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An Early Neolithic Sanctuary in the Eastern Irtysh Basin

We describe the findings of excavations at an unusual sanctuary in the Baraba forest-steppe. It is a structure consisting of a ditch encircling the presumed sacral space, and a system of pits containing non-utilitarian artifacts. Pits in the bottom of the ditch indicate wooden structures, which are not preserved. Descriptions of the features are provided. Artifacts are related to household, manufacturing, and ritual. On the basis of stratigraphy and radiocarbon analysis, relative and absolute chronology is assessed. The site dates to the 7th–6th millennia BC and is associated with the Barabinskaya culture. Parallels with Mesolithic and Neolithic sanctuaries and ritual sites in the Eurasian taiga zone are listed.

Keywords: *Western Siberia, Irtysh, Early Neolithic, Barabinskaya culture, ritual sites, primitive art.*

Introduction

On the basis of the discovery and research in 2015–2017 of a settlement complex with utility structures at the Tartas-1 site (Vengerovsky District, Novosibirsk Region) (Molodin et al., 2021), analysis of the recovered archaeological materials, obtaining a series of radiocarbon dates (Molodin, Nenakhov, Mylnikova et al., 2019; Molodin, Reinhold, Mylnikova et al., 2018), and the discovery of similar sites in the vicinity of the Tai floodplain meadow in the Vengerovsky District, Novosibirsk Region (Fig. 1), the Early Neolithic Barabinskaya culture has been identified (Molodin, Kobeleva, Mylnikova, 2017; Molodin, Mylnikova, Kobeleva et al., 2020). The discovery of similar archaeological materials in the same microdistrict, at the sites of Vengerovo-2 (Molodin et al., 2021; Myl'nikova, 2021), Avtodrom-2/2 (Bobrov, Marochkin, Yurakova, 2012), and Stary Moskovsky Trakt-5 (Bobrov et al., 2019)* supports the identification of this culture. All these settlement complexes are concentrated on the (both unflooded) high terraces of the Tai meadow**.

In addition to the Early and Late Neolithic settlements and burial grounds*** located on the left-

*Initially, the heads of the excavations attributed the sites of Avtodrom-2 and Stary Moskovsky Trakt-5 to the Boborykino culture. In the light of modern ideas, this definition appears implausible.

**The meadow occupies a vast floodplain area in the lower Tartas reaches, at its confluence with the Om, and was formed as early as the Ice Age; the meadow is inundated during floods.

***Burial grounds from the Early Neolithic period have not yet been discovered in Baraba.

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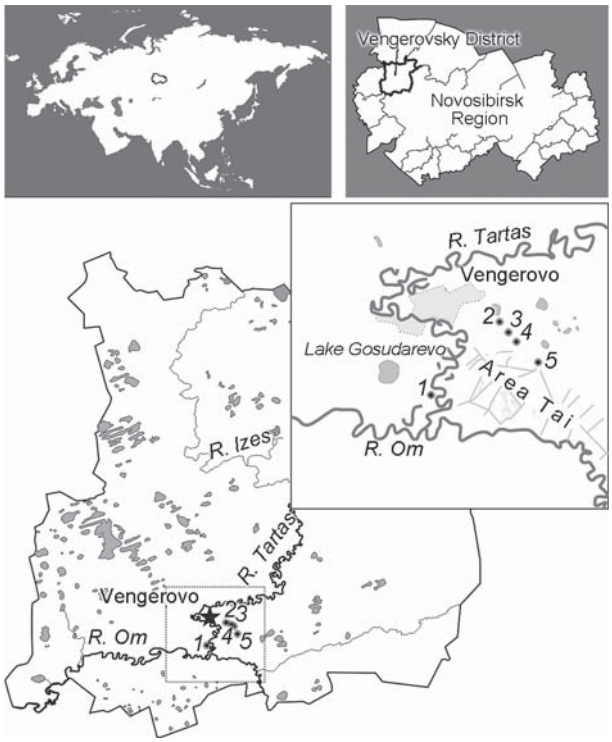


