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## Pottery from Archaeological Site Baikal'skoe VII (North-West Coast of Lake Baikal)

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*This paper is devoted to the complex analysis of pottery from an monument Baikal'skoe VII. As a result of research funeral-memories a site Baikal'skoe VII it was found out, that the fragments of vessels found out on it concern to different types of pottery: smooth-wall and with prints of a cord. Such example of finds has once again proved, that carriers of different pottery traditions some time could coexist in common at coast of Lake Baikal.*

*Keywords: pottery, material, fragment, ornament, type, the platen, dating.*

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### Introduction

Pottery is one of the most widespread categories of finds on archaeological sites. Ceramics characteristics help scientists to define the chronology of archaeological sites and their cultural affiliations and, consequently, to imagine valuable way of its creation and creators.

One of the archaeological sites of Iron Age on the northwestern coast of Lake Baikal is ritual and mortuary complex Baikal'skoe VII. Pottery analysis of materials discovered during the site excavations allowed to look at culture origin processes that took place on the northwestern coast of Lake Baikal from the end of 1<sup>st</sup> millenium BC to the beginning of 1<sup>st</sup> millenium AD.

### Research history

Archaeological site Baikal'skoe VII is situated on the Ludar cape 0.45 km northeast from Baikal'skoe village on the small flat area

that is located 45 – 50 m above Lake Baikal level is (Fig. 1).

The ritual complex Baikal'skoe VII was discovered in 1988 by collaborators of Irkutsk State University A.V. Kharinsky and M.A. Zaytsev. Excavations of a trench 4x5 m in size occurred at the place of one artificial stone feature (N1) and oriented with long walls from northwest to southeast. This stone feature had round form and was 3.2x3.7 m in size. Most of the stones were located around the construction's perimeter and formed a ring (Fig. 2). A pit oriented from northwest to southeast was found under the stone feature. Materials obtained during excavations are represented by a fragment of red deer antler, fragments of animal bones and fragments of vessel with cord impressions on its exterior surface. Pottery fragments were found near the southeast end of the stone feature at a depth of 10 – 12 cm from day surface. The rim of

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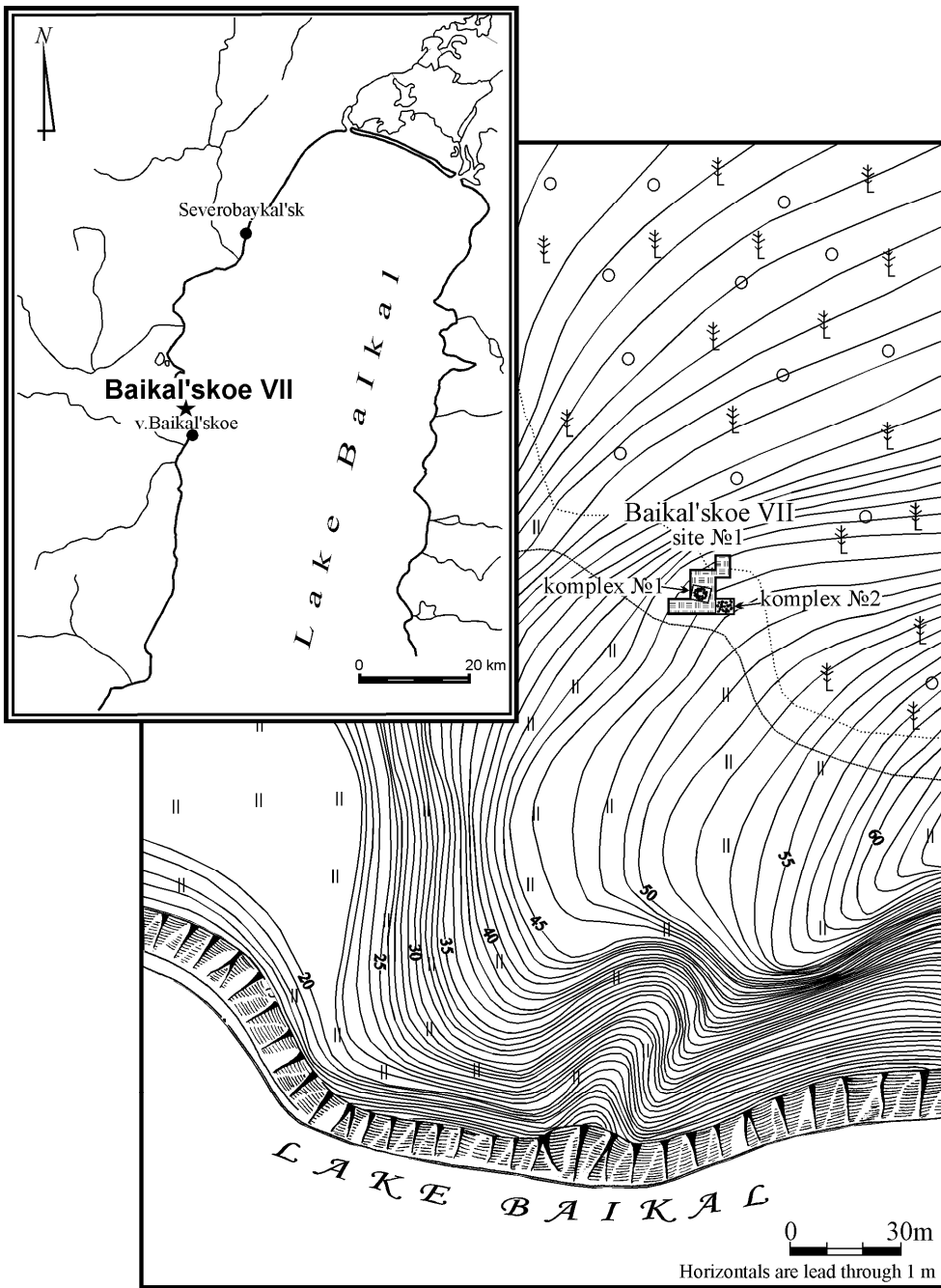


