowe odkrycia grobów kultury ceramiki sznurowej w pow. Sandomierz, *Wiadomości Archeologiczne* 28: 88-90.

Gedl M.

- 1980 *Die Dolche und Stabdolche in Polen. Prähistorische Bronzefunde VII/ 7.* München.
 2000 Miedziane topory ze schyłku III tysiąclecia przed Chrystusem z terenu Polski. *Rocznik Przemyski* 36(1): 3-10.
 2004 Die Beile in Polen IV (Metelläxte, Eisenbeile, Hämmer, Ambosse, Meissel, Pfrieme). *Prähistorische Bronzefunde IX/24.* Stuttgart.

Gey A.N.

- 2011 Spornye voprosy i perspektivy izucheniya katakombnoy kulturno-istoricheskoy obschnosti. *Kratkie soobscheniya Instituta arkheologii* 225: 3-15.

Gimbutas M.

- 1956 *The Prehistory of Eastern Europe. Part 1.* Cambridge.
 1977 The first wave of Eurasian steppe pastoralists into Copper Age Europe, *Journal of Indo-European Studies* 5: 277-338.
 1980 The Kurgan Wave #2 (c.3400-3200 BC) into Europe and Following Transformation of Culture, *Journal European Studies* 8: 273-315.
 1997a The Three Waves of the Kurgan People into Old Europe, 4500-2500 BC. In: M. Robbins Dexter, K. Jones-Bley (Eds), *The Kurgan Culture and the Indo-Europeanization of Europe*, 240-266. Washington D.C.
 1997b The Kurgan Wave #2 c. 3400-3200 B.C. into Europe and the Following Transformation of Culture. In: M. Robbins Dexter, K. Jones-Bley (Eds), *The Kurgan Culture and the Indo-Europeanization of Europe*, 269-300. Washington D.C.

Ginter B., Kozłowski J. K.

- 1990 *Technika obróbki i typologia wyrobów kamiennych paleolitu, mezolitu i neolitu*. Warszawa.

Ginter B., Rogozińska-Goszczyńska R.

- 1965 Przyczynek do poznania wschodnich grup kultury ceramiki sznurowej (na podstawie stanowiska w Majdanie Mokwińskim, pow. Kostopol, USRR). *Materiały Archeologiczne* 6: 33-66.

Głosik J.

- 1958 Groby kultury ceramiki sznurowej w miejscowości Gródek Nadbużny, pow. Hrubieszów. *Wiadomości Archeologiczne* 25(1-2): 160-164.
- 1962 Wołyńsko-podolskie materiały z epoki kamienia i wczesnej epoki brązu w Państwowym Muzeum Archeologicznym w Warszawie. *Materiały Starożytne* 8: 125-216.
- 1968 Kultura strzyżowska. *Materiały Starożytne* 11: 7-114.
- 1993 Katalog Pogotowia Archeologicznego za lata 1977-1981. *Wiadomości Archeologiczne* 52 (1991-1992): 209-234

Gołub S.

- 1996 Zagroda, gm. Chełm, stanowisko 26 – II sezon badań wykopaliskowych cmentarzyska kultury pomorskiej (z pozostałościami osadnictwa kultury łużyckiej i z okresu średniowiecza). *Archeologia Polski Środkowowschodniej* 1: 73-74.

Gorodtsov V.A.

- 1905 Rezultaty arkeologicheskikh issledovaniy v Iziymskom uezde Kharkovsk-hoy gubernii 1901 goda. In: *Trudy XII arkeologicheskogo syezda*, vol. 1, 174-225. Moskva.
- 1907 Rezultaty arkeologicheskikh issledovaniy v Bakhmutskom uezde Ekaterinoslavskoy gubernii v 1903 g. *Trudy XIII arkeologicheskogo syezda*, vol.1. Moskva.

Goslar T., Koško A.

- 2011 Z badań nad chronologią i typogenezą kujawskich kurhanów starsznurowych. Krusza Zamkowa, powiat Inowrocław, stanowisko 3. In: H. Kowalewska-Marszałek, P. Włodarczak (Eds), *Kurhany i obrządek pogrzebowy w IV – II tysiącleciu p.n.e.*, 407-416. Kraków-Warszawa.

Goslar T., Koško A., Razumow S.

- 2014 Identyfikacja kulturowo-chronologiczna cmentarzysk „wczesnobrązowych” na stanowisku Pidlisivka 1. In: A. Koško, M. Potupczyk, S. Razumow (Eds), *Naddniestrzańskie kompleksy cmentarzysk kurhanowych społeczności z III i z pierwszej połowy II tysiąclecia przed Chr. w oko-*

licach Jampola, obwód winnicki. Z badań nad północno-zachodnią rubieżą osadnictwa społeczności kręgu kultur „wczesnobrązowych” strefy pontyjskiej. Badania z lat 1984 -2014. Archaeologia Bimaris. Monografie 6, 305-312. Poznań.

Górski J., Jarosz P.

- 2006 Cemetery of the Corded Ware and the Trzciniec Cultures in Gabułów/Cmentarzysko kultury ceramiki sznurowej i trzcinieckiej w Gabuławie. *Sprawozdania Archeologiczne* 58: 401-451.

Gurba J.

- 1960 Grób kultury czasz lejowatych ze Starej Wsi w powiecie lubartowskim. *Przegląd Archeologiczny* 12 (1959): 14-16.
- 1969 Materiały kultury czasz (pucharów) lejowatych z okolic Nałęczowa w pow. Puławskim. *Studia i Materiały Lubelskie* 4: 67-99.

Hansen S.

- 2009 Kupferzeitliche Äxte zwischen dem 5. und 3. Jahrtausend in Südosteuropa. *Analele Banatului* 17:139-158.

Hansen S.

- 2010 Communication and exchange between the Northern Caucasus and Central Europe in the fourth millennium BC. In: S. Hansen, A. Hauptmann, I. Motzenbäcker, E. Pernicka (Eds), *Von Majkop bis Trialeti. Gewinnung und Verbreitung von Metallen und Obsidian in Kaukasien im 4.-2. Jt. V. Chr. Beiträge des Internationalen Symposiums in Berlin vom 1.-3. Juni 2006. Kolloquien zur Vor- und Frühgeschichte* 13, 297-316. Bonn.

Häusler A.

- 1964 Innenverzierte Steinkammergräber der Krim. *Jahresschrift für mitteldeutsche Vorgeschichte* 48: 59-82.
- 1966 Die Gräber der Kugelamphorenkultur in Wolhynien und Podolien und die Frage ihres Ursprungs. *Jahresschrift für mitteldeutsche Vorgeschichte* 50: 115-140.
- 1976 *Die Gräber der älteren Ockergrabkultur zwischen Dnepr und Karpaten.* Berlin.
- 1981 Zu den Beziehungen zwischen dem nordpontischen Gebiet, Südost- und Mitteleuropa im Neolithikum und in der frühen Bronzezeit und ihre Bedeutung für das indoeuropäische Problem. *Przegląd Archeologiczny* 29: 101-149.
- 1992 Zum Verhältnis von Ockergrabkultur und Schnurkeramik. In: M. Buchvaldek, Ch. Strahm (Eds), *Die kontinentaleuropäischen Gruppen der Kultur*

- mit Schnurkeramik. *Schnurkeramik – Symposium 1990, Praehistorica* 19, 341-348. Praha.
- 1994 Die Majkop-Kultur und Mitteleuropa. *Zeitschrift für Archäologie* 28: 191-246.
- 1996 Invasionen aus den nordpontischen Steppen nach Mitteleuropa im Neolithikum und in der Bronzezeit: Realität oder Phantasieprodukt? *Archäologische Informationen* 19: 75-88.
- Häusler A., Toshev G.N.
- 2009 Neue Materialien zu den innenverzierten Steinkisten der frühen Bronzezeit auf der Halbinsel Krim. *Jahresschrift für mitteldeutsche Vorgeschichte* 91(2007): 67-102.
- Heyd V.
- 2011 Yamnaya Groups and Tumuli west of the Black Sea. In: E. Borgna, S. Müller Celka (Eds), *Ancestral Landscapes. Travaux de la Maison de l'Orient et de la Méditerranée* 58: 535-555. Lyon.
- Horváth T.
- 2011 Hajdúnánás –Tedej – Lyukas – halom - An interdisciplinary survey of a typical kurgan from the Great Hungarian Plain region: a case study (The revision of the kurgans from the territory of Hungary). In: A. Patő, A. Barcsi (Eds), *Kurgan Studies. An environmental and archaeological study of burial mounds in the Eurasian Steppe. BAR International Series* 2238, 71-131. Oxford.
- Horváth T., Dani J., Pető A., Pospieszny Ł., Svingor E.
- 2013 Multidisciplinary contributions to the study of Pit Grave Culture kurgans of the Great Hungarian Plain. In: V. Heyd, G. Kulcsár, V. Szeverényi (Eds), *Transition to the Bronze Age. Interregional interaction and socio-cultural change in the third millennium BC. Carpathian Basin and neighbouring regions*, 153-179. Budapest.
- Ivanova M.
- 2008 *Befestigte Siedlungen auf dem Balkan, in der Ägäis und in Westanatolien, ca. 5000-2000 v. Chr., Tübinger Schriften zur ur- und frühgeschichtlichen Archäologie* 8. Münster-New York-München-Berlin.
- Ivanova S.V.
- 2001 *Sotsialnaya struktura naseleniya yamnoy kultury severo-zapadnogo Prichernomoria*. Odessa.
- 2012 *Istoriya naseleniya Severo-Zapadnogo Prichernomoria v kostne IV-III tys. do n.e. Avtoreferat dissertatsii na soiskanie uchenoy stepeni doktora istoricheskikh nauk*. Kiev.

- 2013 Kulturno-istoricheskie kontakty naseleniya Severo-Zapadnogo Prichernomoria v rannem bronzovom veke: Zapad-Vostok. Kulturno-istoricheskie kontakty naseleniya, *Stratum plus* 2: 199-257.

Ivanova S.V., Koško A., Włodarczak P.

- 2014 Komponent tradycji kultur ceramiki sznurowej. Amfory w północno-zachodnio nadczarnomorskich grobach kultury jamowej, In: A. Koško, M. Potupczyk, S. Razumow (Eds), *Naddniestrzańskie kompleksy cmentarzysk kurhanowych społeczności z III i z pierwszej połowy II tysiąclecia przed Chr. w okolicach Jampola, obwód winnicki. Z badań nad północno-zachodnią rubieżą osadnictwa społeczności kręgu kultur „wczesno-brązowych” strefy pontyjskiej*, *Archaeologia Bimaris. Monografie* 6, 351-386. Poznań.

