

DWELLING CONSTRUCTION MATERIALS FROM PRIBREZHNOYE IN THE CONTEXT OF THE FORMATION OF PRIMORSKAYA CULTURE

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Abstract

Nine years have passed since the article dedicated to the preliminary results of the research at Pribrezhnoye in the Kaliningrad region was published (Saltsman 2004). During these years, two monographs were published which dealt with characterising the material obtained before 2003. These materials, just like the following ones, have still not provided us with a reason to share the old theories and traditional ideas. This article aims at clarifying some questions concerning the finds from dwellings with a sunken floor, which were collected during the work process.

Key words: Kaliningrad region (Russia), coast of the Vistula Bay, Primorskaya culture, dwelling construction, ¹⁴C dating.

Introduction

Systematic research into Corded Ware culture (CWC) sites in the coastal area of the Kaliningrad region began in the late 1990s. During this short period of time, four new settlements of Primorskaya (Rzucewo or Bay Coast culture) culture were discovered. In the course of 15 seasons, continual excavations were carried out at Pribrezhnoye, one of the biggest settlement complexes of Primorskaya culture, situated on the northeast coast of the Vistula Bay, 15 kilometres southwest of Kaliningrad (Saltsman 2004; 2010). Today, the excavation works in Pribrezhnoye are complete; all the vacant territory of the site has been carefully studied. The whole investigated area is 1,760 square metres. Only the areas covered with forest plantations and private ground remain unexplored.

The research conducted in recent years should have proven or complemented the known facts, which were gathered over many decades of studies of Primorskaya culture. But the situation turned out to be much more complicated, if not paradoxical. In the course of the analysis of the material, it became evident that Pribrezhnoye harbours almost nothing excluding the ornament, which could be connected undeniably with the forms circulating in CWC in a broad area. Derivatives from A-Horizon, which existed in the Baltic for a rather long time, cannot be spotted here. There is not even a trace of those well-known ones which were previously considered as common for Primorskaya culture settlements (Tetzlaff 1970; Machnik 1979; 1997, p.128; Rimantienė 1997, pp.181-184). In other words, while the corded ornament is quite widespread, here

we have only local and very peculiar forms of vessels. They could partially be spotted in other sites of Primorskaya culture, but only together with forms found in a whole series of other variants of CWC. The latter always prevailed. The radiocarbon datings related to the same period point explicitly to the originality of the site. No matter how unusual those datings might appear, we will have to base ourselves on them further on.

The differences appeared to be so obvious that the author associated the settlement with the special group of settlements of Waldburg type. This group took its name from the rather extensively excavated Pribrezhnoye (Heide-Waldburg) settlement complex (Saltsman 2010, p.74).

In spite of the fact that Primorskaya culture had previously been claimed to be thoroughly explored, it still leaves us with a whole range of different questions that prevent us from reaching an objective comprehension of such a complicated phenomenon. These problems are very visible, though sometimes attempts have been made to ignore them.

Firstly, the ideas of the origin of this culture were based mostly on long-lost material, which existed only in literature. The finds from Rzucewo disappeared during the Second World War, and the extensive material collected in Suchacz suffered a similar fate (Šturms 1970, p.163; Źurek 1954, p.2). The smaller part of the preserved Suchacz collection was published only thanks to L. Kilian (Kilian 1955). And only after excavations by R. Rimantienė in Šventoji-1A and Nida did it become possible to evaluate the materials from

these two sites sufficiently (Rimantienė 1980; 1989). As for the part of the territory of the former East Prussia where the Kaliningradskaya oblast' is nowadays, in the overwhelming majority of cases we could only manage with finds obtained from the Curonian Spit (Engel 1931, p.101). But at the same time, surprising as it might be, they were widely used in characterising Primorskaya culture. It was before the end of the 20th century that purposeful research of Primorskaya culture settlements started in the Kaliningrad region. Thus, there was a lack of major Primorskaya culture sites with an intensive cultural layer which were investigated with the help of modern methods, and it was impossible to draw general conclusions.

Secondly, the majority of the best-known settlement complexes of Primorskaya culture cannot be considered ideal archeological resources, as they represent a certain mechanical mixture of polytemporal or even polycultural material. Many settlements existed for long enough, maybe for longer than a century, which shows in the spread of numerous new forms of beakers, amphorae, vessels with finger tucks, wide-mouthed pots and bowls. Dividing them chronologically proved to be a difficult task. And there are even fewer reliable facts concerning the Tolkmicko and Święty Kamień-I settlements (Ehrlich 1923; 1940). Even one of the latest settlements, Święty Kamień-II, could have more recent materials (Ehrlich 1925). This situation gives us next to no hope of obtaining additional information.

Thirdly, it is rare that radiocarbon datings from one of the sites vary so much that it is hard to trace a reliable connection between the absolute age of the sample and its stratigraphic position in the cultural layer (Król 1991; Rimantienė 2004).

Then there is still some ambiguity with the cultural identification of CWC sites in internal areas of Lithuania and the Kaliningrad region. Originally, two opinions on this problem prevailed. L. Kilian preferred to attribute all CWC sites in internal areas in East Prussia and the Sambian Peninsula to Primorskaya culture, despite the evident differences (Kilian 1955, p.70). Opposing that, E. Šturms associated settlements situated only in the bay area with Primorskaya culture. Moreover, the scientist introduced the idea of the possible existence of culturally diverse population groups even on the coast (Šturms 1970, p.181). V.I. Timofeev, who studied CWC sites in the eastern part of the Kaliningrad region most thoroughly, and discovered new ones there, also preferred to separate them into another group (Timofeev 2003).

There are different opinions on the account of the boundaries of Primorskaya culture now, and this ques-

tion cannot be considered as solved. Extreme points of view have also been stated (Grasis 2007).

And finally, the idea of the decisive role of Corded Ware A-Horizon prevailed in the question of the genesis of Primorskaya culture. According to this, Primorskaya culture sites, which lacked the elements of a 'pan-European horizon', were automatically considered some of the latest. The sites which did not match the criteria were not examined thoroughly. Earlier, L. Kilian, C. Engel and B. Ehrlich referred the main role in the origin of Primorskaya culture to CWC from Middle Germany (Kilian 1955, pp.154-164; Engel 1935, pp.186-187; Ehrlich 1936, pp.83-88). And on the contrary, E. Šturms suggested shifting the emphasis towards Globular Amphora culture (GAC) (Šturms 1970, p.183). Intuition did not fail the researcher in this question.

Now that excavation works in Pribrezhnoye have finished, and research on sites of a similar type is in progress, after analysing the material acquired, the problem of their cultural identification emerged. The distinctions are evident as soon as we compare this settlement complex with material from other known sites of Primorskaya culture.

As a matter of fact, by now only the Pribrezhnoye settlement has been excavated almost completely, and three settlements situated seven kilometres to the southwest, Ushakovo 1-3, have started being researched. This does not necessarily mean that in distinguishing a new type of site we should confine it only to these complexes. The Svetloe (Zimmerbude) and Święty Kamień (Wieck-Luisental) settlements are of the same type (Ehrlich 1923). The Penenzhno settlement can also be related to a specific group (Łowiński 1987, pp.165-176). All these sites are situated near the Vistula Bay, and only one settlement, Rewa, was found on the coast of the Bay of Gdansk several kilometres from Rzucewo. But the material from these two adjoining settlements varies dramatically (Felczak 1983, pp.51-68).

Material from dwellings

The presence of construction remains in the lower part of the filling where a large amount of different artefacts were found makes the Pribrezhnoye settlement stand out from many other sites of Primorskaya culture. The buildings consist mostly of two-row posted constructions in an oblong form with an apside end and a built-on entrance. These dwellings, including the material discovered in them, can be considered as the most

promising in Primorskaya culture with regard to their correlation to radiocarbon datings.

In the upper part of the constructions, the same fragmented ceramic materials were spotted. The ceramics here are similar to the main cultural settlement complex. However, new forms of pottery are found, and ornamentation with triangles turned downwards prevails. It is absolutely obvious that ceramics found in the upper part of the pit filling appeared there later in the form of garbage after the constructions had stopped being used.

The materials that bear the most significance for our review are those from the lower part of the constructions, where broken vessels, stone artefacts and jewellery were preserved, which can be referred with great probability to the time of the existence of the aforesaid constructions. Of course, we present here a very brief characterisation of the materials from the dwellings, but their homogeneous nature can hardly be disputed.

Constructions 2, 3, 5 and 7, excavated to the maximum, proved to be the most interesting of the dwelling constructions at Pribrezhnoye. An empty stratum between the upper and lower layers of the pit filling was found in constructions 2, 3 and 5. There is a possibility that constructions 2, 3 and 5, situated almost parallel to each other, could have existed at the same time. At least the character of the materials found at the bottom does not contradict this hypothesis.