Fig. 1. The Card-scheme of an arrangement of a monument Baikal'skoe VII

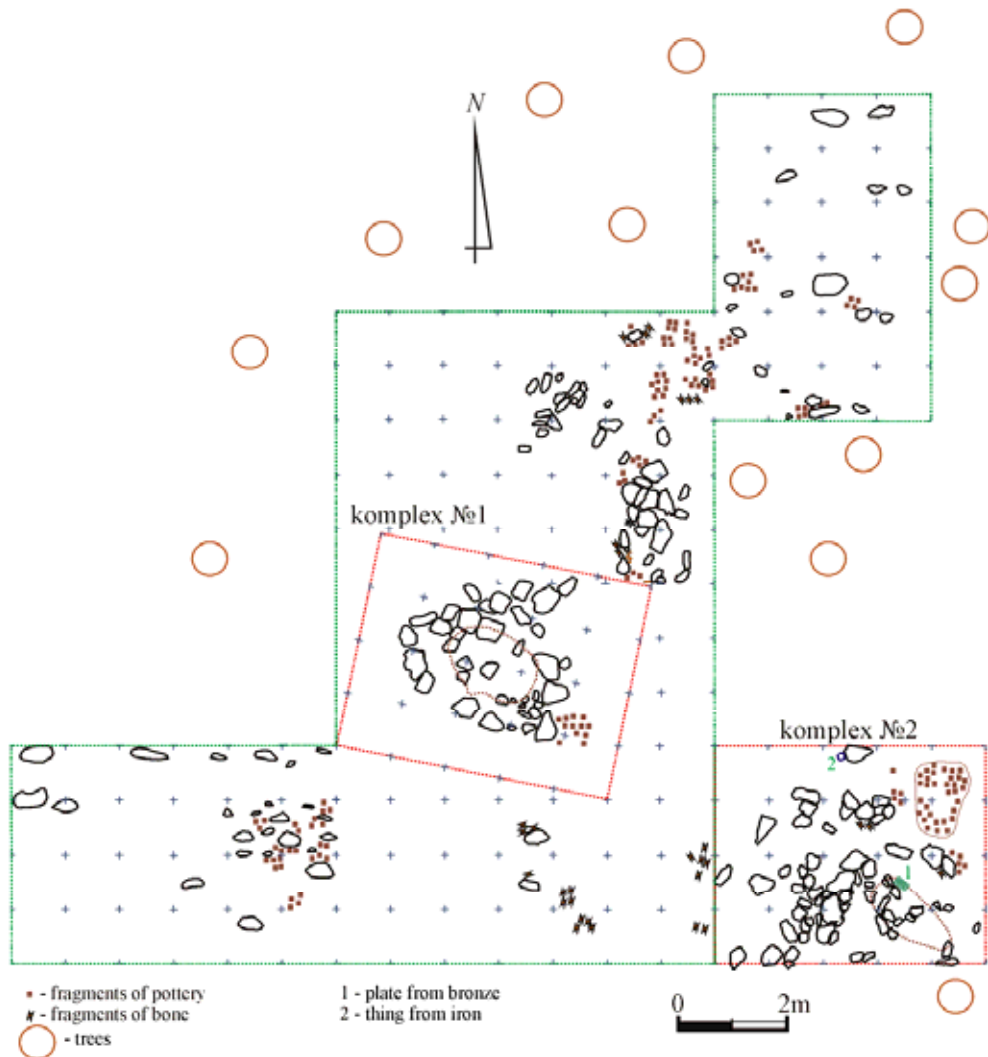


Fig. 2. Baikal'skoe VII, the plan excavations №1 with an archeological material

these vessels is rounded, folded outward. There is a row of oval indentions («larvae» ornament) on its external edge. Diameter of the rim is 19.5 cm. A row of round indentions is located under the rim. Upper part of the vessel's body is decorated with two zigzag application rollers. In some places narrow coating rollers diverge from them. Since the complex N1 contained such features as artificial stone feature and implements and did not contain human remains it has been interpreted as ritual construction (Kharinsky, 1996: 45 – 47).

In 2006 the trench N2 4x5 m in size was excavated in 2 m southeast from the complex N1 at the place of an estimated artificial stone feature. During the work it was figured out that the complex N2 had been robbed because the stones have been thrown around (Fig. 2). The pottery fragments (492 specimens), bronze belt plate, and an iron thing were found here (Korostelev, 2008: 165). A grave pit was located under the stone feature. Some human bones were chaotically situated on its bottom. The remains did not have anatomical order but according to

small size of the grave pit the person had been buried here with bent legs.

Unlike other groups, elginskaya group of mortuary sites is determined by O.I. Gorunova and existed from the end of the first millennium BC to the beginning of the first millennium AD (Gorunova, 1993; Gorunova, Pudovkina, 1995). Mostly, the «elginsky» type burials are located on capes. The graves were arranged into one or several rows oriented from southwest to northeast. The individuals had been buried on right or left side with bent legs and head oriented to the southeast. All graves contained grave goods. The majority of these burials were robbed in the past. The period of existence of elginskaya mortuary tradition on Baikal coast is defined from III century BC to IV century AD (Kharinsky, 2005: 204). The radiocarbon date obtained for human remains from the complex N2 of Baikal'skoe VII are  $2160 \pm 100$  BP (SOAS-6584) does not contradict the previous statement. Subjected to calibration the date corresponds to 377-54 BC.

The pottery fragments found during the clearing of stone feature under the grave belong to four vessels. Vessel N1 has rhombic impression on external surface of its body (waffle ornament). Upper part of the fragment is decorated with an application triangular in cross-section deformed by the vertical indentions of a pointed. A row of round indentions is located under the application. The body of the vessel is decorated with application that exhibit similar ornament design as the rest of the vessel. The second vessel is smooth-wall and ornamented with round, cone-shaped indentions and drawn zigzag ornament. The third and fourth vessels have cord impressions on its exterior surface. Upper parts of the fragments are decorated with an application triangular in cross-section deformed by finger pinches. A horizontal row of round indentions is located under the application.

Body of the first vessel is ornamented with triangular horizontal application deformed by finger pinches (Korostelev, 2010).