Ivanova S.V., Petrenko V.G., Vetchinnikova N.E.

- 2005 *Kurgany drevnikh skotovodov mezhdurechia Yuzhnogo Buga i Dnestra*. Odessa.

Jakowenko N.

- 2011 *Historia Ukrainy do 1795 roku*. Warszawa.

Jarosz P., Machnik J.

- 2000 Nowe spojrzenie na dawne badania kurhanów w Balicach i Klimkowcach w świetle materiałów archiwalnych i zbiorów Muzeum Archeologicznego w Krakowie. In: J. Rydzewski (Ed.) *150 lat Muzeum Archeologicznego w Krakowie*, 109-133. Kraków.

Jarosz P., Tunia K., Włodarczak P.

- 2009 Burial mound No. 2 in Małyce, the district of Kazimierza Wielka, *Sprawozdania Archeologiczne*, 61: 175-231.

Jarosz P., Włodarczak P.

- 2007 Chronologia bezwzględna kultury ceramiki sznurowej, w Polsce południowo-wschodniej oraz na Ukrainie, *Przegląd Archeologiczny* 55: 71-108.

Jażdżewski K.

- 1936 *Kultura pucharów lejkowatych w Polsce Zachodniej i Środkowej*. Poznań.

Kaczanowska M.

- 1980 Uwagi o surowcach, technice i typologii przemysłu krzemienno-kamienia-ry bodrogkereszturskiej i grupy Lažnany. *Acta Archaeologica Carpathica* 20: 19-56.
- 1985 *Rohstoffe, Technik und Typologie der Neolithischen Feuerstein Industrien im Nordteil des Flussgebietes der Mitteldonau*. Warszawa.

Kadrow S. (Ed.)

- 2013 *Bilcze Złote Materials of the Tripolye culture from the Werteba and the Ogród sites*. Biblioteka Muzeum Archeologicznego w Krakowie V. Kraków.

Kadrow S.

- 1998 Osteuropäische Beziehungen des epischnerkeramischen karpatenländischen Kulturkreises in der Frühbronzezeit. In: B. Hänsel, J. Machnik (Eds), *Das Karpatenbecken und die osteuropäische Steppe. Nomadenbewegungen und Kulturaustausch in den vorchristlichen Metallzeiten (4000-500 v. Chr.)*, 253-260. München-Rahden/Westfalen.
- 2000 Wczesnobrązowa wytwórczość metalurgiczna w kształcie wierzbowego liścia. In: J. Rydzewski (Ed.) *150 lat Muzeum Archeologicznego w Krakowie*, 141-152. Kraków.
- 2003 Absolute chronology of the Middle Dnieper culture between the Upper Bug, Vistula and Dniester rivers. In: A. Koško (Ed.), *The foundation of radiocarbon chronology of cultures between the Vistula and Dnieper: 4000-1000 BC*, *Baltic-Pontic Studies* 12: 241-246.

Kadrow S., Machnik A., Machnik J.

- 1992 *Iwanowice, stanowisko Babia Góra, Część II. Cmentarzysko z wczesnego okresu epoki brązu*. Kraków.

Kadrow S., Machnik J.

- 1997 *Kultura mierzanowicka. Chronologia, taksonomia i rozwój przestrzenny*. *Prace Komisji Archeologicznej PAN* 29. Kraków.

Kadrow S., Sokhachiy M., Tkachuk T., Trela E.

- 2003 Sprawozdanie ze studiów i wyniki analiz materiałów zabytkowych kultury trypolskiej z Bilcza Złotego znajdujących się w zbiorach Muzeum Archeologicznego w Krakowie. *Materiały Archeologiczne* 34: 53-143.

Kadrow S., Szmyt M.

- 1996 Absolute chronology of the eastern group of Globular Amphora Culture. In: A. Koško (Ed.) *Eastern Exodus of the Globular Amphora Culture People*, *Baltic-Pontic Studies* 4: 103-111.

Kadrow S., Zakościelna A.

- 2000 Outline of the Evolution of Danubian Cultures in Małopolska and Western Ukraine. In: A. Koško (Ed.) *The western border area of the Tripolye culture*, *Baltic-Pontic Studies* 9: 187-255.

Kaiser E.

- 2003 *Studien zur Katakombengrabkultur zwischen Dnepr und Prut, Archäologie in Eurasien* 14. Mainz am Rhein.

- 2009 Problemy absolutnego datowania katakombnoy kultury Severnogo Prichernomia. *Tyragetia (serie nouă)* 3(18/1): 59-70.
- 2013 Import, imitation and interaction: a critical review of the chronology and significance of cross footed bowls of the third Millennium BC in southern and eastern Europe. In: V. Heyd, G. Kulcsár, V. Szeverényi (Eds), *Transition to the Bronze Age. Interregional interaction and socio-cultural change in the third millenium BC. Carpathian Basin and neighbouring regions*, 139-152. Budapest.

Kamieńska J.

- 1965 Sprawozdanie z badań archeologicznych w Samborcu, pow. Sandomierz, w 1963 roku. *Sprawozdania Archeologiczne* 17: 76-82

Kempisty A.

- 1978 *Schyłek neolitu i początek epoki brązu na Wyżynie Małopolskiej w świetle badań nad kopcami*. Warszawa.
- 1981 Europa od schyłku V do początków II tysiąclecia p.n.e. In: S.K. Kozłowski (Ed.) *Kultury i ludy dawnej Europy*, 71-194. Warszawa.
- 1982 Problem metalurgii miedzi w kulturze ceramiki sznurowej i w kulturach episznurowych na północ od Karpat. *Pamiętnik Muzeum Miedzi* 1: 67-77.

Kempisty E., Sulgostowska Z.

- 1991 Osadnictwo paleolityczne, mezolityczne i paraneolityczne w rejonie Woźnej Wsi, woj. Łomżyńskie. *Polskie Badania Archeologiczne* 30. Warszawa.

Kempisty E., Więckowska H.

- 1970 Badania archeologiczne we wsi Sośnia, pow. Grajewo, *Wiadomości Archeologiczne* 35/2: 164-200.

Kempisty A., Włodarczak P.

- 2000 *Cemetery of Corded Ware culture in Żerniki Górne*. Warszawa.

Kirkowski R.

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

Klochko V.I.

- 2001a Rozvytok ozbroynennia „shnurovykh” kultur Ukrainy yak vidobrazhennia etno-kulturnykh protsesiv v rehioni. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds), *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr.*, 241-258. Poznań.
- 2001b *Weaponry of societies of the Northern Potnic culture circle: 5000-700 BC, Baltic-Pontic Studies* 10. Poznań.

Klochko V.I., Koško A. = Kločko V.I., Koško A.

- 2009 The societies of Corded Ware cultures and those of the Black Sea steppes (Yamnaya and Catacomb Grave Cultures) in the route network between the Baltic and Black Seas. In: A. Koško, V.I. Klochko (Eds), *Routes between the seas: Baltic-Bug-Boh-Pont from the 3rd to the Middle of the 1st millennium BC*, *Baltic-Pontic Studies* 14: 269-301.
- 2011 Społeczności kultur ceramiki sznurowej i stepu nadczarnomorskiego (jamowej oraz katakumbowej) w systemie organizacji szlaków bałtycko-pontyjskiego międzymorza. (In:) M. Ignaczak, A. Koško, M. Szmyt (Eds), *Między Bałtykiem a Morzem Czarnym. Szlaki międzymorza IV-I tys. przed Chr.*, *Archaeologia Bimaris. Dyskusje* 4, 259-284. Poznań.
- 2013 The Baltic Drainage Basin in the Reconstruction of the Mental Map of Central Europe Held in Common by Northern-Pontic Early – Bronze Civilization Communities: 3200-1600 BC.A. outline of the research programme. In: A. Koško, V. Klochko (Eds), *The Ingul-Donets Early Bronze Civilization as Springboard for Transmission of Pontic Cultural Patterns to the Baltic Drainage Basin 3200 – 1750 BC*. *Baltic-Pontic Studies* 18: 9-20.

Kobusiewicz M.

- 1988 Zabytki krzemienne i kamienne z cmentarzyska kultury łużyckiej w Laskach (Aneks). In: T. Malinowski, *Laski. Materiały z cmentarzyska kultury łużyckiej. Część I*, 75-83. Słupsk.

Koltukhov S.G., Toshchev G.N.

- 1998 *Kurgannye drevnosti Kryma II (po materialam raskopok Severo-Krymskoy ekspeditsii v 1993-1995 gg.)*. Zaporozhe.

Koman W.

- 1985 Sépulture à inhumation no III, Czerniczyn 3, comm. de Hrubieszów. In: A. Kokowski, W. Koman, *Néolithique et la période romaine aux environs de Hrubieszów, Pologne de l'Est. Inventaria Archaeologica. Pologne, fasc. LIV*, pl. 334. Warszawa-Łódź.
- 1987 Husynne Kolonia, stan. 6, gm. Hrubieszów. In: Zespół WOAK (Eds), *Sprawozdania z badań terenowych w woj. zamojskim w 1987 roku*, 23-25. Zamość.
- 1994 Zniszczony grób kultury strzyżowskiej z Horodła stan. 12, gm. Horodło, woj. Zamość. In: M. Bienia (Ed.) *Najważniejsze odkrycia archeologiczne w Polsce środkowowschodniej w 1993 roku*, 37-39. Biała Podlaska.

Koman W., Niedźwiedź J.

- 1998 Badania ratownicze na wielokulturowych stanowiskach nr 11 i 12 w Jankach Dolnych, woj. Zamojskie, *Archeologia Polski Środkowowschodniej* 3: 86-91.

Kondracki J.

- 1969 *Podstawy regionalizacji fizyczno-geograficznej*. Warszawa.

Kopacz J.

- 1986 Cmentarzysko kultury ceramiki sznurowej w Wójeczce, woj. Kielce, *Sprawozdania Archeologiczne* 38: 139-151.
2001 *Początki epoki brązu w strefie karpackiej w świetle materiałów kamiennych*. Kraków.

Koško A.

