# EARLY NEOLITHIC POTTERY FROM WESTERN BELARUS

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#### Abstract.

The paper discusses Early Neolithic pottery of Dubičiai type from western Belarus. Its most distinctive features include organic temper in the clay mass, a belt of deep round pits under the rim, strokes made by a round stick ('hooves'), and thin slanting grooved lines or slanting decoration with such lines. The hypotheses on the origins of Dubičiai-type pottery are also discussed. According to many scholars, the area of occurrence of Dubičiai-type pottery includes the Belarusian part of the River Nioman (except for the basin of the River Vilija), the left bank of the Upper Prypiac basin, southern Lithuania, part of northeast Poland, and the northern part of Volhynia. At the same time, D.Y. Telegin, O.M. Titova and G.V. Okhrimenko distinguish Volhynian culture in the region of the same name. It has many similar traits with Prypiac-Nioman culture. The scale of differences between Early Neolithic pottery from western Palessie and Volhynia and Dubičiai-type pottery from the region of the River Nemunas allows us to consider Volhynian culture not as a separate culture, but as a local variant of Prypiac-Nioman culture. Sokołówek-type pottery has been discovered at sites in Podlasie and in the Belarusian part of the River Buh region. It is similar to Dubičiai-type pottery in morphology and ornamentation, but has less organic temper in the clay mass. It is most probably the result of the local development of Early Neolithic traditions in the western part of the Prypiac-Nioman culture

Key words: Prypiac-Nioman culture, Dubičiai type, Sokołówek type, western Belarus, Early Neolithic pottery, 'forest Neolithic', comb-stroke pottery.

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#### Introduction

In 1962, in southern Lithuania, during excavations of the Dubičiai-3 site (studied by R. Rimantienė), slightly decorated pottery with a large amount of organic admixture was obtained (Rimantenė 1966, 54). Subsequently, comparing Strumel-Gastyatin type pottery (northern Ukraine and southern Belarus) with material from the south of Lithuania, D.Y. Telegin (1966, 66) introduced the concept of 'Dubičiai-type sites' into scientific circulation. The research by M.M. Charniauski into the Nioman basin in Belarus allowed us to attribute Neolithic Nioman culture to western Belarus and the extreme south of Lithuania, which went through three stages in its development: Early or Dubičiai, characterised by Dubičiai-type sites, Middle (Lysaja Hara) Lysaja Hara-type sites, and Late (Dobry Bor) Dobry Bor-type sites (Charniauski 1979, 47-67). With the accumulation of new data, M.M. Charniauski (2001; 2003) attributed the Dubičiai stage to a separate Early Neolithic culture, Prypiac-Nioman (PNC), keeping two stages inside Nioman culture: Lysaja Hara and Dobry Bor. A. Girininkas (2009, 134-141, Fig. 87) at-

### Dubičiai-type pottery

In the Early Neolithic, western Belarus was occupied by Prypiac-Nioman culture (PNC), belonging to the western periphery of Dnieper-Donets culture communities with comb-stroke pottery (Charniauski 2003, 29). The culture is characterised primarily by Dubičiaitype ceramics. More completely described Dubičiai material originated from the Nioman basin in Belarus (Charniauski 1997a; 1997b; 2001; 2003; Cherniavskii 1994; 2008). Material from western Palessie, mainly sites in the Pinsk region (Pahost Zaharodski micro-region) is rather poorly published (Isaenko 1976; Isaenka 1997) and requires rechecking. The material from Zaharoddzie (Motal micro-region) is still waiting to be explored (Kalechyts 2002; Kalechits, Obukhovskii 2004). Meanwhile, Dubičiai-type pottery in all the area of its distribution has the same or very similar technical, morphological and ornamental features.

Morphology. The ceramic set is rather similar, and represented only by pots: wide open ware with a sharp bottom and smoothly convex hull and a narrow top. In rare cases, vessels were slightly ribbed. The diameter of the rims is from 25 to 35 centimetres, and the height

tributed Dubičiai culture to Early Neolithic, the area and the main features of which correspond to PNC.

<sup>&</sup>lt;sup>1</sup> The abbreviation NC (Nioman culture) is used to indicate Nioman culture in a new (two-stage) understanding in this paper. At the same time, the abbreviation NNC (Nioman Neolithic culture) is used here for Nioman culture in the old (three-stage) understanding.

from 40 to 50 centimetres. The average thickness of the walls is 0.8 to one centimetre.

Rim edges, which in most cases are equal to the thickness of the vessel wall, are usually slightly bent or straight. The rims are roundish, sometimes slightly sharpened or skewed inwards. They are rarely flat, and in a few cases flat ones have a thickening on the inner edge (Fig. 1A).

The bottoms of the vessels are mostly sharp (axial cross-section equal to  $90^{\circ}$  or less), rarely rounded, or rounded with a dedicated spike (Fig. 1.B).

Technique. Dubičiai-type pottery is made of clay with fibrous organic remains used as an admixture, sometimes in quite large amounts. So this has left characteristic prints on the outer and inner surfaces of the pots. An analysis of pottery fragments from the Staryja Vojkavičy 1 settlement (Kul'kova, Razlutskaia 2011; Kul'kova et al. 2016) showed that this admixture had a plant origin. In some cases, a sand, grog and grass admixture was presented along with the organic matter in the clay mass. For the territory of Polesia, U.F. Isaenka (Isaenko 1976, 42, 62) noted the presence of a shell admixture as well. M.M. Charniauski (1997a, 159; Cherniavskii 1994, 114) wrote that material from the Rusakova 2 site with a predominance of plant admixture sometimes has a small amount of crushed limestone.

Pots were formed from clay coils attached to each other by slanting contact. Sometimes slanting-face contact was used. The outer and inner surfaces were quite well smoothed. The outer surface was much better smoothed, and could sometimes be polished. During the processing of an outer surface, angob could be used (Charniauski 1979, 32; 1997a, 159). In some cases, there are traces of a comb-tool on the surface. These traces are particularly expressive in the middle part of the vessels, and have a predominantly horizontal orientation. Attachments between the coils forming the pots were connected with the same comb tool, and after that were additionally covered with thin layers of clay (Charniauski 1979, 39; 1997a, 155).

