

**UKRAINIAN FORTRESSES  
A STUDY OF A STRONGHOLDS SYSTEM  
FROM THE EARLY IRON AGE IN PODOLIA**

**B-PS**

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## CONTENTS

EDITOR'S FOREWORD .....	4
EDITORIAL COMMENT .....	6
PART 1 – THE “UKRAINIAN FORTRESSES” IN THE NORTH PONTIC LANDSCAPE OF THE IRON AGE.....	
Marcin Ławniczak, Marcin Ignaczak, MACROSPATIAL ANALYSIS OF EARLY SCYTHIAN FORTIFIED SETTLEMENTS IN THE RIGHT-BANK OF UKRAINE .....	7
Marcin Ławniczak, MICROSPATIAL ANALYSIS OF SELECTED EARLY SCYTHIAN FORTIFIED SETTLEMENTS IN PODOLIA .....	27
Marcin Ławniczak, PHOTOGRAMMETRY-BASED SPATIAL ANALYSES OF SETTLEMENTS IN SEVERYNIVKA AND NEMYRIV.....	54
PART 2 – THE HILLFORT IN SEVERYNIVKA, ZHMERYNKA REGION, VINNYTSIA OBLAST: RESEARCH RESULTS FROM 2009-2015 .....	
Oleksandr Shelekhan, Oksana Lifantii, Yuriy Boltryk, Marcin Ignaczak, DEFENSIVE STRUCTURES OF SEVERYNIVKA HILLFORT (EXCAVATIONS OF 2009 AND 2012-2013) .....	69
Oleksandr Shelekhan, Oksana Lifantii, Yuriy Boltryk, Marcin Ignaczak, RESEARCH IN THE CENTRAL PART OF SEVERYNIVKA HILLFORT (QUADRATS F80, F90, G71, G81) .....	91
Oleksandr Shelekhan, Oksana Lifantii, THE ELEMENTS OF THE HORSE BRIDLE FROM THE SEVERYNIVKA HILLFORT .....	219
Oksana Lifantii, Oleksandr Shelekhan, METAL ARTEFACTS FROM THE SEVERYNIVKA HILLFORT.....	255
PART 3 – CONCLUSIONS.....	277
Marcin Ignaczak, Yuriy Boltryk, Oleksandr Shelekhan, Oksana Lifantii, Łukasz Olędzki, THE FORTRESSES OF UKRAINE. THE BUILDERS OF EARLY IRON AGE STRONGHOLDS IN PODOLIA.....	277
LIST OF AUTHORS .....	291

## Editor's Foreword

This volume of *Balic-Pontic Studies* presents the results of the latest Polish-Ukrainian studies on the 'fortresses of Ukraine', a name originally used to denote a network of Early Iron Age hillforts in the Ukrainian forest-steppe. The scope of their identification is related to the earlier findings of Ukrainian researchers, who linked the issue of 'fortified settlements' (the so-called giants' strongholds) with the influence of the nomads of the steppes. The Scythians brought East-Eurasian cultural patterns to the Pontic region, which was coetaneously colonised by the Greeks. Directly inspiring the cognitive framework of the programme, the findings of Ukrainian archaeologists failed to provide answers to basic questions about the genesis of settlement agglomerations of the 'fortresses of Ukraine' or the way they functioned. Neither did they enable to establish secure dating for this cultural phenomenon.

Diagnostic for the archaeological research on the issue, the site of Severynivka, Zhmerynka Region, Vinnytsia Oblast, was identified as a fortified settlement dating from 'Scythian times' by the 1946-1948 'South-Podolian archaeological expedition' of the Leningrad University led by Mikhail I. Artamonov. The research was continued in the 1960s by Galina I. Smirnova, who analysed the results of M.I. Artamonov's earlier research, and in the 1980s by B.M. Lobay. Intended to determine the typochronology of the hillfort, the investigations did not furnish any detailed information about the context of the settlement base.

The presented Polish-Ukrainian 'Podolia programme' was carried out between 2009 and 2015, under the grant of the Institute of Archaeology of the National Academy of Sciences of Ukraine; the Institute of Prehistory (now the Institute of Archaeology) Adam Mickiewicz University, Poznań, Poland; the Poznań Prehistoric Society; and from 2013 also the National Science Centre under the grant: „*Fortece Ukrainy. Badania nad systemem grodzisk z wczesnego okresu epoki żelaza na obszarze Podola*” [*The Fortresses of Ukraine. The studies on the system of the Early Iron Age hillforts in Podolia*] (No. UMO-2012/07/B/HS3/01917).

In addition to excavations that were aimed at examining the fortifications of this diagnostic fortified settlement and producing archaeological and bioarchaeological sources, this programme included also an innovative (in terms of its methodology) geospatial prospection. Providing the first summary of the issue of the

fortresses of Podolia, this collection of papers offers a prologue for further research, mainly into the way these Late Bronze Age/Early Iron Age hillforts of the forest-steppe zone functioned in the settlement space.

This volume discusses the results of such outlined research programme in two cognitive dimensions. The first – general, macro spatial – looks at the geography of the settlement in right-bank Ukraine (part 1). The other one is source-related. It seeks to identify the concept behind the settlement in the Severynivka hillfort, a ‘test area’ for detailed findings, mostly regarding the taxonomy, typochronology and chronometry of the phenomenon of the ‘fortresses of Podolia’ (part 2).

The papers in this volume of BPS were peer reviewed by Professors Janusz Czebreszuk and Przemysław Makarowicz.

## 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).

Oleksandr Shelekhan\*, Oksana Lifantii\*\*

## THE ELEMENTS OF THE HORSE BRIDLE FROM THE SEVERYNIVKA HILLFORT

### ABSTRACT

This article is devoted to horse bridle details. They are made from horn and belong to the Scythian time. Artefacts and associated materials are analysed in complex. The supposition of their local production is proposed.

**Key words:** Eastern Podolia, Scythian time, horse bridle, horn carving, Early Iron Age

In the article one of the most impressive categories of material culture is analysed – that is the horse bridles details made from horn. They are especially interesting as a few artefacts carved in animal stile come from the forest-steppe area of the Southern Bug basin, including horse bridle elements [Shkurko 1976: 90; Mohylov 2008: 24].

Over the years of investigation fourteen cheek-pieces, two fang-pendants and two buckle-beads, which could be expounded as bits, were found at the Severynivka hillfort. All cheek-pieces belong to one type – horn items with three holes<sup>1</sup>. In addition two half-finished products were detected. They were interpreted as intermediates for cheek-pieces (Fig. 1:4b, 8c).

Four cheek-pieces (one of them is intact and the other three are broken) and two pendants made from boar fangs came from an unpublished excavation of the

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<sup>1</sup> We are truly grateful for advice in branch of horn and bone carving to dr. V. Pankovskyi (Institute of archaeology of NAS of Ukraine).

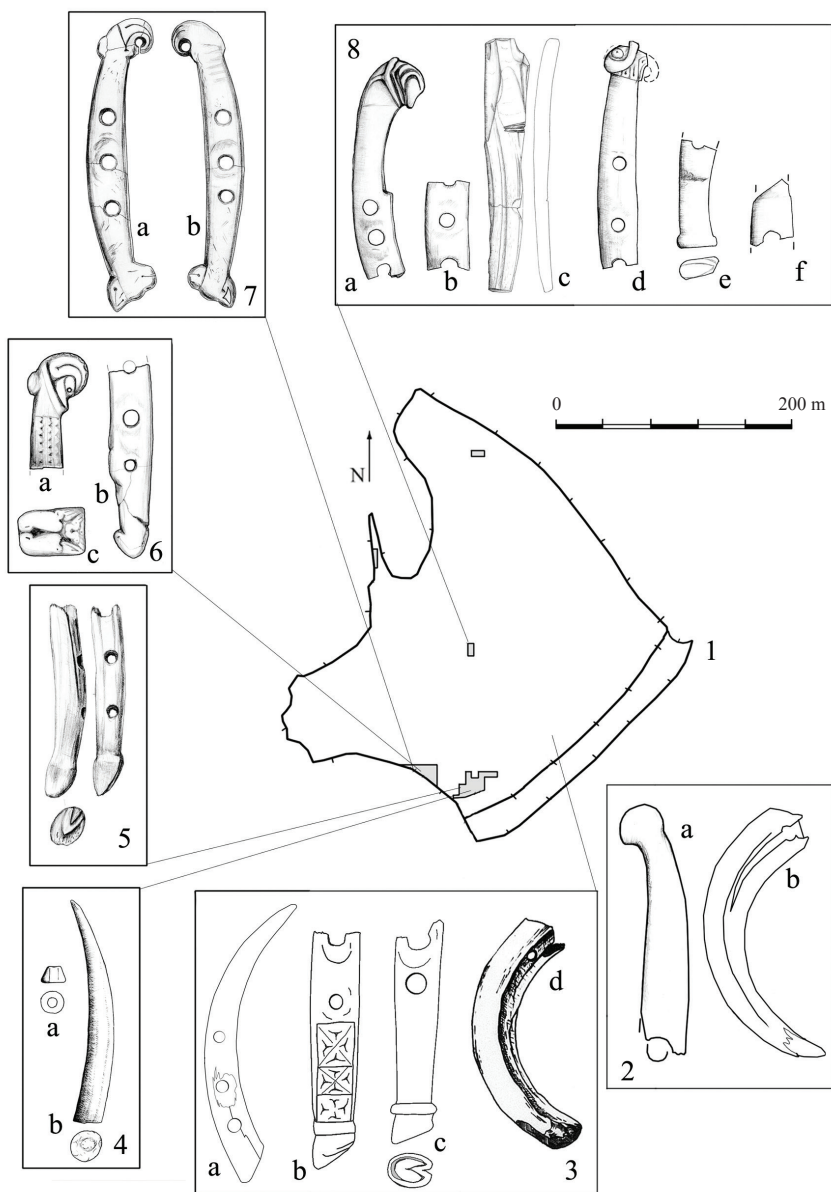


Fig. 1. The elements of the horse bridle from the Severynivka hillfort (random scale): 1 – plan of the hillfort; 2 – cheek-piece and pendant from excavation by B.M. Lobay; 3a – cheek-piece from excavation block 5 (1985) by B.M. Lobay; 3b, c, d – items from excavation block 2 (1980) by B.M. Lobay; 4a – vorvorka (bead) from the pit 10; 5 – cheek-piece from the pit 8; 6a-c – items from the pit 15; 7a-b – cheek-piece from the pit 4; 8a-b – cheek-piece from the coaly layer in Complex 1; 8c – unfinished product from the coaly layer in the Complex 1; 8e-f – cheek-piece from dump in the Complex 1

hillfort led by B.M. Lobay. In one of the earlier articles we mentioned only one of them [Boltryk *et al.* 2015]. In this work complex analysis of the materials is presented. Unknown artefacts from Severynivka hillfort which are kept in the depository of the Vynytisia local history museum<sup>2</sup>, were also examined.

# 1. THE BRIDLE DETAILS FROM THE EXCAVATION OF B.M. LOBAY

Analysis of two items with an unknown place of finding was conducted. It is known only that they were excavated at the Severynivka hillfort. Probably they were chance-finds from the hillfort or they may have originated from the excavation led by B.M. Lobay block 3 or 4 which were not published or reported. It is only known from the scheme of excavation in a report from 1985 [Lobay 1985: Tab. 75].

Thus, one of the finds is presented by broken cheek-pieces with one intact tip (Fig. 2: 1). It contains half of only one hole in which the item was broken. On the tip of the cheek-piece an image in very simple style without detailing and decoration was placed. The master had made only the contour image similar to the head of some animal. Thorough polishing of this example showed that it was a complete product. The traces from belts around the remaining part of the hole attested to the fact that it was broken due to active usage. Such simplified animal style is considered a typical feature of archaic art in the forest-steppe area [Shkurko 1982]. However, no analogues are known. A quite similar sample of unknown origin was mentioned by O.D. Mohylov [Mohylov 2008: Fig. 41:9a]. Another simple cheek-piece was found at the Pozharna Balka settlement in the Vorskla river basin. The author of the excavation has mentioned finds among the earliest details of the Scythian bridle at that settlement [Andrienko 2001: 49-51, Fig. 2: 3].