- 1988 Rozwój kulturowy społeczeństw Kujaw w okresach późnego neolitu oraz interstadium epok neolitu i brązu w aspekcie recepcji egzogennych wzorców kulturowych. In: A. Cofta-Broniewska (Ed.) *Kontakty pradziejowych społeczeństw Kujaw z innymi ludami Europy*, 145-183. Inowrocław.
1990 The Migration of Steppe and Forest-steppe Communities into Central Europe. *The Journal of Indo-European Studies* 18(3/4): 309-329.
1991 The Vistula-Oder Basins and North Pontic Region. *The Journal of Indo-European Studies* 19(3/4): 235-257.
1992 Z badań nad tzw. horyzontem starsznurowym w rozwoju późnoneolitycznej kultury społeczeństw Kujaw. *Acta Universitatis Lodzensis, Folia Archaeologica* 16: 85-95.
2000 From research into the issue of the development dependencies of the Corded Ware culture and Yamnaya Culture. In: S. Kadrow (Ed.) *A Turning of Ages. Jubilee Book Dedicated to Professor Jan Machnik on His 70th Anniversary*, 337-346. Kraków.
2001 Z badań nad genezą rytuałów kremacji w bałkańsko-środkowoeuropejskim kręgu kulturowym. In: B. Ginter, B. Drobniewicz, B. Kazior, M. Nowak, M. Połtowicz (Eds), *Problemy epoki kamienia na obszarze Starego Świata. Księga jubileuszowa dedykowana Profesorowi Januszowi K. Kozłowskiemu*, 405-412. Kraków.
2002 Fluted Maces in Cultural System of the Borderland of Eastern and Western Europe: 2350-800 BC. Taxonomy, genesis, function. In: A. Koško (Ed.) *Fluted Maces in the System of Long Distance Exchange Trails of the Bronze Age: 2350-800 BC. Baltic-Pontic Studies* 11: 31-81.
2011 Z badań nad kontekstem kultur wczesnobrązowych strefy pontyjskiej w rozwoju społeczności środkowoeuropejskich obszaru dorzecza Wisły w III tys. BC. In: U. Stankiewicz, A. Wawrusiewicz (Eds), *Na rubieży kultur. Badania nad okresem neolitu i wczesną epoką brązu*, 183-194. Białystok.

Koško A., Klochko V.I. = Koško A., Kložko V.I.

- 1991 Bożejewice, gm. Strzelno, woj. Bydgoszcz, stanowisko 8. Kurhan z późnego okresu epoki neolitu. *Folia Praehistorica Posnaniensia* 4: 119-144.

- 2009 Transit routes between the Baltic and Black Seas: early development stages – from the 3rd to the middle of the 1st Millennium BC. A. outline of research project. In: A. Koško, V.I. Klochko (Eds), *Routes between the seas: Baltic-Bug-Boh-Pont from the 3rd to the Middle of the 1st Millennium BC*, *Baltic-Pontic Studies* 14: 9-18.
- 2011 Szlaki tranzytowe bałtycko-pontyjskiego międzymorza, wczesne etapy rozwoju: IV/III – połowa I tys. przed Chr. Zarys projektu badawczego. In: M. Ignaczak, A. Koško, M. Szmyt (Eds), *Między Bałtykiem a Morzem Czarnym. Szlaki międzymorza IV – I tys. przed Chr.*, *Archaeologia Bimaris Dyskusje* 4, 11-18. Poznań.
- Koško A., Klochko V.I., Olszewski A.
- 2012 Ritualniy obiekt naselennia prichornomorskoyi kulturnoyi spilnoty doby rannoyi bronzы na r. Sian, *Arkheolohia* 2: 67-75.
- Koško A., Langer J.J., Szmyt M.
- 2000 Painted Pottery as a symptom of Tripolye “influence” in the circle of Neolithic Vistula cultures. In: A. Koško (Ed.) *The Western Border Area of the Tripolye Culture*, *Baltic-Pontic Studies* 9: 282-288.
- Koško A., Potupczyk M., Razumow S. (Eds)
- 2014 *Naddniestrzańskie kompleksy cmentarzysk kurhanowych społeczności z III i z pierwszej połowy II tysiąclecia przed Chr. w okolicach Jampola, obwód winnicki. Z badań nad północno-zachodnią rubieżą osadnictwa społeczności kręgu kultur „wczesnobrązowych” strefy pontyjskiej. Badania z lat 1984 -2014*, *Archaeologia Bimaris. Monografie* 6. Poznań.
- Koško A., Sikorski A., Szmyt M.
- 2010 „Corded” and „Corded-Like” Ornamentation in the Vistula and Dnieper Interfluvial Region in the 5th – 4th Mill. BC. Introduction to Interdisciplinary Research. In: Koško A., Szmyt M. (Eds), *“Cord” Ornaments on Pottery in the Vistula and Dnieper Interfluvial Region: 5th-4th Mill. BC*, *Baltic-Pontic Studies* 15: 13-48.
- Koško A., Szmyt M.
- 2009 Central European Lowland Societies and the Pontic Area in the 4th – 4th/3rd Millennium BC. In: A. Koško, V.I. Klochko (Eds), *Routes between the seas: Baltic-Bug-Boh-Pont from the 3rd to the Middle of the 1st Millennium BC*, *Baltic-Pontic Studies* 14: 191-213.
- 2011 Udział społeczności Niżu Środkowoeuropejskiego w poznaniu środowisk biokulturowych Płyty Nadczarnomorskiej: IV–IV/III tys. BC. In: M. Ignaczak, A. Koško, M. Szmyt (Eds), *Między Bałtykiem a Morzem Czarnym. Szlaki międzymorza IV–I tys. przed Chr.*, *Archaeologia Bimaris. Dyskusje* 4, 205-222. Poznań.

Kozłowski J. K.

- 1999 Epoka miedzi w Europie i na Bliskim Wschodzie. In: J.K. Kozłowski (Ed.) *Prehistoria, Encyklopedia Historii Świata, tom I*, 173-192. Kraków.

Kozłowski L.

- 1923 *Epoka kamienia na wydmach wschodniej części Wyżyny Małopolskiej. Archiwum Nauk Antropologicznych* 2(3). Lwów-Warszawa.

Kruk J.

- 1973 *Studia osadnicze nad neolitem wyżyn lessowych*. Wrocław-Warszawa-Kraków-Gdańsk.
2009 *Wzory przeszłości studia nad neolitem środkowym i późnym*. Kraków.

Kruk J., Milisauskas S.

- 1999 *Rozkwit i upadek społeczeństw rolniczych neolitu*. Kraków.

Krywalciewicz M.

- 2007 *Prorwa I. Cmentarzysko z połowy III – początku II tysiąclecia przed Chr. na górnym Naddnieprzu. Archaeologia Bimaris. Monografie*. Poznań.

Krzak Z.

- 1958 Cmentarzysko kultury złockiej na stanowisku Grodzisko II we wsi Złota, pow. Sandomierz, *Archeologia Polski* 2(2): 329–388.
1961 *Materiały do znajomości kultury złockiej*. Wrocław.
1970 *Cmentarzysko kultury złockiej „Nad Wawrem” w Złotej*. Wrocław.
1976 *The Złota Culture*. Wrocław-Warszawa-Kraków-Gdańsk.
1980 From studies of the origin of the Corded Ware culture. *Przegląd Archeologiczny* 28: 187-209.

Kuna M., Matoušek V.

- 1978 Měděná industries kultury zvoncovitých pohárů ve střední Evropě. *Praehistorica VII*: 68-89.

Kuśnierz J.

- 1987 Sprawozdanie z badań wykopaliskowych przeprowadzonych na cmentarzysku kurhanowym kultury trzcinieckiej w Tyszowcach w sezonie 1987. In: *Sprawozdania z badań terenowych w województwie zamojskim w 1987 roku*, 11-14. Zamość.

Lakiza V.L.

- 2008 *Starazhytnasti pozniaga nealitu i ranniaga peryiadu bronzavaga veku Belaruskaga Paniamonnia*. Minsk.

Latynin B.A.

- 1967 Molotochkovidnye bulavki, ikh kulturnaya atributsiya i datirovka. *Arkheologicheskiiy sbornik* 9: 5-95.

Lech J., Młynarczyk H.

- 1981 Uwagi o krzemieniarstwie społeczności wstęgowych i wspólnot kultury pucharów lejkowatych. Próba konfrontacji. In: T. Wiślański (Ed.), *Kultura pucharów lejkowatych w Polsce (studia i materiały)*, 11-36. Poznań.

Levytskyi I.F.

- 1930 Domovyna kintsa neolitichnoyi doby na poberezhzhi seredniyi techi r. Sluchi (s. Kolodiazhne na Volyni). In: *Zapysky Vseukrainskoho arkeologichnoho komitetu* 1 (1930), 157-178.

Libera J.

- 2001 *Krzemienne formy bifacjalne na terenach Polski i zachodniej Ukrainy (od środkowego neolitu do wczesnej epoki żelaza)*. Lublin.
- 2006a Analiza inwentarzy krzemiennych uzyskanych w trakcie badań wykopaliskowych stanowiska 2 kultury łużyckiej w Siedliszczu, pow. Chełmski, *Archeologia Polski Środkowowschodniej* 8: 293-306.
- 2006b Kraina krzemieniem usiana. In: E. Banasiewicz-Szykuła (Ed.), *Badania archeologiczne na Polesiu Lubelskim*, 49-60. Lublin.
- 2009 Materiały krzemienne z badań kurhanów kultury ceramiki sznurowej na Grzędzie Sokalskiej (aneks). In: J. Machnik, W. Koman, J. Bagińska, *Neolityczne kurhany na Grzędzie Sokalskiej w świetle badań archeologicznych w latach 1988-2006 (z aneksami Jerzego Libery i Lucjana Gazdy)*, 283-308. Kraków.
- 2010 Krzemienne „groty”, „sztylety” oraz „sierpy” w dorzeczu Sanu (przyczynek do studiów nad wybranymi wytworami krzemieniarstwa kultury mierzanowickiej). *Rocznik Przemyski* 46(2), *Archeologia*: 3-29.

Libera J., Dobrowolski R., Szeliga M., Wiśniewski T.

- 2014 Flints in glacial sediments of Chełm Hills, Eastern Poland. *Sprawozdania Archeologiczne* 66.

Libera J., Zakościelna A.

- 2006 Inwentarze krzemienne z grobów grupy południowo-wschodniej kultury pucharów lejkowatych. In: J. Libera, K. Tunia (Eds), *Idea megalityczna w obrządku pogrzebowym kultury pucharów lejkowatych*, 135-169. Lublin-Kraków.
- 2011 Cyrkulacja krzemienia wołyńskiego w okresie neolitu we wczesnej epoce brązu na ziemiach polskich. In: M. Ignaczak, A. Kosko, M. Szmyt (Eds), *Między Bałtykiem a Morzem Czarnym. Szlaki międzymorza IV-I tys. przed Chr., Archaeologia Bimaris. Dyskusje* 4, 83-115. Poznań.
- 2014 Retusz ryńienkowaty w eneolicie i wczesnej epoce brązu na ziemiach polskich. *Prace Archeologiczne* 65: 209-233.