### **Results of investigations**

During the field season 2009 it was decided to enlarge excavation N1 into northeast direction for detail studying and revealing the borders of the site and for searching the graves. The excavation N2 attached to excavating a from southeast side. It became a compound part of enlarged excavations N1 (Fig. 2). Thus, the total excavated area at the site Baikal'skoe VII includes 96 square metres. As a result of the work described in the article 544 fragments of pottery were found. Also some fragments of human skull, bone remains of animals, and fragments of indefinable burnt bones were discovered during the excavations. Traces of the constructions under the grave were not found.

All pottery found on excavation of the site Baikal'skoe VII in 2009 is mainly presented by fragments of body from different vessels. Fragments of rims from several vessels and fragments from two underpans were also found. Fragments of bottom were not identified. Pottery was found in all parts of the excavated area except southern part. Some fragments were refitted that helped to reconstruct the forms of the vessels and their ornamental design. Pottery from archaeological complex Baikal'skoe VII is represented by two types: smooth-wall ceramics and ceramics with cord impressions on external surface. Almost all vessels are ornamented. The exception is the only one vessel from southwestern part of the excavated area (Fig. 3: 5).

All 283 fragments of smooth-wall pottery and 9 fragments of indefinable burnt bones were found in southwestern part of the trench. Subsequent laboratory analysis has shown that the pottery belongs to 5 vessels of closed form