Another find without an exact origin is the fang-pendant, which could be interpreted as a decorative element of the horse bridle. This pendant was not decorated; it has only one hole and slightly polished surface (Fig. 2: 2).

It should be noted, that wild boar's fangs were rarely used as a material for cheek-pieces. Such artefacts are known from horse burials in tomb 1 near Krasnoe Znamia village in the Northern Caucasus [Petrenko 2006: Tab. 87]. It dates back to the second – third quarter of the 7<sup>th</sup> century BC [Petrenko 2006: 110-111]. Each of them contains two holes for a belt attachment. However, researchers considered that two-hole cheek-pieces were an exception to the rule in archaic Scythian culture

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<sup>2</sup> We would like to express our gratitude to the head of Department of Monuments M. Potupchyk for the opportunity to study the artefacts that are stored in the museum.

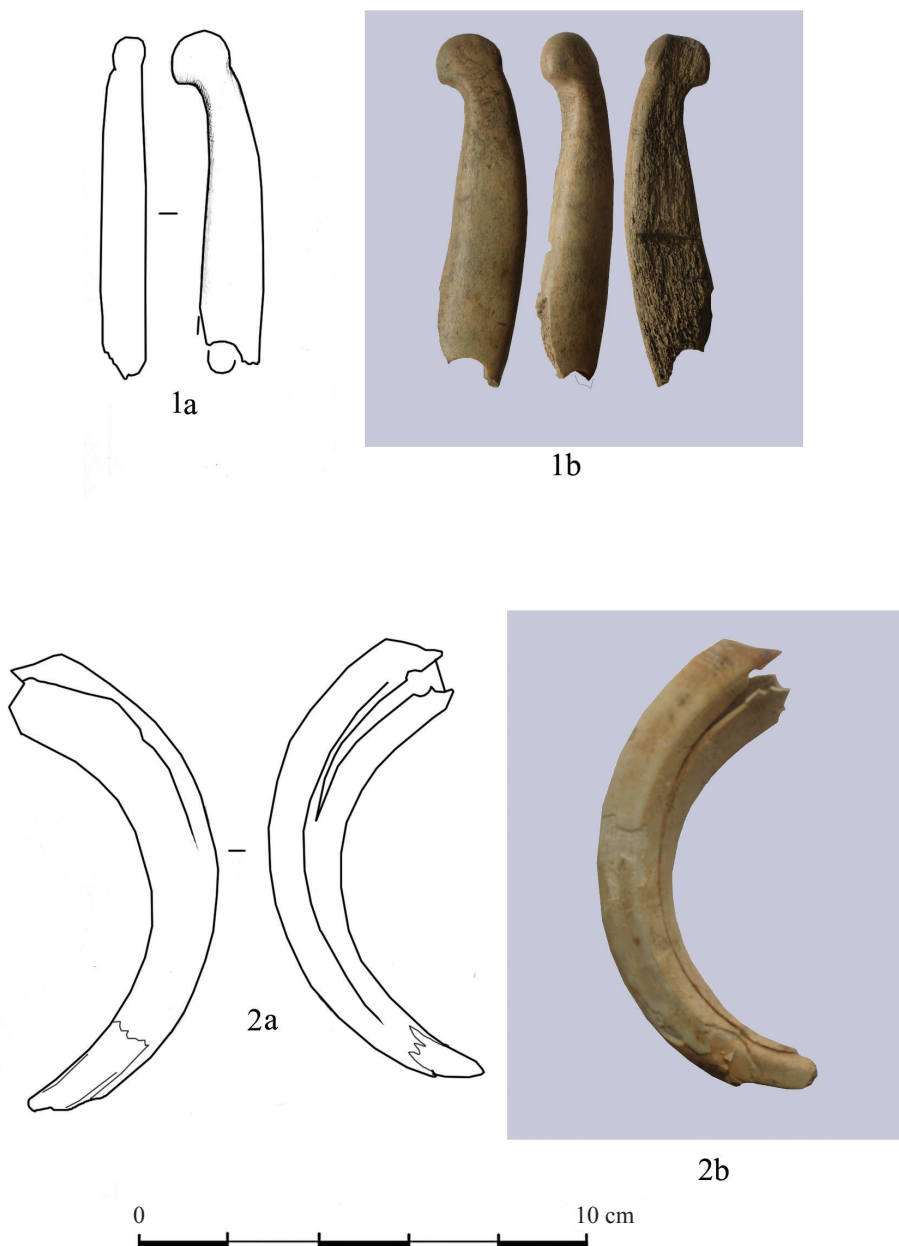


Fig. 2. Materials from the excavation by B.M. Lobay in the storage of the Vinnytsia Regional Museum of local history: 1a-b – cheek-piece; 2a-b – pendant

[Mohylov 2008: 99]. V.G. Petrenko interpreted this unusual bridle detail as part of some kind of symbolic harness [Petrenko 2006: 72].

Boar fang with three holes from Hanenko's collection which was expounded as a cheek-piece, could also be mentioned. Researchers suppose that it originated from the Pastyrskye hillfort [Radzievskaya 1982: 23; Mohylov 2008: Fig. 43:19] or from the Halushchino tract in the Middle-Dnieper region [Daragan 2009: 48].

As for the boar's fang from Severynivka, it could be considered only as a decorative or pendant for the attachment of crossed belts. Similar items were found at the above-mentioned Krasnoe Znamia burial mound [Petrenko 2006: Tab. 47:18, 26]. In addition, analogous fang with one hole was excavated in sector 29 on the eastern Bilsk hillfort [Shramko 2016: 506, Fig. 2:9].

Therefore, such fangs could be considered as adornment and probably have a symbolic fetish function. These examples were referring to type IV.7 by O.D. Mohylov [Mohylov 2008: 81]. The author counted 13 similar finds the area of the Middle-Dnieper region. They were fixed in tombs 403, 422, and 432 near the Zhuravka village, and tomb 478 near the Kapitanivka [Bobrinskiy 1905a: 83; 1905b: 22]. In addition, they are known from settlements – from the above-mentioned Pastyrskye hillfort [Mohylov 2008: 84] and the Dolyniany settlement [Smirnova 1981: Fig. 8: 4].

It should be noted that they are typical for horse harness during the entire Scythian period [Mohylov 2008: 84]. It was also interesting that no analogous pendants were found earlier in Eastern Podolia.

Next, the three analysed items were found by B.M. Lobay at the excavation block 2, in the lower level of pit-house 2. Two of them were presented by broken cheek-pieces, third sample – is another pendant made from a wild boar's fang.

Both fragments of cheek-pieces were designed with a little hoof on the tip and a fascia above them. However, one of them was additionally decorated with a frieze of carved triangles. O.D. Mohylov described this type of decoration as a "checked" ornament [Mohylov 2008: Fig. 192].

The cheek-pieces with fascia above the hoof were found at the Nemyriv hillfort [Smirnova 1998: Fig. 30: 2] and in the ash-hill 12 on the western Bilsk hillfort [Mohylov 2008: Fig. 53: 17]. A similar item but without a carved decoration was found at the Pozharna Balka settlement on the surface of the "Great ash-hill". It was attributed as material from the middle-archaic Kelermes horizon of the settlement [Andrienko 2001: 51, Fig. 2: 8].

Concerning the fang-pendant (Fig. 3: 3) analogous to what is described hereinabove, there is no necessity to draw attention to it.

All details of the horse bridle from the pit-house 2 may be dated by the archaic Scythian period. Due to presence of carved triangles on one of them, their date should be limited to the 7<sup>th</sup> century BC.

In addition, we should draw attention to other materials from the lower layer of pit-house 2. It may be considered as a 'closed' complex as observed by B.M. Lo-

bay. He noted that the lower layer was isolated by the seam of sterile clay without cultural inclusions from the top layer [Lobay 1985: 2].

Numerous set of tableware were found at the bottom of the pit-house. Among which it is worth noting rare trapezoid ladles (Fig. 3: 7, 11). They are typical for antiquities of Lusatian culture in the Final Bronze – Early Iron Age [Czopek 2004: 86, Tab. XVII: 10]. Similar vessels still exist in the Late Hallstatt culture [Ostoja-Zagórski 1978: 49, Fig. 14]. Therefore, these ladles demonstrate the western vector of influences, that could be traced in the earliest layers of Severynivka hillfort.

In addition, an interesting bowl has been found among the tableware from the lower layer of pit-house 2. It has roundish profile of the body and base (Fig. 3: 6). It is quite similar to the bowl from Late-Chornolis barrow no 1 near the Tiutky village [Zaets 1979: Fig. 1: 12-14].

Ladles with high knobbed handles also belong to the archaic period (Fig. 3: 12). Similar vessels are known from the pit-house 2 at the Nemyriv hillfort. Two stratigraphical horizons were traced in it. Due to a lack of antic import, G.I. Smirnova suggested that this object belonged to the so-called pre-colonisation period of the Scythian culture. It dated back to the second quarter – middle of the 7<sup>th</sup> century BC [Smirnova 1998: 82-112; 2002: 217-231].

Later it was suggested to change the date for the pit-house 2 from the Nemyriv hillfort. Its higher horizon dated back to the third quarter of the 7<sup>th</sup> century BC. Moreover, the lower horizon was placed even to the end of the 8<sup>th</sup> century BC [Vakhtina, Kashuba 2014: 71; Kashuba, Vakhtina 2014: 59]. However, we believe that the earliest horizon of pit-house 2 of the Nemyriv settlement cannot be earlier than the second quarter of the 7<sup>th</sup> century BC.

Cowrie (Cypraeidae) shell is another interesting artefact from pit-house 2, explored by B.M. Lobay (Fig. 3: 9), which was a typical ornament in the archaic period. H.I. Smirnova based on materials of the Ivankovychi mound has placed it in the middle of the 7<sup>th</sup> – early 6<sup>th</sup> centuries BC [Smirnova 2002: 228]. Well-known shell-pendants from the Chervona Mohyla mound near the Fliarkovka village dated back to the second half of the 6<sup>th</sup> century BC [Kovpanenko 1984: Fig. 2:14]. Not long ago a series of shells from the Podolia area were replenished by the find from kurgan 3 near the Teklivka village. It dates back to the second half of the 7<sup>th</sup> century BC [Hutsal, Mogilov 2011: 107].

Similar shells are also known from the settlements. I.B. Shramko, based on materials from ash-hill 28 of the western Bilsk hillfort, shows that they were typical mostly for the layers of the late 7<sup>th</sup> – early 6<sup>th</sup> centuries BC [Shramko 2004: 105]. Cowrie shells were also found in the dwelling 1 in the ash-hill 11 that could be dated by the same time [Shramko 1985: Fig. 3:6].

The analysed materials from pit-house 2 of the Severynivka hillfort it may be dated back to the middle – second half of the 7<sup>th</sup> century BC. Presented artefacts show expressive impacts from cultural areas of the Late Hallstatt, Late Chornolis

and Early Scythian cultures. As follows, three considered details of a horse harness belonged to this horizon too.

The following item is an intact cheek-piece from excavation block 5, pit-house 5 that was explored by B.M. Lobay in 1985 [Lobay 1985: Tab. 96:8]. This sample has a quite simple form. Three holes were made in the entire branch of the horn and the contour of the item was kept natural (Fig. 4: 1). Such primitive shapes without any decoration with animal style were popular in pre-Scythian time. Thus, quite similar were the cheek-pieces of the Berezivka type of the Novocherkas culture [Makhortykh 2005: Fig. 11]. However, there are more similar analogues known. Not far from Severynivka a similar example from dwelling 1 at the Dnistrovka-Luka settlement was found. The author of the research dated it back to the late 8<sup>th</sup> – early 7<sup>th</sup> centuries BC [Smirnova 1982: 46-49]. In addition, a similar cheek-piece was found at the Chornolis settlement Neporotiv, tract Dubova [Krushelnyska 1998: 176].