On the material from the Rusakova 2 site, M.M. Charniauski (Charniauski 1979, 16; 1997a, 159) noted that the rim was formed from a thin coil attached below from the outer side of the edge. Sometimes a band made of bast was put inside the coil, forming the rim of the vessel to strengthen it. A bast band on the outer edge of the rim was used for the same purpose; some prints of it remained on the surface.

The pottery bottoms were formed from clay coils combined into a spiral.

The firing of the pottery (long or short-term) was done on an open fire at low temperatures, 600-650°C, mainly in uneven oxidative environments (Kul'kova, Razlutskaia 2011).

Ornamentation. The universal decorative element for Dubičiai-type pottery is a row of deep circular pits under the edge of the rim. They were done from the outer surface, and had a rounded or sharp bottom. In most cases, the pits pierced through all the thickness of the wall, thus forming convexes on the inner side. Sometimes, these convexes fell away, causing the formation of through holes. However, these holes could have been specially made. In rare cases, the number of pits was doubled (Shchara river basin) (Charniauski 1979, 16; Cherniavskii 2008, 299). Sometimes pits were made inside the vessels, especially in the later material (Charniauski 1979, 16, 17).

Typical decorative elements of Dubičiai-type pottery are (Fig. 1.C):

- imprints of a thin and slightly curved fine-toothed comb, occasionally a comb tool was straight and tooth imprints merged with each other (Fig. 2.5,7,9,11; 3.6-9,12,15; 4.1,2-8,10-13,25);
- thin and mostly slightly curved notches (Fig. 2.12; 3.10,11; 4.14,15,21);
- mainly retreating pinholes, predominantly using the end of a round stick or bone: 'hooves' (Fig. 2.1, 3; 3.13; 4.16,19; 6); occasionally triangular, pit and needle strokes occur (Fig. 2.10; 3.14; 4.17,18,20,21; 7.7,8);
- crossed thin and drawn broader lines (Fig. 2.6,8; 4.22,23;5.2-11; 6);
- round and oval depressions, including some made by the softened end of a stick (Fig. 1.C1,6).

In rare cases, the western area of the distribution of Dubičiai-type pottery ornamentation includes imprints of a short linear stamp; and in the Shchara basin, driblike imprints are found, which became more common at a later time on Lysaja Hara and Dobry Bor types of pottery. In the tarea of the Upper Nioman and southern Lithuania, the early Neolithic materials sometimes contain caterpillar ornamentation: imprints of sticks wrapped in string.

A combination of elements is rare: these are mostly crossed lines with pinholes or depressions (Fig. 1.C4-7). In most cases, only one element was used.

Before starting the decoration of the vessels, barely visible depressions made on the surface served as benchmarks for the craftsman (Charniauski 1979, 36; 1997a, 157).



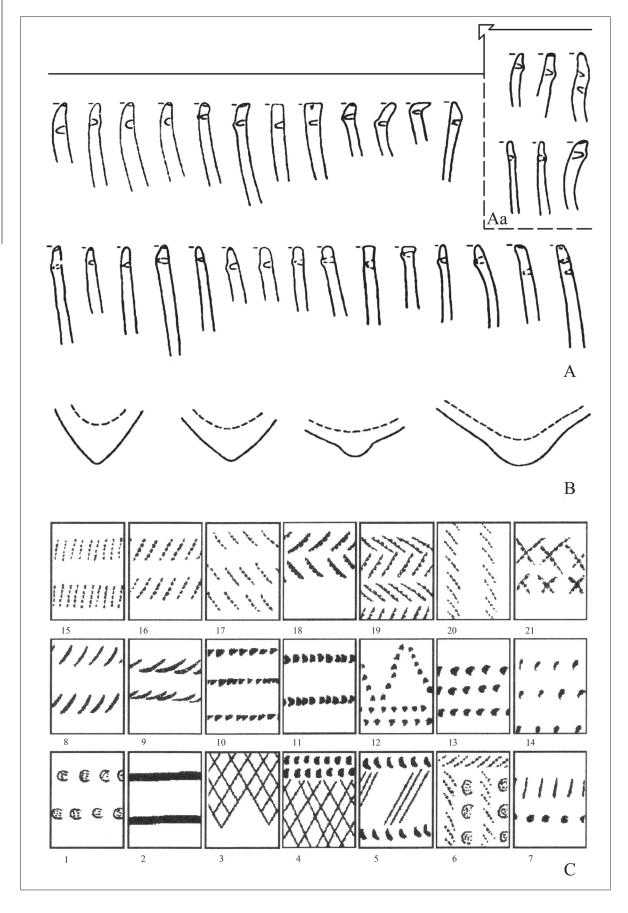


Fig. 1. Dubičiai-type pottery: A rims; B bottoms; C ornamentation.

In most cases, ornamental elements were put in horizontal rows around the vessels (Fig. 1.C1, 8-11, 13-19, 21), and concentrated mainly in the upper part of the pots. Between these rows, there were larger zones without decoration. Some samples were complicated: pinholes or comb imprints forming slanting (Fig. 1.C12; 2.3; 3.13; 6), or in rare cases vertical, rows (Fig. 1.C20).

Comb-tool imprints and notches are usually inclined to the right (Fig. 1.C6, 8, 16; 2.5, 7; 3.6, 7, 9-12; 4.1, 3, 4, 7, 8, 10-12, 14, 15), but sometimes to the left (Fig. 1.C17) or vertical (Fig. 1.C7, 15; 3.8). They were generally applied in a retreating manner, forming mainly horizontal belts, including impressions set at an angle (Fig. 1.C19; 2.9; 3.12; 4.13). Sometimes comb imprints or notches had a considerable incline, almost lying on each other, merging into one line (Fig. 1.C9; 4.21). In some cases, they could form slanting crosses (Fig. 1.C21; 4.6).

Most pinholes were made in a retreating manner. Occasionally, especially in the eastern area of the distribution of Dubičiai-type pottery, triangular pinholes were present. Both pinholes made by the end of a round inclined stick resulting in hoof-like imprints, and made by a tubular bone forming crescent-shaped imprints, were typical. Pinholes were combined in various compositions: horizontal, diagonal and crossed (Fig. 1.C12; 2.3; 3.13; 4.24).