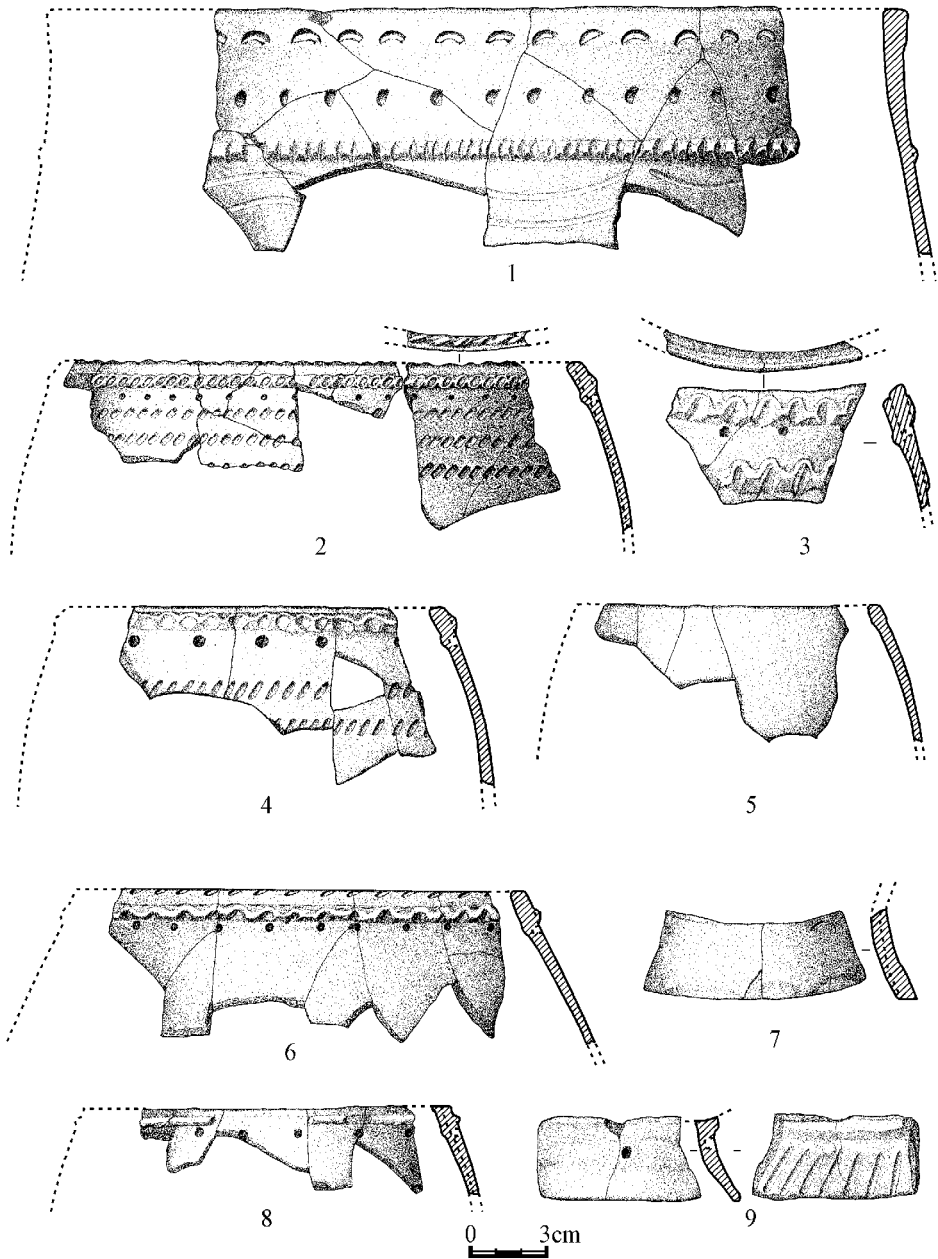


Fig. 3. Baikal'skoe VII, fragments of pottery

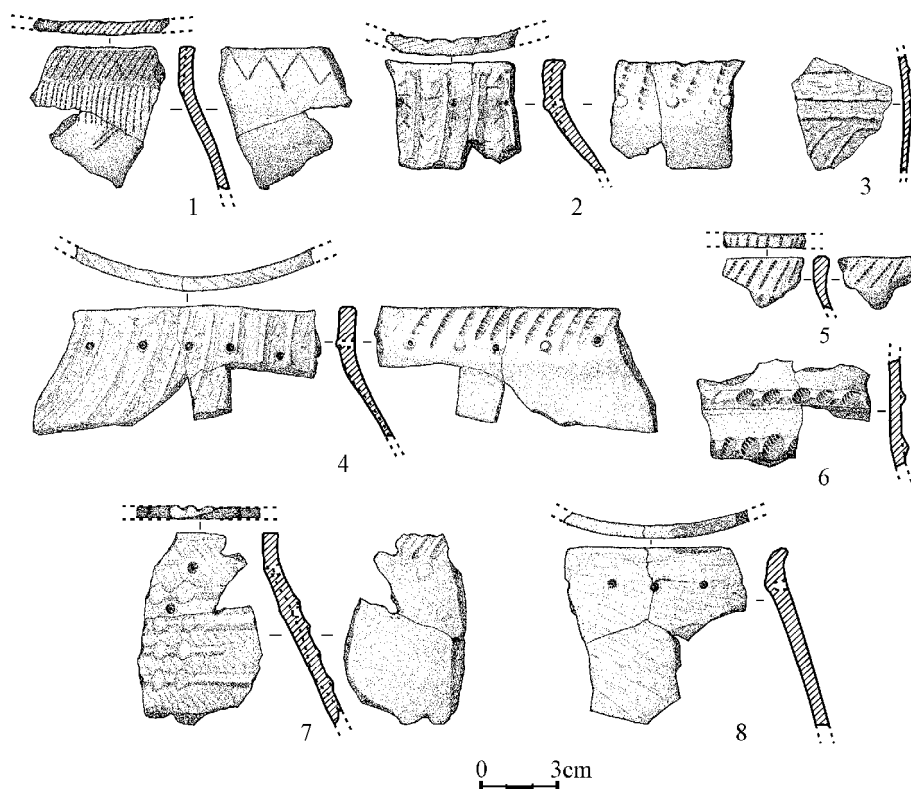


Fig. 4. Baikal'skoe VII, fragments of pottery

(NN 1 – 3, 5). Only one of them (N4) has marked mouth (Fig. 4: 1).

1. Upper part of the vessel with rim has straight symmetrical form. Diameter of the vessel is 22 cm. From above the rim is decorated with nail indentions. There is a horizontal application deformed with oval sloping indentions of divergent trowel in 0.8 cm from the vessels edge. A row of round indentions of 0.2 cm in diameter at distance 0.2 cm from each other is located under the application. The vessel body is decorated with three rows of horizontal indents of divergent trowel with round end (Fig. 3: 2).