Fig. 1. The sites of the Early Neolithic Barabinskaya culture.
1 – Tartas-1; *2* – Avtodrom-2; *3* – Stary Moskovsky Trakt-5; *4* – Vengerovo-2; *5* – Ust-Tartas-1.

side terrace of the meadow, in the area of accumulation of archaeological complexes of various periods (mainly Early to Middle Bronze Age and the Early Iron Age), we have excavated and thoroughly studied an unusual archaeological site, which we interpret as an Early Neolithic sanctuary. This is a kind of architectural ensemble including a small ditch, enclosing the sacral space, and a system of pits containing various offerings—sacrifices. In this case, by a sanctuary we understand special structures or "fenced plots of land" where various constructions may be located. S.A. Tokarev argued that such complexes, intended for various irrational mysteries, are known among almost all ancient peoples (1969: 612). For instance, in the north of Europe, there are sanctuaries dating back to the Mesolithic and Early Neolithic periods, each with a special "shamanic" complex (Krainov, 1992a: 6), supporting the ideas of the mythological and sacred essence of this phenomenon.

The small ditch was recorded in the course of a magnetic survey of the terrace (Dyadkov et al., 2017; Parzinger et al., 2016), but the magnetic diagram showed the object only partially, and its spatial distribution was not clear. However, already at the initial stage of the study of this part of the Ust-Tartas-1 site (Fig. 2, 2018 excavation area), it had become clear that this was an uncommon construction. The site was completely excavated during three years (2018–2020). The excavations revealed salient relief features of the architectural ensemble. In antiquity, the construction may have been supplemented with wooden structures. During the Late Neolithic, Early and Middle Bronze Age, the sanctuary area was used for the construction of burial complexes (Artyn, Ust-Tartas, Odino, and Krotovo cultures). On the one hand, this overlapping made identification of the original Early Neolithic complex somewhat difficult; but on the other hand, stratigraphic observations provided the idea of the relative chronology of the structures, which made it possible to attribute the ensemble to the Early Neolithic. At present, there are radiocarbon dates of the features of the sanctuary itself available, confirming its chronological position.

The purpose of this work is to introduce new materials from the Early Neolithic Barabinskaya culture and to interpret these in the context of the sanctuary.

Description of the site and research results

The site is located on the edge of the above-floodplain terrace, which in this place reaches a height of about 8 m above the level of the flooded part of the Tai meadow. From here, a panorama of a wide floodplain opens, which is especially impressive during the period of maximum flooding.

The ditch was a U-shaped structure with a slightly curved long side and well-defined corners (Fig. 2, 3). Its length in the eastern part is 8.8 m, in the northern 36.3 m, in the western 6.6 m. In the eastern part, the ditch ended in a pit on the edge of the slope. In the western part, the end of the ditch curved sharply into the sacral area and ended in a small hollow separated from the modern edge of the terrace by a narrow passage. The area of the plot enclosed by the ditch was ca 320 m^2.

The ditch's width varied from 0.2 to 0.5 m. At the widest place, in sq. И-Л/39'-42', the ditch is 1.5 m. It was here that a rich set of offerings was discovered. The pits adjacent to the ditch in the western and eastern parts do not contain any artifacts*.

The walls of the ditch are mostly sheer, in some places inclined; at the top, there are low steps. In some areas, the opposite walls often differ in the angle of inclination to the base. On the bottom of the ditch, at a certain distance from one another (0.32–0.8 m), there are hollows of various sizes (Fig. 3).

Sections of the ditch vary from 0.16 to 0.54 m in depth. Taking into account the thickness of the buried soil,

*It should be noted that originally, the pits might have contained organic materials that did not survive: for example, animal meat or vegetable food.

Fig. 2. Photo of the excavation sites after removal of the filling. The location of pit 148–149 with the set of offerings is marked in red.

from the level of which the ditch was built, its real depth varies from 0.31 m to 0.89 m.