Thin crossed lines were usually located slanting or horizontally, often forming an oblique grid (Fig. 1.C3-5; 4.22, 23; 5.2-8, 10, 11). The last one usually covers all the surface of the vessel, except the bottom part. A network formed from vertical and horizontal lines was very rare (Fig. 2.8). Wide drawings which are much rarer were usually applied horizontally (Fig. 1.C2; 5.9).

The decoration of Dubičiai-type pottery has certain local features. Comb-tool imprints predominate in the eastern part of the PNC area in Upper Nioman sites. There, they may make up more than 90% of all decorated pottery fragments (Charniauski 1997b, 108). In addition, decoration by itself is more intense there. This can be explained primarily by the neighbouring Upper-Dnieper culture, of which the ceramics had such particular features (Kalechyts, 1997, 171; Charniauski 1997b, 109; 2001, 233). The number of comb imprints among the decoration elements declined to the west, where other kinds of elements dominated, mainly various pinholes (Charniauski 1997b, c. 108; 2001, 233; Cherniavskii 2008, 302). At the Kamien 2 site (western Palessie), a quarter of ornamented fragments were decorated with pinholes, and a tenth with drawn lines (Isaenko 1976, 42, 43).

The decoration of Early Neolithic pottery is rather sparse and monotonous. Only the upper part of the vessel was usually decorated. Occasionally, bottoms were decorated, too (Fig. 2.10,11; 4.25). One of the bottoms from the Rusakova 2 settlement had deep pointed tool pines from the middle (Charniauski 1979, 17; 1997a, 159).

Over half the rim edges were decorated with transverse or oblique comb imprints, notches and pinholes (Fig. 2.8; 3.1–3, 5–7, 10–16; 4.1–4; 7; 2, 4). In some cases, the inner surface of the rim had ornamentation as well (Fig. 3.4, 8, 9). The rim edge was generally decorated with the same elements as the surface of the vessel walls.

Some Dubičiai-type pottery was completely devoid of ornamentation, except for a number of pits under the rim (Fig. 2.4; 3.1–3, 16; 4.2, 9). The amount of decorated fragments is significantly higher in the eastern part of the Dubičiai pottery area. In the Upper Nioman basin, the amount of undecorated fragments makes up almost half (Charniauski 1997b, 109, 110; Cherniavskii 2008, 302). Fully decorated pots can be found there (Fig. 3.15). The reason is the closeness of the Dnieper basin, which is characterised by the richness in ornamentation of Neolithic pottery. In the western sites, the amount of undecorated potsherds increases (Lakiza 2003, 54; Lakiza, Sidarovich 2007, 18; Charniauski 1997b, 109).

Drilled 'repair' holes are present on the vessels (Cherniavskii 2008, Fig. 4: 3, 6, 24) (Fig. 7.6).

# The beginning and spread of pottery production

Most researchers presume that PNC formed on the local Late Mesolithic basis mainly of Janislawice culture: M.M. Charniauski (2001, 233), U.F. Isaenka (1987, 22), D.L. Gaskevich (2001), L.L. Zaliznyak (1998, 243; 2005, 148, 153; 2009, 186), G.V. Okhrimenko (2001, c. 112), and others.

There are different opinions on the question of the location of the initial impulse point that led to the appearance of the phenomenon of pottery production. Most researchers connect it with Buh-Dniester culture (BDC) (Gaskevich 2001; Zaliznyak 1998, 213, 235; 2009, 186, 187; Isaenko 1976, 57, 116; Isaenka 1997, 164; Okhrimenko 2001, 49).

Probably only M.M. Charniauski denies that the tradition of pottery production came to western Belarus from the south, in particular from the BDC area. He justifies this by the fact that a wedge of Linear Pottery culture (LBK) settlements existed between Volhynia



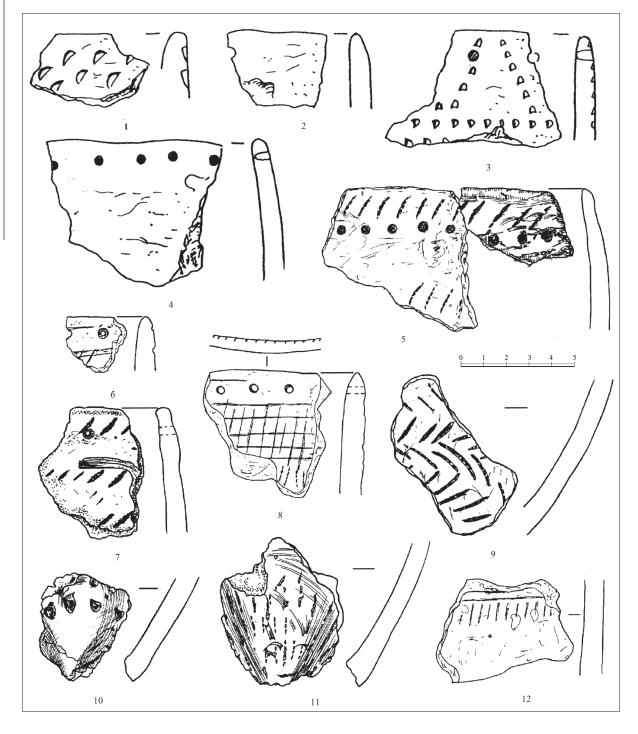


Fig. 2. Dubičiai-type pottery: 1–4 Padhornaja 4; 5–12 Dakudava 5 (1–4 after Lakiza 2003; 5–12 after Lakiza, Sidarovich 2007).