2. Upper part of the vessel with rim has straight symmetrical form. According to rim diameter of the vessel is 16.5 cm. Triangular in cross-section application is deformed with the finger pinches and located near the external edge of the fragment. A row of round indentions of 0.5

cm in diameter and made by stick with flat end is located under the application. Distance between the indentions is 2.5 cm. In 1.5 cm lower the vessel's body is ornamented with two horizontal rows of sloping oval indentions of divergent trowel with round working end (Fig. 3: 4).

3. Upper part of the vessel with rim has internal non-central mushroom-shaped form. According to rim the vessel diameter is 16.5 cm. Triangular in cross-section horizontal application roller is located in 0.8 cm from the vessel edge. There is a row of round indents of 0.4 in diameter under it. The indents have 2 cm of distance from each other (Fig. 3: 8).

4. Upper part of the vessel with rim has straight symmetrical form with marked mouth. The lip of the rim is decorated with sloping indentions of fine-tooth stamp. There are two rows of the fine-tooth stamp indentions on

external side of the mouth. The indentions in the upper row are sloping, while the indentions from the lower row are vertical. There are two sloping parallel indentions made by the same ornamenting tool under the second row on the vessel's body. Internal side of the rim is decorated with zigzag motive including indentions produced by the same fine-tooth stamp (Fig. 4: 1).

5. Upper part of the smooth-wall vessel with rim of 13 cm in diameter has straight symmetrical form. Wall thickness is 0.4 cm. Ornament is absent (Fig. 3: 5).

170 pottery fragments including 109 ones of smooth-wall vessels and 61 fragments with cord impression were found in northeast part of the excavation. The laboratory analysis has shown that the fragments belong to four smooth-wall vessels (NN 1, 2, 6, 7) and three vessels with cord impressions from external side (N 3 – 5). All vessels have closed form and only one of them (№ 2) exhibits pronounced mouth.

1. Upper part of the vessel with rim has straight symmetrical form. According to the rim the vessel diameter is 33 cm. There is a horizontal row of bow-shaped indentions in 0.8 cm from the rim edge; a horizontal row of semicircular indentions is located 1.7 cm lower. The vessel's body is decorated with an application triangular in cross-section ornamented with the indentions of a stick with triangular point. Two parallel wavy lines are drawn under the application on distance of 0.8 cm from each other (Fig. 3: 1).

2. Upper part of the vessel with rim has a pointed internal asymmetrical form. A horizontal application deformed with indentions of object with pointed working end is located in 0.4 cm from the rim edge. A row of round indentions is located under the application. They are 0.5 cm in diameter and situated in distance of 2 cm from each other. The vessel body is decorated with the same application roller (Fig. 3: 3).

3. Upper part of the vessel with rim has mushroom-shaped external asymmetrical shape and pronounced mouth. The fragment is decorated with a row of round indentions in distance of 1.3 cm from the rim's edge. They are 0.2 cm in diameter and located in 1.8 cm from each other. There is a vertical application triangular in cross-section on all fragments. They are located in 1.2 cm from each other. They had been fixed to the vessel surface with nail pinches which traces saved on the rollers and area between them. The mouth height is 1.5 cm (Fig. 4: 2).

4. Upper part of the vessel with rim has a straight symmetrical shape and pronounced mouth. External side of the fragment is decorated with four horizontal applications triangular in cross-section. They are dissected by the object with the flat point. The first upper application is situated between two horizontal rows of round indentions of 0.4 cm. The Internal side of the vessel is decorated with a row of sloping oval indentions (Fig. 4: 7).

5. Upper part of the vessel with the rim of external asymmetrical shape is slightly bended outward. Cord impressions have thread-like shape and are placed diagonally. In 1.5 cm from the rim edge the fragment is decorated with horizontal row of round indents of 0.3 cm in diameter. The distance between the indents is 1.5 cm and thickness of the fragment is 0.6 cm (Fig. 4: 8).

6. Upper part of the vessel with rim has straight symmetrical form. From above the rim is decorated with indentions of a fine-tooth stamp. External side of the mouth has two rows of fine-tooth stamp indentions. The indentions of the upper row are sloping. Internal side of the rim is ornamented with horizontal sloping row of fine-tooth stamp (Fig. 4: 5).