Lichardus J., Lichardus-Itten M.

- 1995 Kupferzeitliche Silexspitzen im nord- und westpontischen Raum. In: J. Lech (Ed.) *Special Theme: Flint Mining dedicated to the Seventh International Flint Symposium – Poland 1995*, *Archaeologia Polona* 33: 223-240.

Liguzińska-Kruk Z.

- 1989 Kurhan kultury ceramiki sznurowej w Pałecznicy, woj. Kielce, *Sprawozdania Archeologiczne* 40: 113-127.

Lobay B.I.

- 1985 *Otchet o raskopkakh Vinnitskogo kraevedcheskogo muzeya v 1884 godu. Held in the archives of N.I. NAN Ukrainy*. 1985/144 (22299). Kiev.

Lomborg E.

- 1973 *Die Flintdolche Dänemarks. Studien über Chronologie und Kulturbeziehungen des südsandinavischen Spätneolithikums. Nordiske Fortidsminder*, Serie B – in quarto, Bind 1. København.

Łysenko S., Szmyt M.

- 2011 Środkowe Naddnieprze jako graniczny areał osadnictwa ludności kultury amfor kulistych. In: Ignaczak M., Koško A., Szmyt M. (Eds), *Między Bałtykiem a Morzem Czarnym. Szlaki międzymorza IV – I tys. przed Chr.* *Archaeologia Bimaris. Dyskusje* 4, 239-246. Poznań.

Machnik J.

- 1966 *Studia nad kulturą ceramiki sznurowej w Małopolsce*. Wrocław-Warszawa-Kraków.
- 1978 Wczesny okres epoki brązu. In: A. Gardawski, J. Kowalczyk (Eds), *Wczesna epoka brązu, Prahistoria Ziemi Polskiej* vol. III, 9-136. Wrocław-Warszawa-Kraków-Gdańsk
- 1979a Ze studiów nad kulturą ceramiki sznurowej w dorzeczu górnego Dniestru. *Acta Archaeologica Carpathica* 19: 51-71.
- 1979b Krąg kulturowy ceramiki sznurowej. In: W. Hensel, T. Wiślański (Eds), *Prahistoria ziem polskich*, vol. II, 337-411. Wrocław-Warszawa-Kraków-Gdańsk.
- 1987 *Kultury z przełomu eneolitu i epoki brązu w strefie karpackiej*. Prace Komisji Archeologicznej / PAN 26. Wrocław.
- 1994 Dwa nurty rozwoju kultury ceramiki sznurowej w Małopolsce. *Sprawozdania Archeologiczne* 46: 7-12.
- 1997a Zwei Entwicklungswege der Schnurkeramikkultur in den Flussgebieten der oberen Weichsel, Bug und Dniestr. In: P. Siemen (Ed.), *Early Corded Ware culture. The A-Horizon – fiction or fact?*, 147-156. Esbjerg.

- 1997b Zaskakujące odkrycie zabytków kultury środkowodnieprzańskej w Młodowie-Zakąciu koło Lubaczowa, w woj. przemyskim, *Sprawozdania Archeologiczne* 49: 143-170.
- 1998 Stan i perspektywy badań kultury ceramiki sznurowej w międzyrzeczu górnej Wisły, Bugu i Dniestru. *Sprawozdania Archeologiczne* 50: 13-29.
- 1999 Radiocarbon chronology of the Corded Ware culture on Grzeda Sokalska. A Middle – Dnieper traits perspectives, In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures Between the Vistula and Dnieper in 3150-1850 BC, Baltic-Pontic Studies* 7: 221-250.
- 2006 Rola migracji w pradziejach. Problemy dyskusyjne. In: A. Fudala, W. Wysocki (Eds), *Migracje: dzieje, typologia, definicje*, 29–37. Wrocław.
- 2011 Znaczenie archeologicznych badań ratowniczych na trasie planowanej budowy autostrady A4 na odcinku Przeworski-Radymno dla znajomości problematyki schyłku neolitu i początków epoki brązu. In: S. Czopek (Ed.), *Autostradą w przeszłość*, 61-78. Rzeszów.
- Machnik J., Bagińska J., Koman W.
- 2001 Nowa, synkretyczna grupa kultury ceramiki sznurowej w Polsce środkowo-wschodniej. In: B. Ginter, B. Drobniewicz, B. Kazior, M. Nowak, M. Połtowicz (Eds), *Problemy epoki kamienia na obszarze Starego Świata, Księga Jubileuszowa dedykowana Januszowi K. Kozłowskiemu*, 389-400. Kraków.
- 2008 Przykłady synkretyzmu kulturowego u schyłku neolitu w świetle źródeł archeologicznych. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds), *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. rocznicę urodzin*, 321-329. Poznań.
- 2009 *Neolityczne kurhany na Grzędzie Sokalskiej w świetle badań archeologicznych w latach 1988-2006. Z aneksami Jerzego Libery i Lucjana Gazdy*. Kraków.
- Machnik J., Bajda-Wesołowska A., Hozer M.
- 2013 *Opracowanie ratowniczych badań wykopaliskowych na stanowisku 5 w Szczytnej, Archiwum Narodowego Instytutu Dziedzictwa w Warszawie*. Rzeszów.
- Machnik J., Pavliv D., Petehyryč V.
- 2006a Barrow of the late Corded Ware culture from Bikiv, Drohobyč district. In: K. Harmata, J. Machnik, L. Starkel (Eds), *Environment and man at the Carpathians foreland in the upper Dnister catchment from Neolithic to Early Mediaeval period, Prace Komisji Prehistorii Karpat PAU* 3, 195-227. Kraków.

- 2006b Recapitulation of Results of the Archaeological Research and Outline of the History of the Earliest Settlement. In: K. Harmata, J. Machnik, L. Starkel (Eds), *Environment and Man at the Carpathian Foreland in the Upper Dnister Catchment from Neolithic to Early Mediaeval Period*, *Prace Komisji Prehistorii Karpat PAU* 3, 228-243. Kraków.

Machnik J., Pawliw D., Petehyrycz W.

- 2011 *Prahistoryczne kurhany we wsi Haji Nyžni koło Drohobycza*. Kraków.

Machnik J., Pilch A.

- 1997 Zaskakujące odkrycie zabytków kultury środkowodnieprzańskej w Młodowie-Zakąciu koło Lubaczowa w woj. Przemyskim, *Sprawozdania Archeologiczne* 49: 143-170.

Machnik J., Sosnowska E.

- 1996 Starożytna mogiła z początku III tysiąclecia przed Chrystusem, ludności kultury ceramiki sznurowej w Średniej, gm. Krzywca, *Rocznik Przemyski* 32(3): 3-28.
- 1998 Kurhan ludności kultury ceramiki sznurowej z przełomu III i II tysiąclecia przed Chrystusem w Woli Węgierskiej, gm. Rożwienica, woj. przemyskie, *Rocznik Przemyski* 34/3: 3-20.

Machnik J., Ścibior J.

- 1991 Die chronologie der Schnurkeramikkultur (SchK) in Südostpolen, In: M. Buchvaldek, Ch. Strahm (Eds), *Die kontinentaleuropäischen Gruppen der Kultur mit Schnurkeramik. Die Chronologie der regionalen Gruppen*, 45-54. Freiburg i Br.

Machnik J., Tkaczuk T. K.

- 2003 Interesting and important artifacts from the beginning of the Bronze Age in the vicinity of Halicz (upper basin of the Dnestr River). In: E. Jerem, P. Raczy (Eds), *Morgenrot der Kulturen. Frühen Etappen der Menschheitsgeschichte in Mittel- und Südosteuropa. Festschrift für NándorKalicz zum 75. Geburtstag*, 483-496. Budapest.

Makarowicz P.

- 2010 *Trzciniecki krąg kulturowy – wspólnota pogranicza Wschodu i Zachodu Europy*. *Archaeologia Bimaris. Monografie*. Poznań.

Makohonienko M.

- 2011 Przyrodnicze aspekty pradziejowych i wczesnohistorycznych szlaków tranzytowych bałtycko-pontyjskiej przestrzeni kulturowe. In: A. Kośko, V. Klochko (Eds), *Między Bałtykiem a Morzem Czarnym. Szlaki między morza IV-I tys. przed Chr.*, *Archaeologia Bimaris. Dyskusje* 4, 21-60. Poznań.

Makohonienko M., Hildebrandt-Radke I.

- 2014 Kontekst przyrodniczy i perspektywy studiów paleośrodowiskowych stanowiska kultury jamowej w Pidlisiwce nad Dniestrem, zachodnia Ukraina. In: A. Koško, M. Potupczyk, S. Razumow (Eds), *Naddniestrzańskie kompleksy cmentarzysk kurhanowych społeczności z III i z pierwszej połowy II tysiąclecia przed Chr. w okolicach Jampola, obwód winnicki. Z badań nad północno-zachodnią rubieżą osadnictwa społeczności kręgu kultur „wczesnobrzązowych” strefy pontyjskiej. Badania z lat 1984 -2014. Archaeologia Bimaris. Monografie 6*, 247-274. Poznań.

Maleev Y. M.

- 1980 Vostochniye rubiezhy rasprostraneniya kultury sharovidnykh amfor. In: *Problemy eneolita stepnoy i lesostepnoy polosy Vostochnoy Evropy. Tezi-sy dokladov*, 30-31. Orenburg.

Mallory J.P.

- 1989 *In Search of Indo-Europeans. Language, Archaeology and Myth*. London.

Małecka-Kukawka J., Kukawka S.

- 1984 Krzemienne groty strzał kultury pucharów lejkowatych na Pomorzu. *Acta Universitatis Nicolai Copernici. Archeologia* 8: 3-34.

Manasterski D.

- 2009 *Pojeziorze Mazurskie u schyłku neolitu i na początku epoki brązu w świetle zespołów typu Zabie-Szeszno*. Warszawa.

Manolakakis L.

- 2005 Les industries litiques énéolitiques de Bulgarie. *Internationale Archäologie* 88. Rahden.

Marciniak J.

- 1961 Materiały neolityczne z Żukowa, pow. Sandomierz, *Materiały Archeologiczne* 2: 43-55.

Markovin V.I.

- 1990 Spornye voprosy v etnogeneticheskom izuchenii drevnostey severnogo Kavkaza (maikopskaya kultura). *Sovetskaya Arkheologiya* 4: 106-122.
1994 Dolmeny Zapadnogo Kavkaza. In: *Epokha bronzы Severnogo Kavkaza*, 226-253. Moskva.