Several similar items were found on the western Bilsk hillfort. One of them was published without context in B.A. Shramko's monograph [Shramko 1987: Fig. 38:5]. Therefore, it is not possible to make an assumption about its date. Another cheek-piece belonged to horizon A2. I.B. Shramko outlined it according to the finds of the curbs of the Novocherkas type and rhombic arrowheads. Due to it, this horizon was placed in the second half of the 8<sup>th</sup> – early 7<sup>th</sup> centuries BC [Shramko 2006: 41].

Another find of a cheek-piece from horizon A2 should be mentioned as well. It was made from dog's lower jaw. However, we can see a similar principle of production here. Over the course of manufacturing the natural form of the bone was kept with minimal working hours [Shramko 2006: 37]. Another simple cheek-piece was found at the Olefirshchyna settlement near Bilsk [Ilinskaya 1968: 24].

Not long ago a series of similar items were published by I.N. Medvedskaya. The author suggests their usage during the 8<sup>th</sup> century BC due to the destruction of the Khasanlu IV settlement in 714 BC [Medvedskaya 1992: 124, Fig. 2].

However, it also possible to find some similar products dated to the Scythian period. On the western coast of the Azov Sea, a similar cheek-piece was found in mound 2 near Kostiantynivka village. In addition, a mouthpiece with D-like ends and plates in a form of the Kelermes curled panther was detected [Liberov 1951: 141]. The last individual item is typical only for the sites of the Scythian animal style [Riabkova 2005: Tab. 5:15]. Thanks to this find, it could be suggested to place the cheek-piece from excavation sector 5 at the Scythian horizon<sup>3</sup>.

In general, in the Scythian period simple cheek-pieces without decoration in an animal style were quite rare. The item from kurgan 346 near the Teklino village [Ilinskaya 1975: Tab. XXV: 11] could also be mentioned. This burial is consid-

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<sup>3</sup> On the contrary, I.V. Bruyako suggests in this case to change the chronological position of the panther plates to the 8<sup>th</sup> century BC [Bruyako 2005: 119, note 44].

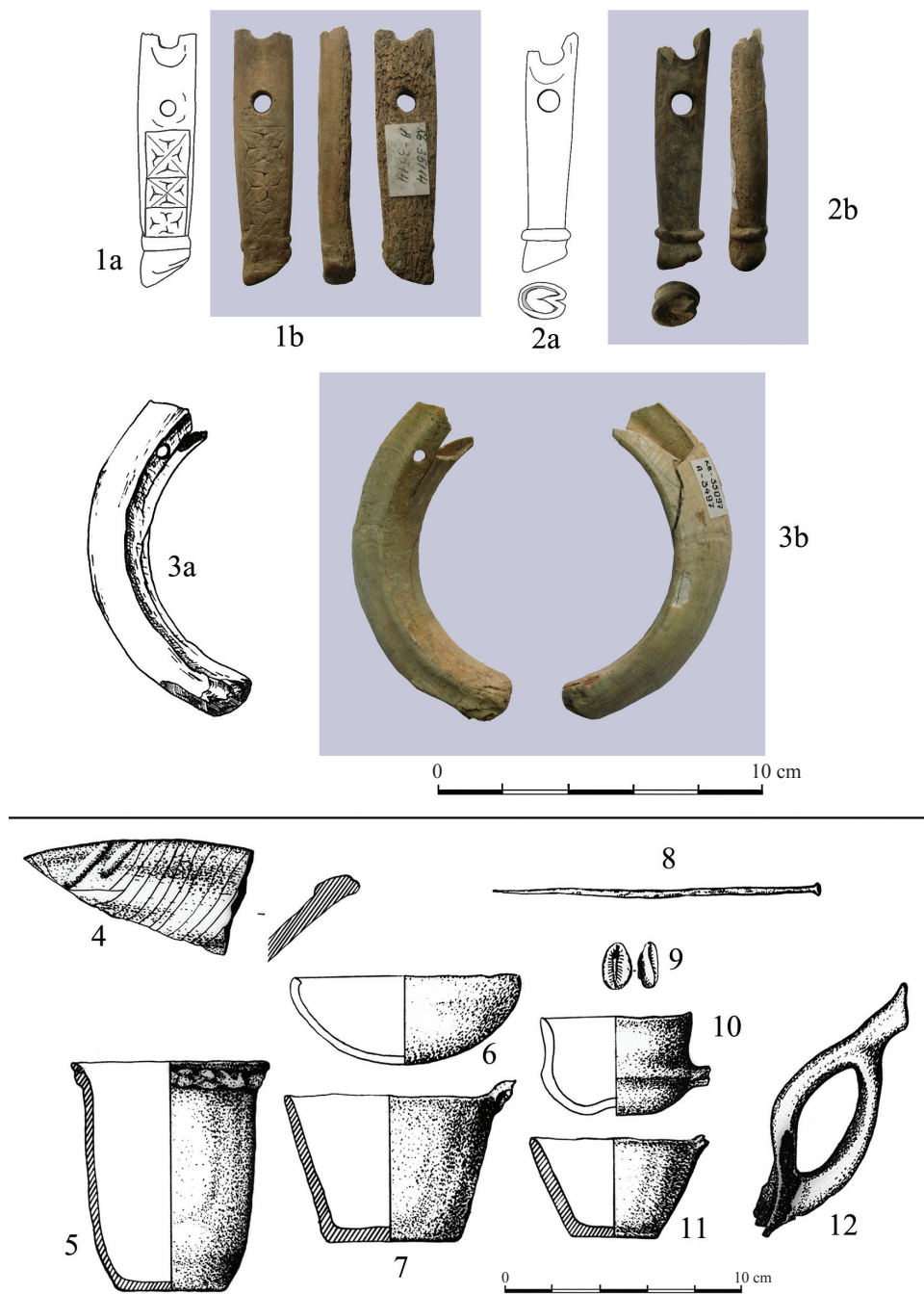


Fig. 3. Materials from the lower layer of the pit-house 2 (1980): 1a-b; 2a-b – cheek-pieces; 3a-b – fang-pendant; 4 – fragment of the dish; 5 – pot; 6 – dish; 7; 10-12 – ladles; 8 – pin; 9 – cowrie shell

ered as one of the earliest Scythian complexes in the forest-steppe area. Therefore, it dated back to the middle of 7<sup>th</sup> century BC [Skoryi 2003: 38; Makhortykh 2014: 131-132]. Another tiny non-decorated cheek-piece was found at the Tsaryna settlement of the Great Bilsk Hillfort [Chernenko *et al.* 2004: Fig. 18: 2].

The most eastern similar piece to the cheek-piece from the pit-house 5 was found in Xinjiang, on the Sansei burial mound. It was figured that it belonged to the end of the Early - Scythian period [Shulga, Shulga 2015: 529, Fig. 3: 3].

Considering materials from pit-house 5, it should be mentioned, that they have typical shapes from the for Severynivka hillfort. Examples of the kitchenware are represented by pots ornamented by stuck raised borders with stubs and taps (Fig. 4: 4, 5). The ladles with an S-like profile have more specific dates. They were decorated with vertical flutings and pricked on the middle part of the body (Fig. 4: 7, 9).

The iron bracelet from pit-house 5 is a valuable artefact for dating too. It has flat 'snake-headed' ends. A similar adornment was found in the Severynivka central Complex 1 in the 2014. Due to the find of amphora fragment in the layer above, this bracelet was tagged to be not later than the second quarter of the 6<sup>th</sup> century BC.

A similar bracelet originated from the Mala Ofirna mound. In addition, other artefacts associated with western impacts – were found – a spearhead with rolls on the bottom of the socket, iron palstave and black-burnished tableware [Petrovskaya 1968: 164, Fig. 4: 7]. Due to complex of the horse harness and arrowhead quiver set this burial dates back to the second half of the 7<sup>th</sup> century BC.

An analogous bracelet is known from mound 407 near Zhuravka village [Ilininskaya 1975: Tab. X: 14]. This kurgan could have a quite precise date based on several features. Thus, conic beads and a bronze mirror refer to the third quarter of the 7<sup>th</sup> century BC [Riabkova 2010: 186], and specific triple-circled form of the golden plates could show up even early in the 6<sup>th</sup> century BC [Fialko 2014: 162].

Thus, it could be supposed that in pit-house 5, an archaic cheek-piece with roots from the Pre-Scythian time were intersected with Early-Scythian material. Such instances are known also for other bridle details. For example, the Novocherkas bit mouthpieces with muff-like holes were occasionally found in archaic Scythian tombs [Skoryi 2003: 38-39; Makhortykh 2014: 131].

Another feature that could confirm that the cheek-piece from pit-house 5 belong to the Scythian time is characterised by the disposition of the holes. In this case, by belt holes which are placed on the wide end. On the Pre-Scythian items holes were usually arranged on the entire product's length. This observation shows essentially a different horse bridle system and probable cultural differences [Smirnova 1982: 44; Shulga, Shulga 2015: 529].

It is notable that in pit-house 5 horn arrowheads were found and one of them was unfinished (Fig. 4: 3). Therefore, it could be supposed that local production of this simple cheek-piece was a possibility [Boltryk *et al.* 2015: Fig. 4].

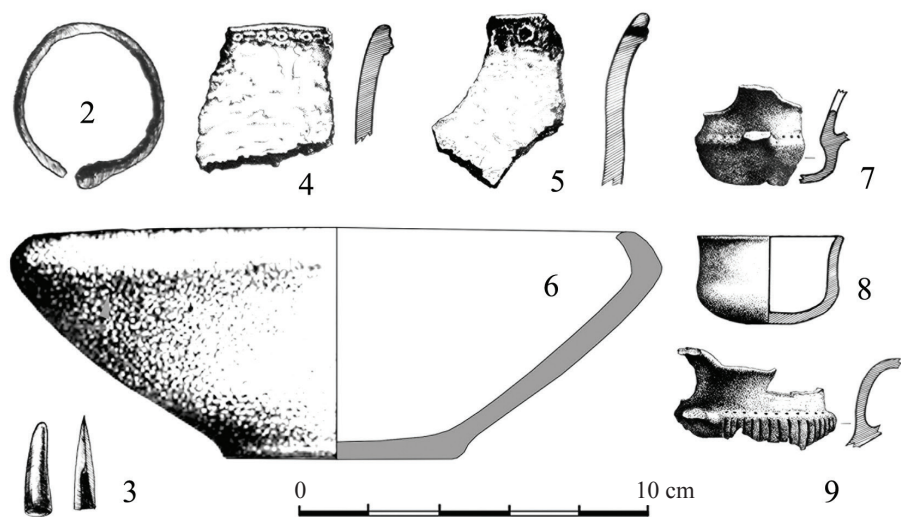
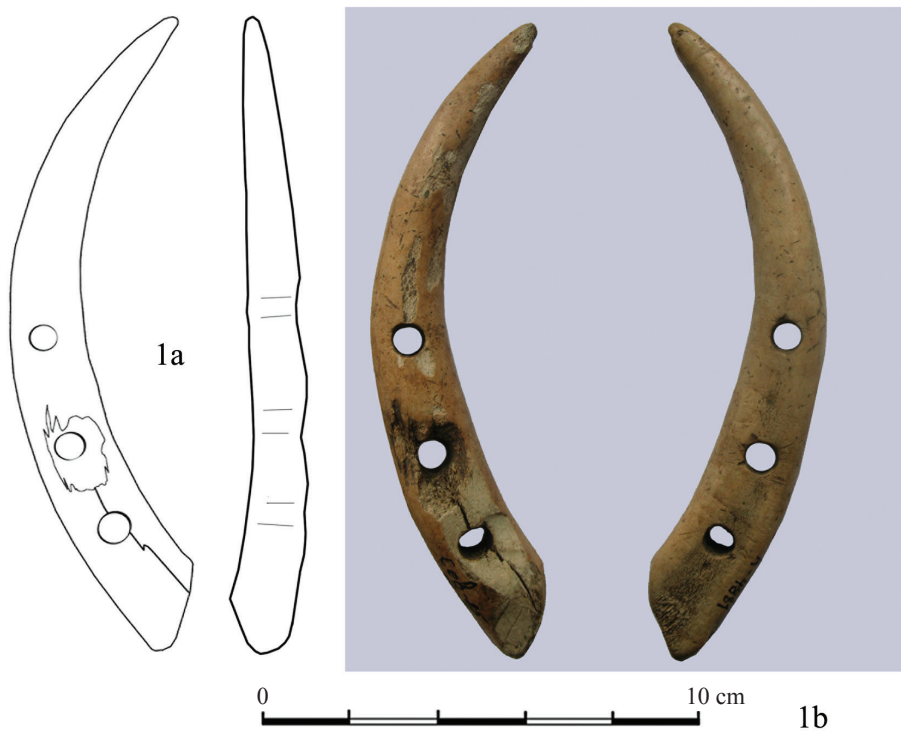


Fig. 4. Materials from the pit-house 5 (1985): 1a-b – cheek-piece; 2 – bracelet; 3 – arrowheads; 4; 5 – rims of the pots; 6 – bowl; 7; 9 – fragments of the ladles; 8 – chalice

It should be noted as well that a considerable part of the analogous cheek-pieces in the forest-steppe area were found on the settlement sites. This observation shows that such things could be made by local carvers or it gives evidence of tight contacts between nomads and farmers.