The ditch might have outlined the architectural structure where ritual actions took place: in particular, those related to the placement of sacrifice goods at the sanctuary.

The architectural ensemble includes numerous specially made pits. Their placement obviously depended on the orientation of the ditch. A series of pits was made along the ditch outside the enclosed sacral part (Fig. 3). The pits are arranged in a chain one after another. In plan view, they are most often oval or subrectangular, with rounded corners; rounded pits are much less common. The long axes of the pits correspond as a rule to the direction of the ditch. Some pits located outside the ditch revealed the finds associated with offerings. Notably, the number of pits in the western part of the ditch is many times less than in the central, and especially in the eastern, portions.

Eight pits were recorded along the eastern segment of the ditch (No. 19, 20, 35–37, 57–59)*; eleven pits were noted along the northern portion, coinciding in orientation with the direction of the ditch (No. 125, 127–129, 132, 133, 134A, 136, 150, 169, and 171). Some of the northern pits also contained offerings. Outside the western part of the ditch, there was only one pit, No. 174, oriented in the direction of this part of the ditch.

A significant number of the pits were located in the inner area enclosed by the ditch. Twelve pits were concentrated in the eastern part of the site. Pits 17, 27, 28, and 30 were made next to the ditch and oriented in the direction of the eastern and northern segments of the ditch. Pits 18, 24, 29, 32, 33, 34, 40, and 42 formed a dense group in the eastern part of the sacral space. Their orientation was variable.

Pits 130, 142, 156, and 179 were located along the northern wall of the ditch on its inner side, and pit 181 near the western segment of the ditch. Pit 85 was found in the eastern part of the sacral space. Pit 119, the largest in area, was located in the central part. Many pits contained artifacts, including fragments of Early Neolithic pottery, which made it possible to attribute the pits to this period.

Pit 148–149 with offerings (Fig. 3) is distinct among other pits. It is of considerable size (1.5 × 2.3 × 0.49 m), and is connected with a ditch, that is, located directly in the ditch. This pit yielded a set of 92 various items of obviously sacred purpose.