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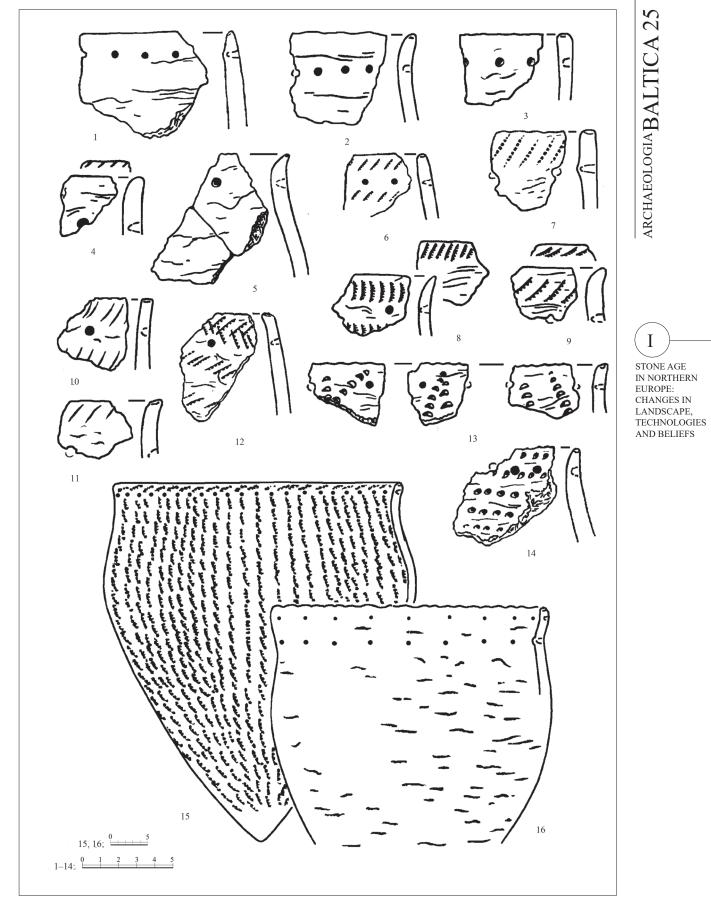


Fig. 3. Dubičiai-type pottery: 1, 7 Lysaja Hara; 2, 15, 16 Kuciec 1; 3, 10, 11 Rusakovičy 9; 4, 8, 9, 13 Babinka; 5 Jaremičy; 6, 12, 14 Rusakovičy 9 (after Cherniavskii 2008).

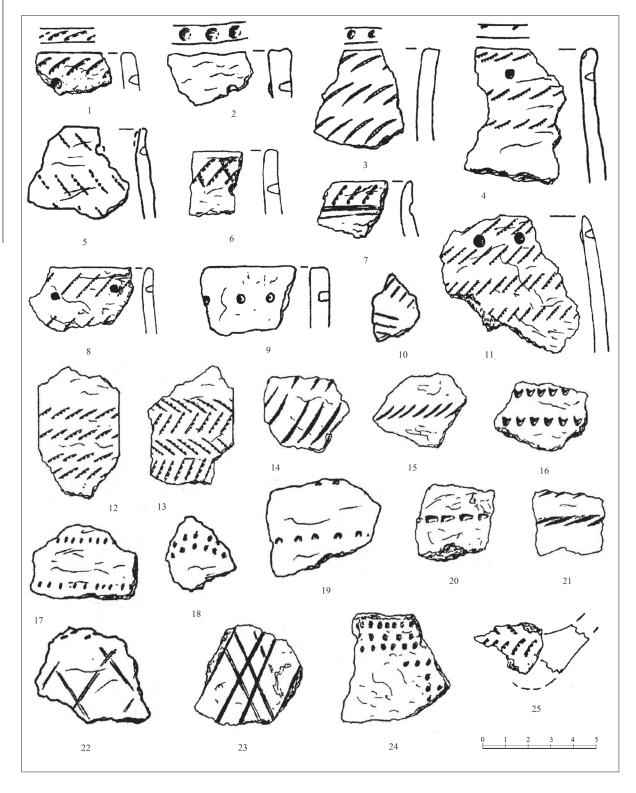


Fig. 4. Dubičiai-type pottery: Staryja Vojkavičy 1 (after Charniauski 2002).

and the middle of the Southern Buh and Dniester basins since the beginning of the Neolithic (Charniauski 2001, 235; 2004, 103). And he tends to see in Dubičiai pottery an independent phenomenon of ceramic production by reason of its necessity. He suggests looking for the morphological similarity of vessels from the main areas in the prior art of pottery: vessels made of organic raw material (Charniauski 2004, 103). Meanwhile, the researcher agrees that the pottery spreading to the Nioman area came from the Prypiac basin (Charniauski 2003, 29).

According to U.F. Isaenka, the early Neolithic in Belarus originally developed in western Palessie, as a result of a cultural impulse from the BDC region. Subsequently, the pottery production tradition spread through the Upper Prypiac basin to the eastern part of Prypiac Palessie and to the middle of the Dnieper basin, and then probably came to the north in the Nioman and northeast Dnieper basin and the River Sož (Isaienka 1997, 164).

G.V. Okhrimenko surmises that the Upper Prypiac, Pinsk in particular and nearby areas, had been the total area of the formation of PNC and VC. After that, the right bank of the River Prypiac became a living zone of VC tribes, and the Nioman basin of PNC bearers (Ohrimenko 2004, 134).

D.L. Gaskevich (2001, 42, 47, 48) considers that the sharp-bottomed pots decorated with a combination of combs, pinholes and linear ornamentation, mainly appropriate to BDC materials of the Samchyntsi period, according to the researcher, served as a prototype for Dubičiai pottery. The appearance of pinholes-hooves, in his opinion, could have occurred from the direct or mediated borrowing of tubular stamp impressions from the Early Neolithic settlements of the River Dniester.

The beginning of pottery production in western Palessie began with contacts between the local Mesolithic population and bearers of the Dniester variant of BDC. These contacts continued in Samchyntsi times. But they were fragile and sporadic in character, because of the separation of the areas of the rivers Buh and Dniester and the rivers Prypiac and Nioman by the Volhynian-Podolian Upland. As a result, the formation of forms and ornamental methods of Dubičiai pottery took place directly in Palessie.

Under further pressure from bearers of the Music Note phase of LBK during Samchyntsi times, the PNC tribes of Volhynia moved to the east and penetrated the north of the Kyiv and Zhytomyr regions. In parallel, a spreading innovation moved to the north in the Nioman area, where, as in the Prypiac basin, holders of the Janislawice flint-knapping tradition started learning to

produce slightly decorated pottery with pinhole and comb decoration.

#### Area

The main area of the distribution of Dubičiai-type pottery includes the Nioman river basin in Belarus (without the Vilija river basin), and the left bank of the Upper Prypiac. The north of the Volhynia and Lutsk regions of Ukraine, as well as the southern part of Lithuania up to the Alytus district and part of northeast Poland, are considered as peripheral regions (Charniauski 1979, 55; 2001, 233, 235; 1997a, 148–149; Cherniavskii 2008, 306).