## 2. BRIDLE DETAILS FROM THE EXCAVATION OF YU. BOLTRYK AND M. IGNACZAK

The following examples were obtained during the research of the Ukrainian-Polish expedition.

The pair of cheek-pieces was found in pit 4 in the 2010. These items have traces of carvings only on the external surface. On the inner part, the porous structure of the horn is visible. Around the central hole distinct marks of belt friction are traced (Fig. 8: 1).

The design of these cheek-pieces is very notable. Both of them are decorated with a carved head of a feline on one tip and the head of bird of prey on another. Such a composition is quite unusual for Scythian art. So far as we know if the cheek-piece is decorated on one tip with a head of some creature, another end will have a form of a horse hoof [Polidovich 2004a: 145; Mogilov 2008: Fig. 41-52]. Researchers suppose that the image of a head and one limb on the one artefact may signify an entire creature [Polidovich 2004b: 209].

Only one example of cheek-piece decoration of two feline heads was found. Unfortunately, all that is known about the item, is that it originated from one of the numerous barrows near Zhuravka village [Ilinskaya 1975: 110]. Another conditionally similar artefact is the so cold carved “comb” from the Khanenko collection. It is decorated with two griffin heads [Kaposhina 1950: Fig. 9]. In addition, several two-headed ‘Kimmerian’ cheek-pieces were described by Yu. Polidovich [Polidovich 2012: Fig. 1:5, 8; 2:2, 4]. It is only on the cheek-pieces from Severynivka that there is a combined image of animals from different classes<sup>4</sup>.

In general, the main features of these cheek-pieces decoration are typical for the archaic Scythian art. Similar heads of felines were placed on the cheek-pieces from mound 2 near the Vovkivtsi village [Ilinskaya 1968: Tab. XXXIV:2] and mound 40 near Huliai-Horod [Ilinskaya 1975: Tab. III:1].

However, items from pit 4 differ from the above mentioned by lower detailing. Eyes have not been carved on the felines, whereas only the contours of jaws, wide nostrils and (only on one of the products) ears were depicted. Such simplifica-

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<sup>4</sup> Biological classes of mammals and birds.

tion resembles the cheek-pieces from mound 1 near the Raihorod [Shkurko 1976: Fig. 1: 5].

It should be mentioned that V.A. Illinska interpreted such images in a different way. She assumed that schematisation in carving led to the appearance of the images of the “horses with short obtuse muzzles” [Ilinskaya 1961: 47]. However, it is obvious that the mentioned artefacts have the “Kelermes panther” as a prototype [Galanina 1991: Fig. 1: 5]. Therefore, it is more appropriate to stick with the opinion of those researchers, who considered these images as a feline icon [Shramko 1971: 101; Shkurko 1976: 91].

The image of the head of bird of prey from cheek-pieces from pit 4 has similarities with items from the Nemyriv hillfort [Smirnova 1996: Fig. 15: 1] and from a mound near the Budky village [Mogilov 2008: 26; Fig. 43: 17]. They are rather like the analogous contours and carved lines of a beak. Nevertheless, as well as a feline’s head, bird images were also quite simplified. In this case, the eyes were also not marked. It may also be noticed that one of the finished bird images was cut off.

Reduction of the animal style could be seen on a later dating of the cheek-pieces from pit 4 than the considered early items. A.I. Shkurko supposed that a simplified animal style appeared in the late 6<sup>th</sup> century BC [Shkurko 1976: 91]. Nevertheless, as far as he dated mound 2 near Zhabotyn back to the late 7<sup>th</sup> – early 6<sup>th</sup> centuries BC it is possible to lower this event by at least a half-century.

Therefore, cheek-pieces from pit 4 could be dated by the Kelermes horizon time [Mogilov 2008: 99]. However, due to its simplification their date could be limited to the beginning of the 6<sup>th</sup> century BC. This consideration corresponds with the position of the amphorae’s rim from pit 4. It belongs to the Samos archaic type I by S.Y. Monakhov and dates back to the second half of the 7<sup>th</sup> – third quarter of the 6<sup>th</sup> centuries BC [Monakhov 2003: 26, Tab. 14].

An unusual cheek-piece was found in pit 8 in 2012. It was made from the horn of a roe (Fig. 6: 1). As with the cheek-piece from pit-house 2, in this case natural contour of the horn was unchanged. A natural rough surface is visible on the whole item and on one the side grooves of blood vessels are noticeable.

It is remarkable that in spite of breakage, this product was not in use. This assumption is made by the following observations. Firstly, there are no traces from belts around the holes. Secondly, on the inner surface of the holes traces from a knife were left without polishing (Fig. 6: 1b). This could be evidence of a local production of the horse bridles. In addition, finds in pit 12 of two semi-manufactured pieces of horn could testify to this hypothesis. The cheek-piece from pit 8 was adorned by the image of a horse hoof on the tip. The contour of a hoof and the relief of its heel were carved there. This is a typical feature of the archaic Scythian animal style [Ilinskaya 1961: Fig. 12]. A cheek-piece with a similar ornament is known from the Nemyriv hillfort. It dates no earlier than to the second quarter of the 7<sup>th</sup> century BC [Smirnova 1996: 81, Fig. 15: 2].

In addition, cheek-pieces with detailed hooves are known from barrow antiquities. One of them was found at mound 38 near Huliai-Horod. It dates back to the first half of the 7<sup>th</sup> century BC according to the find of the Olbia-type mirror [Ilin-skaya 1975: 17, 82. Fig. II, VI].

Another similar example is known from mound 2 near Zhabotyn. It has no clear date. On one side, the Novocherkas-type two-ring curbs were found. Due to that, the researchers placed mound 2 as well as mound 524 near Zhabotyn village in the second half of the 8<sup>th</sup> century BC [Medvedskaya 1992: 87; Daragan 2009: 26]. Nevertheless, other scientists date these complexes in the limit of 7<sup>th</sup> century BC. Thus S.A. Skoryi considered Zhabotyn mounds as the earliest Scythian burials and placed it in the first half of the 7<sup>th</sup> century BC [Skoryi 2003: 38-39]. D.S. Grechko does not include them in the list of clear complexes and provisionally dates back to the middle – third quarter of the 7<sup>th</sup> century BC [Grechko 2012: 143, Fig. 3]. Therefore, in our opinion – the more traditional date is more credible. In this case, the cheek-piece from the pit 8 could be dated to circa middle of the 7<sup>th</sup> century BC.

Moreover in pit 12 fragment of the plate with a curved outward flat rim was found (Fig. 6: 6). On the rim, there was a relief ornament in the form of the hatched triangles. Such plates were typical for the complexes of the Hallstatt C horizon. Not far from Severynivka, they are rarely known on the Nemyriv hillfort [Smirnova 2001: 42; Fig. 6: 8].

In pit 10 in 2012, a half-finished cheek-piece was found. It is analogous to the finished item from pit-house 2 (1985). Nevertheless, it is different, as belt holes were not formed there yet (Fig. 5: 1), whereas its surface has clear traces of manufacturing. It was thoroughly polished and then scraped by a knife. Lower edge was neatly cut off in contrast to other semi-manufactured pieces.

It is notable that pit 10 and the above analysed pit 8 belong to one stratigraphic horizon [Boltryk *et al.* 2014: 89, Fig. 3]. If pit 8 dated back to the middle on the 7<sup>th</sup> century BC this date could be extrapolated onto pit 10. All other materials do not contradict this supposition. Thereby our hypotheses about the use of the archaic pre-Scythian cheek-pieces in early-Scythian time had one piece of more proof.

In this complex, a tiny semi-conic vorvorka (bead) was found (Fig. 5: 3). Such things could be used as details or a horse harness as well. They were typical for the Scythian period [Mogilov 2008: 73, 79]. There are known finds from mound 2 near Zelena Dibrova [Nazarov 2001: Fig. 19, 20], mound 14 near Stebliv [Skoryi 1997: Fig. 53: 8] and from Halushchino [Nazarov 2001: Fig. 19, 20]. There was also a find on the settlement site – near Zalissia in the Middle Dniester [Hanina 1984: Fig. 6: 6].

Numerous details of a horse harness were presented among the materials of pit 15 researched in 2013. Three three finished items and seven burned scraps were found.

A cheek-piece from pit 15 is a beautiful specimen of carved art. Its external surface was thoroughly polished. A spongy structure of a horn is visible from the

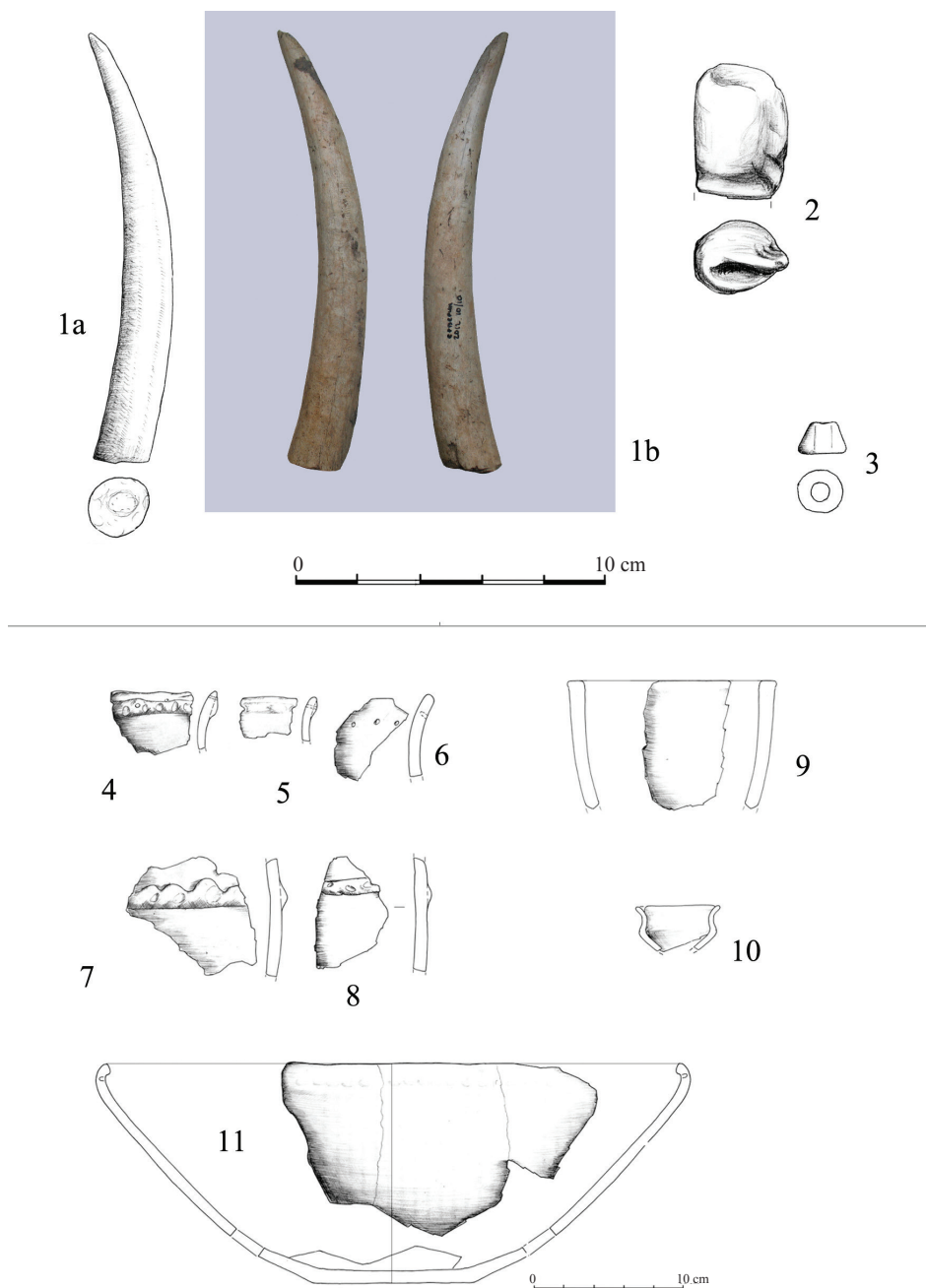


Fig. 5. Materials from the pit 10: 1 – cheek-piece's workpiece; 2 – votive ceramic figurine; 3 – vorvorka (bead); 4-8 fragments of the pots; 9 – rim of the chalice; 10 – rim of the tiny vessel; 11 – bowl

