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**SOSNOVAYA GRIVA 3 – A DWELLING SITE COMPLEX IN THE MARI REPUBLIC,  
IN THE MIDDLE VOLGA REGION**

*Abstract*

This article briefly presents the excavation, material and structure of the dwellings at the Bronze Age site of Sosnovaya Griva 3 in Mari-El, characterizing the relationship between so-called Pseudo-Net ceramics and the Smooth-Faced pottery in the Middle Volga region. Both types of pottery belong to the textile ceramic tradition (textile-impressed pottery) that extended from the River Kama to Fennoscandia during the Early Metal Period. The dwelling site of Sosnovaya Griva 3 belongs to the same period as the Finno-Permian linguistic stage. On the basis of the Early Pseudo-Net ceramics and Smooth-Faced Prikazan pottery it can be connected with the Atabaevsk period of the Prikazan culture.

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*1. The general characteristics of the dwelling site*

The first archaeological field work in the region of the River Bolshaya Kokshaga was carried out by the Mari State University in 1974, and by the Science Institute of Mari in 1982. As a result of several surveys and trial excavations over 40 prehistoric dwelling sites have been found so far in the area. Most of the sites date to the Bronze Age (Nikitin & Solovyev 1990). Sites in the estuary of the Bolshaya Kokshaga lie on the right bank of the river, where its terrace joins the Volga (Fig. 1). The environment is characterized by a 1.1 km long and 10-90 m wide sandy ridge. The soil can be classified as silt and fine sand. The topography together with the vegetation of the forest have been the reason for its Russian name "Sosnovaya Griva" (Pine ridge), but in Mari language the ridge has been called "Sygar kyrik" (Grave Hill) (Fig. 2).

One of the aims in this article is to present the dwelling site complex of Sosnovaya Griva and to illustrate the special characteristics of the structures of the dwellings (or houses). We also compare the find material with the material found at some other

important dwelling sites and cemeteries in the Middle Volga. The find material has also value in trying to understand the cultural relationships between the tribes of the Middle Volga area and Northern Scandinavia during the Early Metal Period. The article also tries to introduce the reader to the characteristics of Textile-Imprinted pottery in the Republic of Mari-El.

To date, 10 dwellings have been excavated at Sosnovaya Griva. According to the find material, all of these can be dated to the Bronze Age. In the northeastern part of the ridge there have been excavations of more recent Mari graves dating to the Middle Ages (Patrushev 1986; 1988). The first survey in the estuary of the River Bolshaya Kokshaga was carried out by P.N. Starostin in 1961, but already in 1960 one of the authors of this article had taken part in an expedition which concentrated on studying problems dealing with the Late Bronze Age occupation. This expedition was led by B. S. Solovyeva (1984). V. S. Patrushev continued archaeological research in Sosnovaya Griva in 1986 and 1988 by excavating dwelling-pits of the Volosovo culture, the oldest phase of habitation in

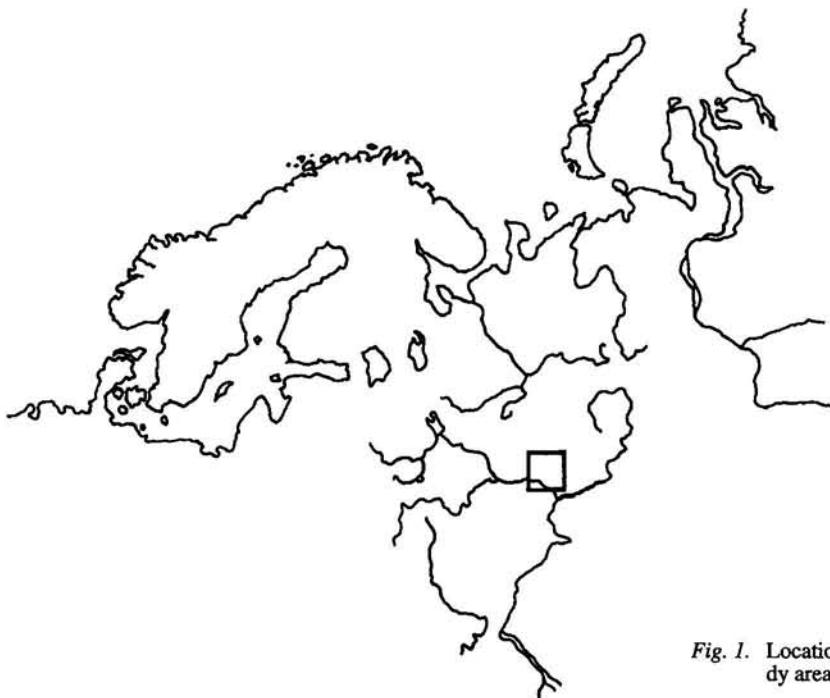


Fig. 1. Location of the study area in Russia.

Sosnovaya Griva, dwellings of the Atabaevsk phase of the Prikazan culture in Sosnovaya Griva 2, and finally dwellings at Sosnovaya Griva 2 and 3-7 - which all date back to the Bronze Age. The dwelling site of Sosnovaya Griva 3 is situated 500-600 m to the north-west from northern part of the dwelling site complex of Kokshaisk Zavodskogo district (*rayon*) and 1.5 km to the southeast of the Kokshamar Zvenigovskogo district. The base of an ancient river terrace on the Bolshaya Kokshaga lies about 8 m above present water level. The present river bed has moved over 400 m from its natural position after the beginning of water-regulation measures in the River Volga. At present, water levels may vary 0.5 - 1.3 m daily in the River Bolshaya Kokshaga because of the need for regulation to serve the hydroelectric power station at Tseboksary.

With the help of dwelling-pits which are still today the prominent formations on the ridge, the length of the dwelling-site has been estimated at 96 m. Utilizing the topography of the ridge as a starting-point, the breadth of the site varies between 18 to 60 m. The area of the dwelling pits comprises about 2400 m<sup>2</sup>.

The main axis of the ridge runs northeast-southwest. Five dwelling pits (numbers 1-5) are situated along the main axis and one (no. 6) on the southeast

side of pits 2 and 3. Their diameters vary between 6 and 14 m, and their depth between 0.3 and 1.7 m (numbers 1-2 are 0.6 m deep, no. 3- 0.7 m, no.4- 1.1 m, no.5- 0.5 m and no. 6 - 0.3 m deep). Nowadays, the dwelling-site area grows thick bushes, large pines, some spruces and deciduous trees (lime, rowan, oak and hazel). In Sosnovaya Griva one can clearly see the border between boreal pine forest and deciduous forest.

In 1986 V.S. Patrushev organized an excavation in the northeast part of the area, where dwelling no. 5 was investigated to an area of 124 m<sup>2</sup> (Patrushev 1988). In the same year V.V. Nikitin opened a trench (2x4 m) through dwelling no. 3, in the north-west side of the area. The find material of dwelling no. 5 consisted of ceramics of the Prikazan type, dated to the end of the Atabaevsk period and to the beginning of the Maklaseev period (11th-10th centuries BC).

The most recent excavation in the area was carried out at Sosnovaya Griva in dwelling pit 3 in 1993. This was organized as a joint project between the Department of Archaeology of the University of Helsinki and the Archaeological and Ethnographic Centre of the Mari State University. The excavation was led by the authors. The workers, who came from the Mari State University, were first-year students of history.



Fig. 2. An overview of Sosnovaya Griva to the south. Arrows show the positions of excavated dwellings at Sosnovaya Griva 3.

Chosen for excavation in 1993 was dwelling pit no. 4 which lies immediately next to the previously excavated dwelling pit no. 5 (Fig. 3). In all, the excavated area covered 291 m<sup>2</sup>. The layout of the excavation was based on 2 x 2 m squares. They were coded alphabetically and numerically by extending the coordinate system already used in 1986. The stratigraphy was very similar in both dwellings, and in most of the excavation area it was not mixed (Figs. 4 and 5). The general stratigraphy from the surface into the deeper layers was as follows:

- 1) 5 – 28 cm: turf and a dark-brown sand layer.
- 2) 28 – 34 cm: greyish-brown sand with soot, humus and charcoal in the middle of the dwelling and a light-brown sand layer with humus on the outskirts of the excavation area. In this layer it was in many cases possible to observe wedge-like lenses of dark-brown sand with humus and soot, brown sand with charcoal and soot or light dark-brown sand; close to the edges of the dwelling the layer blended into the subsoil.
- 3) 34 – 74 cm: brown humus sand with charcoal; the hue of this layer was darker compared with the second layer. In the middle of the dwelling it reached a depth of 74 cm. Some remains of dwelling constructions were to be seen in this layer as

charcoal lenses; at their thickest these lenses measured 6 cm.

- 4) 74 – cm: subsoil – yellow sand.

The cultural layer was in some places completely disturbed by medieval grave pits.

## 2. The characteristics of the structures at Sosnovaya Griva 3

The dwelling in Sosnovaya Griva 3 was of great interest for the authors in trying to characterize relations between the Prikazan type of pottery and Textile-Imprinted ware, and thus the relations between two ethnic populations. During the excavations in 1986 dark sand with charcoal and humus patches, indicating the border of habitation activities, were found already at a depth of 30 cm. The borders of the oval dwelling 5 were quite clearly visible. The size of this dwelling was 12 x 9.5 m (Fig. 4).