While the northern limits (Piličiauskas 2002, Fig. 22) and the northeast limits (the Upper Nioman river basin) (Cherniavskii 2008, Fig. 1) of the distribution of Dubičiai-type pottery are more or less clear, the rest are not.

Unfortunately, the centre and the frontier of the Palessie region are poorly researched in comparison with other regions. Therefore, it is difficult to say where the border between PNC and Eastern Palessie culture (EPC) was. On the right bank of the River Prypiac, M.M. Charniauski (2003, Fig. 1) did not mark any sites with Dubičiai-type pottery to the east of Mastva. At the same time, D.Y. Telegin and O.M. Titova (1998, 41–44, Fig. 2) included western Palessie in the early area of EPC.

The difficulty in detecting the boundary between PNC and EPC might lie in the fact that, according to U.F. Isaenko, Early Neolithic pottery from the upper Prypiac is indistinguishable from the synchronous materials of eastern Palessie (Isaenko 1966, 49). But he meant the first phase of pottery production in Belarusian Palessie, which he regarded as earlier than Dubičiai (Isaenko 1976, 113-115). For the second stage of pottery development in western Palessie, which according to U.F. Isaenko (Isaenko 1976, 113, 115) is synchronous with the Dubičiai type in the Nioman basin, there are some questions. And if this could previously be explained by the fact that the study of Neolithic sites in the Palessie region had just started, now 50 years later the causes of it are in the absence of publications at an appropriate level of the discovery results.

The question of the southern boundary of the spread of Dubičiai-type pottery is still open. Belarusian researchers (M.M. Charniauski and U.F. Isaenka) included northern Volhynia in the area of PNC (Charniauski 1979, 55; 2001, 233, 235; Isaenko 1976, 306). Some Ukrainian archaeologists, L.L. Zaliznyak (1984, 104;



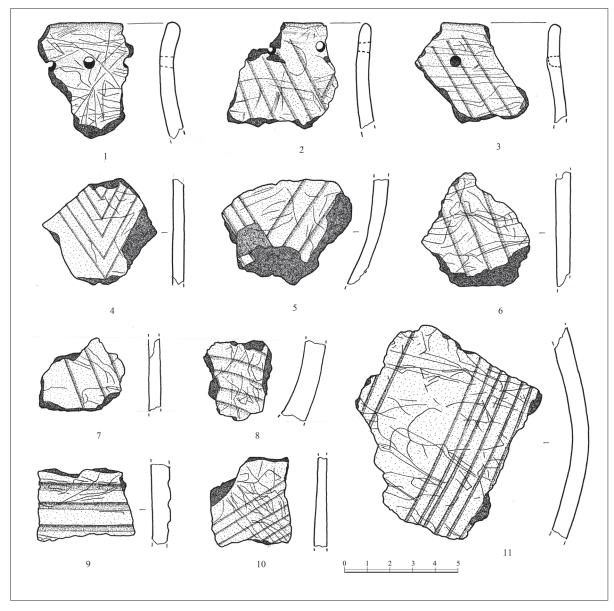


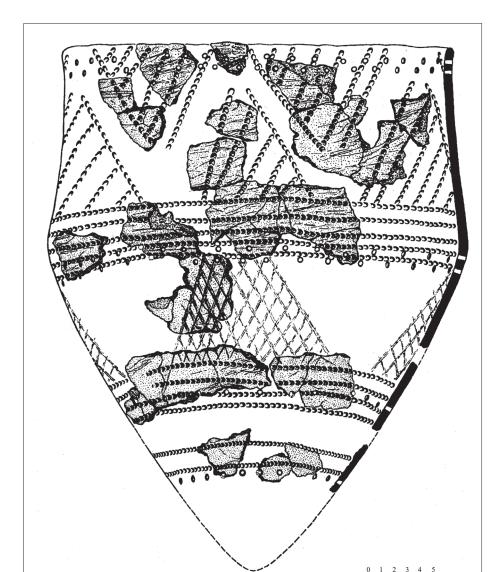
Fig. 5. Dubičiai-type pottery: 1, 6, 9, 11 Senchytsi 1; 2–5, 7, 8, 10 Vostrau 3 (Viešnia) (drawings by the author).

1999, Fig. 33) and D.L. Gaskevich (2001), hold the same opinion.

A number of Ukrainian researchers, such as D.Y. Telegin, O.M. Titova (1998, 24–26) and G.V. Okhrimenko (2001; 2004; Okhrimenko et al. 2003), include in the Dubičiai type sites with stroke pottery from the right bank of the River Prypiac in the Volhynia, Rivna, Zhytomyr and partially the Khmelnytskyi and Kyiv regions of Ukraine, and a number of VC settlements in Belarus. A.H. Kalechyts notes the great similarity between the early ceramics of the Zaharoddzie and Volyhnia areas; whereas the pottery from western Palessie, in her opinion, is different from the Early Neolithic Dubičiai tradition of the Nioman basin (Kalechits, Obukhovskii 2004; 49; Kalechyts 2002, 127, 128).

According to G.V. Okhrimenko, the boundary between PNC and VC lay along the rivers Prypiac and Pina. There was a strip of mutual contact along the rivers. The distance between the penetration of influence, according to the researcher, is less than 40 kilometres to the north and south from the Prypiac (Okhrimenko 2004, 132).

G.V. Okhrimenko compares VC and NNC pottery, based on the technique (the design of the rim edge, the wall thickness, the size of vessels, admixtures in the clay molding mass, ways of surface processing, colour) and decorative elements (Okhrimenko 2001, Table 5; 2004, Table 1; Okhrimenko et al. 2003, Table 2). The researcher uses the colour of sherds of pottery as one of the main distinctions between these two cultures: darker ones for Dubičiai-type pottery, and light



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Fig. 6. Dubičiai-type pottery: Nobel' 1 (after Gaskevich 2001).

brown for all stages of VC (Okhrimenko 2004, 132). The methodology is quite debatable by itself, considering that G.V. Okhrimenko compares not synchronous stages of the development of cultures, but the cultures right throughout their existence. At the same time, he does not pay attention to the fact that three stages in the development of NNC were genetically related, but were also quite different to each other. This in turn was one of the criteria for distinguishing the Dubičiai stage as a separate culture, PNC (Charniauski 2001; 2003).