What forms of vessels were found in the lower layer? First of all, they are wide-mouthed pots of groups 4 to 9 (Fig. 1). Funnel-formed or egg-formed pots of groups 4 to 6 are most frequent in a smashed or fragmented state (Fig. 1: 2, 4, 6-8). They were discovered in constructions 2, 6, 7 and 8. Egg-formed pots of groups 4 and 5 were found smashed in dwellings 2 and 6, and that is why it is most probable that they belong to the same period as the mentioned constructions (Fig. 1: 7, 8). The proportions of these vessels are characterised by a smooth profiled body, a short neck and a small solid bottom. The dough of the vessels consists of small-grained crushed quartz (the admixture of pounded granite is more characteristic of pottery from the upper part of the cultural layer). Quite often, these vessels have handles in a horseshoe form. These types of pottery do not occur in other CWC sites.

Medium-sized pots are of the same type, although they are decorated in different ways (Fig. 2: 4, 5). Beaker-formed vessels with thinner walls of the body are also typical (Fig. 2: 1, 2, 3, 6). They are notable for the attractive decoration, but, as opposed to beakers, they are larger in size and have a slightly different shape.

Oval-shaped and deep bowls are quite usual finds on the bottom of the dwelling pits (Fig. 3: 2, 3-6). Bowls in an oblong form occur more rarely (Fig. 3: 1). Amphorae with an oval form to the rim and two handles on the slopes are probably found more often (Fig. 4: 5-8). The beakers are characterised by a rim bent slightly outwards, a short neck and a rounded or funnel-shaped body (Fig. 4: 1-4). In other cases, the rim is almost straight. It is interesting that beakers with a short neck are known in CWC in Switzerland, where they date from the earliest horizon (Furcholt 2003, p.62).

Other forms of vessels were not found in the constructions, except for several fragments of porous ceramics with an L-shaped form of the rim (probably from Zedmar or Narva cultures), and two fragments decorated with a comb ornament also with an L-shaped form of the rim. These fragments apparently point to possible connections of the settlement's dwellers with the population of another cultural environment.

The distribution of the decoration on the vessels is the following: the amount of ceramics without ornamentation makes up 61.7% in the lower part, and only 39% in the upper part. The proportion of vessels decorated with cord imprints on the lower level is 22.1%, and in the upper part the proportion of such vessels comes to 44.5%. Semi-ovals and horizontal cord imprints prevail among the cord decoration in the lower level. The amount of corded triangles is no more than 5%, and this kind of decoration was used mostly for amphorae. Besides, 10.6% of the pottery from the lower level was decorated with different pits and pricks. On the upper level, 30% of the vessels were decorated with triangles, and this kind of ornamentation prevails there (Figs. 5, 6). Thus, the ratio of ornamented and non-ornamented ceramics and some particular kinds of decoration varies essentially between the upper and lower levels.

The amount of pottery decorated with stakes is scarce: in the upper level of the dwellings with a sunken foundation, it amounts to 3.6%; in the lower level it is a little bit less, at 2.8%. It is interesting that ceramics with similar decoration were found in the ground-based constructions, and the quantity was twice as much. Here, this ornamentation was used for decorating wide-mouthed pots of group 3, which were not found in the constructions with a deepened foundation (Fig.7). Combinations of stakes and cord imprints are also present. In all these cases, the fact that the origin of the mentioned version of the decoration is connected with the neighbouring Masurian-Warmian Group of GAC is obvious (La Baume 1943).

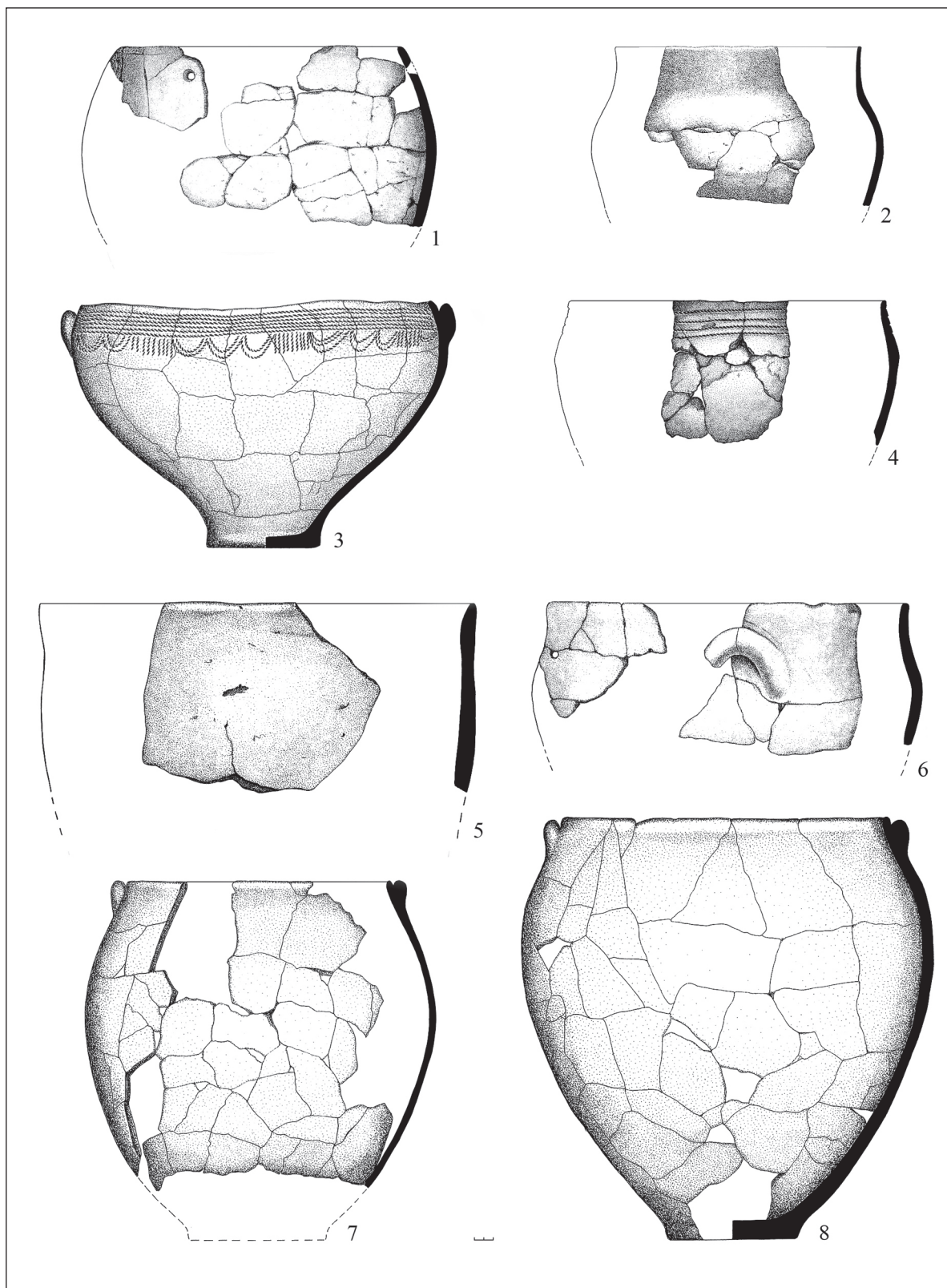


Fig. 1. Wide-mouthed pots (the lower level of dwelling pit filling).