Postholes were found in the south-eastern part of the excavation area and within the contours of dwelling in its northern and eastern parts. Also some grave pits were excavated; the abundant find

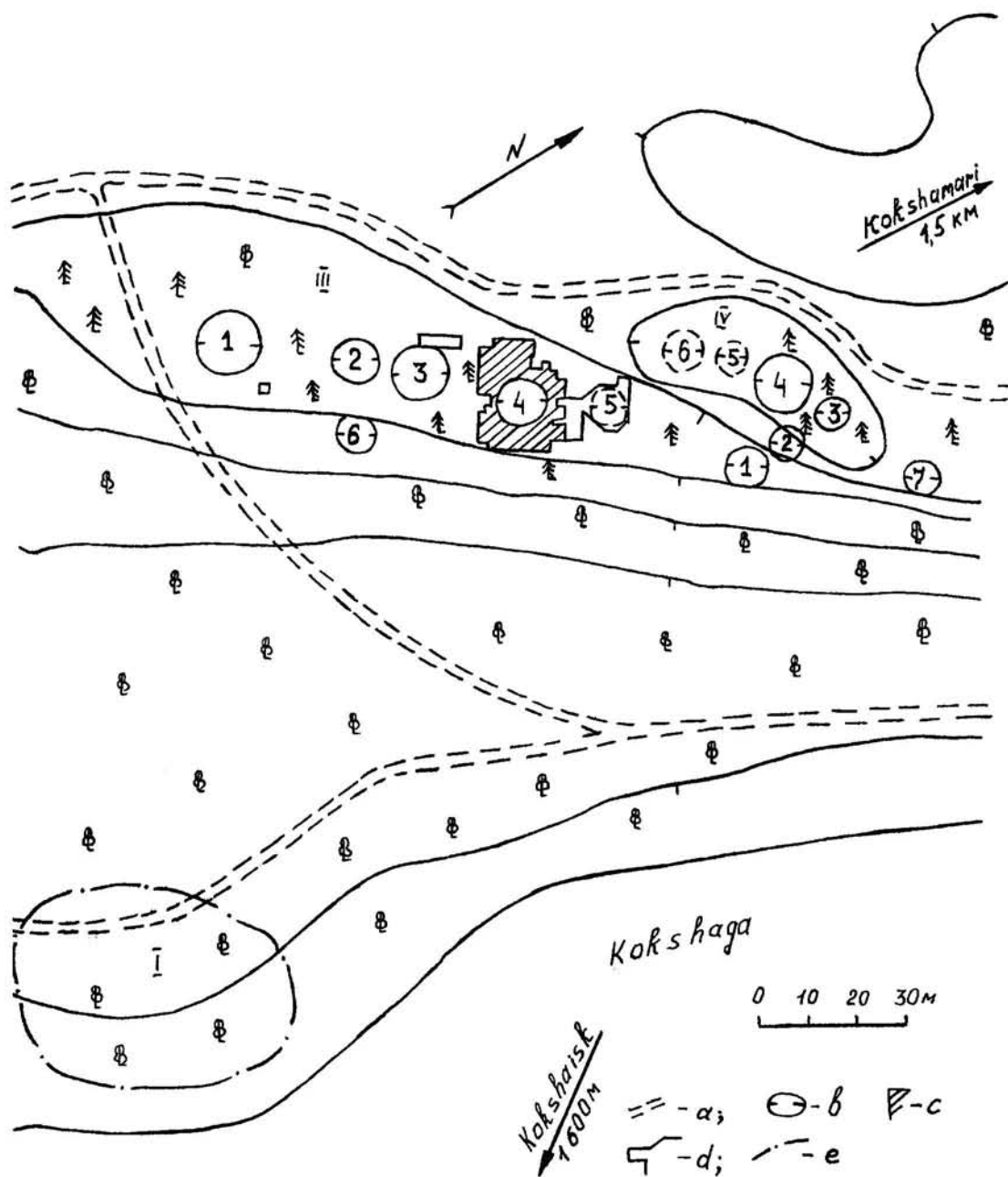


Fig. 3. General plan of Sosnovaya Griva 3 and 4. a - path, b - dwelling, c - excavation area of 1993, d - excavation area of 1986, e - border of a separate dwelling site.

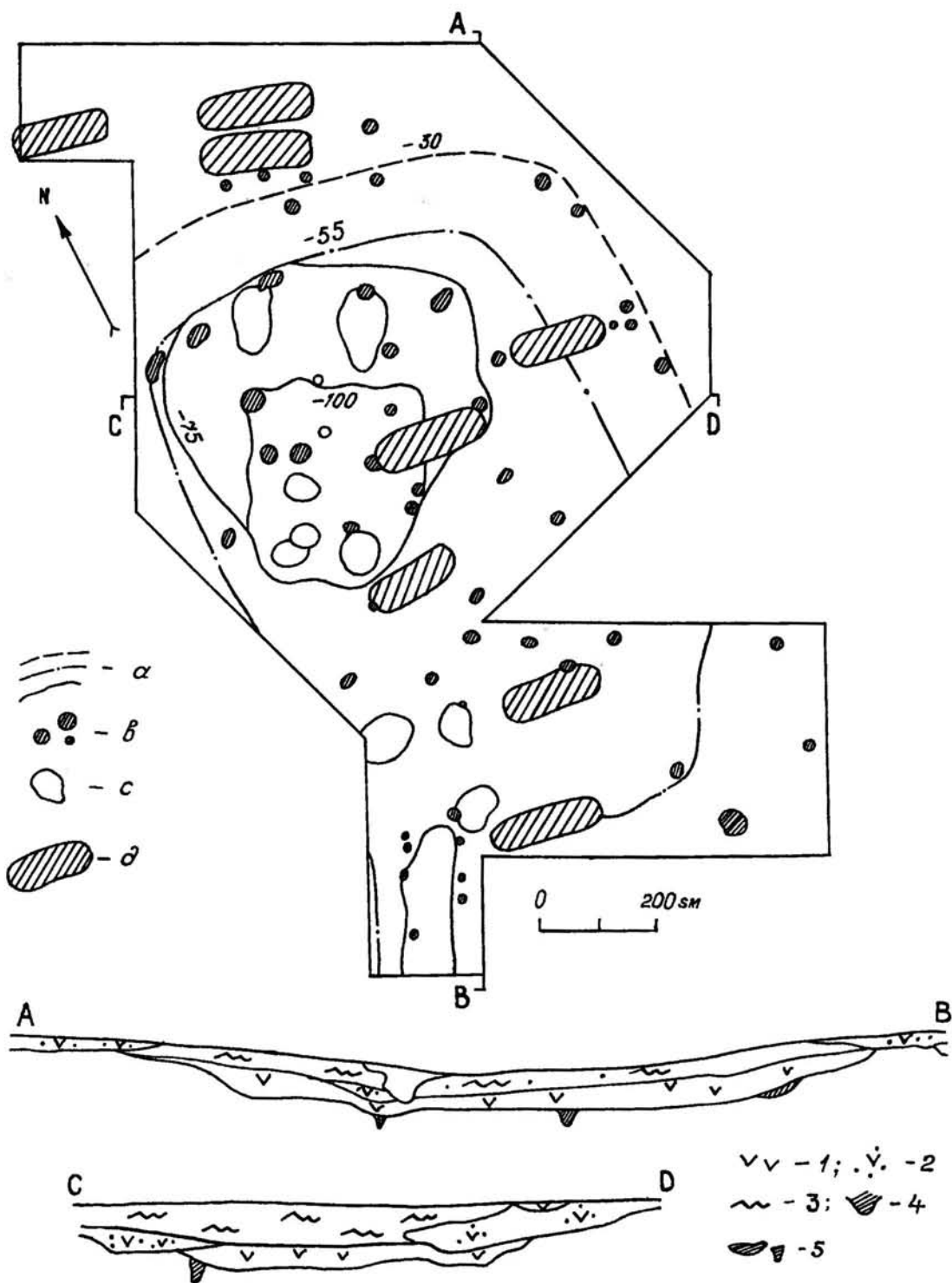


Fig. 4. Sosnovaya Griva 3. The excavation map of dwelling no. 5. a – the boundaries of the dwelling, b – postholes, c – hearths and pits of cultural layer, d – medieval grave pits. 1 – charcoal, 2 – sand with humus and charcoal, 3 – soot, 4 – recent pits, 5 – hearths and postholes with charcoal fill.

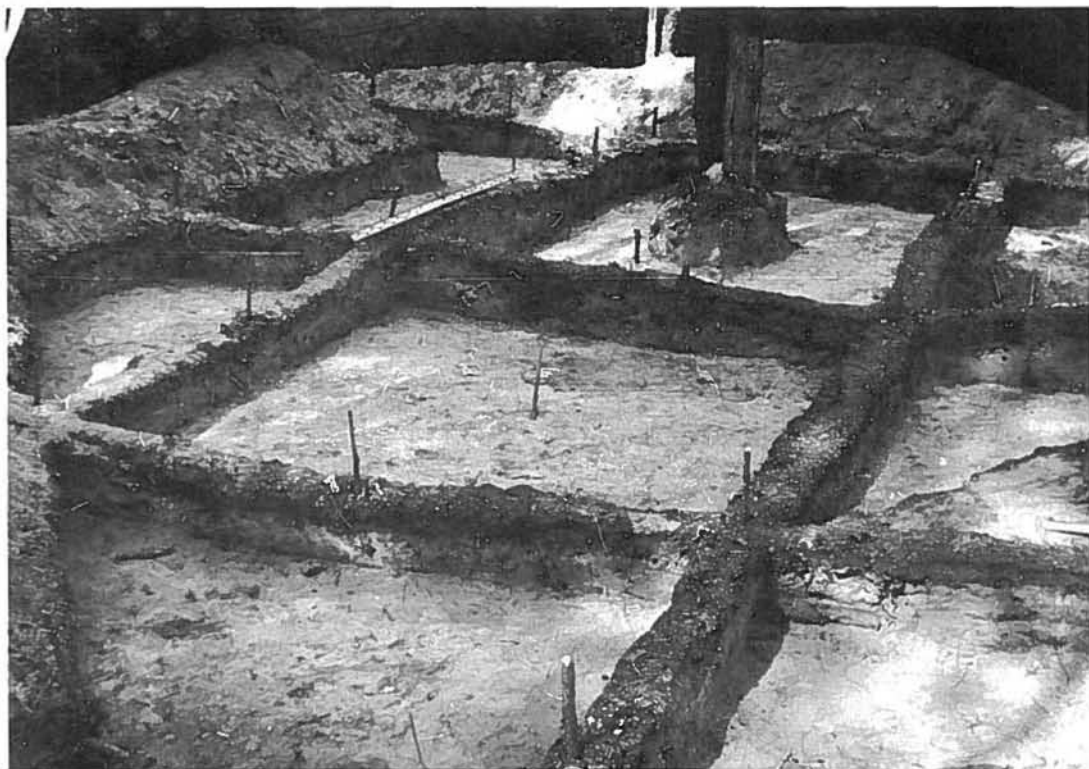


Fig. 5. Sosnovaya Griva 3. Overview of the excavation area of 1986.

material in the graves was characteristic of the Middle Ages. At a depth of 55 cm the borders of the dwelling were even more distinct by virtue of dark-brown sand with charcoal areas. The size of this area was 10.8 x 7 m. Twenty centimetres deeper the dark-brown area was even smaller – 5.6 x 5.5 m. On the assumed floor level were recorded postholes, fireplaces and pits of cultural layer. Postholes in connection with the cultural layer indicated some kind of roof construction or the layout of space within the dwelling. Postholes were in most cases round, less frequently oval. Their diameter varied between 18 and 40 cm, being usually wedge-like in cross-section (Fig. 4).