Melnyk O., Steblyna I.

- 2012 *Kurhany Kryvorizhzhia*. Kryvyi Rih.
2013 *Yamna kultura serednoyi techiyi Ingultsia*. Kryvyi Rih.

Merpert N. Ya.

- 1968 *Drevneyshaya istoriya naseleniya stepnoi polosy Vostochnoy Evropy (III - nachalo II tys. do n.e.)*. Moskva.

1974 *Drevneishie skotovody Volgo-Uralskogo mezhdurechia*. Moskva.

Mihăilescu-Bîrliba V.

2001 Mormântul unei tinere căpetenii de la începutul Epocii Bronzului (Mastacăn, jud. Neamț – «Cultura Amforelor Sferice»). *Memoria Antiquitatis. Acta Musei Petrodavensis* 22: 157-217.

Mihăilescu-Bîrliba V., Szmyt M.

2003 Radiocarbon Chronology of the Moldavian (Siret) Subgroup of the Globular Amphora Culture. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 4000-1000 BC, Baltic-Pontic Studies* 12: 82-112.

Mitura P.

2001 Materiał krzemieny z cmentarzyska w Pysznicy – analiza. In: S. Czopek, *Pysznica pow. Stalowa Wola stanowisko 1 – cmentarzysko ciałopalne z przełomu epok brązu i żelaza*, 215-217 + [tabl. LXXXVI-XC]. Rzeszów.

Młynarczyk H.

1982 Materiały krzemienne z grobowców kujawskich w Sarnowie, Gaju, Leśniczówce i Wietrzychowicach. *Światowit* 35: 55-93.

Movsha T.G.

1971 O severnoy gruppe pozdnetripolskikh pamiatnikov. *Sovetskaya arkheologiya* 5: 31-54.

Munchaev R.M.

1994 Maykopskaya kultura. In: *Epokha bronzы Severnogo Kavkaza*, 158-225. Moskva.

Niedźwiedz E., Niedźwiedz J., Kalisz J., Panasiewicz J.

2010 *Dzieje miejscowości gminy Mircze, powiat hrubieszowski*. Hrubieszów–Zamość.

Niedźwiedz J.

1999 Trzeci sezon badań na stanowisku wielokulturowym w Jankach Dolnych stan. 11, pow. Hrubieszów. *Archeologia Polski Środkowowschodniej* 4: 67-71.

Niesiołowska E.

1967 Materiały neolityczne ze stanowiska 6 w Pikutkowie, pow. Włocławek, *Prace i Materiały Muzeum Archeologicznego i Etnograficznego w Łodzi* 14: 79-143.

Niezabitowska-Wiśniewska B., Wiśniewski T.

- 2011 Kurhany kultury ceramiki sznurowej na stanowisku 3 w Ulowie, pow. tomaszowski, (in:) H. Kowalewska-Marszałek, P. Włodarczak (Eds), *Kurhany i obrządek pogrzebowy w IV-II tysiącleciu p.n.e.*, 329-369. Kraków, Warszawa.

Nikolaeva N.A.

- 1981 Periodyzatsiya kubano-terskoy kultury. Istoricheskiye sudby KTK v katakombnuyu epokhu. In: *Katakombnye kultury severnogo Kavkaza*, 77-100. Ordzhonikidze.
- 2011 *Etno-kulturnye protsessy na Severnom Kavkaze w III-II tys. do n.e. v kontekste drevney istorii Evropy i Blizhnego Vostoka*. Moskva.

Nikolaeva N., Safronov V.

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

Nikolova A.V.

- 2012 Absolutna khronologiya yamnoy kultury pivnichnoho Nadchornomoria v svitli dendrodat. *Arkheolohiya* 4: 14-31.

Nikolova L.

- 1999 *The Balkans in Later Prehistory, BAR International Series 791*. Oxford.

Nosek S.

- 1967 *Kultura Amfor Kulistych w Polsce*. Wrocław.

Okhrimenko H.

- 2006 Pamyatky stzhyzhovskoyi kultury na Volyni ta Volynskomy Polissi. In: H. Okhrimenko, N. Skliarenko, V. Tkach (Eds), *Narysy kultury davnoyi Volyni*, 404-413. Luts'k.
- 2007 Osoblyvosti stzhyzhovskoyi kultury Volyni ta Volynskoho Polissia. In: H. Okhrimenko, M. Kuchynko, N. Skliarenko, I. Shovkovych (Eds), *Oleksandr Tsyngalovskiy ta praistoriya Volyni*, 425-456. Luts'k.
- 2010 *Pripontys'ki etnokul'turni vplyvi na teritoriyi zakhidnoyi Volyni za doby bronzы*. In: L.D. Strocen', M.O. Yagodins'ka (Eds) Aktual'ni problemy arheologiy. Tezi mizhnarodnoy naukovo'y konferentsiy na poshanu I.S. Vinokura (m. Kam'yanec' Podil's'ly 2010 roku), 32-34. Ternopil'-Aston.

Okhrimenko H., Skliarenko N.

- 2010 *Vivtchennya nam'yatok stzhizhovs'koy kul'turi*. In: Minule i suchasne Volini ta Polissya. Storinky istoriy Kamin'-Kashyshchyni, 236-239. Luc'k.

Okulicz J.

- 1973 *Pradzieje ziem pruskich od późnego paleolitu do VII w. n.e.* Wrocław-Warszawa-Kraków-Gdańsk

Otroschenko V.V.

- 1998 Fenomen kistanykh priazhok. In: G.N. Toshev (Ed.), *Problemy izucheniya katakombnoy kulturno-istoricheskoy obschnosti (KKIO) i kulturno-istoricheskoy obschnosti mnogovalikovoy keramiki (KIOMK)*, 113-117. Zaporozhe.

Ossowski G.

- 1886 Przyczynek do wiadomości o grotach krzemiennych znajdujących na ziemiach dawnej Polski. *Zbiór Wiadomości do Antropologii Krajowej* 10: 24-37.

Pasterkiewicz W., Pozikhovski A., Rybicka M., Verteletskyi D.

- 2013 Z badań nad problematyką oddziaływań kręgu bałeńskiego na wschodnie rejony Wyżyny Wołyńskiej. In: A. Pozikhovski, J. Rogoziński, M. Rybicka (Eds), *Na pograniczu kultury pucharów lejkowatych i kultury trypolskiej*, 251-292. Rzeszów.

Patö A., Barczy A. (Eds)

- 2011 *Kurgan Studies. An environmental and archaeological study of burial mounds in the Eurasian Steppe. BAR Interational Series 2238.* Oxford.

Păunescu Al.

- 1970 *Evoluția uneltelor și armelor de piatră cioplită descoperite pe teritoriul României, Biblioteca de Arheologie XV.* București.

Pelisiak A.

- 1991 Osada z początków epoki brązu w Sięganowie (stan. 3), woj. sieradzkie. *Sprawozdania Archeologiczne* 43: 152-165.
- 2002 Osada kultury pucharów lejkowatych w Grójcu Wielkim, stan. 1, woj. łódzkie. *Sprawozdania Archeologiczne* 54: 81-106.

Peška J.

- 2004 Žárové hroby kultury se šňůrovou keramikou na Moravě. In: E. Kazdová, Z. Měřínský, K. Šabatová (Eds), *K počtě Vladimíru Podborskému. Přátelé a žáci k sedmdesátým narozeninám*, 191-205. Brno.

Petrenko V.G.

- 1989 Usatovskaya lokalna gruppа. In: *Pamiatniki tripolskoy kultury v Severo-Zapadnom Prichernomorie*, 81-124. Kiev.

Popova T. A.

- 1980 Kremneobrabatyvayuscheoproizvodstvotripolskikhplemen (po materialam poseleniya Polivanov Yar). In: *Pervobytnaya arkheologiya – poiski i nakhodki: sbornik nauchnykh trudov*, 145-163. Kiev.
- 2003 *Mnogosloynoe poselenie Polivanov Yar. K evoliutsii tripolskoy kultury v Sednem Podnestrovie*. Sankt Peterburg.

Pośpieszny Ł.

- 2009 *Zwyczaje pogrzebowe społeczności kultury ceramiki sznurowej w Wielkopolsce i na Kujawach*. Poznań.
- 2012 *Praktyki ceremonialne na Niżu w międzyrzeczu Odry i Wisły w III tys. przed Chr. (manuscript of PhD dissertation, Institute of Prehistory AMU in Poznań)*. Poznań.

Prinke D., Przybył A.

- 2005 Osadnictwo najstarszych mieszkańców powiatu obornickiego: społeczności z epoki kamienia (od ok. 11050-9950 do ok. 2300 przed Chr.). In: T. Skorupka (Ed.), *Archeologia powiatu obornickiego*, 11-124. Oborniki-Rogoźno-Ryczywół.

Rassamakin J. Ja. = Rassamakin Y.Ya.

- 1991 O sootnoshenii stepnykh i novosvobodnenskikh pamiatnikov. In: *Maikopskiy fenomen v drevney istorii Kavkaza i Vostochnoy Evropy (teziy dokladov)*, 52-55. Leningrad.
- 1996 On Early Elements of the Globular Amphora Culture and Other European Cultures in the Late Eneolithic of the Northern Black Sea region. In: A. Koško (Ed.): *Eastern Exodus of the Globular Amphora People, Baltic-Pontic Studies* 4: 112-132.
- 2004 *Die nordpontische Steppe in der Kupferzeit. Gräber aus der Mitte des 5. Jts. bis Ende des 4. Jts. v.Chr., Archäologie in Eurasien* 17. Mainz.
- 2013 From the Late Eneolithic period to the Early Bronze Age in the Black Sea steppe: what is the Pit Grave Culture (late fourth to mid-third millennium BC)? In: V. Heyd, G. Kulcsár, V. Szeverényi (Eds), *Transition to the Bronze Age. Interregional interaction and socio-cultural change in the third millennium BC. Carpathian Basin and neighbouring regions*, 113-138. Budapest.

Rassamakin Y.Y., Evdokimov G.L.

- 2011 O severnoy granitse raspostraneniya pogrebeniy v kamennykh yaschykakh epokhi ranney bronzy. In: *Materialy ta doslidzhennia z arkheolohii Skhidnoyi Ukrainy* 11: 80-95. Lugansk.

Rassamakin Y.Y., Nikolova A.V.

- 2008 Carpathian Imports in the Graves of the Yamnaya Culture on the Lower Dnieper. Some Problems of Chronology and Connections in the Black Sea Steppes During the Early Bronze Age. In: P.F. Biehl, Y. Ya. Rassamakin (Eds), *Import and imitation in archaeology*, 51-87. Langweissbach.