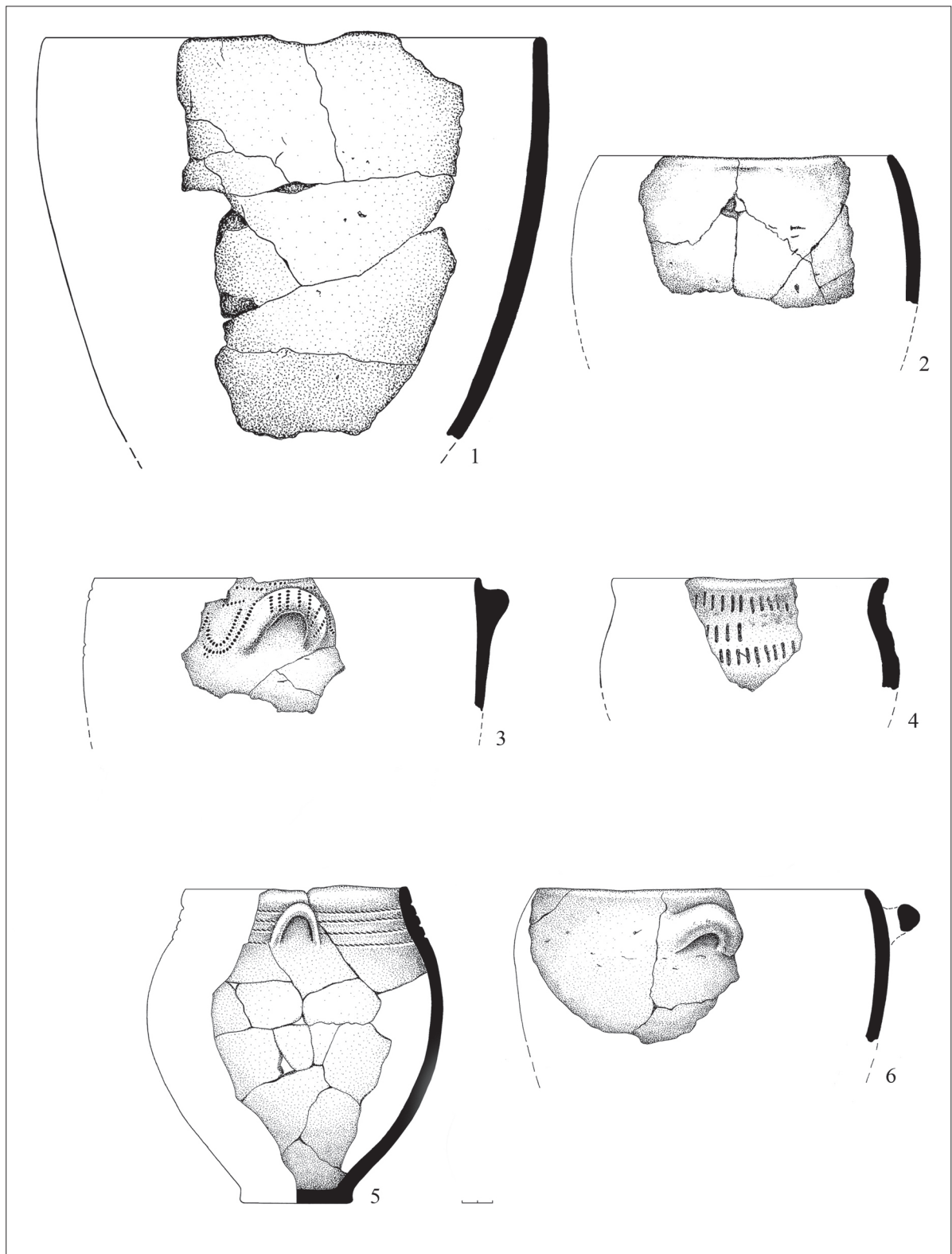


Fig. 2. Average-sized pots and funnel-formed vessels (the lower level of dwelling pit filling).

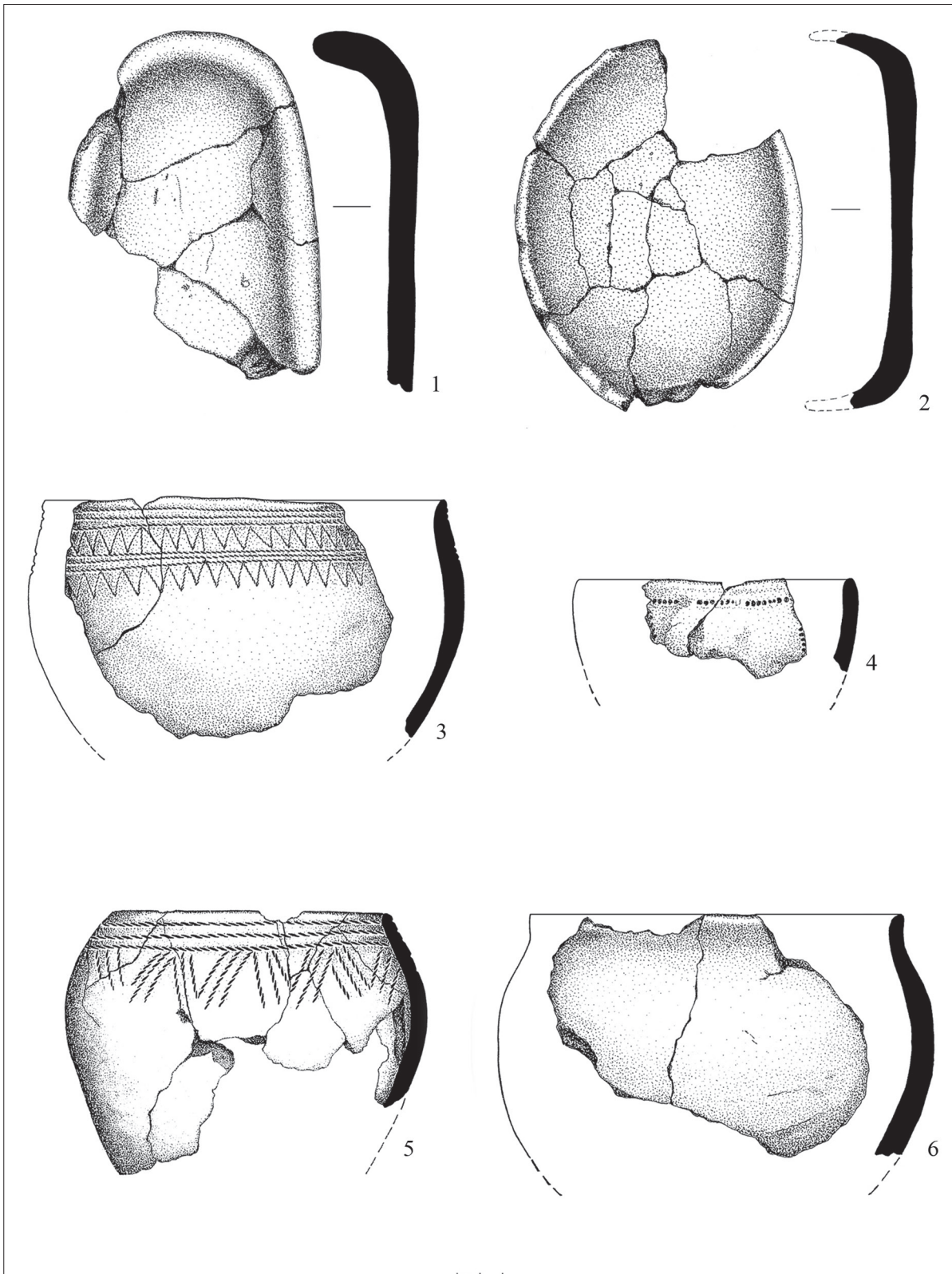


Fig. 3. Bowls of an oblong and an oval form (1, 2); deep bowls (3-6) (the lower level of dwelling pit filling).

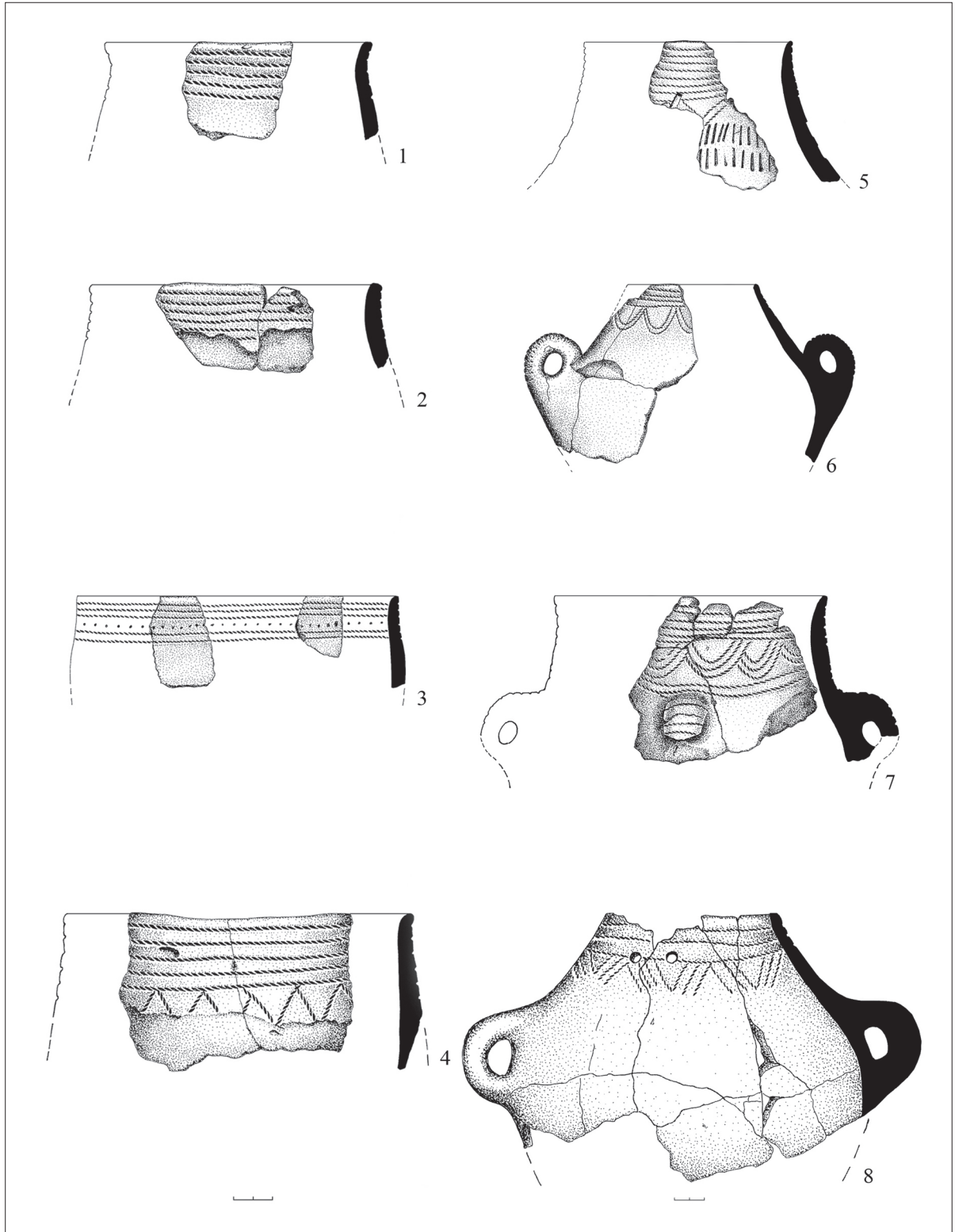


Fig. 4. Beakers (1-4); amphorae (5-8) (the lower level of dwelling pit filling).