In the south-western part of the dwelling were two hearth situated only 70–90 cm from each other. They were 50 x 40 cm and 58 x 54 cm in size and clearly observable on the basis of charcoal and soot. One 11cm thick cultural layer pit was filled with humus and charcoal. Its size was 48 x 32 cm.

A sooty feature, 160 x 100 cm in size, was documented in the northern part of the dwelling; another humus patch, 160 x 92 cm, was found east of it. Deeper than the above-mentioned layer, at a depth of 100–106 cm, was another similar feature meas-

uring 3.5 x 3.1 m, in connection with 9 postholes, 3 hearths and one cultural-layer pit (Fig. 4).

An important observation (1986) at the south-west side of the dwelling was a 96 cm wide passage leading to dwelling no. 4. The doorway of the dwelling opened to the southeast. The reconstruction of dwelling no. 5 is discussed below. This dwelling was rectangular, which can be inferred from the 100–130 cm deep and 10.7 x 7 cm wide pit area; it has got a doorway to the east (to the river) and a corridor to dwelling no. 4. Hearths were situated either near the passageway or in the northern part of the dwelling. Because a part of the dwelling pit remained uncovered, a more detailed ground plan cannot be given.

The excavation area in 1993 encompassed nearly the whole dwelling, with the exception of a small corner which was covered by large trees (Fig. 6). Traces of constructions already came to light 20 cm beneath the surface after removing the turf. Soot and charcoal patches indicated almost totally destroyed remains of wood constructions. At a depth of 30–40 cm the contours of the dwelling – 12 x 10.7 m in size – were clearly distinguishable from yellow sand subsoil as a brown charcoal layer (Fig.

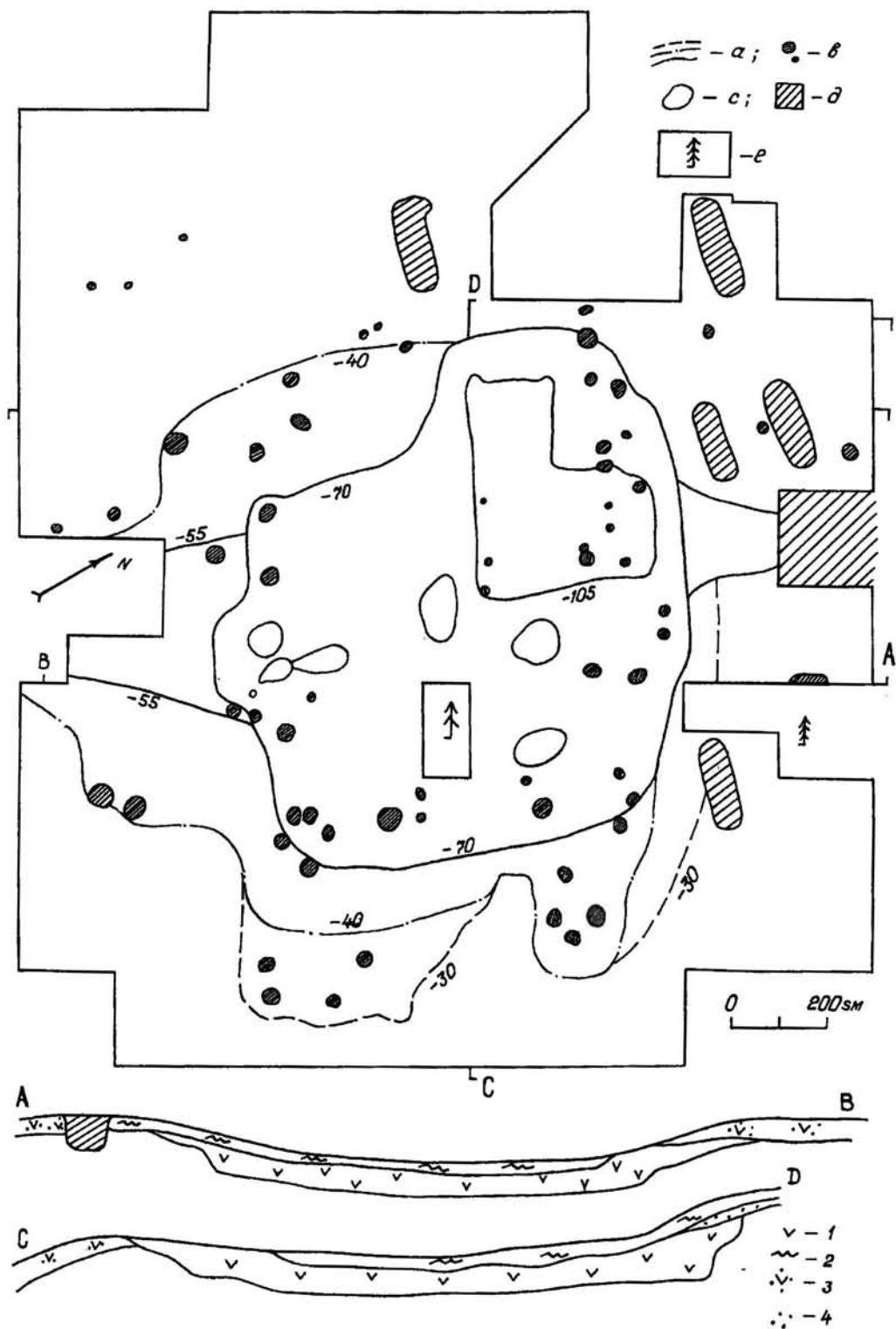


Fig. 6. Sosnovaya Griva 3. Excavation map of dwelling no. 4, 1993. a - the boundaries of the dwelling, b - post holes, c - hearts and culture pits, d - medieval grave pits, e - unexcavated area. 1 - charcoal, 2 - soot, 3 - humus, 4 - sand.

7). To the southeast of this dwelling were the remains of an auxiliary dwelling 200 x 190 cm in size. Postholes were found in the centre. On the basis of four postholes and some remains of wooden structures the authors infer that the doorway had opened onto the river and had extended over 3 m beyond the line of the wall. Because the dwelling was raised slightly at its southeast and southwest ends, it seems possible that this part was reserved for sleeping. Besides, in the SSW and NNE parts there are trench-like passages which led to the neighbouring dwellings which differ from each other in width and length. The passage in the SSW part of the dwelling was 2.7 m long and it reached the depth of only 55 cm. It is possible that this dwelling had an auxiliary structure at its southeast corner, because this part of the construction extended over 2.2 metres from the main building (Fig. 6).

At 70 cm the contours of the dwelling contracted and its size was now 926 x 838 cm. It is interesting that on the northwest side, the cultural layer formed a stripe feature 200 cm wide and 450 m. Another stripe, 50 cm wide and 600 cm long, led to dwelling no. 5. At the boundary of the dwelling and at the above-mentioned depth were patch-like traces of postholes which were either separate or, in some

cases, in pairs within the area of the dwelling. At the same level were three hearths close to the passageway leading to dwelling no. 3, and three larger ones in the middle or east end of the dwelling (Fig. 8).

They were 180 x 380 and 220 x 450 cm in size. At the boundary of these patches were postholes with a diameter 10–16 cm and one with a diameter of 30 cm (Fig. 6). These spots contained dark humus which clearly differed from the surrounding soil.

Dwelling no. 4 differed from the nearby dwelling 5 in regard to its clear rectangular form and two passages leading to the neighbouring dwellings. Both descended to a depth of 180 cm from the surrounding soil surface. They both had annexes and small paddocks – possibly for cattle or calves – which might to be connected with humus stripes and depressions on the north-western side, on the opposite side of the passage into dwelling 5.

Many arguments support the hypothesis of the contemporaneousness of these two dwellings. The row of postholes on the borders and in the central part of the dwelling indicate posts which supported the roof construction – small hearths and features of cultural layer close to the passage to another dwelling and, finally, the floor remains at different



Fig. 7. Sosnovaya Griva 3. View of the 1993 excavation area, level 2 (40 cm).



levels, all show the type of the construction of the dwelling.

The plan of the dwelling and the passage between separate dwellings are features which have long traditions among Finno-Ugrian tribes in the Middle Volga region. The location of the dwellings in line, with passages between each other, is a characteristic feature of the Volosovo culture in Mari-El (Krajnov 1987; Nikitin 1991:15–18). During the Prikazan period this tradition lived from the early phase (Zajmisensk) to the Atabaevsk stage, i.e. 16th – 11th centuries BC (Khalikov 1969:243–244, fig. 55).