In the development of VC, G.V. Okhrimenko distinguishes three stages. Early stage pottery is characterised by cone-shaped pots with straight walls and sharp or rounded bottoms; ornamented with comb imprints, parallel crossed lines, notches, cross-hatching, and rows of rounded inclined stick imprints. The walls have a brown colour and are thin (four to eight milimetres).

Organic matter was used as the main admixture, rarely with grass additions (Okhrimenko 2001, 104; 2004, 136; Okhrimenko et al. 2003, 14-32). As M.M. Charniauski (2001, 233) rightly notes, all these features are close to the Dubičiai materials from the Nioman basin, and especially to the early materials from the west of Belarusian Palessie.

D.L. Gaskevich (2001, 47) and L.L. Zaliznyak (2005, 148, 153; 2009, 186, 187) consider the River Teteriv as the southeast boundary of the expansion of PNC.

There are PNC sites to the northwest of this river with flint of the

Janislawice tradition and ceramics with plant matter in the clay molding mass, a smoothed surface, deep pits under the rim, and poorly decorated, sometimes with net compositions, rows of 'hoof-like' pits. To the south

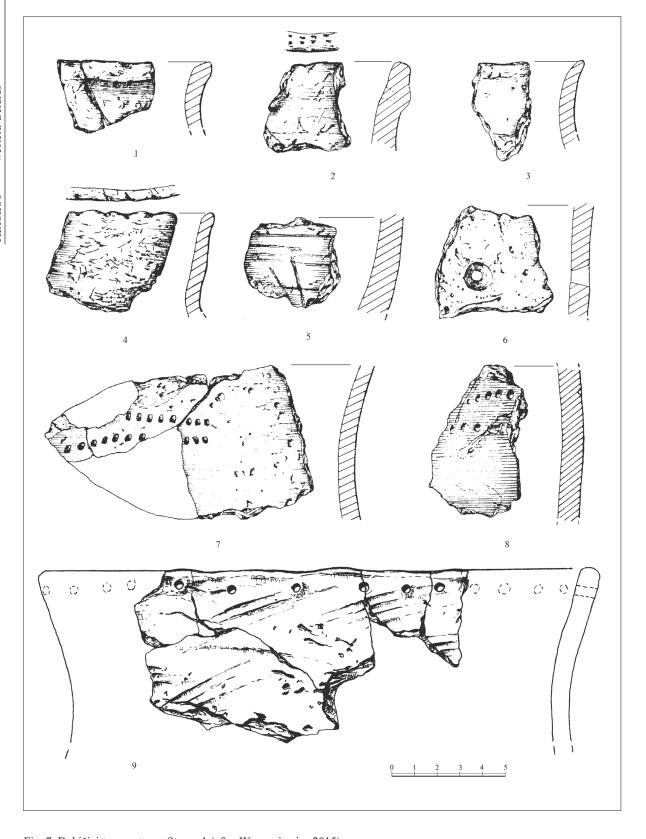


Fig. 7. Dubičiai-type pottery: Stacze 1 (after Wawrusiewicz 2015).

of the River Teteriv, a Kyiv-Cherkasy group of sites of the Dnieper-Donets community occurred on the basis of Kukrek-Buh-Dniester culture.

The penetration of pottery production innovations to eastern Palessie happened simultaneously in two ways: from the west along with the PNC population of the Volyn region, and from the south along with the Dnieper-Donets population of the forest-steppe zone of the Dnieper basin. As a result of the PNC tribe's distribution to the east in Samchyntsi times, the north of the Kyiv and Zhytomyr regions turned into a contact zone for two cultures: Prypiac-Nioman and Dnieper-Donets. The sites with syncretic flint of Janisławice-Kukrek traditions, in combination with pottery inheriting the Samchyntsi type presented in southeast Palessie, are evidence of this. The advantage of Janisławice features in most of them, in the opinion of D.L. Gaskevich (2001, 47), tells us about the dominance of the PNC population in the Early Neolithic in this area.

Outlining the western boundary of the distribution of Dubičiai-type pottery, M.M. Charniauski (2003, Fig. 5; 2001, Fig. 4; 1997b, 112, 113, Fig. 1) draws it along the Zalvianka and Jasielda river basins. He refers to the Belarusian Buh basin and the area beyond the River Roś as 'Polish Forest Neolithic', a group of sites with pinholes and stamped pottery. M.M. Charniauski (2001, 235) attributed the early materials from the Wożna Wieś and Stacze sites in northeast Poland to Dubičiai-type pottery.

Studies of recent years have shown that the area of the spread of Dubičiai traditions is much broader. Dubičiai-type pottery was found in the Buh river basin in Belarus (Tkachou 2015, 145). The number of sites containing finds of Dubičiai type has also increased in Poland: in the Masurian Lakeland and Narew river basin (Józwiak, Domaradzka 2011, 90, Fig. 3; Wawrusiewicz 2015) (Fig. 7).

#### Local variants

Materials from Palessie and Volhynia are included in the 'West Palessian' (Charniauski 2001, 240; Isaenko 1976, 113) or 'Prypiac' (Charniauski 2003, 29) variant as the earliest in comparison with the sites in the Nioman basin. This can be characterised by the presence of a mineral admixture in the clay, a certain amount of vessel rims without pits or decoration on the edge, and thin walls (Charniauski 2001, 233).

Dubičiai-type pottery spread from the Prypiac to the Nioman basin, but it also could have existed here much longer than in the northern area. Lysaja Hara-type pottery, quite well represented in the Upper Nioman basin, is much rarer in western Palessie and the Buh river basin in Belarus (Charniauski 2001, 233; 2011, 81; Kalechyts 2002, 128; Tkachou 2015, 158). It is often a hybrid of Lysaja Hara and Dobry Bor-type features. This can be explained by the fact that the innovations of Lysaja Hara began to penetrate the Prypiac basin at the end of their existence, when the Dobry Bor type had already begun to form. Thus, these innovations were weak, and did not have a strong influence on western Palessie traditions.

M.M. Charniauski (2008) outlined an 'Upper Nioman' or 'East Nioma' variant for the Nioman basin. It is characterised by the dominance of a comb prints; most of the pottery sherds have decoration.

G. Piličiauskas (2002) attributes the northern variant of Dubičiai-type pottery to southern Lithuania and northeast Poland. The 'caterpillar' stamp is its main feature, which here is the result of the influence of Narva culture.