7. The fragment of the vessel's body is decorated with two horizontal applications dissected with the sloping «larvae» indentions. The fragment thickness is 0.4 cm (Fig. 4: 6).

91 pottery fragments, admittedly representing three vessels, were found in central part of the excavated trench № 1.

1. Upper part of the smooth-wall vessel with rim has straight symmetrical form. The vessel diameter according to the rim is 18 cm. External and internal sides of the rim upper edge are ornamented with indentions of a stick with oval point. External side in 0.8 cm from the rim edge is decorated with horizontal application triangular in cross-section. The application is deformed with finger pinches. Horizontal row of round indentions is located under it. The vessel has closed shape (Fig. 3: 6).

2. Upper part of the vessel with rim has straight symmetrical shape and cord impressions. In 1.4 cm from the rim edge external part of the fragment is ornamented with a horizontal row of round indentions. They are 0.4 cm in diameter and located in distance of 1.3 – 1.8 cm from each other. The fragment is also decorated with the sloping application triangular in cross-section. The distance between them is 1 cm. They were attached to the vessel's surface by the nail pinches; the traces of this are visible on the application and area between them. Internal side of the rim is ornamented with horizontal row of sloping «larval» oval indentions. Upper part of the rim is decorated with sloping indentions of a stick with flat pointed working end. The vessel mouth height is 1.5 cm (Fig. 4: 4).

3. The fragment of thin-walled vessel body has cord impressions and horizontal and sloping applications. They had been produced by the pressing out the clay paste on the body with fingers. The nail pinches created by this process is still visible between applications (Fig. 4: 3).

The fragments of two underpans were also found during the excavations. Their diameters are 11 cm (Fig. 3: 7, 9). The first one was found in northeastern part of the trench. The second underpan was found in central part of the trench

and decorated with round indent of 0.4 cm in diameter. Its internal side is ornamented with sloping horizontal row of indentions of stick with oval point. The indentions' height is 1.8 cm. The relations of the bottoms to particular vessel has not been determined.

### **Analysis of the pottery materials**

The pottery ornament has technical and decorating elements which are both important (Filatova, 2008: 89). According to described fragments ornament elements on the vessels are indentions of different kinds and drawn ornament. Ornamental row forms as a result of repeating of elements. It gives simple by formation, form and outline character motives (Filatova, 2008: 90). It is clear the motive on studying pottery consists of repeating indentions. They are round, semi-circular, bow-shaped, oval, rectangular, and also fine-tooth stamp indentions made by object with pointed end and finger pinches. Composition on vessels is represented by horizontal, sloping and vertical applications and horizontal repeated rows of indentions. Applications have triangular section and are decorated with finger pinches, oval and «larval» indentions, and ones made by object with pointed end. The style of all ornaments is linear-geometrical. Ornamental design had been made with technique of indenting by pressing on external surface of vessel with ornamented end or by finger pinches. Drawn ornament is also distinguished.

Analyzing pottery from Baikalskoe VII it is possible to make some conclusions. There are some similarities and some differences in ornamental design and technique of vessel manufacture. All vessels with mouth or without one have closed form, light brown and sometimes fulvous color. Only one fragment of vessel does not have ornamental design. The rest ones are ornamented by different or same ways. The



pottery fragments were found in under-turf layer of dark gray loamy sand at depth of 5 – 12 cm.

In spite of noted similarities discovered on the site Baikal'skoe VII the pottery is heterogeneous. Two kinds of pottery were distinguished: with cord impressions and smooth-wall. They are attributed to the different time periods.