Rauhut D.

- 1953 Grób kultury ceramiki sznurowej (grupa złocka), znaleziony na stanowisku Pole Grodzisko I we wsi Złota, powiat Sandomierz. *Wiadomości Archeologiczne* 19: 54-77.

Razumov S.M.

- 2011 *Flint Artefacts of Northern Pontic Populations of the Early and Middle Bronze Age: 3200-1600 BC*, *Baltic-Pontic Studies* 16.

Rejniewicz Ł.

- 2009 Groby kultury ceramiki sznurowej odkryte w 2005 i 2006 roku na Sławinku w Lublinie. In: H. Taras, A. Zakościelna (Eds), *Hereditas praeteriti. Additamenta Archaeologia et historia dedicata Ioanni Gurba Octogesimo Anno Nascendi*, 181-188. Lublin.

Rezepkin A.D.

- 1987 K interpretatsii rospisi iz grobnitsy maikopskoy kultury bliz stanitsy Novosvobodnaya. *Kratiye soobscheniye Instituta Arkheologii* 192: 26-33.
- 1991a Kurgan 31 mogilnika Klady. Problemy genezisa i khronologii maikopskoy kultury. In: *Drevniye kultury Prikubania*, 167-197. Leningrad.
- 1991b Kulturno-khronologicheskiye aspekty proiskhozhdeniya i razvitiya maikopskoy kultury. In: *Maikopskiy fenomen v drevney istorii Kavkaza i Vostochnoy Evropy (tezisy dokladov)*, 20-22. Leningrad.
- 2000 Das Frühbronzezeitliche Gräberfeld von Klady Und die Majkop-Kultur in Nordwestkaukasien. *Archäologie in Eurasien* 10. Rahden/Westf.

Robinson Ch., Baczyńska B., Polańska M.

- 2004 The Origins of Faience in Poland. *Sprawozdania Archeologiczne* 56: 79-154.

Rogozińska-Goszczyńska R.

- 1965 Sprawozdanie z badań na cmentarzysku kurhanowym kultury trzcinieckiej w Guciowie, pow. Zamość, w sezonie wykopaliskowym 1963. *Sprawozdania Archeologiczne* 17: 93-98.

Rola J.

- 2009 *Późnoneolityczny węzeł komunikacyjny w strefie środkowej Noteci (Żuławka Mała, gmina Wyrzysk)*. Poznań.

Rozdobudko M.V., Yurchenko O.V.

- 2005 Znakhidki kuliastykh amfor na livoberezhzhi Serednioho Dnipra. In: *Arkheolohichni doslidzhennia na Ukraini 2003-2004 rr.*, 276-279. Zaporizhzhia.

Róžańska M.

- 2011 Zbrojniki kultury Zedmar na przykładzie stanowisk Dutka 1 i Szczepanki 8 na Mazurach. In: U. Stankiewicz, A. Wawrusiewicz (Eds), *Na rubieży kultur. Badania nad okresem neolitu i wczesną epoką brązu*, 333-342. Białystok.

Rybicka M.

- 1995 *Przemiany kulturowe i osadnicze w III tys. przed Chr. na Kujawach. Kultura pucharów lejkowatych i amfor kulistych na Pagórach Radziejowskich*. Łódź.

Schmidt-Thielber E.

- 1955 Ein Friedhof der frühen Bronzezeit bei Nohra, Kr. Nordhausen, *Jahresschrift für Mitteldeutsche Vorgeschichte* 39: 93-114.

Shaposhnikova O.G.

- 1985 Yamnaya kulturno-istoricheskaya obshchnost. In: *Arkheologiya Ukrainskoy SSR* vol. 1, 336-352. Kiev.

Shaposhnikova O.G., Fomenko V.N., Dovzhenko N.D.

- 1986 Yamnaya kulturo-istoricheskaya oblast (yuzhnobugskiy variant). *Svod arkheologicheskikh istochnikov* 1-3. Kiev.

Shishlina N.I., Zazovskaya E.P., van der Plicht J., Hedges R.E.M., Sevastyanov V.S., Chichagova O.G.

- 2009 Paleoecology, Subsistence, and 14C Chronology of the Eurasian Caspian Steppe Bronze Age. *Radiocarbon* 51: 481-499.

Shmagliy N.M., Cherniakov I.T.

- 1970 Raskopki kurganov epokhi bronzы v Tatarbunarskom rayonene Odesskoy oblasti v 1965 g., *Sovetskaya arkheologiya* 1: 109-120.

Shchepinskiy A.A.

- 1963 Pamiatniki isskustva rannego metalla v Krymu. *Sovetskaya arkheologiya* 3: 38-47.
 1966 Kultury eneolita i bronzы v Krymu. *Sovetskaya arkheologiya* 2: 15-20.
 1971 Kemi-obinskaya kultura. In: *Arkheolohiya Ukrainskoyi RSR* 1, 258-263. Kyiv.
 1985 Kemi-obinskaya kultura. In: *Arkheologiya USSR*. 331-336. Kiev.

- 2002 *Pamiatniki kemi-obinskoy kultury. Svod arkheologicheskikh istochnikov.* Zaporozhe.
- Shchepinskiy A.A., Toshchev G.N.
- 2001 Kurgan «Kemi-Oba». *Starozhytnosti stepnogo Prichornomoria i Krymu* 9: 50-86.
- Siuchniński K.
- 1972 *Klasyfikacja czasowo-przestrzenna kultur neolitycznych na Pomorzu Zachodnim. Część II. Opracowanie analityczne.* Szczecin.
- Skiba S., Drewnik M., Kasprzak A.
- 2011 Nauka o glebie w Instytucie Geografii Uniwersytetu Jagiellońskiego. In: M. Drewnik, A. Kasprzak, W. Szymański, *Historia i kierunki rozwoju geografii gleb w Polsce*, 25-42. Kraków.
- Sobieraj J.
- 2010 *Kultura ceramiki sznurowej pomiędzy Dolną Wisłą i Niemnem* (manuscript of PhD, Institute Archaeology and Ethnology PAN). Olsztyn.
- Spitsyn A.A.
- 1903 *Mednyi vek v Verkhnem Povolzhe. Zapiski otdeleniya russkoy i slavan-skoy arkheologii Imperatorskogo Russkogo arkheologicheskogo obshchestva*, vol. V.1. Sankt-Peterburg.
- Stoliar A.D., Shchepinskiy A.A.
- 1980 Arkheologicheskiye pamiatniki Simferopolskogo vodokhranilischa (chast 1). In: *Problemy arkheologii Severnoy Osetii*, 81-96. Ordzhonikidze.
- Stupka M.V.
- 2008 Kamennye sverlennyye topory-molotki v sistemie yamno-katakombnykh drevnostey. In: *Istoriya zbroi, Almanakh* 1, 11-34. Zaporizhzhya.
- Subbotin L.V.
- 1988 Megaliticheskoe pogrebeniye u s. Tatarbunary. In: *Novye pamiatniki yamnoy kultury stepnoy zony Ukrainy*, 124-130. Kiev.
- 1995 Grobnitsy Kemi-Obinskogo tipa Severo-Zapadnogo Prichernomoria. *Rossiyskaya Arkheologiya* 3: 193-197.
- 2003 *Orudiya truda, oruzhiye i ukrasheniya plemen yamnoy kultury.* Odessa.
- Sulimirski T.
- 1959 *Polska przedhistoryczna, cz. II.I. tysiąclecie przed Chr.* Londyn.
- 1968 *Cord Ware and Globular Amphorae North-East of the Carpathians.* London.

Sveshnikov I.K. = Swiesznikow I.K.

- 1957 *Megalitychni pokhovannia na Zakhidnomu Podilli*. Lviv.
- 1967 Kultura komarowska. *Archeologia Polski* 12(1): 39-107.
- 1968 Bogatye pogrebeniya komarovskoy kultury u s. Ivania rovenskoy oblasti, *Sovetskaya arkheologiya* 2: 159-168.
- 1974 *Istoriya naselennia Peredkarpattia, Podillia I Volyni v kintsi III – na pochatku II tysiacholittya do nashoyi ery*. Kyiv.
- 1990a Pochapskaya gruppa kultury Hlopice-Vesele. In: A.P. Chernish (Ed.), *Arkheologiya Prikarpatia, Volyni i Zakarpattia (eneolit, bronz a i rannee zhelezo)*, 63-74. Kiev.
- 1990b Stzhizhovskaya kultura. In: A.P. Chernysh (Ed.), *Arkheologiya Prikarpatia, Volyni i Zakarpattia (eneolit, bronz a i rannee zhelezo)*, 68-74. Kiev.
- 1983 Kultura sharovidnykh amfor. In: *Svod arkheologicheskikh istochnikov*, 1-27. Moskva.

Symonovich E.A.

- 1966 Ingulskiy klad. *Sovetskaya arkheologiya* 1: 127-142.

Székely Z.

- 2002 A gömbamforás műveltség emléke Délkelet-Erdélyben. *Ősrégészeti Levélek* 4: 40-44.

Szeverényi V.

- 2013 The earliest copper shaft-hole axes in the Carpathian Basin: interaction, chronology and transformations of meaning. In: A. Anders, G. Kalla, V. Kiss, G. Kulcsár, G.V. Szabó (Eds), *Moments in time. Papers presented to Pál Raczky on his 60th birthday*, 661-669. Budapest.

Szmit Z.

- 1929 Badania osadnictwa epoki kamiennej na Podlasiu. *Wiadomości Archeologiczne* 10: 36-117 + tablice I-XLV.

Szmyt M.