At the floor levels of the dwellings were finds including both Prikazan and Pseudo-Net ceramics. Examples of this kind of contexts have been documented in Kokhaisk 4, Sosnovaya Griva, Ahmylovo, Kurgan and Kazanka II (Patrushev 1982:123–125; Solovyev 1984:67–71; Khalikov 1969:292; Khalikov 1980:15; Starostin 1967). However, they differ from dwelling no. 3 at Sosnovaya Griva, as they were built above ground level and were isolated from each other. The totally excavated oval-rectangular dwelling no. 4 at Kokhaisk had two doorways in its long wall (Patrushev 1982: fig. 1). With reference to the postholes, hearths and cultural-layer pits excavated in Sosnovaya Griva in 1982 and on the basis of find clusters B.S. Solovyev inferred that the dwelling, isolated from the others, was built above ground level. These observations suggest the conclusion that the Late Prikazan dwellings were isolated and built above ground level (Khalikov 1980:15; Starostin 1967). At the Barkuserkovo 4 site, a slightly different kind of construction with the walls resembling a hoarding with one or two slopes in the roof was probably a dwelling built above ground level (Nikitin & Solovyev 1982:118, fig. 3–4). The same researchers have, however, written about the dwelling pits, the depth of which is now about 40 cm below ground level. During the excavations it was observed that the culture layer did not extend deeper than 1 m below the ground level (Nikitin & Solovyev 1982:115, fig. 2). This fact does not allow one to believe they have been built above the ground level. Except for this, according to these researchers, the passage between dwellings is a feature characteristic of the developed phase of the Prikazan culture. Because of small amount of material, this dwelling type cannot be dated more precisely than to the 14th–11th centuries BC (Nikitin & Solovyev 1982:122).

It must be stated that at dwelling sites containing Smooth-Faced Prikazan and Pseudo-Net pottery, the isolated dwellings are characteristic features (Kokhaisk 4, Sosnovaya Griva, Ahmylovo, Kazan-



Fig. 8. Sosnovaya Griva 3. Two hearths and a cultural-layer pit in 1993.

ka II, Kurgan). Only at Sosnovaya Griva 3 are some special features which together with the two above-mentioned ceramic types seem to be connected with deep dwellings, indicating the characteristics of the habitation and buildings. This type of dwelling is more typical at the Early than the Developed phase of Prikazan culture. Correspondingly, we come to the conclusion of the admixture of two different ethnic populations with different kinds of ceramic types already during the Atabaevsk phase (12th–11th centuries BC) of the Prikazan culture. As already mentioned, the Prikazan ware found at Sosnovaya Griva mostly resembles the ceramics from the Atabaevsk period. Furthermore, isolated subterranean dwellings were excavated at Kokhaiskij Zaliv 2, where all the ceramic finds were of the Prikazan ware of the Atabaevsk period (Patrushev, Alekseev, Farafonova & Lakozenin 1989).

Obviously, the development from subterranean dwellings which were connected to each other to the dwellings built above ground level is a phenomenon which seems to be of particular chronological meaning. This is easily observable when examining the excavation material found at dwelling sites

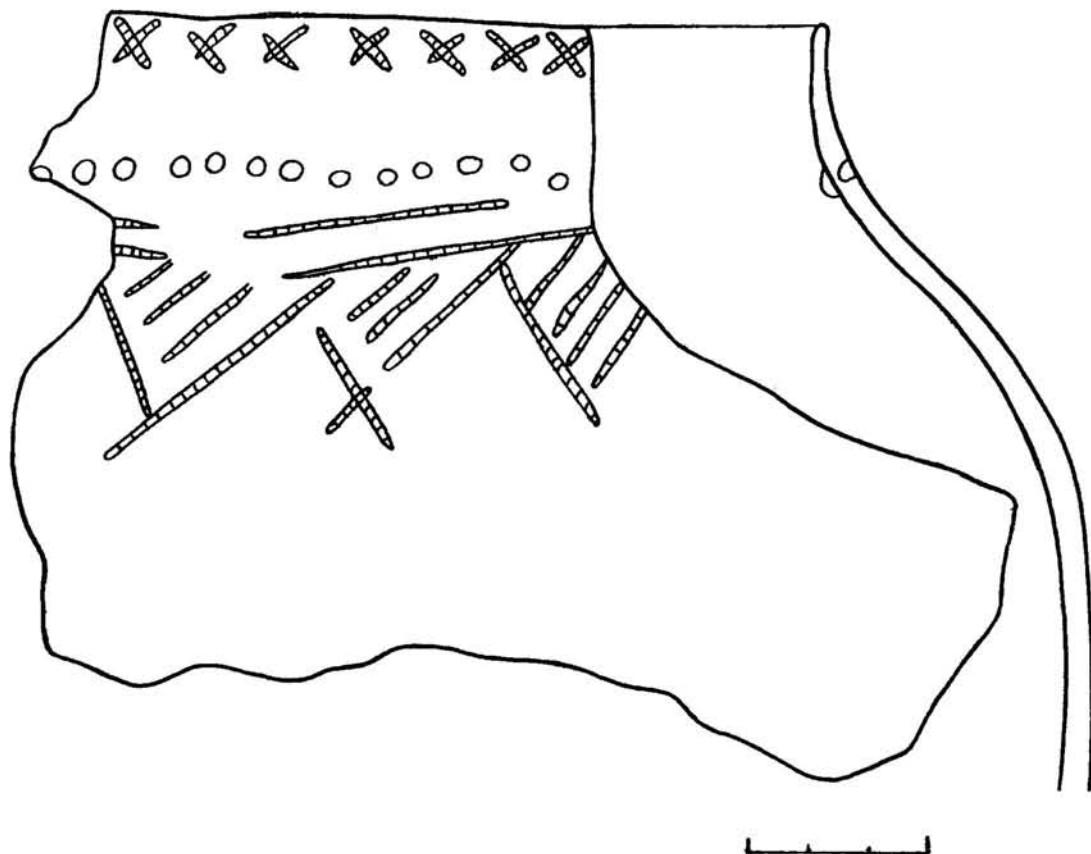


Fig. 9. Sosnovaya Griva 3. Ceramics of Prikazan type.

with Prikazan ceramics (Khalikov 1969: fig. 55). Archaeologists have observed the distribution of the dwellings built above ground level from the end of the second millennium to the beginning of the first millennium BC in the area to the west of Mari-El (Berezanskaya 1982:106). Within the Textile Ceramic area this kind of dwelling is also typical (Folomeev, Aleksandrovskij, Glasko & Guman 1988:175; Gurina 1961; Kosmenko 1992:145, 148; Patrushev 1989:19, 28; Mikhailova & Patrushev 1993).

### 3. The find material of Sosnovaya Griva 3

As usual, the largest find group providing the most information at Sosnovaya Griva 3 consisted of ceramics. In 1986 the excavations of dwelling no. 5 yielded 101 fragments of Prikazan and 4 fragments of Pseudo-Net or Spun-Speckled Impressed Pottery, hence SSP (Patrushev 1987:20). In addition, 9 fragments of Smooth-Faced ceramics were found,

these being ornamented in the same way as Spun-Speckled Impressed pottery. The ornamentation of the vessels employed elements such as asymmetrical pits, circles and "pearls". The surface of one fragment was hatched.

The pot sherds found within the area of dwelling no. 4 in the 1993 excavations consisted of 191 smoothed-surface fragments and 98 SSP pottery fragments (Patrushev & Lavento 1994). All this material was in fragments and was found only within the dwelling pit. The sherds were in clusters. The largest fragments of two vessels of Prikazan ware were found around the hearth in dwelling 5 (excavation 1986, Figs. 9 and 10:3). A cluster of two vessels of SSP pottery was localized in the northeastern part of dwelling 4. Smooth-Faced pottery was concentrated close to the hearth in the SSW part of the dwelling. It is important to note that Smooth-Faced and SSP ceramics were found at the same horizon. This was clearly observable during the excavations in 1993; most of the pottery was found at the same horizon (Table 1). Found in layer 1 were 12 Smooth-Faced fragments and 1

Strati- graphy	CERAMICS								Stone imple- ments	Bones	Grind- stones
	smooth-faced				pseudo-net						
	rim	wall	rim orna- mented	wall orna- mented	rim	wall	rim orna- mented	wall orna- mented			
Layer I 0 – 20 cm		9	3					1	4		3
Layer II 21 – 30 cm		31	3	7	1	16			13		3
Layer III 31 – 40 cm	1	71	26	16	1	44	11	8	41	2	
Layer IV 41 – 70 cm		10	2	3		8	2	3	4		
Layer V 71 – 110 cm		7	1	1		2	1		2		
total	1	128	35	27	2	70	14	12	64	2	6

Table 1. The dwelling site Sosnovaya griva 3. Number of finds from each layer.

SSP sherd, 2 fragments of whetstones, and one fragment of a grinding stone made of dark brown quartzite.

All these finds were at a depth of 15 to 20 cm. Two thin-walled rim sherds resembling the Prikazan type, with an inwardly tapering neck and a gracefully formed body were ornamented with horizontally picked oblique or zig-zag comb-stamps or, in some cases, with a row of uneven pits (Fig. 11:2, 4). It is essential to note that the ornaments made of irregular rows or pits are not a characteristic motif in Prikazan ceramics. In some cases, the lower part of the vessel may have textile impressions. One organic tempered jar-shaped vessel had an open neck. It was ornamented with bone and comb stamps and lines of horizontal pits appearing on the surface of the vessel as "pearls". Below the vessel's point of inflection are horizontal comb-stamps and zig-zag ornaments (Fig. 11:7).