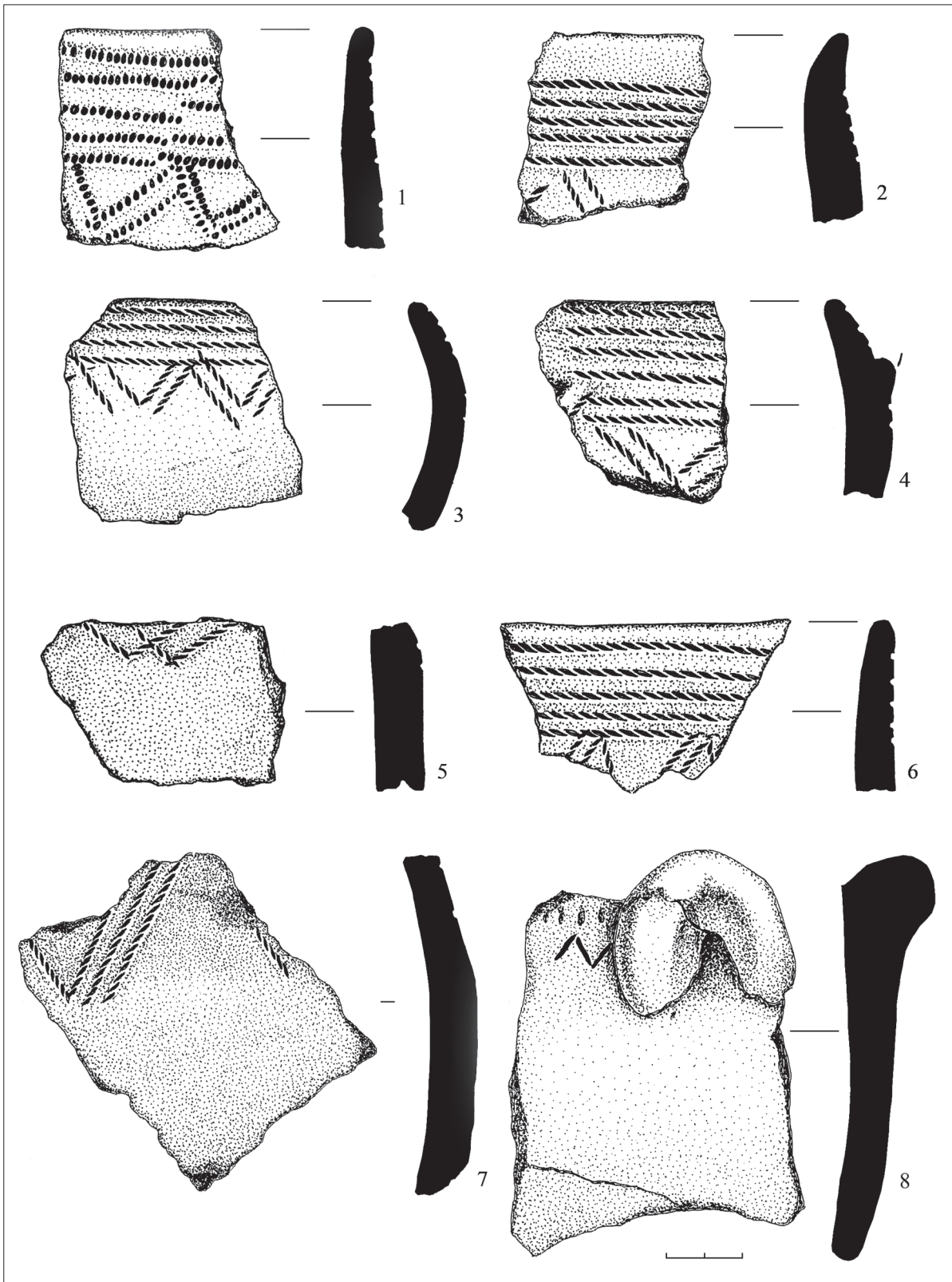


Fig. 5. Fragments of wide-mouthed pots (the upper and middle levels of construction 7).

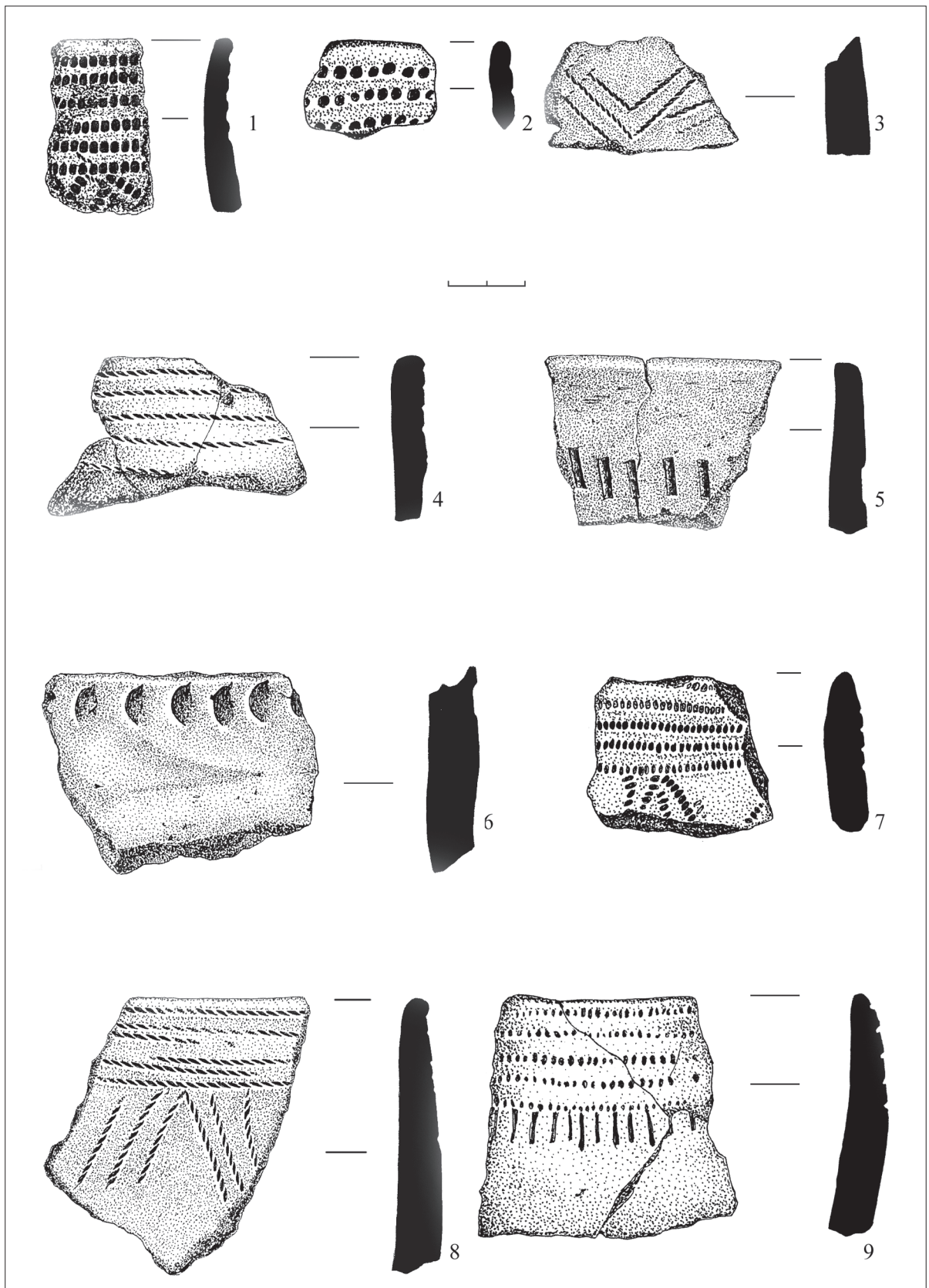


Fig. 6. Fragments of pottery from the upper level of the pit filling of constructions 3, 4 and 5.