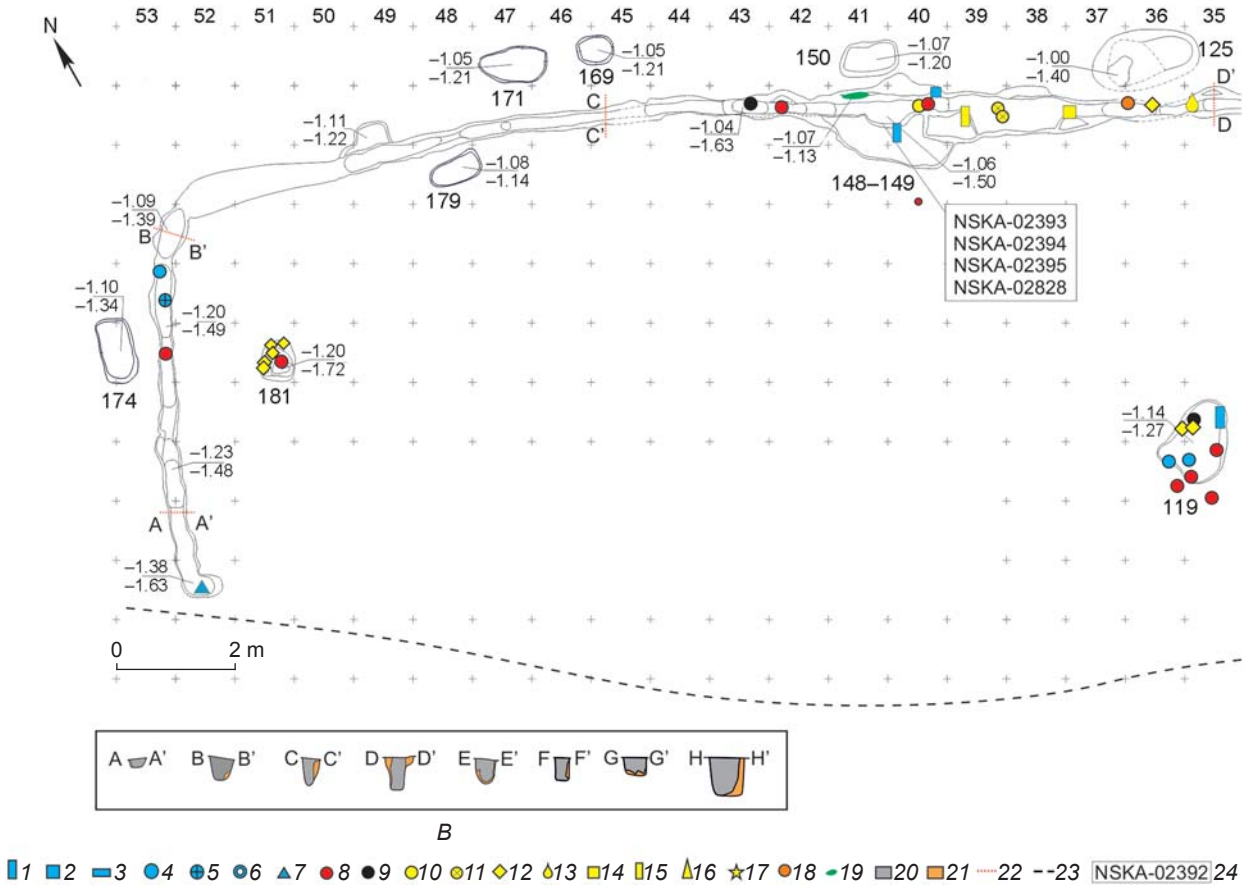
In addition to pits with offerings, separate items associated with the sanctuary were found in the cultural layer, mainly in the eastern part of the sanctuary, surrounded by the ditch.

Various artifacts were found in all three parts the ditch. They occurred at different depths individually or in clusters.

We begin with a description of the *ceramic collection,* consisting of 68 fragments (Fig. 4, *1–14*), which were found all over the site's area. These are mainly small fragments of vessel walls (56 spec.); rims (9 spec.), including ornamented ones (4 spec.); and fragments of bottoms with adjoining parts (3 spec.).

Red-burning loams (with a rather high content of sand) served as the basic raw material. The paste contains an admixture of grog and organic matter. The whitish-gray coating has been clearly noted in the paste (a sign of the use of an organic solution) through binocular examination; there are also small plant-remains in the form of carbonized depressions, extended canals, and small rounded formations made with phosphate materials as a natural impurity. The paste is poorly

*Unfortunately, the size of this publication does not allow us to provide detailed information about the parameters of the pits. These data will be presented in a special paper.



puddled, so it is difficult to determine the proportion of grog: in some samples there are single grains, in others its admixture is approximately 1:10. The size of the grog-grains varies from 0.02 to 0.8 cm. The vessels were manufactured through patch technique; it is evident on the surfaces of some potsherds where these patches have peeled off, as well as on transverse fractures. The upper parts of the vessels were molded with two-layer coils. A twisted cord was superimposed on the upper edge, which was then covered with a coil of patches folded inside the vessel. Fragments of bottoms showed that the bottoms in the form of flat tablets were also made through patch technique (Fig. 4, *3*). An appliquéd fillet was noted on one of the bottoms; the fillet was formed as a result of inserting a bottom into the finished vessel and sticking it to the body with small patches. The motifs on the fragments, in the form of multidirectional diagonal rows of lines, which form interpenetrating zones, were made by incision or by retreating scapula with a rounded working edge. The rim's edges are ornamented with oblique oval impressions made with a stick (Fig. 4, *1*, *4*, *8*, *12*).