In layer 2 (depth 21–30 cm) were 41 fragments of smooth-faced ware and 17 sherds of SSP in addition to fragments of scraper, a whetstone and a grinding stone. The smooth-faced vessels (Fig. 11:1 and 3) with opening rim and a mouth diameter which between 17 and 19 cm, were organically tempered; they were ornamented with oblique comb-stamps and round or irregular pits in horizontal or zig-zag rows – sometimes impressed as "pearls". In SSP ceramics the textile impression is often first made with string, and, on the face of it, the string impression and the cord impressions

form parallel lines (Fig. 11:5) or they are arranged in a wholly chaotic manner, but there may also be an imitated cord impression.

There are vessels which have a smooth-faced upper part but below the inflection the surface bears pseudo-net impressions (Fig. 11:5). It is typical that many smooth-faced vessels have impressions in their lower parts.

The most valuable artefact found in layer 3, and in the whole excavation in 1993, was a small bronze awl (Fig. 12). Also found was a quartzite whetstone and a projectile point with a curved edge and steep retouch (Fig. 13:1).

Layer 3 revealed 178 pot sherds (Table 1). Smooth-faced ceramics were represented by a total of 114 (Figs. 13:4-6; 14:1-2; 15:3,5-6,10-12; Table 1). With the help of the rim parts, 31 vessels have been distinguished, which have a straight or straightened neck and a gracefully shaped body part. Crushed granite was used as temper; the upper part of the vessel is often ornamented with comb stamps, sometimes with a row of round pits. According to the rim parts, 31 vessels were identified with mainly a straight or profiled neck, which were either gracefully or less frequently steeply connected with the body-part; these vessels were tempered with organic material, and ornamented in their upper part with comb stamps, furrows and round pits. The decoration was mostly carried out with crossing and zig-zag-lines, and less frequently with horizontal lines (Figs. 14:2; 15:6,10; 15:1,6; 17:5-6). Irregular pits are characteristic ornaments

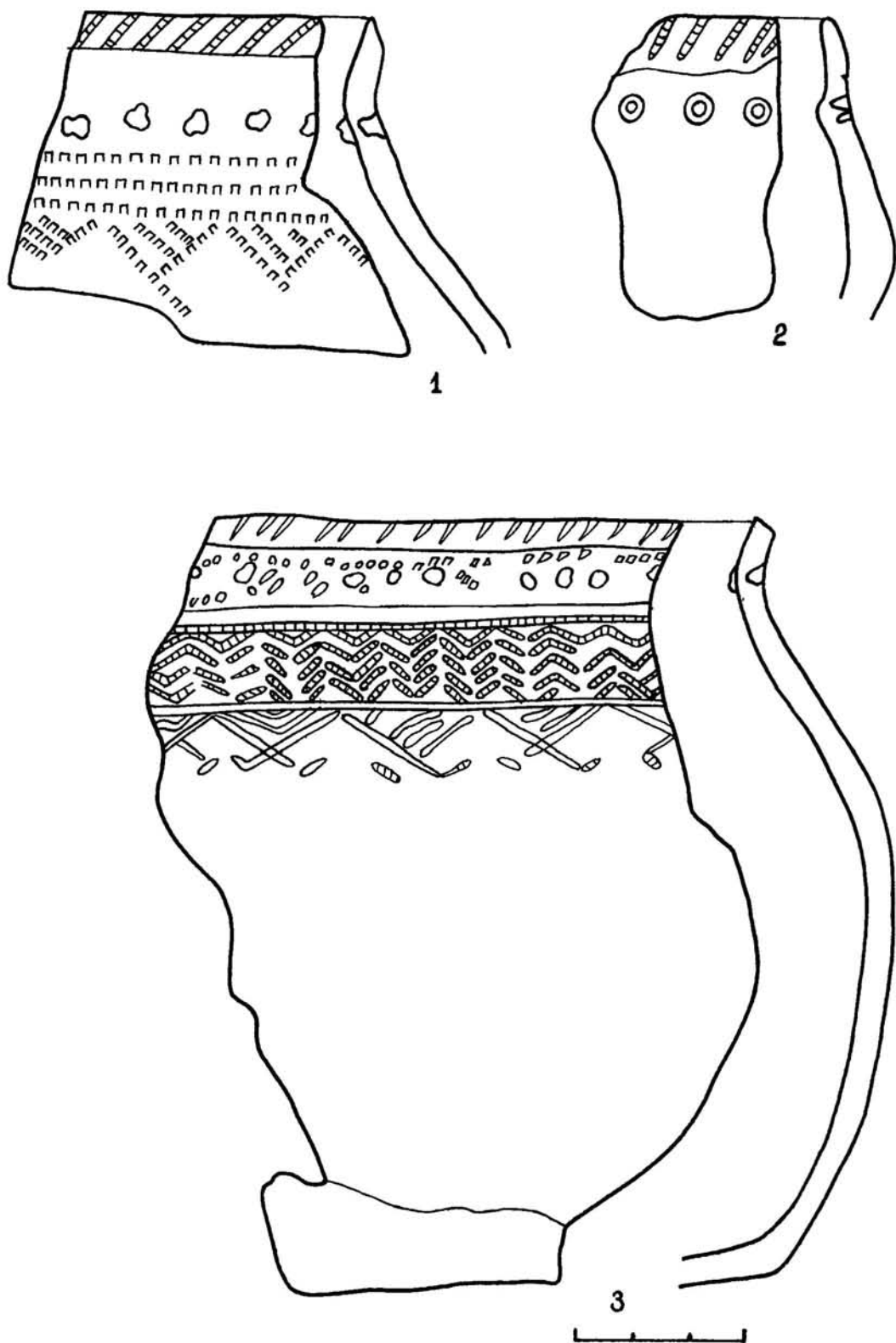


Fig. 10. Sosnovaya Griva 3. Ceramics of Prikazan type found in 1986.

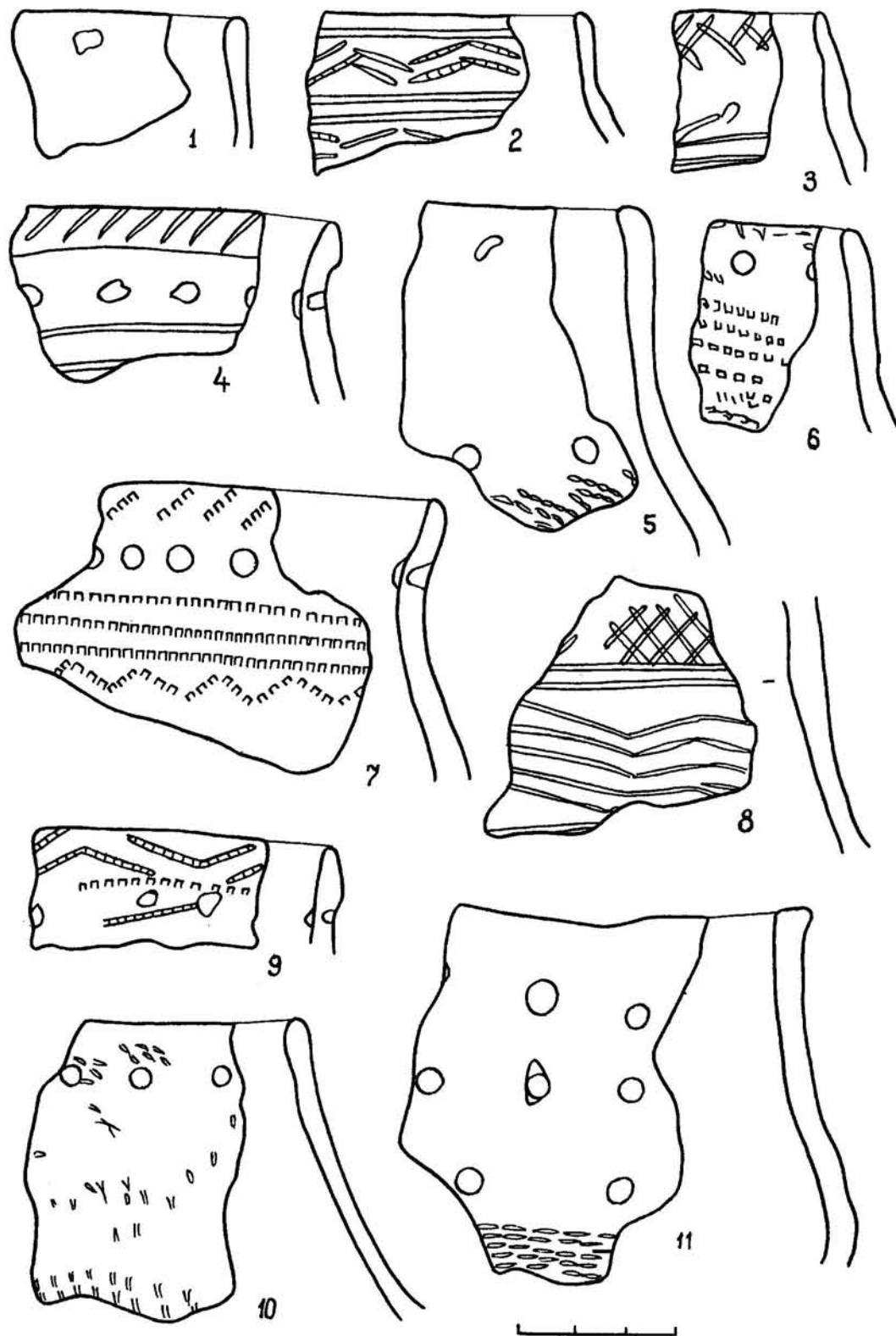


Fig. 11. Sosnovaya Griva 3. Smooth-faced (1-4, 7-8) and SSP ceramics (5-6, 10-11) from layers 1-3, 1993.



Fig. 12. Sosnovaya Griva 3. Bronze awl discovered in 1993.

of the Pseudo-Net pottery (Figs. 13:4,9; 14:4).