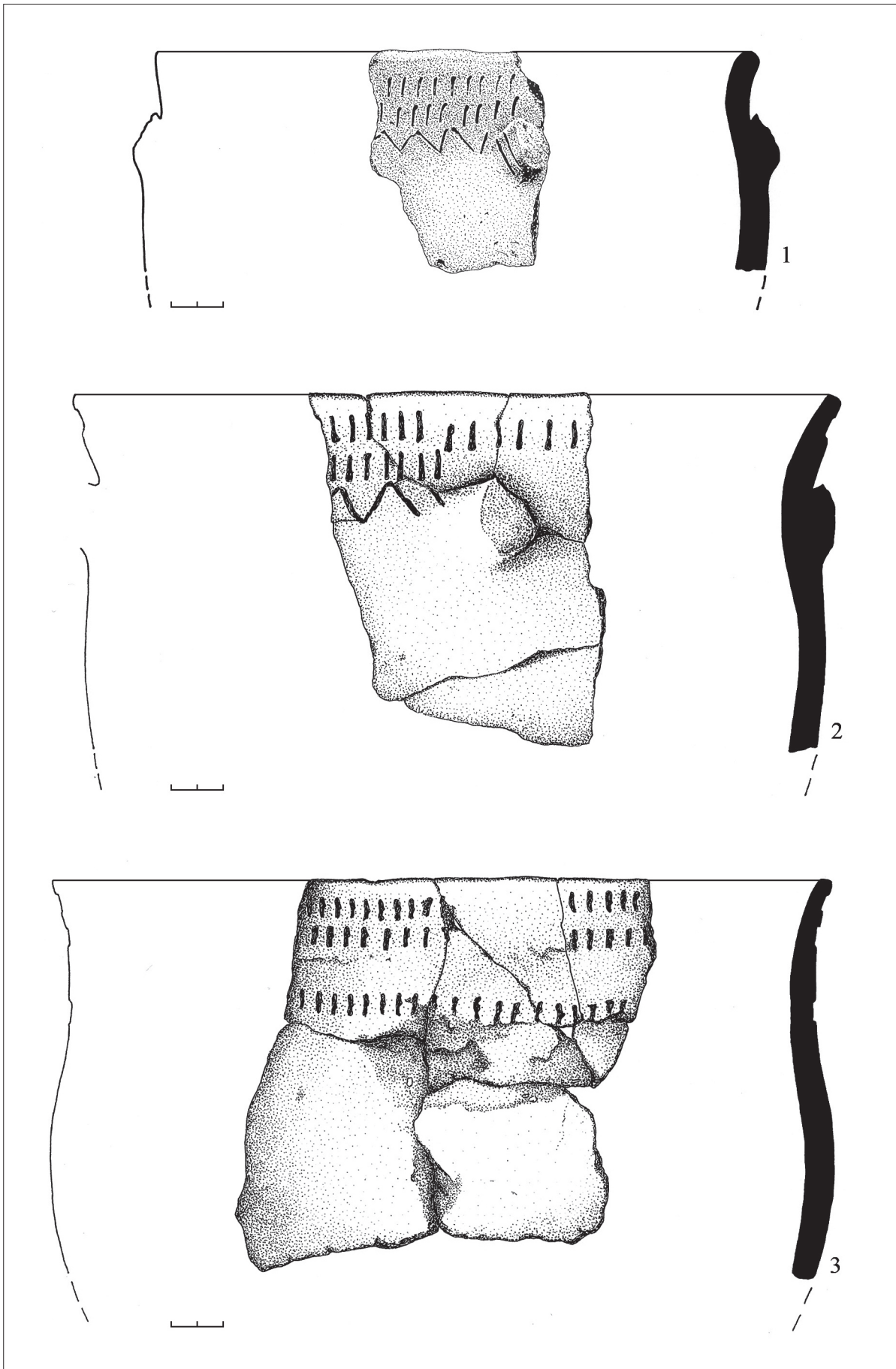


Fig. 7. Wide-mouthed pots of group 3 (ground-based constructions).

Bow-shaped cord imprints and finger and nail imprints are not found in the lower level at all, although they are quite common for the upper layer or ground-based constructions. Ornamentation in the form of cuts and mouldings is absent. Polylevel and polyzonal ornamentation is very rare. The parquet kind of decoration is not found, either.

Axes and adzes, found in the lower part of the constructions, are unvaried (Fig. 8). Their form is trapezoid with a narrowed butt, the cross-section is lens-shaped. Besides, miniature polished flint hatchets are found (Fig. 8: 4). Their entire surface is usually well polished. Shaft-hole axes were not spotted on the site. Axes of a similar type are known right up to the Belorussian Nemunas river basin, but their origin is connected with Primorskaya culture (Lakiza 2008, pp.133-134, Table 89: 2, 3, 6).

Among rare amber jewellery, there are flattened pendants of a widened or oblong form with a concave foundation, lens-shaped buttons in cross-section and perforated discs.

Scrapers with ground blades, well known also in other sites of Primorskaya culture, are typical among the flint items (Januszek 2010).

Chronology and periodisation

Most of the samples selected for radiocarbon dating correspond with the lower level of the constructions, as well as with the directly adjoining holes. The radiocarbon datings from the lower level total 16 (Table 1).

A significant amount of dates was received from the charcoal, as other organic materials were spotted very rarely. It has been emphasised repeatedly that datings received from charcoal, especially when we are dealing with solitary dates, are not always reliable (Furcholt 2003, p.20). This is why series of dates are more preferable in a situation when alternative materials for dating are absent. In the case of the Pribrezhnoye settlement, this requirement was met. And in the case of constructions 2, 3, 4 and 7, the dating was carried out twice, or even three times.

It is unquestionable that only short-lived materials can provide us with the most precise dates. And these particular dates can be used for checking the other results of the dating, if the latter were received from charcoal. In this context in Pribrezhnoye, there are three dates estimated from the bones (dates Nos 3, 6 and 10), and also one date estimated from a carbonised hazelnut shell from hearth B in construction 7. In general, all

four datings not only correspond with each other, but also confirm the majority of the other radiocarbon datings.

Even if dates with data errors are excluded, the majority of the datings will still be found in the range of 3300-2800/2700 BC (Table 1). Two of the very early dates concerning constructions 3 (date No 7) and 10 (date No 15) seem improbable, and might be inaccurate, which can be explained by the 'old-wood effect'. Another later date from construction 2 can also be explained. Stratigraphically, hearth A, found in construction 2, was situated higher than hearth B. This is why its date does not contradict other radiocarbon datings. Most likely, it corresponds with the second stage of the settlement's existence, related to the period 2800-2700 BC. But in this case, we will have to suggest that construction 2 was reconstructed more than once, and was used for a long period of time. Unfortunately, the only date related to the over ground constructions (No 16) is characterised by a significant inaccuracy. Judging by the materials discovered within the bounds of these objects, it is impossible to confirm their simultaneity with the constructions sunken into the subsoil. Most probably, the date from structure No 16 is close to the date from the hearth in construction 2. Also, we can assume that some of the pottery fragments discovered in the upper part of the cultural layer and constructions should be dated to the period not earlier than 2600 BC.

The Pribrezhnoye settlement and other Primorskaya culture sites

It is not difficult to notice the absence of the most typical forms of vessels from Nida and Suchacz in the lower part of the constructions in Pribrezhnoye. These are funnel-shaped vessels of a huge size with moulded horned handles, low bowls with ear-shaped handles, barrel-formed pots, and amphorae of the late type with a short but clearly defined neck, or, on the contrary, with a high neck. According to R. Rimantienė, these specific forms are typical of the classic period of Primorskaya culture (Rimantienė 2004, p.160).

As was mentioned earlier, the other widely represented component of the ceramic complex of Primorskaya culture, which includes numerous kinds of vessels with mouldings and finger tucks, S-profiled beakers, and A-amphorae, are not typical of the basic ceramic complex in Pribrezhnoye. These components are used regularly as proof of the most popular hypothesis of the last decades of the origin of Primorskaya culture, which is based on the idea of the merger of A-Horizon and local cultural formations in the early periods. However, as