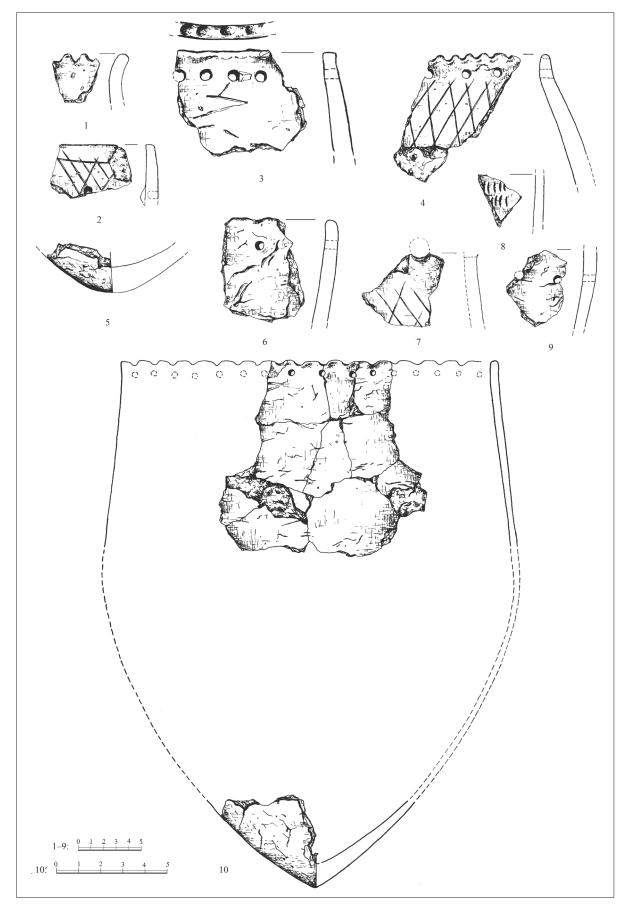
S.S. Yuretski (2017) recently identified two local variants of PNC for the Nioman basin area in Belarus: Upper Nioman, with the dominance of Dubičiai-type pottery, and the South Nioman Rusakova type. This division was based on technical differences between these two groups of pottery: traces of fibrous organic admixture, conditionally divided by the researcher into 'plant' and 'fur or hair' (Yuretski 2017, 142).

Among the features of Rusakova-type pottery, S.S. Yuretski identifies the following: bottom shapes, including a sharp shape with spikes; the outer and the inner surface are smoother; pits are made from the inner side under the edge of the rim; the presence of a double row of pits under the edge of the rim; the presence of 'wool or hair' in the molding clay mass. The last feature is one of the main ones for the attribution of early Neolithic materials, as well as for younger ones.

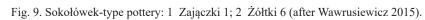
Meanwhile, it should be noted that the presence of 'wool or hair' in the molding clay mass of west Belarusian early Neolithic pottery is not yet proven. The organic matter of Dubičiai-type pottery has a plant water-coastal origin (Kul'kova, Razlutskaia 2011; Kul'kova et al. 2016, 32). The existence of natural fibre of animal origin (hair, wool) in Belarus is documented only for the Hronaŭ 3 site (the Sož river basin) (Tkacheva, Kul'kova 2016, 299).

As for Rusakova 2 site materials, which became the basis for the Rusakovičy-type attribution, they should be discussed not as a kind of local variation, but as a chronological (interim or transitional) stage of development, from Dubičiai to Lysaja Hara type (Charniauski 1979, 17; 1997a, 159, 160). This ceramic has a grass admixture as well as an organic one; it has a





 $Fig.\ 8.\ Sokołówek-type\ pottery:\ 1,\ 2,\ 4,\ 7\ \ \ \ \ \ \ Zajączki\ 1;\ 5,\ 6,\ 8-10\ \ Brańsk\ 22\ (after\ Wawrusiewicz\ 2015).$ 





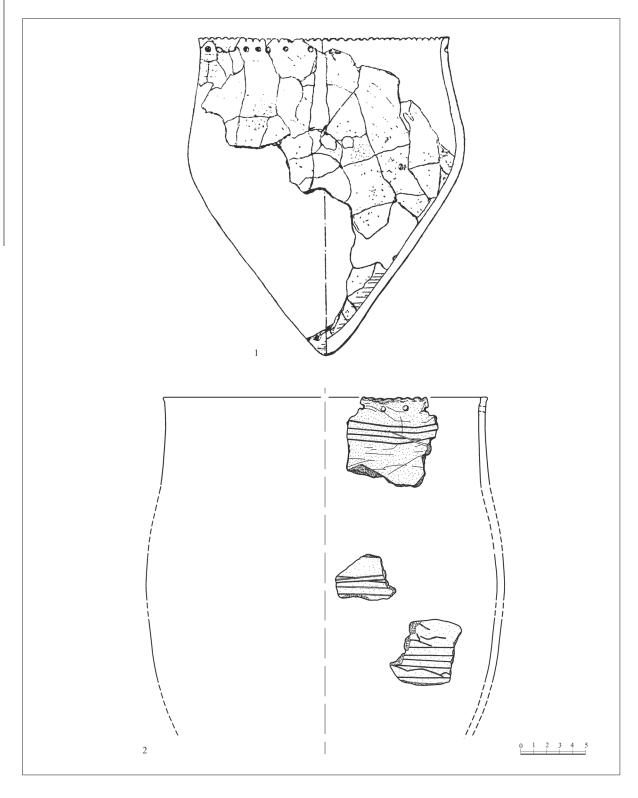


Fig. 10. Sokołówek-type pottery: 1 Sokołówek 1; 2 Sielišča Vialikaje 2 (1 after Wawrusiewicz 2015; 2 drawing by the author).

turned-out rim with a smoothly turned-in edge particular to pottery of Lysaja Hara type; pits on the inner or on both surfaces (Fig. 1.Aa); low visibility of combtool use on the walls; and the appearance of stamp-end imprints. Thus, the optimism of S.S. Yuretski in identifying Upper Nioman and South Nioman local variants looks a little premature.