As already mentioned, the lower part of the vessel may have been covered with Pseudo-Net impressions. This is clearly visible in vessels which have a smooth-faced rim part but net impression

below the neck (Figs. 13:7; 17:1). Besides, among the smooth-faced sherds there are some elements in ornamentation which are common in Pseudo-Net pottery (Figs. 13:4,9; 14:4). All these kinds of sherds, and also the vessels ornamented with irregular pits are typical of Pseudo-Net pottery. The temper in this pottery is either sand or crushed stone. For this reason it can be easily distinguished from the more porous organic or plant paste of Prikazan ceramics.

Twelve vessels were discovered in layer 3. In most cases, the sherds were from cylindrical pots with a slightly inwardly curved or straightened neck (Fig. 13:2-3,7). They seldom have a jar-like form (Fig. 13:8). Vessels were tempered with sand, rarely with crushed stone, and their ornamentation consists of irregular or round pits. Pseudo-Net impressions were in most cases carried out with string impressions; as for example with a 'chaotic' string impression (Fig. 15:2; 16:8-9,11-12; 18:1,7), parallel string impressions (Figs. 13:3,8; 15:4), and crossing parallel impressions running in different directions (Figs. 15:9; 16:7, 10; 18:6). In one vessel it was possible to see combinations of string impressions of different kinds: parallel and 'chaotic' (Figs. 18:5,12). According to Patrushev's classification it is possible to discern an imitated string impression combined with chaotic string impressions (Fig. 17:3). In one fragment 9 string impressions were discernable together with a "rain" pattern on the surface of the vessel (Fig. 13:7; Patrushev 1989:25). In only three fragments an impression is "truly speckled". One tiny fragment with a speckled impression belonged to a sub-type which was impressed with furrows and arch figures and in a larger fragment with furrows and "rain" impressions (Fig. 18:8).

Finds from layer 4 consisted of Pseudo-Net (15 fragments) and Smooth-Faced (13 fragments) pottery (Table 1). The Smooth-Faced ceramics (Fig. 19:2) were ornamented with pits and tiny crescents (Fig. 13:10).

Thickened rim parts and the above-mentioned elements are characteristic of Pseudo-Net ceramics. Pseudo-Net pottery (Figs. 16:3; 19:2-3) has SSP impressions and round pits which can be also seen in the inner part of the vessel as "pearls" (Fig. 19:2). Also their rim parts were ornamented. Irregular rows of round pits and bone comb stamps were applied in one vessel; it has a tread-shaped rim and in its walls are vertically drawn furrows which were made with a comb stamp (Fig. 19: 1).

Apparently, this fragment belongs to the group of hatched-surface pottery found in small amounts in the Central and Upper Volga region. It is interesting that the most accurate scratched impressions

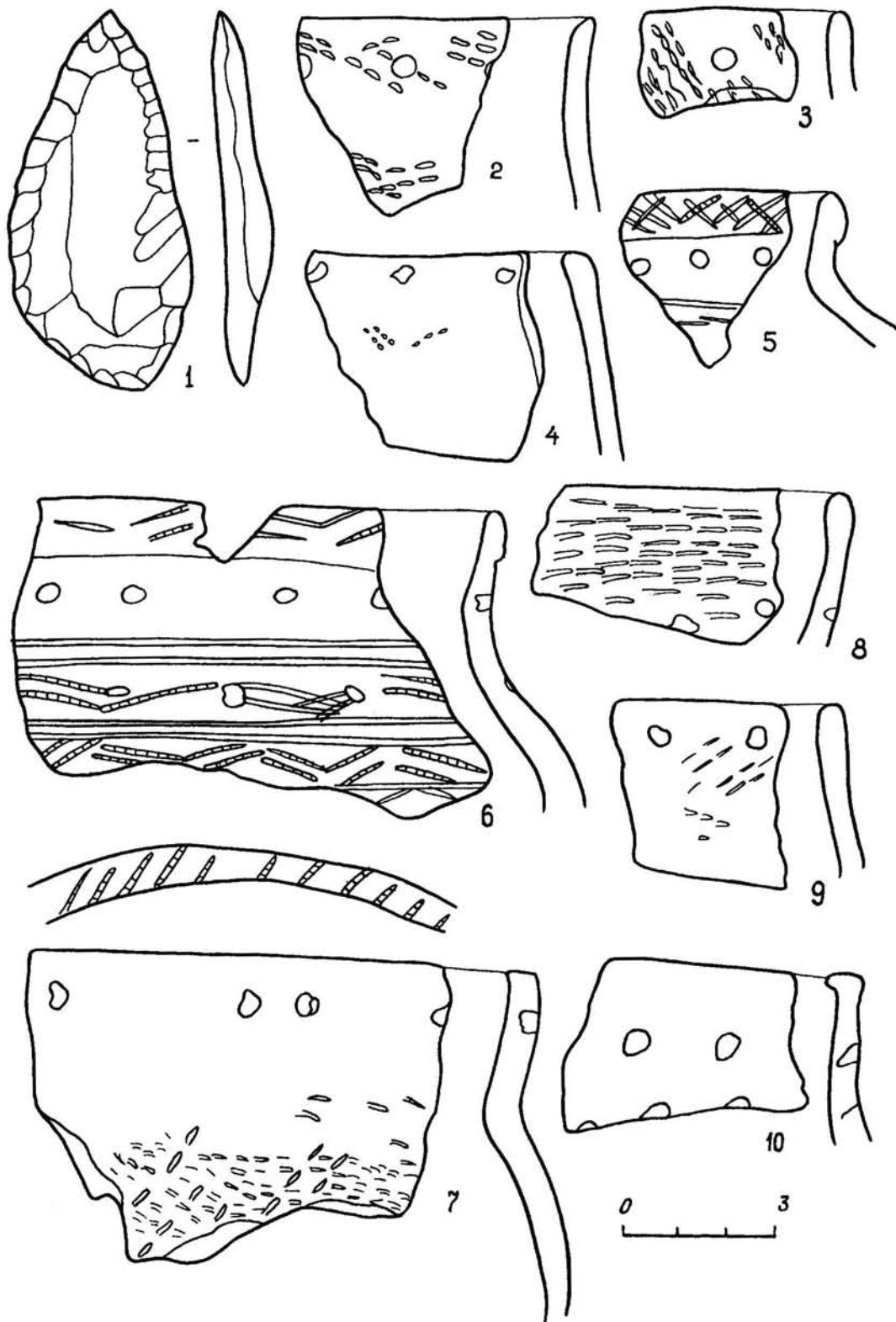


Fig. 13. Sosnovaya Griva 3. Flint point and ceramics from layer 3, 1993.

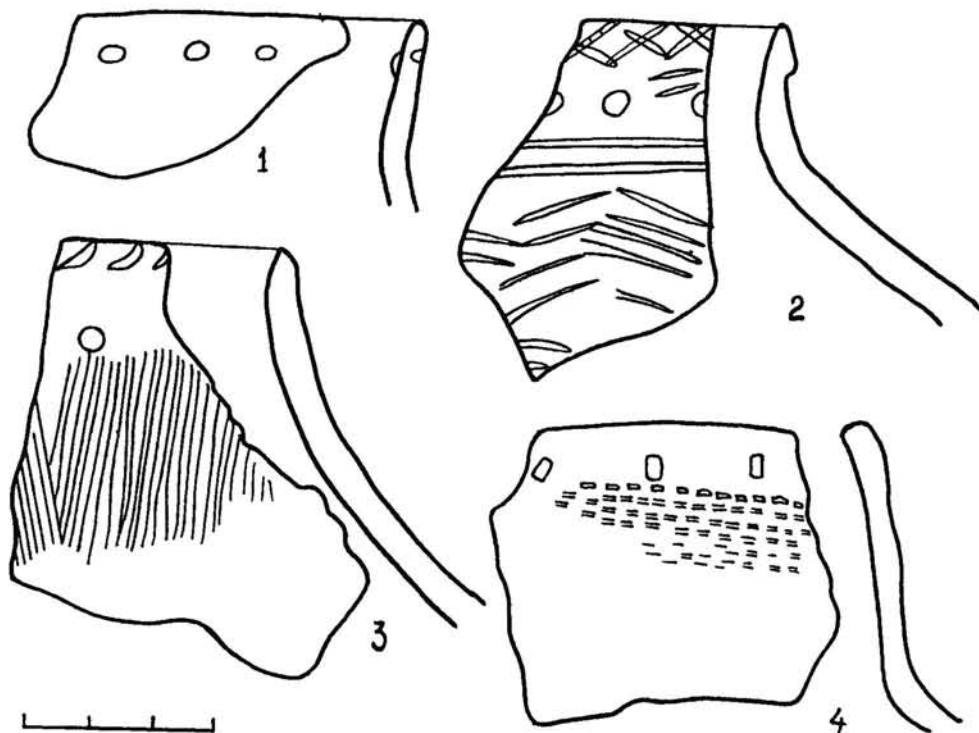


Fig. 14. Sosnovaya Griva 3. Smooth-Faced (1-2), hatched-faced (3) and SSP ceramics (4) from layer 3 in 1993.

in the rim parts of vessels were found in layer 3 (Fig. 14:3).

There was only a small number of finds in layer 5. 9 fragments of Smooth-Faced and 3 fragments of Pseudo-Net pottery were retrieved (Table 1). These sherds do not differ from the finds from the upper layers. As a whole, the dwelling site of Sosnovaya Griva 3 reflects in a many-sided manner the elements of various Bronze Age cultures of the Middle-Volga area.