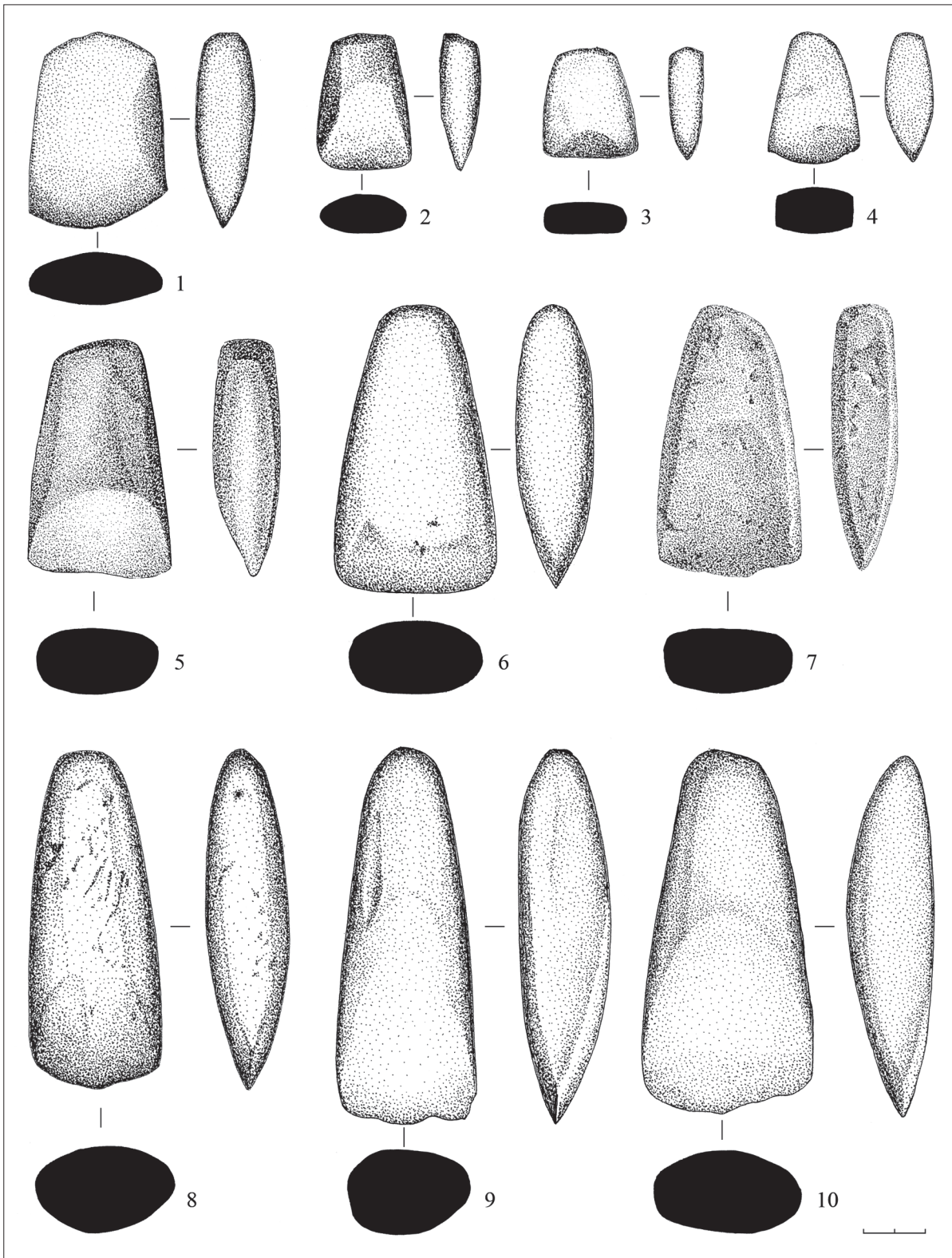


Fig. 8. Axes and adzes (the lower level of dwelling pit filling).

far as the datings are concerned, it is still impossible to get indubitable evidence of the decisive role of A-Horizon in the formation of Primorskaya culture. But it is well known that different kinds of A-beaker, Amphorae and of course vessels with mouldings were used for a long period of time in CWC (Furcholt 2003, p.120). During the earliest period, in a number of regions, including Switzerland, amphorae of local forms spread (Furcholt 2003, p.118). If indeed the coast of the bays had been occupied by the population which left sites of Waldburg type since at least the beginning of the third millennium BC, then it is impossible to discover here settlement complexes with a relatively clear A-Horizon complex before 2700 BC. The dates from Rzucewo and Nida, which are close to each other, emphasise the late character of these components in particular settlements of Primorskaya culture: 4050 ± 35 BP, POZ-23752 and 4070 ± 50 BP, Bln-2592 correspondingly (Król 2009, p.335; Rimantienė 2004, p.160).

Many, if not the majority of generally used forms of Primorskaya culture in its classic period are not found in the bottom part of the structures at Pribrezhnoye. But for Nida and Suchacz, other forms are also representative. Mainly short-necked beakers, oval and oblong bowls, deep bowls and different wide-mouthed pots decorated mostly with cord ornamentation, can be found. It is unexpected that the latter were not replaced by vessels with mouldings. Or is it possible that wide-mouthed pots were used in settlements in Nida and Suchacz during the earlier period?

Taking into consideration some radiocarbon datings, it is not precluded that earlier materials scarcely represented in Nida are similar to those discovered at Pribrezhnoye. They can probably be found among some varieties of wide-mouthed pots, average-sized pots, amphorae and oval-shaped bowls. The majority of amphorae in Nida belong to a later period. But among the fragments of amphorae, some forms can be distinguished, which should be classified as vessels with an oval-shaped neck likewise in Pribrezhnoye (Rimantienė 1989, Fig. 50: 5, 12; 66: 6).

Unlike Pribrezhnoye and other similar sites, Nida provides us with widely represented multi-zonal ornamentation, quite often in a threaded technique, which is typical of Late Neolithic (Rimantienė 1989, Figs. 98, 101, 102). Triangles rimmed on the edges with slanting lines are distinguished among the motifs in threaded and corded technique. They alternate with rows of pricks or pits (Rimantienė 1989, Figs. 48: 2; 49: 9; 52: 10,11; 55: 2). A combination of horizontal cord imprints and shallow pits is also quite common.

The main principle in the formation of ornamentation at Pribrezhnoye, combinations of horizontal cord imprints and triangles or vertical lines, was broken in a number of cases. It is especially representative of wide-mouthed pots, of which varieties in Nida are less common than in Pribrezhnoye. The rim of these vessels was decorated only with corded triangles without horizontal cord imprints (Rimantienė 1989, Figs. 76: 1, 3, 5-9, 12; 65: 6). This kind of ornamentation at Pribrezhnoye was recorded only twice, and in both cases we were dealing with small fragments of pottery found in the upper part of the cultural layer. And moreover, decoration with short slanting cord imprints radiating from horizontal imprints (fringe) is quite common for wide-mouthed pots, amphorae and beakers in Nida (Rimantienė 1989, Figs. 73: 6; 74: 4, 7; 59: 16; 54: 1). That is a very rare case for Pribrezhnoye, more so that the fragments were deposited in the upper part of the cultural layer.

However, decoration in the form of triangles and horizontal cord imprint combinations is known in Nida, and it was found mostly on pots of an open type. There is one major difference in this case: apart from the usual triangles, there are triangles with inner 'hatching', which are not recorded in Pribrezhnoye (Rimantienė 1989, Figs. 74: 9; 75: 1,4). Triangles with 'inner' hatching are probably a later feature (Rimantienė 1981, pp.37-38). And at the same time, plain triangles become typical ornamental detail for pottery.

The fact that roll decoration is well represented illustrates how by the end of the third millennium BC this form of ornamentation had become widespread, which is typical of CWC (Rimantienė 1989, Figs. 68, 82-85). At the same time, Nida lacks corded semi-ovals, which are typical of GAC and sites of Waldburg type, but not very common, and there are fewer kinds of pit decoration. Apparently, unlike the Curonian Spit, typical features of CWC were slower to penetrate the coastal zone of the northeast part of the Vistula Bay, and therefore they were later to spread. Artefacts from Nida such as fragments of perforated axes with a rectangular cross-section, a large number of roll-decorated vessels of different forms, S-profiled beakers, bowls with handles, and the limited assortment of weakly profiled wide-mouthed pots and deep bowls, and the lack of beaker-formed vessels, are most likely evidence of the last or the next to last stage of existence, and not of another cultural type.

Šventoji-1A, another well-excavated settlement, contains much fewer analogies (Rimantienė 1980). Some doubts are expressed in the literature nowadays concerning the possibility of associating this site with Pri-

morskaya culture (Girininkas 2009, p.190). Actually, in Šventoji-1A, bowls of an oval or an oblong shape, which are considered to be the most common artefact in most sites of Primorskaya culture, were not found; but at the same time, artefacts that originate from A-Horizon of CWC prevail. Amphorae as one of the main categories of pottery in the coastal settlements here are very rarely found. Many kinds of wide-mouthed pots are also absent. However, the other most archaic forms, like funnel beakers, wide-mouthed pots, squat-formed pots, and, probably, beaker-formed vessels, deep bowls, trapezoidal axes with narrowed butt ends, and amber pendants with a depression in the lower part, were preserved (Rimantienė 2005, Figs. 95: 1, 11; 98: 1, 2, 5, 6; 101: 4, 5). All these artefact categories have analogies in Pribrezhnoye, while common corded elements in Šventoji prevail.

Hypothetically, Šventoji-1A is a case that represents the first stage of the fusion of Middle European and local components. Local components should be understood as sites of Waldburg type, which existed in the southeastern Baltic for many centuries.