Pottery with similar characteristics has been recorded at the neighboring sites of the Early Neolithic Barabinskaya culture: Tartas-1, Vengerovo-2, and Avtodrom-2/2. A fragmented vessel was recovered from the fish pit at Ust-Tartas-1 and reconstructed (Molodin, Kobeleva, Mylnikova, 2017; Molodin, Mylnikova, Kobeleva et al., 2020; Molodin et al., 2021; Myl'nikova, 2021; Yurakova, 2017). Thus, the ceramic collection from the ritual complex undoubtedly belongs to the Barabinskaya culture. Notably, ceramic vessels with flat bottoms in the Early Neolithic are typical not only of the Baraba forest-steppe. Similar artifacts from complexes dating back to the end of the 7th–6th millennium BC have been found at sites in the taiga zone of Western Siberia, the Trans-Urals, and the Tobol-Ishim interfluve (Dubovtseva et al., 2020; Enshin, 2020; Kardash et al., 2020; Klementyeva, Pogodin, 2020; Chemyakin, 2008, 2020).

The collection of lithics is represented by a set of tools, and production-waste. The collection consists of 49 items, of which 15 specimens were found in the filling of a ditch; 20 specimens were recovered from the pits or next to them; and the remaining 14 specimens were recovered from pit 148–149, together with other offerings (Fig. 4, *15–27*). In total, 21 tools were found; there are also 2 flakes, detached from polished items that show utilization retouch. The rest of the finds are production waste and technical spalls.