outer part. It was depicted with a griffin's head with a declinate beak protruding eyes and a low-marked cere. On the edge of the beak, a frieze of ovals was ornamented. The bird's neck was adorned by three parallel lines of carved triangles. Though the main part of the cheek-piece was lost, it is obvious that this sample has three holes like the other items (Fig. 7: 1).

Researchers considered the deep archaism of an ornament with carved triangles. There was even an assumption that it is associated with the geometrical ornamentation on Zhabotyn-type tableware [Ilinskaya 1961: 51]. However, it is hard to believe in such hypotheses. Pottery decoration originated from a circle of European cultures and animal style originated with carved art and probably was an innovation from the steppe.

The earliest examples of bone carving with carved triangles are known from the Near East [Polidovich 2004a: 147]. Due to this, there was supposition about the origin of this tradition from cuneiform script [Pogrebova, Raevskiy 1999: 271] or from Nineveh ornamental reliefs [Mohylov 2005: 16]. Nevertheless, today there is no credible proof for or against this hypothesis.

One of the most expressive items with carved triangles was found in the chamber of Teishebaini fortress. These are long carved plates made of bone [Piotrovskiy 1955: Fig. 9]. Due to analysis of the arrowhead series from this site, it is possible to place Teishebaini in one horizon with the Kelermes and Melhunovskiyi (Lytyi) mounds [Riabkova 2009: 331-332]. Furthermore from the Caucasus region several analogous cheek-pieces are known – particularly from Nartan mound 16 and from Samtavro burial 106. They belonged to the Kelermes horizon too [Mohylov 2005: Fig. 3].

From the Middle-Dnieper region two cheek-pieces with similar decoration are known – one from mound 2 near Zhabotyn and another from the Zhabotyn settlement [Viazmitina 1963: Fig. 6; Ilinskaya 1975: Tab. VI]. As we have already analysed the mentioned mound, it is possible to say that the specimen from the settlement probably dates to the same period.

Attention should be drawn to the simplicity of the carving technique. Carved triangles on the cheek-piece from pit 15 were made with a lower level of accuracy and sharpness. Firstly, along the 'neck' of the cheek-piece there were three parallel notches carved. Secondly, on their edges cuneiform triangles were carved, whereas the traditional technique was quite different. With the cutting tool, several incisions were made at different angles. After that a scale was detached and under it a triangle notch remained on the surface.

In addition, it should be noted that the composition was arranged in a simpler way. All earlier-known carved triangles were composed in groups of four and these groups were arranged in a continuous or solid ornamental frieze, whereas the composition on the cheek-piece from pit 15 looks lighter and more simplified.

Another expressive feature of this cheek-piece is the frieze of ovals on the edge of the griffin's beak. Analogous decoration is known on specimens from mound 2

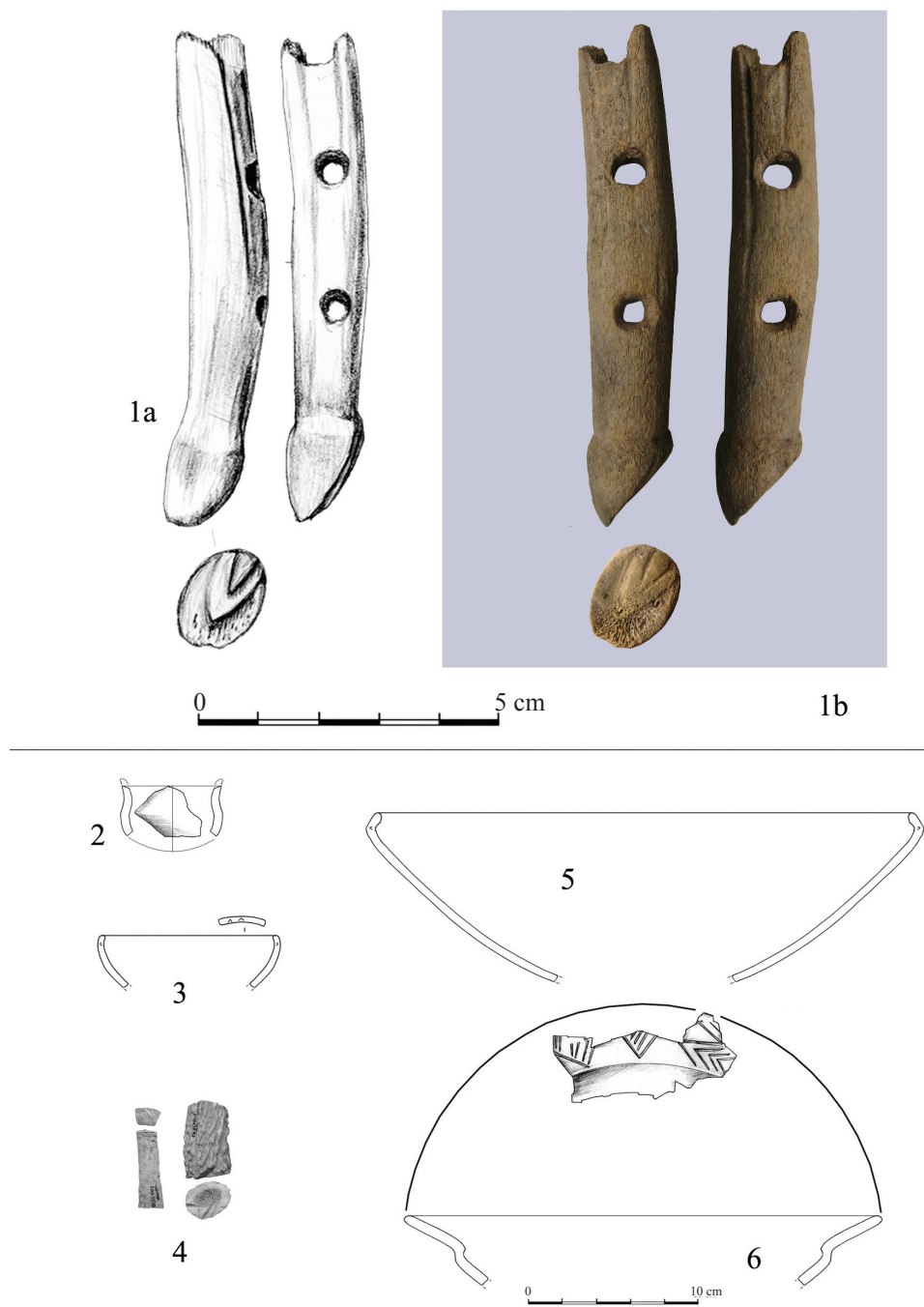


Fig. 6. Materials from the pit 8: 1a-b – cheek-piece; 2 – fragment of the ladle/chalice; 3 – rim of the bowl; 4 – horn chips; 5; 6 – bowls

near the Oksiutyntsi village [Ilinskaya 1968: Tab. XX:16] and a destroyed burial place near Hrushivka village [Ilinskaya 1961: 38-61; Polidovich 2004a: Fig. 3:9]. Another similar example was found in the mound near Melnykivka village [Shkurko 1976: 91]. Unfortunately, all of the mentioned complexes were explored without proper methods. Therefore, the cheek-piece from pit 15 may be a model item for the Ukrainian forest-steppe area.

Considering more distant analogies for items with ovals, bone finials from the Teishebaini fortress [Kantorovich 2012: Fig. 21:16] and from Novozavedennoe mound 13 [Kantorovich *et al.* 2012: Fig. 4:1] should be mentioned. The mentioned complexes probably show the primary region of this ornament. Due to the supposition of A.R. Kantorovich friezes of ovals symbolised the crest of mythological creatures and this feature is typical for the Near-East art [Kantorovich 2012: 131].

Another cheek-piece fragment was found in pit 15. This specimen was also made of horn with polishing from one side. Its one intact tip was designed in form of a hoof (Fig. 7: 3). Some traces of belts are fixed on the surface near the holes.

The form and modest style are drawing closer together as this cheek-piece is an example from pit 8. The master's attention to detail also could be seen here. For example, the form on the hoof was pictured with one delicate curvy scratch. Similar products are known from archaic barrows 346 near Teklino village and kurgan 40 near Huliai-Horod [Ilinskaya 1975: Tab. XXV: 20, III:4].

The cheek-pieces set from Teishebaini fortress [Piotrovskiy 1950: Fig. 61] is among the more distant analogies. They look similar due to close contours and form of the holes. In both cases, the central hole was made a little bigger than the side ones. It can be assumed that such a feature was heritage from the pre-Scythian bridle.

Another interesting artefact, is that the buckle-bead was also found in pit 15. It has a cylindrical form with some angularities and one reach-through hole. The product's surface was carefully polished but the porous structure of horn still visible. V.A. Illinska named such items "cubic buckle-beads" [Ilinskaya 1961: 54-55].

On the front-facing area, an unique image was carved. Firstly, two opposed symmetrical heads of elk were placed on both sides. They touch each other by their lower jaws. Secondly, a small copy of analogous elk's heads was placed between their pointed ears. Thirdly, between the ears of the smaller pair a slight image of a tiny head of an elk or bird was there. The last image was placed perpendicularly to the previous ones. It can hardly be seen because of its miniature size (Fig. 7: 2).

Such composition with the filling of the entire surface with images was typical for archaic Scythian art. After a manner of design this buckle-bead looks similar to bone plaques from barrow 2 near Zhabotyń village [Riabkova 2005: Tab. VI: 7-9]. Another analogy could be the golden plaques from barrow 524 near Zhabotin village. They were made in a form of full elk's body with bent-under legs [Ilinskaya 1975: 151, Tab. VII: 14, 15]. The contour of their heads is definitely analogous to the images on the item that was found in pit 15.