The abundant and representative find material of Sosnovaya Griva 3 permits some corrections to the archaeological model of the Bronze Age cultures and their chronology in the Middle Volga area. Most of the vessels have inwardly bent rim parts with the ornaments in several zones (Figs. 13:5-6; 14:2; 16:6) a characteristic of the Atabaevsk period of the Prikazan culture (12th-11th cent. BC; Khalikov 1969: fig. 55; 61,2). There are some vessels from the Maklaseev period (10th-9th cent. BC; Khalikov 1969: fig. 55; 65) with cylindrical necks and plain ornamentation (Figs. 13:10; 15:11-12; 16:3). Also the elements of SSP ceramics occur in some cases. This fact permits us to speak of the distribution phase of Pseudo-Net pottery during the Atabaevsk period of the Prikazan culture. Except for this, Prikazan ceramics adopted many elements

from SSP pottery. Thus, many arguments support the idea of an intermixture of the Prikazan culture and a Finnic speaking population earlier than assumed in previous studies (Patrushev 1989:72).

Pseudo-Net pottery has analogies of form, structure and ornamentation with the material found at many dwelling sites along the shores of the River Volga – from the estuary of the Kama River (the Kurgan dwelling site) to the Upper Volga in the west (Patrushev 1989:26-31; figs. 1-3; figs. 23-24; 1992b).

Close analogies with the situation described above can be observed in the dwelling sites of Sosnovaya Griva 4 and in the dwelling sites of Kokshaisk, all situated within 300 – 2000 m from Sosnovaya Griva 3.

The material found at Sosnovaya Griva 3 points to the idea of a large common distribution of some features in textile-impressed ceramics which can be traced from the Middle Volga as far as Scandinavia. This large cultural connection is one sign of the distribution of SSP ceramics which may reflect the distribution of Finnic tribes during the Bronze Age (Patrushev 1991). To the east of this area this cultural complex seems to have merged with the Prikazan culture already during the 12th-11th centuries BC. This phenomenon led to development



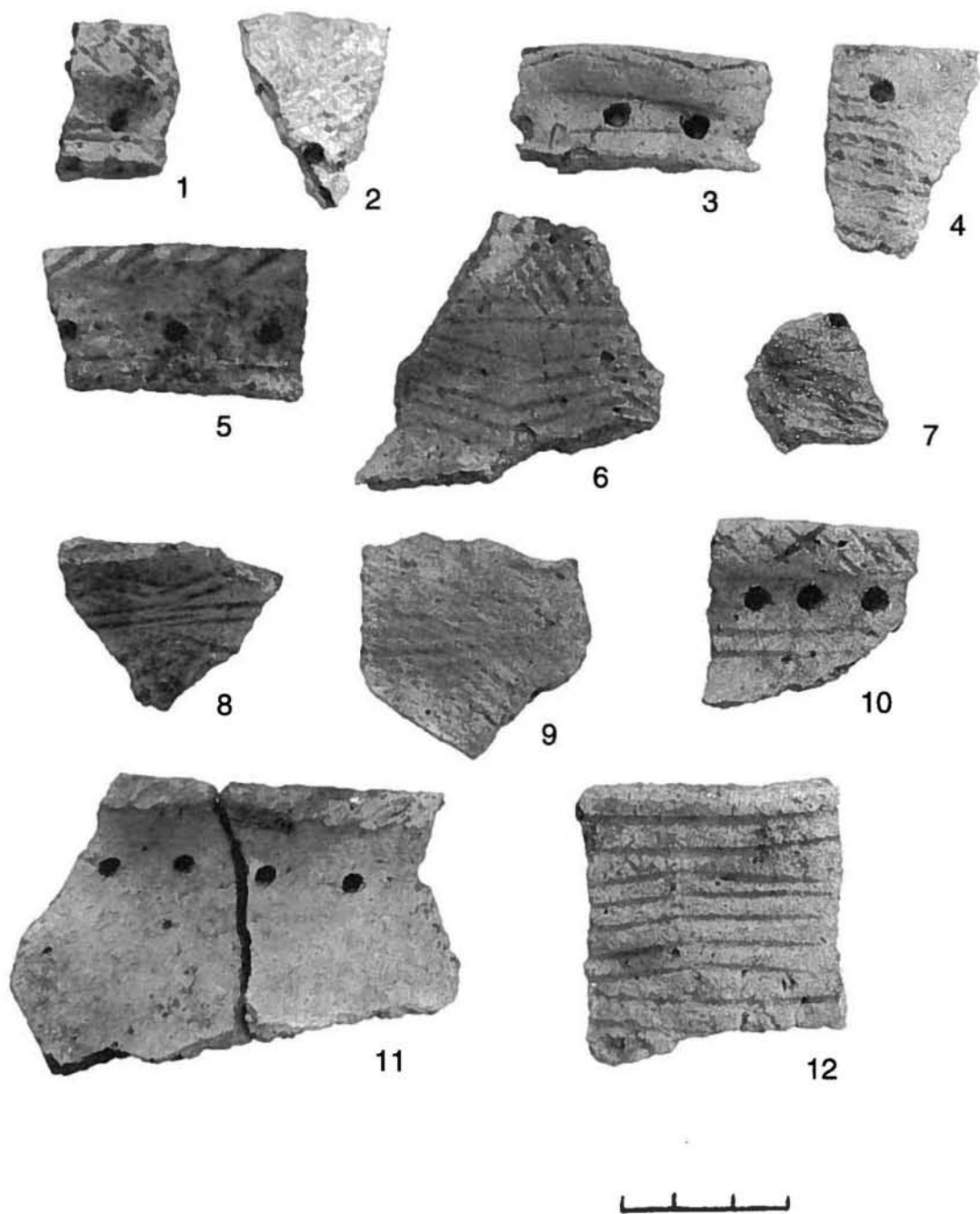


Fig. 15. Sosnovaya Griva 3. Smooth-Faced (3, 5-6, 10-12) and SSP ceramics (1-2, 4, 7-9) from layer 3 in 1993.

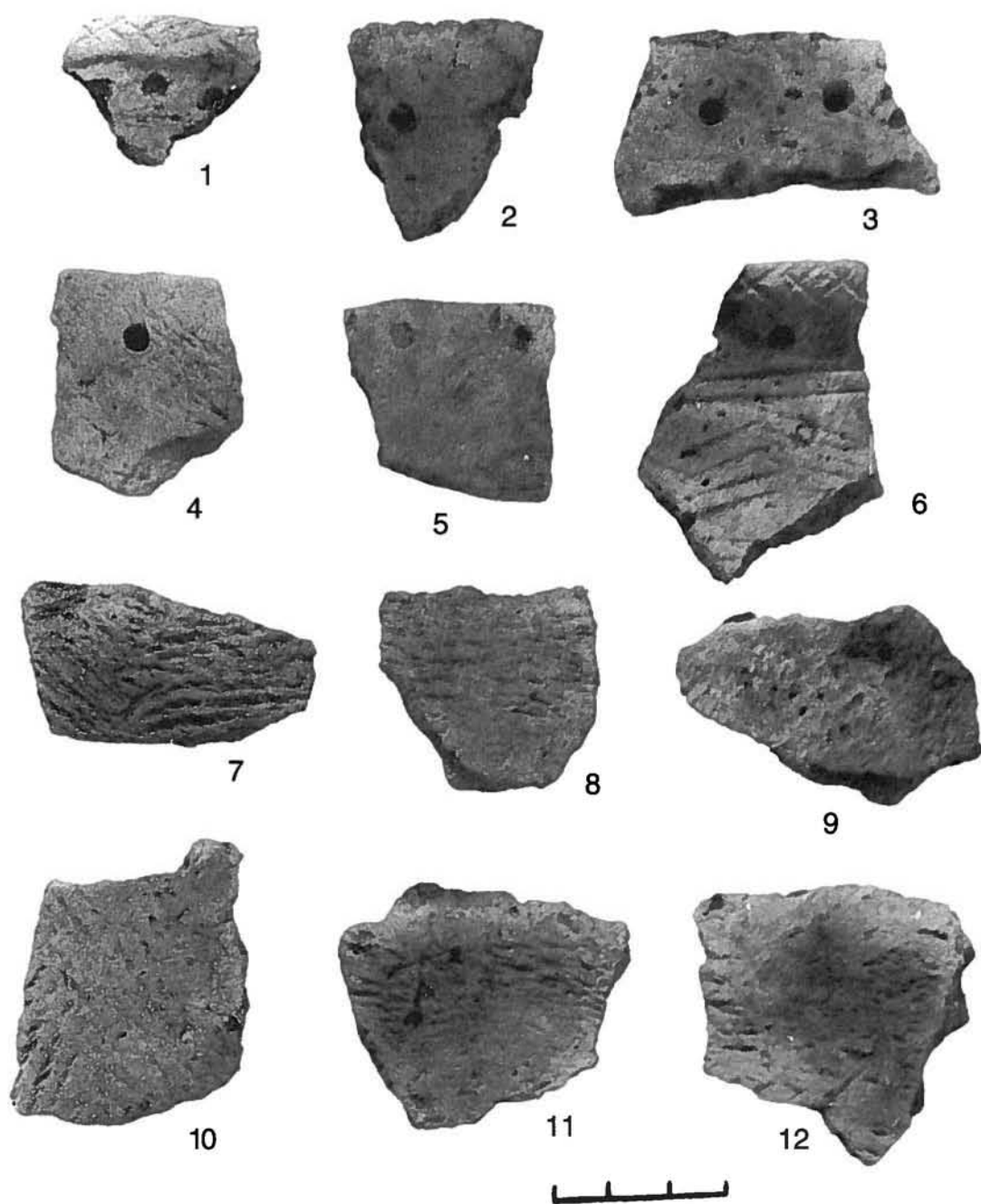


Fig. 16. Sosnovaya Griva 3. Smooth-Faced (1-3, 5-6) and SSP ceramics (4, 7-12) from layer 3 in 1993.