- 1999 *Between West and East. Globular Amphorae people in Eastern Europe, Baltic-Pontic Studies* 8.
- 2000 In the far reaches of two worlds. On the study of contacts between the societies of the Globular Amphora and Yamnaya cultures. In: S. Kadrow (Ed.), *A turning of ages. Im Wandel der Zeiten. Jubilee book dedicated to Professor Jan Machnik on his 70th anniversary*, 443-466. Kraków.
- 2001 The Absolute (Radiocarbon) Chronology of the Central and Eastern Groups of the Globular Amphora Culture. In: J. Czebreszuk, J. Müller (Eds), *Die absolute Chronologie in Mitteleuropa 3000-2000 v. Chr./ The Absolute Chronology of Central Europe 3000-2000 BC. Studien zur Archäologie*

- in Ostmitteleuropa / Studia nad Pradziejami Europy Środkowej* 1, 25-80. Poznań – Bamberg - Rahden/Westf.
- 2002 Ze studiów nad kontaktami społeczeństw środkowoeuropejskich i stepowych. Relacje ludności kultury amfor kulistych i kultury jamowej. In: *Drevneyshe obschnosti zemledeltsev i skotovodov Severnogo Prichernomoria (IV tys. do n.e. – IV v. n.e.)*, 111-114. Tiraspol.
- 2009 Eastern Destinations of Central European Cultural Patterns. The case of Globular Amphora Culture (end of the 4th – middle of the 3rd millennium BC). In: A. Koško, V.I. Klochko (Eds), *Routes between the seas: Baltic-Bug-Boh-Pont from the 3rd to the middle of the 1st millennium BC. Baltic-Pontic Studies* 14: 231-250.
- 2011 Kurhany w kulturze amfor kulistych. Dwa przykłady z Kujaw. In: H. Kowalewska-Marszałek, P. Włodarczak (Eds), *Kurhany i obrządek pogrzebowy w IV-II tysiącleciu p.n.e.*, 109-122. Kraków, Warszawa.
- 2013a The circulation of People and Ideas in the Baltic and Pontic Areas during 3rd millennium BC. In: S. Kadrow, P. Włodarczak (Eds), *Environment and Subsistence – forty years after Janusz Kruk’s “Settlement studies”, Studien zur Archäologie in Ostmitteleuropa* 11, 441-458. Rzeszów, Bonn.
- 2013b View from the Northwest: Interaction Network in the Dnieper– Carpathian Area and the People of the Globular Amphora Culture in the Third Millennium BC. In: V. Heyd, G. Kulcsár, V. Szeverényi (Eds), *Transitions to the Bronze Age. Interregional Interaction and Socio-Cultural Change in the Third Millennium BC Carpathian Basin and Neighbouring Regions*, 93-112. Budapest.
- Szmyt M., Chernyakov I.T.
- 1999 Radiocarbon Chronology of “Akkiembetskiy Kurgan”. A Preliminary Report. In: A. Koško (Ed.), *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 3150-1850 BC. Baltic-Pontic Studies* 7: 196-202.
- Ścibior J.
- 1991 Kultura amfor kulistych w środkowowschodniej Polsce. Zarys problematyki. In: J. Gurba (Ed.), *Schyłek neolitu i wczesna epoka brązu w Polsce środkowowschodniej, Lubelskie Materiały Archeologiczne* 6, 47-65.
- 1993 Badania na wzgórzu Salve Regina w 1988 roku. In: S. Tabaczyński (Ed.), *Sandomierz: badania 1969–1973*, vol. 1, 318-322. Warszawa.

Ślusarska K.

- 2006 *Funeral rites of the Catacomb community: 2800-1900 BC. Ritual, thanatology and geographical origins, Baltic-Pontic Studies* 13.

Ślusarski Z., Ślusarska-Polańska M.

- 1989 Badania stanowisk kultury strzyżowskiej w Raciborowicach Kolonii, woj. Chełm w latach 1956, 1958 i 1959. *Sprawozdania Archeologiczne* 40: 167-196.

Šebela L.

- 2006 Vliv Karpatské Kotliny na pohřební ritus populací moravského pozdního eneolitu. *Študijné Zvesti Archeologického Ústavu SAV*: 101-109.

Taras H.

- 2006 The Directions of the Lublin region connections in the Older Bronze Periods. In: J. Baron, I. Lasak (Eds), *Long Trade in the Bronze and Early Iron Age. Conference Materials Wrocław, 19-20th April 2005, Studia Archeologiczne XL*, 251-269. Wrocław.
- 2007a Na przedpolu świata pontyjskiego – osadnictwo kultury strzyżowskiej (2000/1950-1600 przed Chr.). In: E. Banasiewicz-Szykuła (Ed.), *Pra-dzieje południowo-wschodniej Lubelszczyzny*, 85-94. Lublin.
- 2007b Oddziaływania wschodnioeuropejskie w starszych fazach epoki brązu na społeczności w dorzeczu górnej i środkowej Wisły (ze szczególnym uwzględnieniem Lubelszczyzny). In: L. Bakalarska (Ed.), *Wspólnota dziedzictwa archeologicznego ziem Ukrainy i Polski. Materiały z konferencji zorganizowanej przez Ośrodek Ochrony Dziedzictwa Archeologicznego, Łańcut (26-28 X 2005 r.)*, 179-195. Warszawa.

Tebelškis P., Jankauskas R.

- 2006 The Late Neolithic grave at Gyvakarai in Lithuania in the context of current archaeological and anthropological knowledge. *Archaeologia Baltica* 6: 8-20.

Telegin D.Y., Pustovalov S.Z., Kovalyukh N.N.

- 2003 Relative and Absolute Chronology of Yamnaya and Catacomb Monuments the issue of co-existence. In: A. Koško (Ed.), *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 4000-1000 BC, Baltic-Pontic Studies* 12: 132-184.

Teslenko D.L.

- 2002 K вопросу o territorii raspostraneniya kamennykh grobnits eneolita-ranney bronzy stepnoy Ukrainy. In: E. Yarovoy (Ed.) *Drevneyshye obschnosti zemledeltsev i skotovodov Severnogo Prichernomoria (V tys. do n.e. – V vek n.e.). Doklady nauchnoy konferentsii*, 107-111. Tiraspol.

- 2007 Ob evolutsii megaliticheskikh sooruzheniy v Severnom Prichernomorie i Prizazovie (eneolit – ranniy bronzovy vek). In: *Materialy ta doslidzhennia z arkheolohii Skhidnoi Ukrainy vid neolitu do kimmeriytsev* 7: 76-85. Luhansk.

Teslenko D.L., Grebennikov Y.S.

- 2002 Pogrebeniya v kammenykh grobnitsakh iz kurgana u s. Vesnianoe na Nikolaevschine. In: *Problemy arkheolohii Podniprovia*, 82-90. Dnipropetrovsk.

Tkach V.

- 2012 Poselennia stzhyzhovskoyi kultury Ravantsi – Hnidavska Hirka (za materialamy z rozkopu 12). *Volyno-Podilski arkheolohichni studii* 3: 109-117.

Toshev G.N.

- 1991 Zapadniy areal pamiatnikov katakombnoy kultury. In: *Katakombnye kultury Severnogo Prichernomoria*, 85-100. Kiev.
- 1998 Pogrebeniya s kostianymi priazhkami epokhi sredney bronzы v Krymu. In: G.N. Toshev (Ed.), *Problemy izucheniya katakombnoy kulturno-istoricheskoy obschnosti (KKIO) i kulturno-istoricheskoy obschnosti mnogo-valikovoy keramiki (KIOMK)*, 117-125. Zaporozhe.
- 2002 Pogrebalnye komplekсы s dereviannymi konstruktsiyami epokhi ranney bronzы Kryma. In: *Severnoe Prichernomorie ot eneolita k antichnosti*, 99-111. Tiraspol.
- 2007 *Krym v epokhu bronzы*. Zaporozhe.

Trifonov V.A.

- 2013 What distinguishes Caucasian megaliths from European ones? In: S. Bergerbrant, S. Sabatini (Eds), *Counterpoint: Essays in Archaeology and heritage Studies in Honour of Professor Kristian Kristiansen. BAR International Series* 2508, 321-328. Oxford.

Tunia K.

- 1979 Cmentarzysko kultury ceramiki sznurowej w Koniuszy, woj. Kraków. *Sprawozdania Archeologiczne* 31: 47-75.

Tunia K., Włodarczak P.

- 2011 Barrow of the Funnel Beaker Culture in Malżyce, Kazimierza Wielka district/Kurhan kultury pucharów lejkowatych w Malżycach, pow. Kazimierza Wielka. *Sprawozdania Archeologiczne* 63: 203-219.

Tupchienko M.P.

- 1993 Robota arkeolohichnoyi ekspedytsii Kirovohrads'koho kraeznavchoho muzeyu. In: *Arkheolohichni doslidzhennia na Ukraini 1992 roku*, 135-138. Kyiv.

Valde-Nowak P.

- 1988 *Etapy zasiedlenia Karpat polskich w neolicie i na początku epoki brązu*. Wrocław-Warszawa-Kraków-Gdańsk-Łódź.

Videiko M. Yu.

- 1999 Radiocarbon Dating Chronology of the Late Tripolye Culture. In: A. Kośko (Ed.), *The Foundations of Radiocarbon Chronology of Cultures Between the Vistula and Dnieper in 3150-1850 BC*, *Baltic-Pontic Studies* 7: 34-71.

Vulpe A.

- 1970 *Die Äxte und Beile in Rumänien. Prähistorische Bronzefunde*. Abteilung IX. München.

Vynohradova N.M.

- 1973 Trypilske poselennia Zalishchyki na Dnistri. *Arkheolohiya* 8: 68-70.

Wierzbicki J.

- 2013 *Wielka kolonizacja. Społeczności kultury pucharów lejkowatych w dorzeczu środkowej Warty*. Poznań.

Wilk S.

- 2013 A Złota Culture Cemetery at Książnice site 2, Świętokrzyskie Province. *Sprawozdania Archeologiczne* 65: 311-337.

Wilk S., Haduch E., Szczepanek A., Koszowska E., Trąbska J.

- 2011 Groby z nadpalonymi szkieletami z cmentarzyska kultury złockiej w Książnicach, woj. świętokrzyskie. In: A. Jaszewska and A. Michalak (Eds), *Ogień – żywioł ujarzmiony i nieujarzmiony, VI Polsko-Niemieckie Spotkania Archeologiczne Gabcz, 5-6 czerwca 2008*, 23-54. Zielona Góra

Wiślański T.

- 1966 *Kultura amfor kulistych w Polsce północno-zachodniej*. Wrocław-Warszawa-Kraków.
- 1978 Kurhan z wczesnej fazy kultury ceramiki sznurowej z Modliborzyc na Kujawach (woj. bydgoskie), *Prace i Materiały Muzeum Archeologicznego i Etnograficznego w Łodzi* 25: 405-414.

Witkowska B.

- 2013 *Kultura złocka. Taksonomia, osadnictwo i chronologia, manuscript of PhD dissertation, Institute of Archeology of the Jagiellonian University in Kraków*. Kraków.

Włodarczak P.