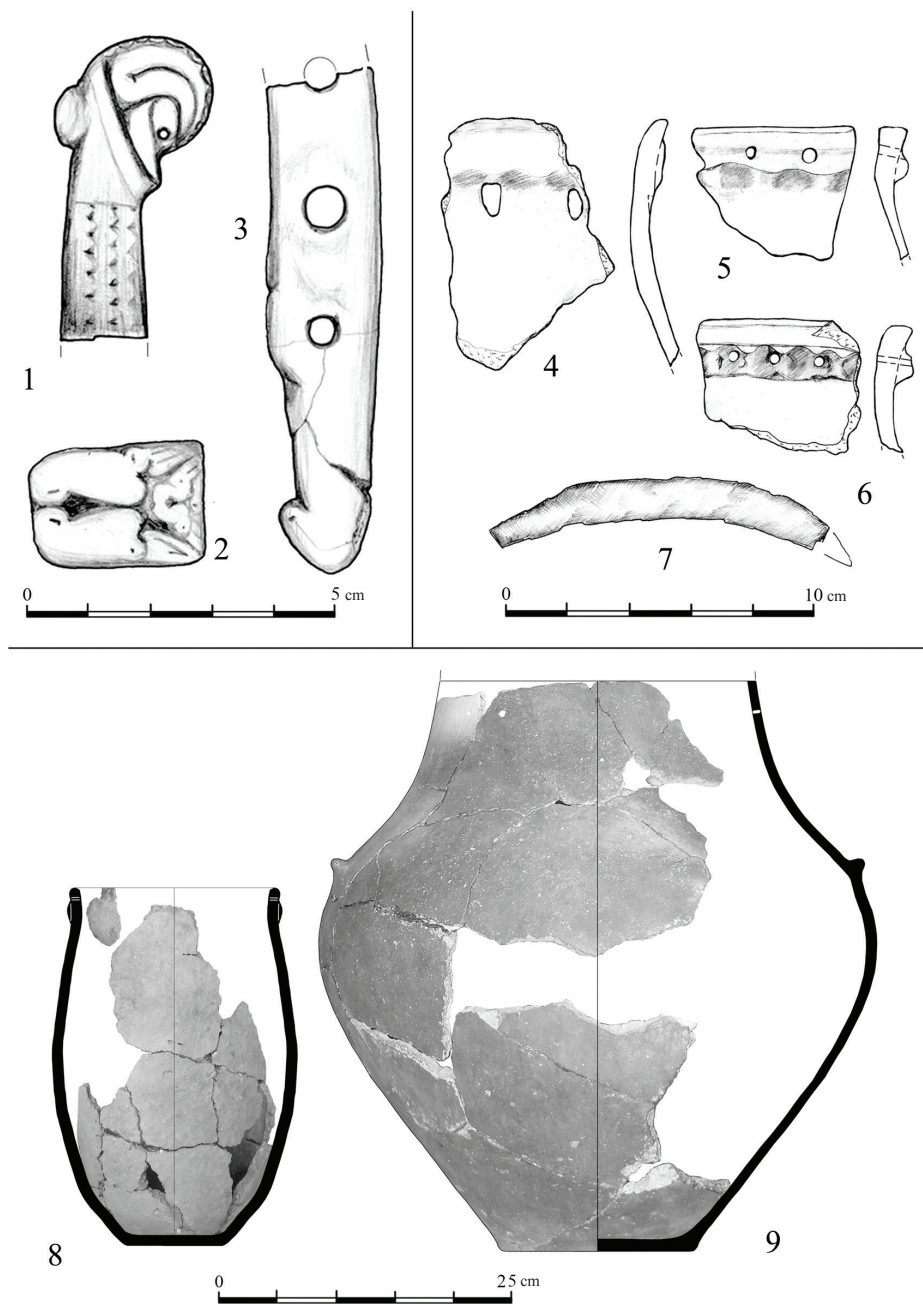


Fig. 7. Materials from pit 15: 1; 3 – fragments of the cheek-pieces and buckle-bead; 2 – buckle-bead; 4-6 – rims of the pots; 7 – iron knife; 8 – pot; 9 – storage pot

Opposed symmetrical images of feline were more popular in archaic animal art. Researchers supposed its origin is from the art of the Lorestan and Cappadocia. As examples of influences from the Near East, finds from the Panticapaeum and from the Tsukur-Liman barrow are named [Yakovenko 1974: 129-130]. Due to modern research, the last mound is dated to the early 6<sup>th</sup> century BC [Grechko 2012: 147].

Symmetrical figures were also widespread in the ceremonial weapon decoration. For example, a pair of wild goats was imaged on the golden scabbard of the sword from the Shumeika barrow. By the pose of the animals, this image is quite similar to the composition from Zhabotyn mounds. Nevertheless, it is dated to the middle 6<sup>th</sup> century BC [Shelekhan 2014: 488].

Images of the elk's heads on the buckle-bead from pit 15 look quite typical for early-Scythian art. Elk's icons (or horse icons, discussion about it: Ilinskaya 1968: 18; Shramko 1971: 101) with an oblong muzzle, low lips and adpressed ears were widespread in cheek-piece decoration. Similar images are known from barrows 476 and 477 near the Vovkivtsi village [Ilinskaya 1968: Tab. XXXVI]. However, in spite of numerous analogies, finds from the Severynivka hillfort remain unique because of the skilful carving.

In pit 15 the above details of a horse bridle described were fixed with typical forms of ware. A large storage pot with two pairs of handles-rests is notable among them. Researchers considered similar items as a local variant of "Villanova" type large pots [Smirnova 1998: 108]. Complexes with analogous ware belonged to the horizon of the middle – late 7<sup>th</sup> century BC. The barrows Hlevakha, Mala Ofirna and mound 406 near Zhuravka village [Daragan 2010: Fig. 10] should be mentioned. It is interesting that the broken rim has traces of repair and further usage (Fig. 6: 9). Thus, due to concomitant materials and close analogies details of the horse bridle from pit 15 could be dated to the second half of the 7<sup>th</sup> century BC.

Five cheek-piece fragments and one half-finished product were found in the 2014 and 2015 in Complex 1 in the central part of the hillfort. Earlier we were abstaining from interpreting of this object [Boltryk *et al.* 2015: 230]. Now after exploration of the area of 150 m<sup>2</sup> it could be possible to analyse this material due to its stratigraphic context.

Two examples were found in the upper coal layer. They belonged to different horse bridle sets. Only the small fragment (Fig. 9: 2) presented one of them.

The second find is presented by the cheek-pieces tip with thicker inner part and distinguished polished 'neck'. The only one preserved tip is decorated with the head of a creature similar to the griffin-ram. Although this image is very different from the traditional icon of the mythical creatures [Kantorovich 2012: Fig. 16-21]. This image was carved in three dimensions. Although on the inner side, the carving was made with less detail.

The beak is rounded and without predatory sharpness. It could be noticed only by typical curved lines (Fig. 9: 1). However, the contour of the 'beak' is similar to the round shape of ram heads that are known for example on the Kelermes buckle-

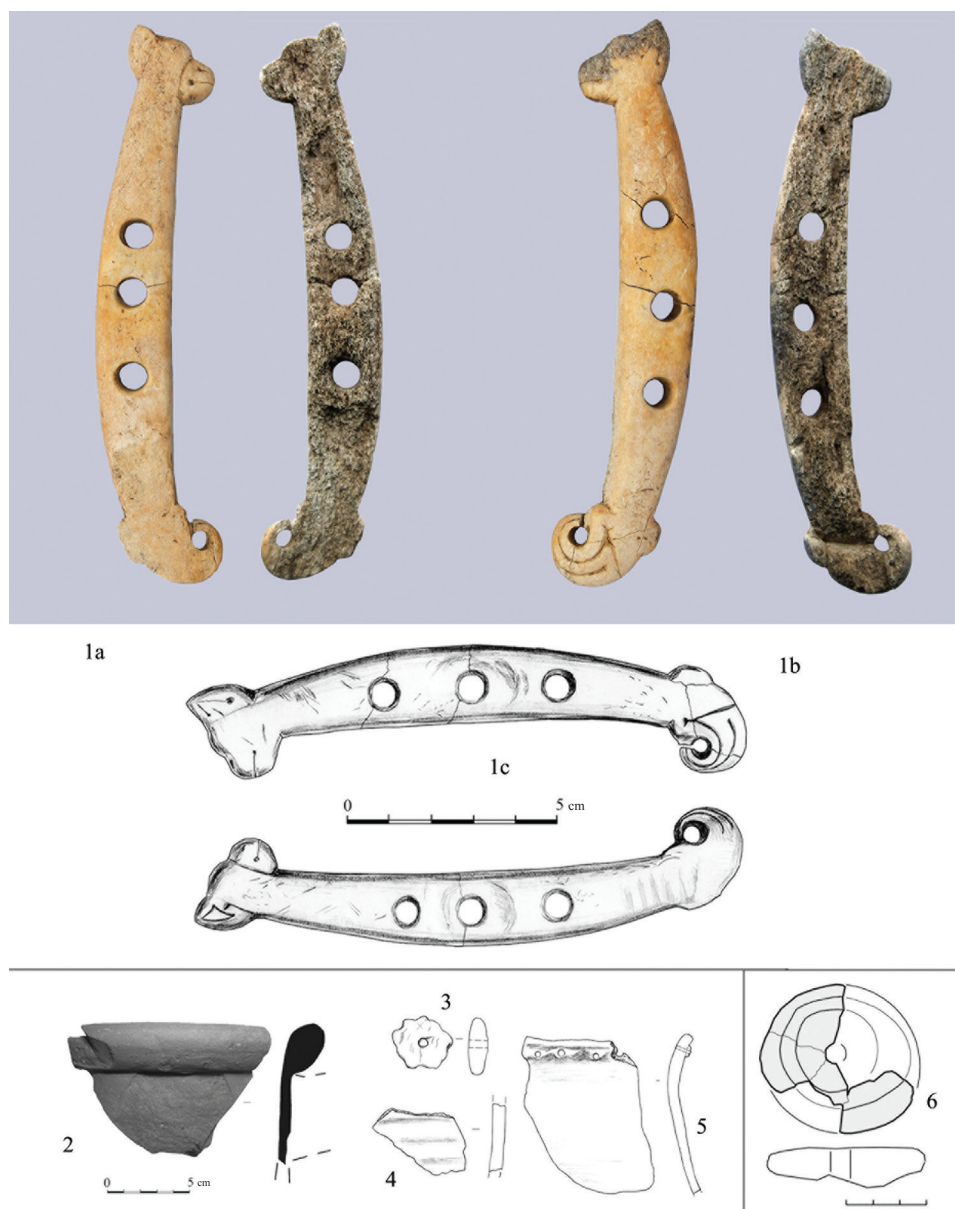


Fig. 8. Materials from pit 4: 1a-c – cheek-piece set; 2 – rim of the amphorae; 3 – spindle whorl; 4 – fragments of the storage pot; 5 – rim of the pot; 6 – votive ceramic ‘wheel’

-beads [Riabkova 2005: Tab. 2:15-22; Kantorovich 2012: Fig. 21], or on the cheek-pieces from the Posullia area [Ilinskaya 1968: Tab. XIII]. The 'eye' is missing and the 'horn' is shown as the border contouring the head.

The classical images of the griffin-ram are widespread in all archaic monuments. Among the most representative and worth mentioning are the cheek-pieces from the Starsha Mohyla, the Oksiutyntsi kurgan 2 and the mound explored in 1886 near Vovkivtsi village in Posullia [Ilinskaya 1968: Tab. IV:2, XX:16, XXXIV:1]. The set of interesting samples comes from ash-hill 1 in the Tsaryna Mohyla tract that dates back to the 6<sup>th</sup> century BC [Makhortykh *et al.* 2006: Fig. 37:2].

However, none of these analogies can demonstrate such a strong mutual penetration of the various features of different beings as it could be seen on the cheek-pieces from the Severynivka. At present, we are unable to find direct analogies to this syncretistic modification. One can only recall – the cheek-piece in a simplified style from mound 40 near the Huliai-Horod [Ilinskaya 1975: Tab. III: 2]. But in this barrow, unfortunately, there were no other chronological indicators except the horse bridle. Therefore, the best support for this product is the wall of the Protothassos amphorae found in the same layer. The lower limit for existence in the forest-steppe Protothassos pottery is considered the second quarter of the 6<sup>th</sup> century BC<sup>5</sup>. The upper chronological position of this item, compared to the other cheek-pieces, could explain its stylistic peculiarity [Shkurko 1982: 3]. However, it is possible that the altered form of cheek-pieces suggests that a non-Scythian master who had deviated from the traditional canon [Ilinskaya 1961: 50] made them.