It seems that the known settlements on the southeast coast of the Vistula Bay should have a lot of common traits, or even match the majority of characteristics of Pribrezhnoye. But this is not so. Only one settlement, Swęty Kamień, has clearly been related directly to sites of Waldburg type. The settlements of Suchacz and Tolkmicko, situated only a few kilometres from Swęty Kamień, have the characteristics that were mentioned for the settlement at Nida, despite the presence of double-row constructions similar to those found in Pribrezhnoye. These settlements show the same peculiarities that were pointed out for the settlement at Nida as well (Kilian 1955, Taf.I; VII: 30, 31; XXIII). These materials connect Primorskaya culture with many other Corded Ware cultures. Suchacz and Nida are similar with regard to the local forms of funnel-shaped pots of a large size with horn-formed mouldings, low bowls with ear-shaped mouldings, late amphorae and deep bowls (Kilian 1955, Taf.XVII: 103, 104; XV: 91; XVI: 95, 98; II; III). The first three types of pottery should be referred to the prime of Primorskaya culture, which explains their absence in Pribrezhnoye.

It is obvious that both common and different traits on the sites of the coastal area of the Vistula and Curonian bays involve not only peculiarities of the orientation of cultural links. The temporal factor apparently plays a decisive role in understanding many phenomena mentioned in this article.

It seems important that the forms and ornamentation of vessels, the types of chopping tools from Pribrezhnoye, while undergoing changes, continue their existence in the later sites of Primorskaya culture, therefore showing signs of evolution. At the same time, we can see common corded forms in the sites of the classic period. The forms of the new pottery, including cookware, vary a lot. Moreover, new types of axes and amber jewellery were spreading. New types of household constructions, with one row of walls and of a smaller size, appeared. On the whole, they are typical of areas larger than the eastern Baltic. Such constructions, for example, are known in Rzucewo.

The changes were so extensive that it gives us reason to assume there was a new migration from the northern part of Europe. Apparently, serious changes on the coast happened no earlier than 2700–2600 BC, as the population that had left the sites of Waldburg type continued to exist. The migrants came across already well-developed settlements, the population of which had worked out their own specific form of economy, applied new construction ideas in house building, which worked best in the local environment, and had been using their own forms of pottery, stone and amber items.

Such a model for the development of Primorskaya culture turns everything upside-down, and does not answer the most important question: how and on what basis sites of Waldburg type appeared in the first place. These complicated questions remain unanswered, but cannot be solved in terms of the idea of autochthonous development. It is obvious that in order to overcome the contradictions which appeared in the course of understanding the most basic questions, further excavations are needed. On the grounds of specified forms of pottery, the sites of the inner part of the Baltic which do not carry at least one of the characteristics mentioned should be excluded from the list of settlement and funeral complexes of Primorskaya culture. The extreme points of Primorskaya culture are the settlements of Sportenen (now in the Krasnoznamenskii district), where during prewar times an oval-shaped bowl was found (Kilian 1955, p.242), and Zedmar A (now in the Ozerskii district), where above the main level with Zedmar culture artefacts, K. Stadi found an oval-shaped bowl and a fragment of a wide-mouthed pot typical of Primorskaya culture (Gaerte 1927). Besides, in Krylovo (Nordenburg) in the Pravdinskii district, a settlement with typical forms of pottery of sites of Waldburg type was found (Saltsman 2010, p.130). There is no information about sites related directly to Primorskaya culture and situated further east. In Lithuania, settlements which can be partly connected with Primorskaya

culture occur no further than Lake Biržulis (Butrimas, Ostrauskienė 2004). It is absolutely obvious that the area of the spread of this culture hardly exceeded 150 kilometres to the east or northeast of the coast. There is not much sense in extending the area further up to the Daugava, where CWC sites are not originally connected with Primorskaya culture.

The area including southern Latvia, inner districts of Lithuania and East Prussia has been outlined as belonging to the southern group of Battle Axe Culture (Šturms 1970, p.207). The latest data only confirms the previously suggested hypothesis. There is no doubt that traces of the influence of Primorskaya culture can be seen in both eastern and northeastern districts, which are the most remote from the coast. But under no circumstances can these areas be considered the periphery of Primorskaya culture.

There is no solid evidence of the existence of burials outside the settlement complexes in Primorskaya culture. And the majority of the burials in inner areas can hardly be regarded as early. Most likely, CWC (understood here as Baltic Boat Axe Culture) in some areas in the Baltic spread late, at times when Primorskaya culture gradually started losing its influence and settlement complexes on the coast fell into decay.

The question of origin

Other questions of great importance also cannot be ignored. Materials from Pribrezhnoye and similar sites cannot be interpreted completely, as in the case of Złota culture, of which the beginning is currently being connected with preceding CWC formations (Krzak 1976, p.222; Włodarczak 2008).

Hypothetically, sites of Waldburg type developed independently within the boundaries of the southeast coast of the Baltic. And if we follow the radiocarbon datings, these sites developed simultaneously with GAC, from which some forms of ornamentation and, to a lesser extent, forms of vessel were borrowed. It is absolutely impossible to trace one of the basic types of pottery, wide-mouthed pots of group 1 and 2 with a narrowed bottom, back to GAC. Their connection with wide-mouthed pots in the preceding Zedmar culture, which had disappeared by the beginning of the third millennium BC, seems more evident (Timofeev 1996, Fig. 51: 23, 28, 29). Zedmar-type vessels appear in the sites of Narva culture in eastern Lithuania some time later (Girininkas 1988, p.48), which means that this form of vessel was by no means a local phenomenon.

Some forms of wide-mouthed vessels in Pribrezhnoye, as well as oval-shaped bowls, should be traced back to this cultural circus. It would be much more hopeless to try to find analogies with oval-shaped neck amphorae in GAC. Beakers and beaker-formed vessels seem to be a completely independent phenomenon.

Thus, the direct connection with GAC can first of all be seen in the ornamentation of pottery. But even this moment is not completely obvious. The percentage of corded ornamentation is quite surprising. And if we rely on radiocarbon dates, the northeast coast of the Vistula Bay should be considered another centre of the relatively early spread of corded ornamentation. Corded ornamentation can be seen in phase IIa in the central GAC group, i.e. about 3500 BC (10%), but it spread widely during the following phase IIb – 3250/3100-2900-2700 BC (30%) (Szmyt 1996, pp.34, 35, 75). Corded ornamentation is very typical of the GAC group of Warmia and Masuria. Unfortunately, there is a lack of radiocarbon dating for this group for drawing wide conclusions, and a regional periodisation has been worked out in detail only for Cujawy (Szmyt 1999, p.72). According to W. La Baume and L. Kilian, corded ornamentation in the Masurian-Warmian group developed under the influence of CWC (La Baume 1943, p.28; Kilian 1955, p.80).

Due to the relatively late character of such ornamentation in CWC, it seems strange that the majority of vessels in Pribrezhnoye were decorated with triangular corded imprints. But in the lower part of the constructions, as was mentioned earlier, the percentage of triangular corded imprints is only 5%. Amphorae decorated with triangles were found only three times in different dwellings, and most likely correspond with them chronologically. The rest of the amphorae were decorated with semi-ovals. Thus, triangular ornamentation starts occurring in the very early phase, although rarely. In some terms, it is still a serious contradiction, although analogies of this ornamentation for this period are found in Funnel Beaker Culture within the boundaries of the Baltic basin, where double-cord decorated pottery is dated to 3500-3200 BC (Koško, Szmyt 2010, pp.7-12).

With a certain degree of caution, we can assume that GAC, even during the early period, took part in the process of the formation of a new cultural group. But do GAC and local Zedmar and Narva cultures play the leading role in this process? The majority of the characterised materials do not give us any proof of this.

Excavations carried out in the coastal area of the south-east Baltic revealed new settlement complexes which contain, on the whole, clearly expressed homogenous materials, unlike those we are used to seeing in CWC. Radiocarbon dates have a clear chronological priority. At the same time, the new materials do not fit in the known idea of the formation of Primorskaya culture, and CWC in general. It can be assumed that the pro-

cess of the formation of Primorskaya culture could have had a much longer and more complicated path of development than we believed before. However, these conclusions still need additional verification, as well as further research into other sites of Waldburg type, the amount of which is increasing every year.