- 2001 The absolute chronology of the Corded Ware culture in the south-eastern Poland. In: J. Czebreszuk, J. Müller (Eds), *The absolute chronology in central Europe during the 3rd millenium BC*, Poznań – Bamberg – Rahden/Westfalen, 103-129.
- 2004 Cemetery of the Corded Ware culture in Zielona, Koniusza commune, Małopolska. *Sprawozdania Archeologiczne* 56: 307-360.
- 2006 *Kultura ceramiki sznurowej na Wyżynie Małopolskiej*. Kraków
- 2008a Kultura złocka i problem genezy kultury ceramiki sznurowej w Małopolsce. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds), *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Kośko w 60. rocznicę urodzin*, 555-576. Poznań.
- 2008b Unique burial of the Bell Beaker culture from the cemetery in Sambrzec (southern Poland). In: M. Baioni, V. Leonini, D.L. Vetro, F. Martini, R. Poggiani Keller, L. Sarti (Eds), *Bell Beaker in everyday life, Proceedings of the 10th Meeting "Archéologie et Gobelets" (Florence – Siena – Villanuova sul Clisi, May 12-15, 2006)*, *Millenni Studi di Archeologia Preistorica* 6, 393-396. Firenze.
- 2008c Absolute chronology of the barrow in Kolosy. *Sprawozdania Archeologiczne* 60: 151-168.
- 2009 Radiocarbon and dendrochronological dates of the Corded Ware culture. *Radiocarbon* 51/2: 737-749.
- 2010 Dunajski szlak kultury grobów jamowych a problem genezy kultury ceramiki sznurowej. In: S. Czopek, S. Kadrow (Eds), *Mente et rutro. Studia archaeologica Johanni Machnik viro doctissimo octogesimo vitae anno ab amicis, collegis et discipulis oblata*, 299-325. Rzeszów.
- 2011 Kurhany i kultura ceramiki sznurowej nad dolną Nidą. In: H. Kowalewska-Marszałek, P. Włodarczak (Eds), *Kurhany i obrządek pogrzebowy w IV-II tysiącleciu p.n.e.*, 211-229. Kraków, Warszawa.
- 2013a Projekt badań chronologii absolutnej eneolitu i początków epoki brązu w Małopolsce. In: I. Cheben, M. Soják (Eds), *Otázky neolitu eneolitu našich krajín* 2010, 373–388. Nitra.
- 2013b Les peuples des kurgans sur les plateaux de la Petite Pologne. Reflets d'une communauté du néolithique final à travers ses pratiques funéraires. In: B. Sz. Szmoniewski (Ed.), *Archéologie*, 61-78. Varsovie-Paris.

- 2013c The lost settlements – one from the visible problems in the research on the Final Neolithic in southern Poland. In: S. Kadrow, P. Włodarczak (Eds), *Environment and subsistence – forty years after Janusz Kruk's „Settlement studies...”*, *Studien zur Archäologie in Ostmitteleuropa/Studia nad Pradziejami Europy Środkowej* 11, 173-184. Rzeszów-Bonn.
- 2014 Sekwencja czynności obrzędowych: problem korespondencji tradycji funeralnych kultury jamowej i kultury ceramiki sznurowej na Wyżynie Podolskiej. In: A. Koško, M. Potupczyk, S. Razumow (Eds), *Naddniestrzańskie kompleksy cmentarzysk kurhanowych społeczności z III i z pierwszej połowy II tysiąclecia przed Chr. w okolicach Jampola, obwód winnicki. Z badań nad północno-zachodnią rubieżą osadnictwa społeczności kręgu kultur „wczesnobrązowych” strefy pontyjskiej*, *Archaeologia Bimaris. Monografie* 6, 313-340. Poznań.

Włodarczak P., Przybyła M.M.

- 2013 Groby z Koszyc na tle innych późno- i środkowoneolitycznych znalezisk środkowoeuropejskich. In: M.M. Przybyła, A. Szczepanek, P. Włodarczak (Eds), *Koszycy, stanowisko 3. Przemoc i rytuał u schyłku neolitu*, 209-255. Kraków-Pękowice.

Wojciechowski W.

- 1976 Sztylety krzemienne typu skandynawskiego w Polsce zachodniej (ze studiów nad kontaktami Polski zachodniej z południową Skandynawią w późnym neolicie i w początkach epoki brązu), *Acta Universitatis Wratislaviensis* 253. *Studia Archeologiczne* 7: 37-94.
- 1988 Próba lokalizacji ośrodków produkcyjnych toporów ślężańskich w świetle badań petroarcheologicznych. *Przegląd Archeologiczny* 35: 101-138.

Zakościelna A.

- 1981 Materiały krzemienne tzw. kultur południowych z Lubelszczyzny, *Annales Universitatis Mariae Curie-Skłodowska, sec. F, vol. 35/36* (1980-1981): 3-23.
- 1996 *Krzemieniarstwo kultury wołyńsko-lubelskiej ceramiki malowanej*. Lublin.
- 2008 Wiórowce-sztylety jako atrybuty pozycji społecznej mężczyzn kultury lubelsko-wołyńskiej. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds), *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. rocznicę urodzin*, 577-591. Poznań.
- 2010 *Studium obrządku pogrzebowego kultury lubelsko-wołyńskiej*. Lublin.

Zakościelna A., Gurba J.

- 1993 Badania wykopaliskowe w Łopienniku Dolnym na stan. 3, woj. chełmskie. In: J. Gurba (Ed.), *Sprawozdania z badań terenowych Katedry Archeologii UMCS w 1992 roku*, 3-8. Lublin.

Zalcman E.

- 2004 *Poseleniya kultury shnurovoy keramiki na territorii Kaliningradskoy oblasti*. Kaliningrad.
- 2010 Poseleniya kultury shnurovoy keramiki na territorii Yugo-Vostochnoy Pribaltiki. *Materialy okhrannikh arkheologicheskikh issledovaniy* 14. Moskva.

Zlatohorskiy O., Bardetskiy A.

- 2010 Doslidzhennia bahatosharovoho poselennia Hnidavska Hirka bilia Lutska u 2009 rotsi. *Materiaty i Sprawozdania Rzeszowskiego Ośrodka Archeologicznego* 31: 101-114.

LIST OF AUTHORS

Aleksander Koško
Institute of Prehistory
Adam Mickiewicz University
Św. Marcin 78
61-809 Poznań
Poland
E-mail: antokol@amu.edu.pl

Jerzy Libera
Institute of Archaeology
Maria Curie-Skłodowska University
Maria Curie-Skłodowska Square 4
20-031 Lublin
Poland
E-mail: jlibera@o2.pl

Jan Machnik
Institute of Archaeology
Polish Academy of Sciences
Sławkowska 17
31-016 Kraków
Poland

Marzena Szmyt
Institute of Eastern Studies
Adam Mickiewicz University
28 Czerwca 1956, 198
61-486 Poznań
Poland
E-mail: marzena@amu.edu.pl

Halina Taras
Institute of Archaeology
Maria Curie-Skłodowska University
Maria Curie-Skłodowska Square 4
20-031 Lublin
Poland
E-mail: koliber@klio.umcs.lublin.pl

Stanisław Wilk
Institute of Archaeology the Jagiellonian
University
Gołębia 11
31-007 Kraków
Poland
E-mail: archeowolf@wp.pl

Piotr Włodarczak
Institute of Archaeology
Polish Academy of Sciences
Sławkowska 17
31-016 Kraków
Poland
E-mail: wlodarczak.piotr@gmail.com

Anna Zakościelna
Institute of Archaeology
Maria Curie-Skłodowska University
Maria-Curie Skłodowska Square 4
20-031 Lublin
Poland
E-mail: a.zakoscielna@gmail.com

- Vol.1: *Weapons of the Tribes of the Northern Pontic Zone in the 16th–10th Centuries BC.*, by Viktor 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.
- Vol.4: *Eastern Exodus of the Globular Amphora People: 2950–2350 BC*, edited by Aleksander Koško.
- Vol.5: *Beyond Balkanization*, edited by Lucyna Domańska, Ken Jacobs.
- Vol.6: *The Trzciniec Area of the Early Bronze Age Civilization: 1950–1200 BC*, edited by Aleksander Koško.
- Vol.7: *The Foundations of Radiocarbon Chronology of Cultures Between the Vistula and Dnieper: 3150–1850 BC*, edited by Aleksander Koško.
- Vol.8: *Between West And East People of The Globular Amphora Culture in Eastern Europe: 2950-2350 BC*, by Marzena Szmyt.
- Vol.9: *The Western Border Area of the Tripolye Culture*, edited by Aleksander Koško.
- Vol.10: *Weaponry of Societies of the Northern Pontic Culture Circle: 5000–700 BC*, by Viktor I. Klochko.
- Vol.11: *Fluted Maces in the System of Long-Distance Exchange Trails of the Bronze Age: 2350–800 BC*, edited by Aleksander Koško.
- Vol.12: *The Foundations of Radiocarbon Chronology of Cultures Between the Vistula and Dnieper: 4000–1000 BC*, edited by Aleksander Koško and Viktor I. Klochko.
- Vol.13: *Funeral Rites of the Catacomb Community: 2800–1900 BC Ritual, Thanatology and Geographical Origins*, by Katarzyna Ślusarska.
- Vol.14: *Routes between the Seas: Baltic-Bug-Boh-Pont from the 3rd to the Middle of the 1st Millennium BC*, edited by Aleksander Koško and Viktor I. Klochko.
- Vol.15: *‘Cord’ Ornaments on Pottery in the Vistula and Dnieper Interfluvial Region: 5th – 4th Mill. BC*, edited by Aleksander Koško and Marzena Szmyt.
- Vol.16: *Flint Artefacts of Northern Pontic Population of the Early and Middle Bronze Age: 3200–1600 BC*, by Serhiy M. Razumov
- Vol.17: *Wood Tar in the Dnieper and Elbe Communities: VI – II Millennium BC*, by Sławomir Pietrzak
- Vol.18: *The Ingul-Donets Early Bronze Civilization as Springboard for Transmission of Pontic Cultural Patterns to the Baltic Drainage Basin 3200–1750 BC*, edited by Aleksander Koško and Viktor I. Klochko.

Orders regarding *Baltic-Pontic Studies* should be addressed directly to the Editorial Office (B-PS, Institute of Prehistory, Św. Marcin 78, 61-809 Poznań, Poland).
 E-mail: iplib@amu.edu.pl; antokol@amu.edu.pl
 Moreover, we are pleased to inform that B-PS volumes currently out of print (1-8 and 15-19) are available online at the Adam Mickiewicz University Repository (AMUR): repozytorium.amu.edu.pl

This publication constitutes the fruits of National Science Centre research projects (grant no 2011/01/M/HS3/02142 – 6 articles) and the National Programme for the Development of the Humanities (grant no 0108/NPH3/H12/82/2014 – 3 articles). We would like to acknowledge and at the same time express our sincere gratitude for the generosity shown by the following at the Adam Mickiewicz University in making this publication possible: the Dean of the Department of History, Institute of Pre-history and the Eastern Institute.