Additional reasons for dating this layer is a variety of materials related to this layer. The two bronze arrowheads in different degrees of preservation were found here. First, the trilobate probably had leaf-shaped head and protruding socket without spine (Fig. 9: 6). Because of the high damage, it is difficult to find a precise analogy. The second arrowhead has trilobate form and triangular top of the head with short socket. Similar products were encountered in complexes: barrow 3 near the Dolyniany [Smirnova 1996: Fig. 5:2], Perebykivtsi kurgan 2 [Smirnova 1996: Fig. 8:20-21], barrow 9 of the Piatymary 1 burial ground [Grechko 2012: Fig. 12:4].

The first two complexes are dated from the end – limit of the 7<sup>th</sup> – first quarter of the 6<sup>th</sup> centuries BC, while the mound near Piatymary is referred to as 'the transitional phase' between the Early-Scythian and Middle-Scythian time, i.e. until the mid-6<sup>th</sup> century BC.

Two full profile reconstruction of ware represent tub-like shape with gently curved outwards rim and slightly curved walls (Fig. 9: 12, 13). Fragments of similar vessels originate from the excavations of the South-Podolian expedition [Smirno-

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<sup>5</sup> We express our sincere appreciation for the consultation with dr. hab. A.V. Buyskikh (Institute of Archaeology of NAS of Ukraine)

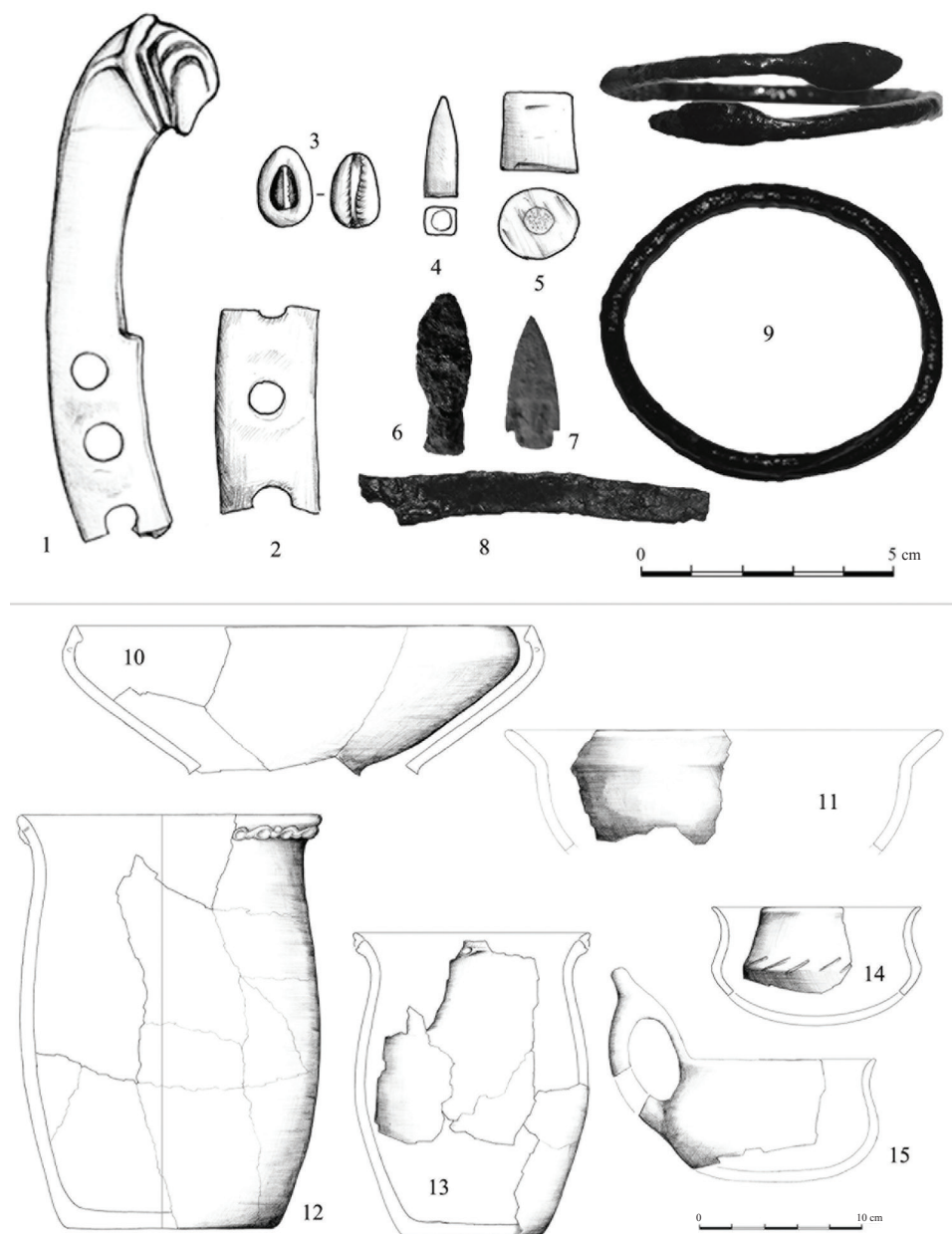


Fig. 9. Materials from the upper coaly layer in the Complex 1: 1-2 – cheek-pieces; 3 – cowrie shell; 4 – horn arrowhead; 5 – horn workpiece; 6-7 – bronze arrowheads; 8 – iron knife; 9 – iron bracelet; 10-11 – bowls; 12-13 – pots; 14-15 – ladles

va 1981: 92, Fig. 5:1, 6:1-3]. The prevalence of this type of pots G.I. Smirnova records in the filling of the pit-house 1 of the Nemyriv hillfort [Smirnova 1981: 86]. A similar set of tableware was recorded in pit-house 1 at the settlement in the Skrypky tract near the Selyshche village [Meliukova 1953: Fig. 32].

Among the bowls two main types are distinguish – items with rounded body and products with trapezoidal in cross-section trunk (Fig. 9: 10). High trapezoidal in cross-section bowls are similar to finds from the Ivane-Puste settlement [Hanina 1965: Fig. 1:7], which the researchers attribute to the second half of the 7<sup>th</sup> – the beginning of the 6<sup>th</sup> century BC [Daragan *et al.* 2010: 41].

Separately a plate with a flat rim curved outwards stands out (Fig. 9: 11). G.I. Smirnova emphasised that this type of bowl is inherent only to the lower layer of the monument [Smirnova 1981: 94]. In this complex they are present in both coaly layers.

The set of ladles (Fig. 9: 14, 15) from the upper coaly layer have analogies in the finds from the settlement near Zalissia [Hanina 1984: Fig. 3: 1-3].

The metal items are comparatively non-numerous finds. An iron bracelet with open snake-headed tips was found in the coaly seam. We have already cited the above analogy to such items that indicates the date – the third quarter of the 7<sup>th</sup> – beginning of the 6<sup>th</sup> centuries BC.

From the clay-like chernozem mixed layer that was formed because of the final fill-up of Complex 1 – the workpiece of the cheek-piece appears (Fig. 10: 1). This item shows the initial stages of processing. This horn plate has a length of approx. 20 cm. Channels of blood vessels are traced there on the outside. The sides are cut off so that the item became a concave shape typical for the cheek-pieces. In addition, on the outside notches the beginning of ornamentation can be traced. This half-finished product is on a par with blanks that are known, for example, at the Bilsk hillfort [Shramko 1976: Fig. 3; Murzin *et al.* 1998: 21; Chernenko *et al.* 2004: 14; Makhortykh *et al.* 2006: 53].

In support of a close chronological position of the second coaly layer and the clay-like chernozem mixed layer a large number of similar materials has been attested. These are, first of all, the findings of the cookware and tableware. In addition, there are common and unique things, such as cowrie shells, which are found in both described layers. It should be recalled that in the West fortification of Bilsk hillfort the cowries were found in a layer at the end of the 7<sup>th</sup> – first quarter of the 6<sup>th</sup> century BC [Shramko 2004: 105].

The single find of the arrowhead from this layer could be attributed to the first archaic group by A.I. Meliukova (Fig. 10: 2). The similar trilobate items with cuspidal leaf-shape head and pronounced socket with spine come from such archaic complexes: the Aksiutyntsi mound 469 [Galanina 1991], kurgan 474 between the Osytiazhka and Pastyrskye villages [Galanina 1991] tombs 1 and 2 of the Repiakhuvata Mohyla [Ilinskaya *et al.* 1980: Fig. 6: 13, 14: 2-4], the Hulai-Horod kurgan 38 [Ilinskaya 1975: Tab. II: 15-18], Perebykivtsi mound 2 [Smirnova 1996:

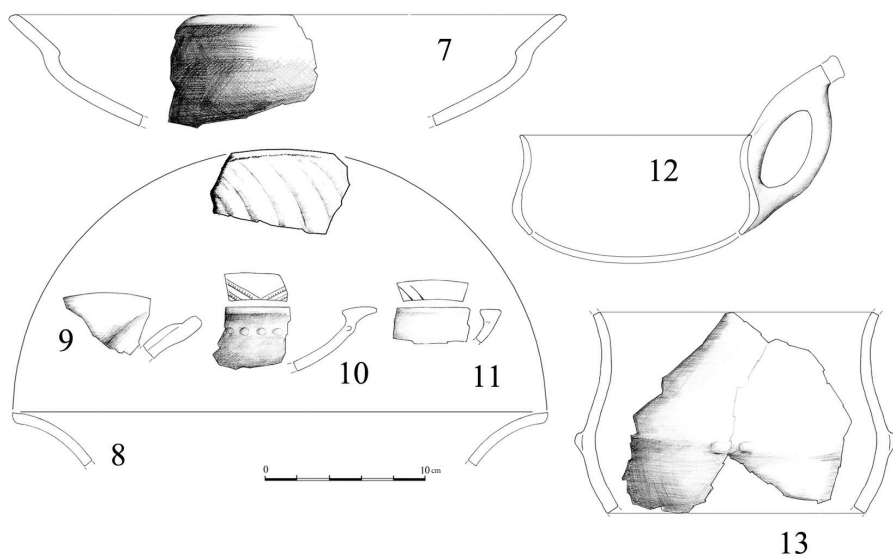
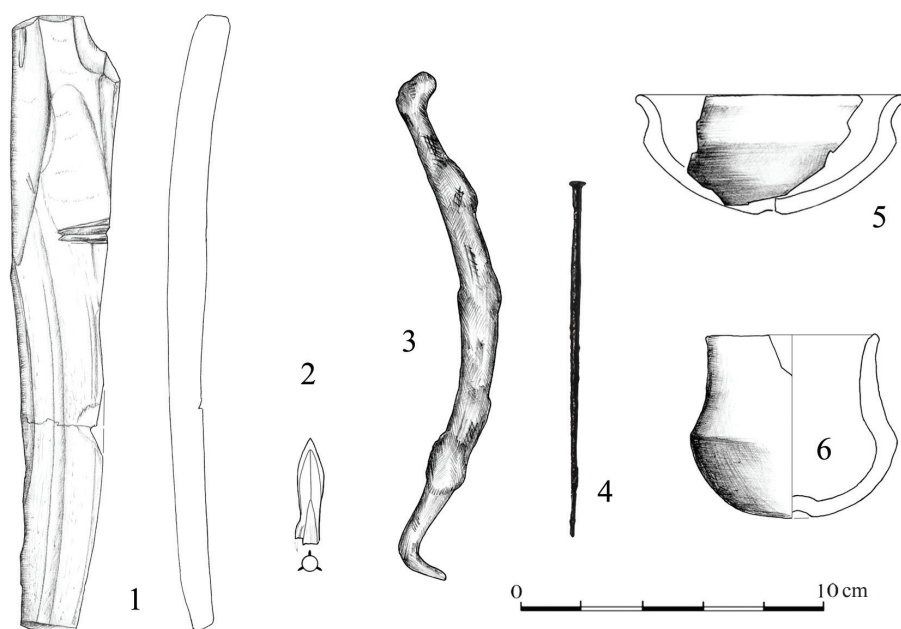


Fig. 10. Materials from the clayey chernozem in the Complex 1: 1 – cheek-piece's workpiece; 2 – bronze arrowhead; 3 – iron razor; 4 – iron pin; 5; 12 – ladles; 6 – chalice; 7-11 – bowls; 13 – jar

Fig. 8:11, 12], and the Skorobor mound 10 [Shramko 2016: 363, Fig. 70:16]. All these barrows are referring to the Archaic time.