V.V. Svinin was one of the first who paid attention to originality of Baikal pottery with cord impressions. He dated it by the Late Bronze Age. The first specimens of pottery were collected by him in Senogda bay on northern Baikal (Svinin, 1966, 1976). Clay ware with cord impressions had been made with winded of cord trowel in technique of tapping (Svinin, 2000: 142). Pottery with cord impressions ornamented with horizontal and vertical applications belongs to **senogdinsky type** of pottery. This name was offered by A.V. Kharinsky and I.S. Karnyshev in 2003 (A.V. Kharinsky, I.S. Karnyshev, 2003: 139). The pottery of senogdinsky type had existed on Baikal coast from 13<sup>th</sup> century BC to 1<sup>st</sup> century AD (Kichigin, 2009: 161). Besides habitation sites these pottery was also found among grave goods in slab type graves and ritual complexes (Tsybiktarov, 1998: 121; Kharinsky, Korostelev, 2005: 336 – 352). The main ornamental elements were distinguished on the vessels of senogdinsky type. They are applications, finger, round and larval indentions, and impressions of trowel end (Karnyshev, 2006: 121).

Since the pottery with cord impressions and ornamented with applications was found in slab-type graves one can suggest that it had been introduced on territory of the Cis-Baikal region by cattle-breeding tribes from territory of Transbaikal region (Kichigin, 2007: 112).

Smooth-wall vessels decorated with applications, round and oval indentions (**elginsky type**) are considered to represent the second type of pottery. It is found on Baikal coast in archaeological sites dated by the end of 1<sup>st</sup>

millenium BC to 1<sup>st</sup> millenium AD (Kharinsky, Karnyshev, 2003: 140 – 141). These ceramics type was widespread along the entire Lake Baikal coast including northern Baikal. It is also a major indicator of elginskaya mortuary tradition which is characterized by the burying individuals on the side with bent legs and oriented by head toward southeast.

**Sosnovoostrovsky type** is a variation of elginskaya pottery tradition. It is characterized by drawn curvilinear ornament combined with horizontal applications and bow-shaped indentions (Kharinsky, 2005: 208). The vessel № 1 from northeastern part of the trench is attributed to sosnovoostrovsky pottery type.

Pottery with rhombic impressions (**borisovsky type**) is also distinguished among grave goods of mortuary complexes of elginskaya tradition. This pottery was found in some Baikal sites in the same layer with pottery of senogdinsky type. It confirms the relations between these two types on the western coast of Lake Baikal. At the end of 1<sup>st</sup> millenium BC the above-mentioned pottery traditions coexisted (Kharinsky, Karnyshev, 2003: 140). Additional evidence of it is the presence of fragments of borisovsky and senogdinsky types in complex № 2 at Baikal'skoe VII.

Ornamental design with indentions of fine-tooth stamp is not typical for the mentioned pottery traditions. It is difficult to attribute these vessels to the particular type of pottery. It is possible that the fragments had come upon territory of the site Baikal'skoe VII accidentally in earlier time.

### Conclusion

The analysis of pottery found during excavations of a mortuary and ritual complexes from Baikal'skoe VII shows that the bearers of different pottery traditions co-existed on the northwestern Baikal coast for some period of time. As a result, the typical ornaments of early

(senogdinskaya) pottery had become common for later (elginskaya) pottery. These are primarily the horizontal applications and round indentions beneath it.

As a result of complex research the formation time of the mortuary and ritual complex Baikalskoe VII is determined by the chronological period from the end of I millennium BC to the beginning of I millennium AD. Firstly, it is confirmed by burial rite

which is compared with elginskaya burial tradition (3<sup>rd</sup> century BC – 4<sup>th</sup> century AD). Secondly, radiocarbon date received for human bones from complex N2 points to the time period between 4<sup>th</sup> and 1<sup>st</sup> centuries BC. Thirdly, pottery remains found across the entire excavated trench № 1 were compared with some pottery types and revealed that the time of the site formation is the second half of 1<sup>st</sup> millennium BC – the beginning of 1<sup>st</sup> AD.

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## **Керамика с археологического комплекса**

### **Байкальское VII**

#### **(северо-западное побережье озера Байкал)**

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*Данная статья посвящена комплексному анализу керамики с памятника Байкальское VII. В результате исследования погребально-поминального комплекса Байкальское VII выяснилось, что обнаруженные на нем фрагменты сосудов относятся к разным типам керамики: гладкостенному и с оттисками шнура. Такой пример находок еще раз доказал, что носители разных керамических традиций некоторое время могли совместно существовать на побережье Байкала.*

*Ключевые слова: керамика, материал, фрагмент, орнамент, тип, венчик, датировка.*

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