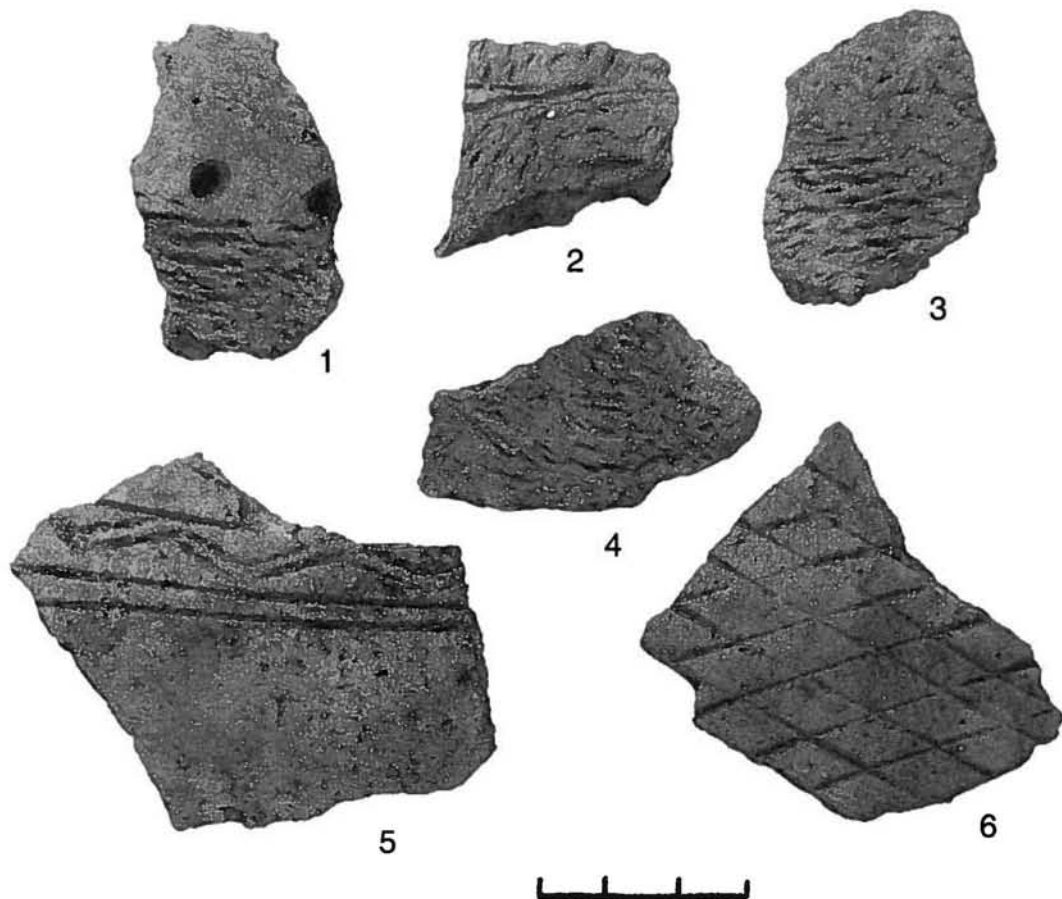
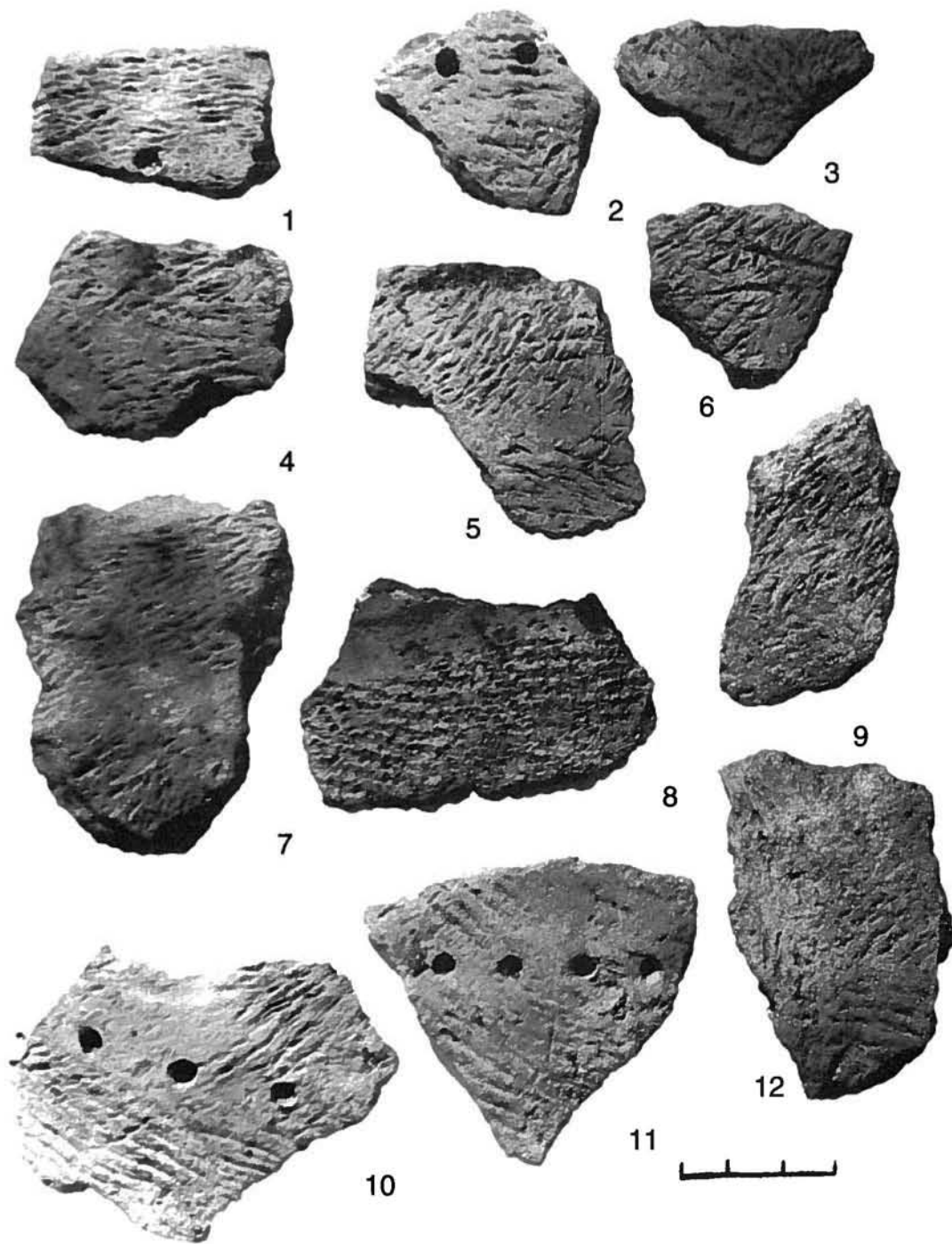


Fig. 17. Sosnovaya Griva 3. Smooth-faced (5-6) and SSP ceramics (1-4) from layer 3 in 1993.

resulting in a new ethnic environment, best manifested in the Akhmylovo cemetery in the Middle Volga region (Patrushev 1992).

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*Fig. 18.* Sosnovaya Griva 3. SSP ceramics from layer 3 in 1993.

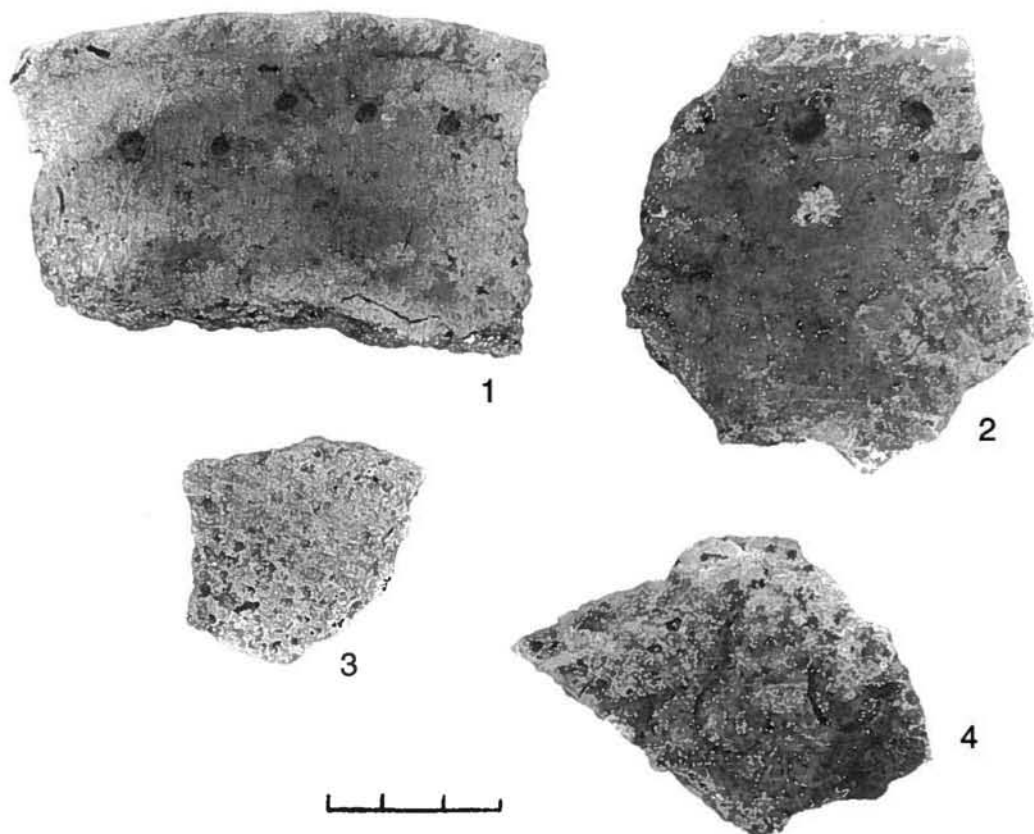


Fig. 19. Sosnovaya Griva 3. Ceramics from layer 4 in 1993.

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