#### Sokołówek type

In addition, pottery like Dubičiai type, but with some differences, was found in sites in northeast Poland and southwest Belarus (the Buh basin) (Józwiak, Domaradzka 2011, Fig. 13; Wawrusiewicz 2011, 16, Fig. 2; 2013; 2015; Tkachou 2015, 145). With the morphology and decoration of the Dubičiai tradition (Fig. 8–10), it has another technique: in most there is a mineral admixture in a well-mixed clay composition, and the presence of organic matter is minor (Fig. 3). The firing is of a higher quality; the walls are thin. The walls are smoothed, sometimes there are comb-tool traces present on the inner surface. Such pottery was attributed by E. Kempisty (1973) to the Sokołówek type.

A. Wawrusiewicz guesses that antiquities of Sokołówek type could be a basis for Lysaja Hara-type pottery with its further extension into modern western Belarus. The thin walls and mineral-organic admixture are seen by him as common elements (Wawrusiewicz 2013, 11, 12; 2015, 137).

However, a well-smoothed surface is also a typical feature of Dubičiai ceramics. A better quality of molding material, a predominance of mineral admixture over the organic one, and better firing could be the result of both the natural development of the Dubičiai tradition, and as such occurs under the influence of neighbouring agricultural groups in Central Europe. Meanwhile, the absence on Sokołówek-type pottery of ornamentation typical of Lysaja Hara material (line-stamp imprint) does not yet allow us to see in Sokołówek-type ceramics a transitional stage from the Dubičiai to Lysaja Hara tradition. It is most likely the result of the local development of the Early Neolithic tradition in the west of the PNC area.

# Chronology

U.F. Isaenka named Senchytsi 1, Zarečča 2, Bakiničy 1, Vostrau 3 (Viešnia) among the earliest Neolithic sites originating from western Palessie. He outlines the stage preceding Dubičiai (Isaenka 1997, 167). However, it is difficult to say how the researcher justifies this conclusion. The pottery of this stage corresponds with all characteristics of Dubičiai type from the Nioman

basin (Isaenko 1976, 42, 45). At the same time, the material of the middle stage, attributed by the researcher to the earliest sites in the Nioman basin, have certain features that are characteristic not of the Dubičiai tradition, but of later ones: pits under the edge of the rim from the inner and outer sides; the hatching of the surface; flat bottoms (Isaenko 1976, 62).

Just a few radiocarbon dates have recently become available for PNC, and almost all of them originate from the northern area of the culture: Staryja Vojkavičy  $1\,5820\pm210$  BP (Ki-9286), Dubičiai  $2\,5030\pm250$  BP (Charniauski 2004, 107; Józwiak 2003, 58), Katra  $1\,6550\pm70$  BP (Ki-7642), Katra  $2\,6020\pm70$  BP (Ki-7643),  $5980\pm70$  BP (Ki-7645),  $5950\pm70$  BP (Ki-7644),  $5360\pm70$  BP (Ki-7646), Wozna Wies  $5900\pm100$  BP (Gd-2431) (Piličiauskas 2002, Table 23).

In recent years, a number of dates for the earlier ceramics from Ukraine for Janislawice flint-knapping cultural tradition sites have been obtained (Man'ko 2016, 263, 276, 277). The most interesting one for us is the date from the Nobel' 1 site:  $6230 \pm 150$  BP (Ki-9843).

Thus, it can be concluded that by 5500 BC, the main area of Dubičiai-type pottery had already formed.

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ANKSTYVOJO NEOLITO KERAMIKA VAKARŲ BALTARUSIJOJE

# **ALEH TKACHOU**

#### Santrauka

Ankstyvuoju neolito laikotarpiu Vakarų Baltarusijos teritorijoje egzistavo Pripetės-Nemuno kultūra, kuri priklausė Dniepro-Doneco kultūros vakarinei periferijos sričiai. Šiai sričiai būdinga Dubičių tipo keramika. Šią keramiką reprezentuoja tik plačiaangiai smailiadugniai puodai su išgaubtais, į apačią siaurėjančiais šonais. Šių puodų molio masėje esama daug skaidulinių organinių priemaišų, kartais jų kiekis yra gana didelis. Vidinių ir išorinių sienelių paviršius lygus, kartais ant jų pastebimos šukų tipo įrankiu įbrauktos žymės.

Universaliu puošybos elementu galima laikyti žemiau puodo angos pakraščio eilute įspaustas apskritas duobutes. Tipiniu puodų paviršiaus dekoro elementu galima laikyti šukinius įspaudus, įrantėles, duobutes, kurios įspaustos vamzdiniu kaulu ar vamzdinį stiebą turinčia augalo lazdele, iš kurių sudaromi trikampiai ar juostos, horizontaliomis linijomis juosiančios puodų paviršių. Šie ornamentų motyvai dažniausiai išdėstyti viršutinėje puodų paviršiaus dalyje. Daugiau kaip pusė visų puodų briaunų yra puoštos. Dalies puodų paviršius nebuvo puošiamas, tačiau žemiau briaunos apvalių duobučių įspaudų eilutė visada būdavo.

Daugumos tyrinėtojų nuomone, Pripetės-Nemuno kultūra formavosi vėlyvosios mezolitinės Janislavicų

kultūros, kuriai įtakos turėjo Bugo-Dniestro kultūra, pagrindu.

Pagrindine Dubičių tipo keramikos paplitimo sritimi galima laikyti Baltarusijoje esančias Nemuno (be Neries) ir kairiuosius Pripetės aukštupio intakų baseinų teritorijas. Šiaurinį Volynės ir Lucko regioną Ukrainoje, pietinę Lietuvos dalį, Šiaurės rytų Lenkijos dalis (Mozūrijos ežeryną ir Narevo upės baseiną) galima priskirti šios kultūros periferijai.

Polesės ir Volynės teritorijose aptikta medžiaga priskiriama Vakarų Polesės, arba Pripetės, Nemuno aukštupio, arba Rytų Nemuno – Nemuno baseino variantams. Pietų Lietuvos ir Šiaurės rytų Lenkijos regiono medžiaga priskiriama šiauriniam specifiniam Pripetės-Nemuno kultūros variantui.

Sokołówek tipo keramika iš šiaurrytinės ir pietvakarinės Baltarusijos gali būti laikoma lokaliu Pripetės-Nemuno kultūros reiškiniu, kuris formavosi ankstyvuoju neolito laikotarpiu vakarinėje Pripetės-Nemuno kultūros teritorijoje.

Dubičių tipo keramika susiformavo apie 5500 BC.