Particularly noteworthy is the issued quiver set from Dolyniany mound 3, where there are arrowheads with similar forms to those uncovered in Complex 1 [Smirnova 1996: Fig. 5:2-4, 5, 9]. According to G.I. Smirnova, these objects date from the late 7<sup>th</sup> – the first quarter of the 6<sup>th</sup> centuries BC [Smirnova 1996: 112].

From the filling of the clayey chernozem mixed layer the rim of the thin-walled polished plate, ornamented on the outer surface with hail-round smooth cannellures, is from there (Fig. 10: 8). The similar fragment that differs only by the form of rounded edge H.I. Smirnova referred to the lower horizon of the monument [Smirnova 1981: 94, Fig. 10: 1]. The bowl from the Kruhlyk mound 1 which is attributed to the last quarter of the 7<sup>th</sup> century BC is a close analogy to this rim [Smirnova 1996: 110, Fig. 3]. This horizon corresponded with the fragment of black-burnished rim with smooth surface (Fig. 10: 7), similar to the rims from coaly layers, and a small fragment of other analogues rim was decorated along the diagonal stuck raised border (Fig. 10: 9), which corresponds with the coaly layer 2 of Complex 1.

There are a few finds of storage jars. However the definite part of fragments that could be identified as tableware is quite different from one another. This particular piece of table large pot has a rounded body with a diameter of 20 cm, and high neck that is curved outwards. The diameter of the vessel on the edge is about 20 cm (Fig. 10: 13). A similar fully preserved pot was found in the cult room 1991 in ash-hill 28 of the west Bilsk hillfort. Although, the complex is dating back to the middle of 6<sup>th</sup> century BC, the tableware researchers attributed it to an earlier time – from the end of the 7<sup>th</sup> century BC, explaining that with a prolonged use of tableware for cult purposes [Shramko, Zadnikov 2006: 14-15, Fig. 2: 3].

The three fragments of the different three-holed horn cheek-pieces originated from the dump of Complex 1. Unfortunately, it could not be determined as to exactly which layer they are derived from, so we can only note that they could be dated around the Early-Scythian time.

The most preserved fragment is the cheek-piece with a depiction of the griffin-ram (Fig. 11: 1). The image on this item is unique, but it is not completely preserved. The master has marked the eye of the animal, which is surrounded on one side by the bending of the ram's horn. The horn is blunting at the tip that somewhat comes forward on the overall picture, which is typical of the images of this type. The part with a beak is badly preserved, but the typical notched recess and carved lines hint at logical continuation of the image as the bird beak. The presence of elongated ovals with cannellure ornaments inside each oval on the creatures "neck" is interesting and unique. But overall figurative motifs help to attribute this item to 1.1.1.2 type by O.D. Mohylov. Researcher attributes 11 samples to type of three-holed horn cheek-pieces, of which only two were found on the right bank of the Dnieper: the Zhuravka mound 407 and the mound near Melnykivka. The existence

of this type of O.D. Mohylov limits by the scope of the mid-7<sup>th</sup> – mid-6<sup>th</sup> centuries BC [Mogilov 2008: 26]. It seems like a similar design of the cheek-piece is present on the three-holed horn cheek-piece from the Nemyriv hillfort [Smirnova 1998: Fig. 30: 1].

The other two fragments belong to the lower (Fig. 11: 2) and middle part (Fig. 11: 3) of the cheek-piece. Analogies to the previous fragment, in which the lower tip was designed in the form of a horse hoof, are widespread in the Forrest-Steppe area and present on the cheek-pieces with different images on the opposite end [Mogilov 2008: Fig. 53, 54].

Thus, the set of described cheek-pieces demonstrate typical and cultural unity. At the same time, a certain chronological scale could be assumed. Probably, the product of the dwelling 2 in 1980, is the earliest based on analogies and dating of the complex can be attributed to the second quarter – the mid-7<sup>th</sup> century BC. The next on the timeline is the cheek-piece with a non-decorated surface that was found in 1985. Since its shape is inherited from Pre-Scythian period, it probably dates from the time around the middle of the 7<sup>th</sup> century BC. The second half of the century includes items from pits 8 and 15. This is evidenced by the simple decor of a non-finished roe horn cheek-piece and ornamentation with notched triangles from another sample. Besides the stylistic features, it is indicated by the bowls with cannelure ornamentation and Villanova's pots. Two samples of hoarse harness from pit 4 could be the first half of the 6<sup>th</sup> century BC, based on the dating of the couple fragments of ancient pottery. Two pieces found in 2014 in the coaly layer 1 may have a date around the second quarter of the 6<sup>th</sup> century BC. Additionally, their higher date indicates a certain stylistic simplicity. For the other items designed with animal style – found in a dump, and the origin of which is not known – their dating is only possible within the limit the overall archaic time.

These dates (second quarter of the 7<sup>th</sup> – the second quarter of the 6<sup>th</sup> centuries BC) indicate the existence of chronological frameworks of the settlement. There is no reason to hold the lower limit in to an earlier time in the absence of mass quantities relief-ornamented ceramics in the objects [Shramko 2006: 33]. Raising the upper chronological limit is not appropriate, since after the mid 6<sup>th</sup> century BC the material culture introduced a number of innovations that are not set in the Severynivka [Kovpanenko *et al.* 1994].

It is noteworthy that most of the finds were carried out during the last years of research and they come from three areas of the settlement (Fig. 1). Four cheek-pieces and two pendants were found during the excavations of B.M. Lobay, and no items are known from the materials of the Southern-Podolian expedition. The above observation probably indicates that only some residents of separate homesteads were engaged in horn and bone carving at the settlement. In addition, we have observed a number of pieces of evidence of their local production.

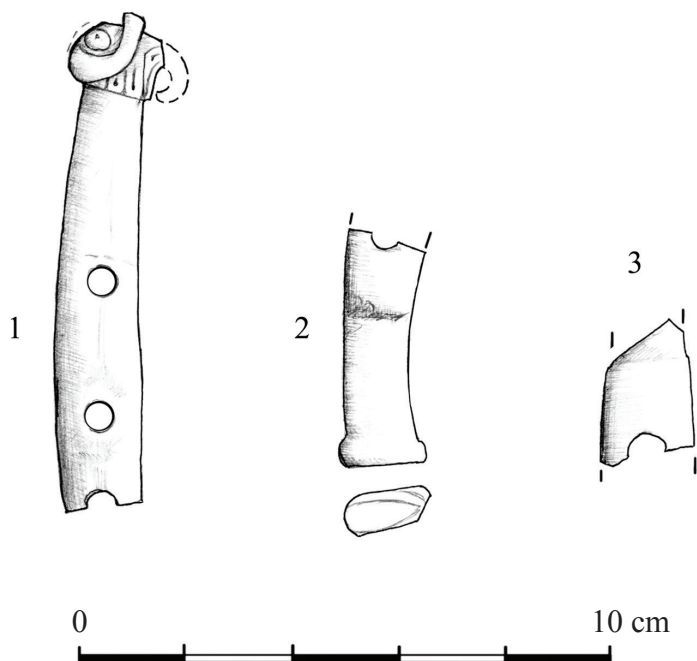


Fig. 11. Materials from the dump in the Complex 1. 1-3 – cheek-pieces

### 3. THE PRODUCTION ISSUE

According to researchers, to analyse bone-carving case requires a sample count of 200-500 to 1000-3000 items [Borodovskiy 2008: 19]. The number of carved bones and horn pieces that were extracted during the excavations on Severynivka hillfort do not exceed a few dozen. The number of horse bridle parts, to which this article is dedicated, is fewer.

However, the publishing and analysis of these findings certainly are important, because the number of finds of cheek-pieces from this site is close to the total number of items previously known in the whole region. However, in the absence of archaic burials in Pobuzhzhia the new artefacts allow to fill this gap in the construction of chronological column. However, the findings of horn scraps, even with their non-numerous presence can serve as evidence of the local production on the monument [Kruglikova 1950: 174; Peters, Chukhina 1995: 159]. The finds of different degrees of preparedness – from the raw materials to fully finished products, demonstrate all the stages of the production process.

A relatively small number of semi-finished products and scraps could be explained by the weak capacity of the cultural layer on the monument and its short-lived existence. All the finds of horn products come from household pits. However, no dwelling wherein a workshop could be placed was found. Lack of finds of specialised tools can be explained by the value of metal products. Lastly the isolated items on the hillfort are also presented.

In the material culture of ancient people, the bone and horn products were distributed through the availability of raw materials and ease of processing. Fresh products combine strength and elasticity. According to these qualities the horn superior to bone [Miadzvedeva 2013: 21-22]. However, the compact substance is a large part of the horn antler of deer [Borodovskiy 2008: 27].

Before the carving of the horn it was kept for some time in a fluid [Radzievskaya, Shramko 1980: 185]. Today there is no single standpoint on the temperature and acid-base of its maturation. However, we have no proof of the existence of fixed tanks for soaking bone and horn pieces at the settlement. It is believed, that such building was at Bilsk hillfort [Radzievskaya, Shramko 1980: 185]. Such practice clearly fixed in the Middle Ages [Miadzvedeva 2013: 27-28].

The identified products show the whole range of technological skills available at the time they were mastered. All the stages of production were carried out manually. The traces of sawing could be seen in cross-sections of some parts of horns. It may be noted, that the original cut of horn was carried out with a blunt instrument with large prongs. It is evident that this master has made significant efforts – often changed direction of the sawing, the slit was formed relatively wide, and as a result, much of the piece was broken off. It also indicates that the saw was rather short. At the same time, the cross-sections of the small pieces demonstrate a precise and smooth cut.

The traces of plans are attached to blanks from which the forming of a product had already begun as an example – the workpiece from the excavations in 2014. Moreover, in the filling of pit 16 studied in 2013 a small amount of porous chip with a width of 5-10 mm were recorded. In the same pit two horn arrowheads were fixed. One finished item has a pyramid-shaped head, the other that was not finished, did not have a drilled socket. These findings are not unique. They show the drilling and grinding skills of the local craftsmen.

The final stage of providing the finished product is polishing. It is assumed that abrasive sand was used during the process [Gavriliuk *et al.* 1999: 121]. But chalk could also be used for this purpose, as its disparate pieces occasionally occurred in cultural layer. In general, harvesting and waste processing of horn and bone materials are present in many settlements at the forest-steppe and steppe areas [Radzievskaya, Shramko 1980: 185; Gavriliuk *et al.* 1999: 118; Bessonova, Skoryi 2001: 107].

Unfinished products are an important confirmation of the local production. Two workpieces for cheek-pieces are known from the Bilsk hillfort. The first is

published in B.A. Shramko's article that dedicated to animal style formation [Shramko 1976: Fig. 3: 2]. The second comes from ash-hill 1 in the Tsaryna Mohyla tract, where the set of horn cheek-pieces was found and where the scholars assume the presence of the bone and horn carving manufacture [Murzin *et al.* 1998: 21; Chernenko *et al.* 2004: 14; Makhortykh *et al.* 2006: 53].

Due to context of this article, the very interesting aspect is the art of carving. Undoubtedly, sophisticated decor required specialised tools. Such works cannot be made only by a simple kitchen knife, as sometimes assumed [Merkulov, Rodionov 2014: 130]. However, unfortunately, at Severynivka hillfort tool sets like the Liubotyn or Bilsk settlements were not found [Radzievskaya, Shramko 1980: 181-189; Radzievskaya 1982: 26-31]. Due to the general deficiency of metal products on the monument, the chances of finding such in future are not very high.

Thus, the presence of raw horn materials in the finds from the monument, horn deer flat plate workpieces, damaged during manufacturing and a series of broken cheek-pieces demonstrate the existence on the settlement of a practice making of the elements of horse bridle from horn.

*Translated by Oksana Lifantii*

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