Table 1. Datings of samples from Pribrezhnoye (lower level)

No	Sample material	Location	¹⁴ C age, BP	calBC Weninger	Laboratory sample number
1	grip of adze	hearth No 9	4290 ± 110	2910 ± 180	Je-7034
2	charcoal	construction 2 (hearth A)	4220 ± 40	2810 ± 80	Je-6217
3	bone	construction 2 (lower level)	4470 ± 60	3170 ± 130	Ki-11352
4	charcoal	construction 2 (lower level)	4670 ± 160	3380 ± 220	Je-7035
5	charcoal	construction 3 (lower level)	4410 ± 80	3120 ± 150	Je-6218
6	bone	construction 3 (lower level)	4530 ± 60	3220 ± 110	Ki -11351
7	charcoal	construction 3 (lower level)	4880 ± 130	3670 ± 160	Je-7036
8	charcoal	construction 4 (hearth)	4570 ± 60	3280 ± 140	Ki-10581
9	charcoal	construction 4 (hearth)	4510 ± 60	3210 ± 110	Ki-9948
10	bone	construction 6 (lower level)	4570 ± 60	3280 ± 140	Ki-9949
11	charcoal	hearth No 8	4505 ± 60	3200 ± 110	Ki-10580
12	charcoal	hearth No 8	4430 ± 60	3120 ± 150	Ki-9947
13	hazelnut shell	construction 7 (hearth B)	4470 ± 70	3170 ± 130	Je-9055
14	charcoal	construction 7 (lower level)	4320 ± 90	2990 ± 120	Je-8971
15	charcoal	construction 10 (hearth A)	4720 ± 100	3500 ± 110	Je-8969
16	charcoal	construction 16 (hearth)	4270 ± 140	2890 ± 220	Je-9121

Literature

- ARCHEOLOGICZNE KSIĘGI inwentarzowe dawnego Prussia-Museum. Bitner-Wróblewska (red.), 2008. *Aestiorum Hereditas*, t. I, Olsztyn.
- BUTRIMAS, A., OSTRAUSKIENĖ, D., 2004. Biržulio apyežerio neolito gyveničių virvelinė keramika. *Kultūrinio landšafto raida Žemaičių aukštumoje*. Vilnius, 121-144.
- EHRlich, B., 1923. Das neolithische Dorf bei Wieck–Louisenthal (Kr. Elbing) am Frischen Haff. *Prussia*, 24, 115-142.
- EHRlich, B., 1925. Eine zweite Siedlung aus der jüngeren Steinzeit bei Wiek–Louisenthal, Kr. Elbing. *Elbinger Jahrbuch*, H.4, 113-122.
- EHRlich, B., 1940. Schnurkeramische Pfostenhäuser bei Tolkemit, Kr. Elbing. *Mannus*, Bd.32, H.1-2, Leipzig, 44-56.
- ENGEL, C., 1931. Zur Vorgeschichte der Kurischen Nehrung. *Mannus*, Bd.8, Königsberg, 97-106.
- FELCZAK, O., 1983. Wyniki badań wykopaliskowych na osadzie kultury rzucewskiej w Rewie, gm. Kosakowo, woj. Gdańsk. *Sprawozdania Archeologiczne*, t. XXXV, 51-68.
- FURCHOLT, M., 2003. *Die absolutchronologische Datierung der Schnurkeramik in Mitteleuropa und Südsandinavien*. Bonn.
- GAERTE, W., 1927. *Die steinzeitliche Keramik Ostpreußens*. Königsberg.
- GIRININKAS, A., 1988. Pozdnenarvskaya kultura v Vostochnoj Litve. *Drevnosti Litvy i Belorussii*. Vilnius, 37-50.
- GIRININKAS, A., 2009. *Akmens amžius*, t. I. Vilnius.
- GRASIS, T., 2007. The Skaistkalnes Selgas double burial and the Corded Ware/Rzucewo Culture: a model of the culture and the development of burial practices. *Lietuvos Archeologija*, 31. Vilnius, 39-70.
- JANUSZEK, K., 2010. Small polished flint tools in Rzucewo culture in Poland. *Archaeologia Baltica*, vol.13, Klaipėda, 69-79.
- KILIAN, L., 1955. *Haffküstenkultur und Ursprung der Balten*. Bonn.
- KOŠKO, A., SZMYT, M., 2010. «Corded» ornamentation on clay vessels in the Vistula and Dnieper river region: 5th – 4th mill. BC. Research project aims. «Cord» ornaments on pottery in the Vistula and Dnieper interfluvial region: 5th – 4th mill. BC, BPS, v.15, Poznań, 7-12.
- KRÓL, D., 1991. Absolute Chronology of the Settlements of the Rzucewo Culture in Poland. *Internationalen Symposium «Die kontinentaleuropäischen Gruppen der Kultur mit Schnurkeramik»*. *Die Chronologie der regionalen Gruppen. Zusammenfassungen*, Praha, 75-82.
- KRÓL, D., 2009. Elementy zabudowy osady późno-neolitycznej na przykładzie Osłonina i Rzucewa. *Aktualne problemy epoki kamienia na Pomorzu*, Gdańsk, 331-336.
- KRZAK, Z., 1976. *The Złota Culture*. Wrocław-Warszawa-Kraków-Gdańsk.
- LA BAUME, W., 1943. Die jungsteinzeitliche Kugelamphorenkultur in Ost-und Westpreußen. *Prussia*, Bd.35, Königsberg, 13-80.
- LAKIZA, V.L., 2008. *Starazhitnasti pozniata neality i ranniaga perioady bronzavaga veku Beliaruskago Paniemoniaia*. Minsk.
- ŁOWIŃSKI, G., 1987. Badania archeologiczne na stanowisku kultury rzucewskiej w Pieniężnie, woj. Elbląskie. *Badania archeologiczne w woj. Elbląskim w latach 1980-83*, Malbork, 165-176.
- MACHNIK, J., 1979. Krag kultury ceramiki sznurowej. *Prahistoria Ziem Polskich*, t.2, Wrocław-Warszawa-Kraków-Gdańsk, 337-411.
- MACHNIK, J., 1997. “Rzucewo Culture” and the Early Horizon of the Corded Ware. *The Built Environment of Coast Areas during the Stone Age*. Gdańsk, 128-134.
- RIMANTIENĖ, R., 1980. *Šventoji. Pamarių kultūros gyvenvietės*. Vilnius.
- RIMANTIENE R.K., 1981. Kultura shnurovoy keramiki v Pribaltike. *Novoye v arheologii SSSR I Finlyandii*. 34-40.
- RIMANTIENĖ, R., 1989. *Nida. Senųjų baltų gyvenvietė*. Vilnius.
- RIMANTIENĖ, R., 1992. Die Haffküstenkultur in Litauen. *Praehistorica*, 19, 301-305.
- RIMANTIENE R.K., 2004. Hronologija neolita zapadnoj Litvy. In: *Problemy hronologii i etnokulturnyh vzaimodestvij v neolite Evrazii*. S-Pb., 155-162.
- RIMANTIENĖ, R., 2005. *Akmens amžiaus žvejai prie Pajūrio lagūnos*. Vilnius.
- SALTSMANN, E., 2004. The settlement Pribrezhnoe. *Lietuvos Archeologija*, 25, 135-156.
- SALTSMAN E.B., 2004. *Poseleniya kultury shnurovoy keramiki na territorii Kaliningradskoj oblasti*. Kaliningrad.
- SALTSMAN E.B., 2010. *Poseleniya kultury shnurovoy keramiki na territorii Yugo-Vostochnoj Pribaltiki*. Moskva.
- SZMYT, M., 1996. *Spolecznosci kultury amfor kulistych na Kujawach*. Poznań.
- SZMYT, M. 1999. *Between west and east people of the Globular amphora culture in Eastern Europe: 2950-2350 BC*. Poznań.
- ŠTURMS, E., 1970. *Die steinzeitlichen Kulturen des Baltikums*. Bonn.
- TETZLAFF, W., 1970. The Rzucewo Culture. In: *The Neolithic in Poland*, Wrocław-Warszawa-Kraków, 356-365.
- TIMOFEEV V.I., 1996. *Pamyatniki tipa Cedmar. Neolit Severnoj Evrazii*. Moskva, 162-165.
- TIMOFEEV V.I., 2003. Pamyatniki kultury shnurovoy keramiki vostochnoj chasti Kaliningradskoj oblasti (po materialam issledovanij 1970-1980 gg.) *Drevnosti Podvinja: istoricheskij aspect*. Sankt Peterburg, 119-133.
- WŁODARCZAK, P., 2008. Kultura złocka i problem genezy kultury ceramiki sznurowej w Małopolsce. In: *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego*. Poznań, 555-576.
- ŻUREK, J., 1953. Osada z młodziej epoki kamiennej w Rzucewie, pow. Wejherowski, i kultura rzucewska. *Fontes Archaeologici Posnaniensis*, 4. Poznań.

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PRIBREŽNOJE GYVENVIETĖS
BŪSTŲ MEDŽIAGA PAMARIŲ
KULTŪROS FORMAVIMOSI
KONTEKSTE

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Santrauka

Šis straipsnis skirtas trumpai radinių, rastų Pribrežnoje gyvenvietės būstuose, analizei. Gyvenvietėje buvo rasta tik vietinės medžiagos, o ne visai pamarių kultūrai būdingų radinių. Be to, čia nerasta vienos iš labiausiai Pamarių kultūrai būdingų indų formų, charakteringų klasikinei šios kultūros raidos fazei. Didžioji dalis radioaktyviosios anglies datų apima 3300–2800/2700 BC. Todėl įmanoma prielaida, kad pamarių kultūros raida, įskaitant iki šiol nežinotą jos vystymosi etapą, nuėjo daug ilgesnį raidos kelią, nei buvo manyta anksčiau. Pagrindas, iš kurio vėliau kilo pamarių kultūra, galėjo būti Valdburgo tipo paminklai, kurių ištakose savo ruožtu dalyvavo rutulinių amforų kultūros žmonės ir vietinės Narvos ir Cedmaro kultūros (1–8 pav.).

Vertė Audronė Bliujienė