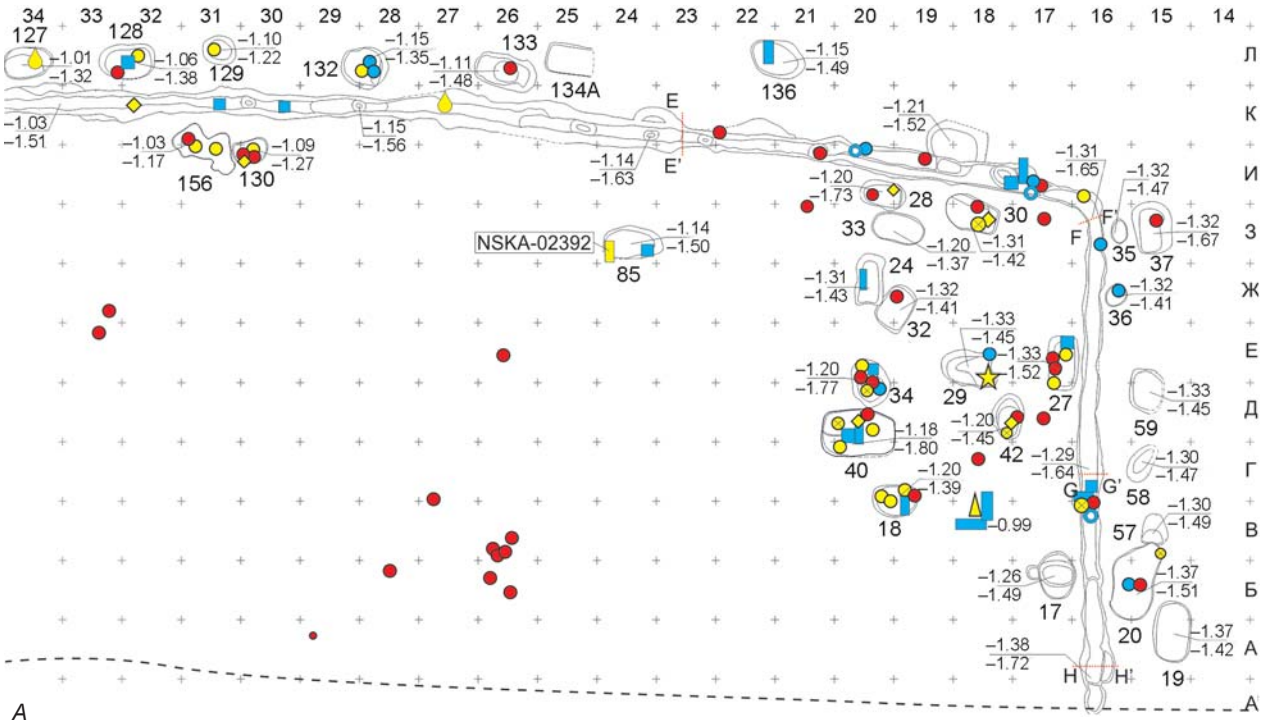


Fig. 3. Plan of the sanctuary (*A*), profiles of the ditches (*B*).
1 – blade; *2* – flake; *3* – end-scraper; *4* – spall; *5* – pebble; *6* – scale; *7* – abrader; *8* – ceramic fragment; *9* – charcoal; *10* – bone fragment; *11* – fragment of a calcined bone; *12* – fragment of bone/scale of a fish; *13* – animal tooth; *14* – antler artifact (striker); *15* – bone tool; *16* – bone dagger; *17* – dog's skull; *18* – coprolite; *19* – location of the set of offerings (pit 148–149); *20* – gray dense sandy loam; *21* – grayish-yellow sandy loam; *22* – location of the stratigraphic section; *23* – conditional edge of the terrace; *24* – code of samples for ^{14}C-analysis.
1–7 – stones.

The ditch's filling revealed the following: a miniature double side-scraper on a shortened flake (Fig. 4, *18*), two bladelets with utilization retouch, a rectangular abrader with traces of smoothing over its entire surface (Fig. 4, *15*), a flake (Fig. 4, *16*), nine shatters and chips, and a pebble (Fig. 4, *17*).

The collection of lithics from the filling of the pits includes a side-scraper on a shortened flake; five retouched blades (mainly medial segments, trapezoidal in cross-section), including a crested blade (Fig. 4, *21, 24, 25, 27*); two flakes (Fig. 4, *22, 23*); and ten scales and chips, including a chip from the surface of a polished tool (Fig. 4, *26*). A medial fragment of the blade with ventral sharpening retouch (Fig. 4, *19*) and a miniature end-scraper on blade (Fig. 4, *20*) were found next to the bone dagger (sq. B/18).

A series of lithic artifacts was recovered from pit 148–149, together with the main set of offerings.

Artifacts made of bone and antler beyond the main set of offerings in pit 148–149 were quite sparse. First, noteworthy is a side-bladed dagger made of antler, which was recovered from the cultural layer at the eastern part of the sanctuary (sq. B/18). One of the blade's sides clearly shows a groove for inserting blades (Fig. 5, *3*). This item is decorated with engraved pattern of angles. Next to it, a fragment of a knife-shaped blade-insert and a miniature end-scraper (see Fig. 4, *19*, *20*) were found. The dagger reveals a close similarity to the artifacts from the Neolithic sites of Oleniy Ostrov cemetery (Gurina, 1956: Fig. 122, *1*) and Shigir peat-bog (Savchenko, 2005: Fig. 38), and is also close in shape to the Late Paleolithic daggers from the Cis-Urals (Shcherbakova, 1994: 93, fig. 37) and particularly the settlement of Cherno-Ozerye II on the Irtysh (Gening, Petrin, 1985: 48, fig. XVII). The latter parallel suggests that the Barabinskaya Neolithic culture was formed on a local basis in the Late Pleistocene.

In the ditch, in the immediate vicinity of the pit with the main set of offerings, a pendant made of an elk's incisor (Fig. 5, *1*), a fragment of a bone dagger (Fig. 5, *4*), and a striker made from an elk's antler (Fig. 5, *2*) were found.

Pendants made of animal-teeth occupy a special place in burial complexes and sanctuaries (see, e.g., (Petersen, 2016)). This is clearly evidenced by the collection under consideration.

The striker found in the ditch is quite peculiar (Fig. 5, *2*). The product is made of an antler burr, was additionally worked along the margins, and was slightly polished. The antler adjacent to the burr was fashioned as a hilt. The tool could be used as a striking tool in combat or

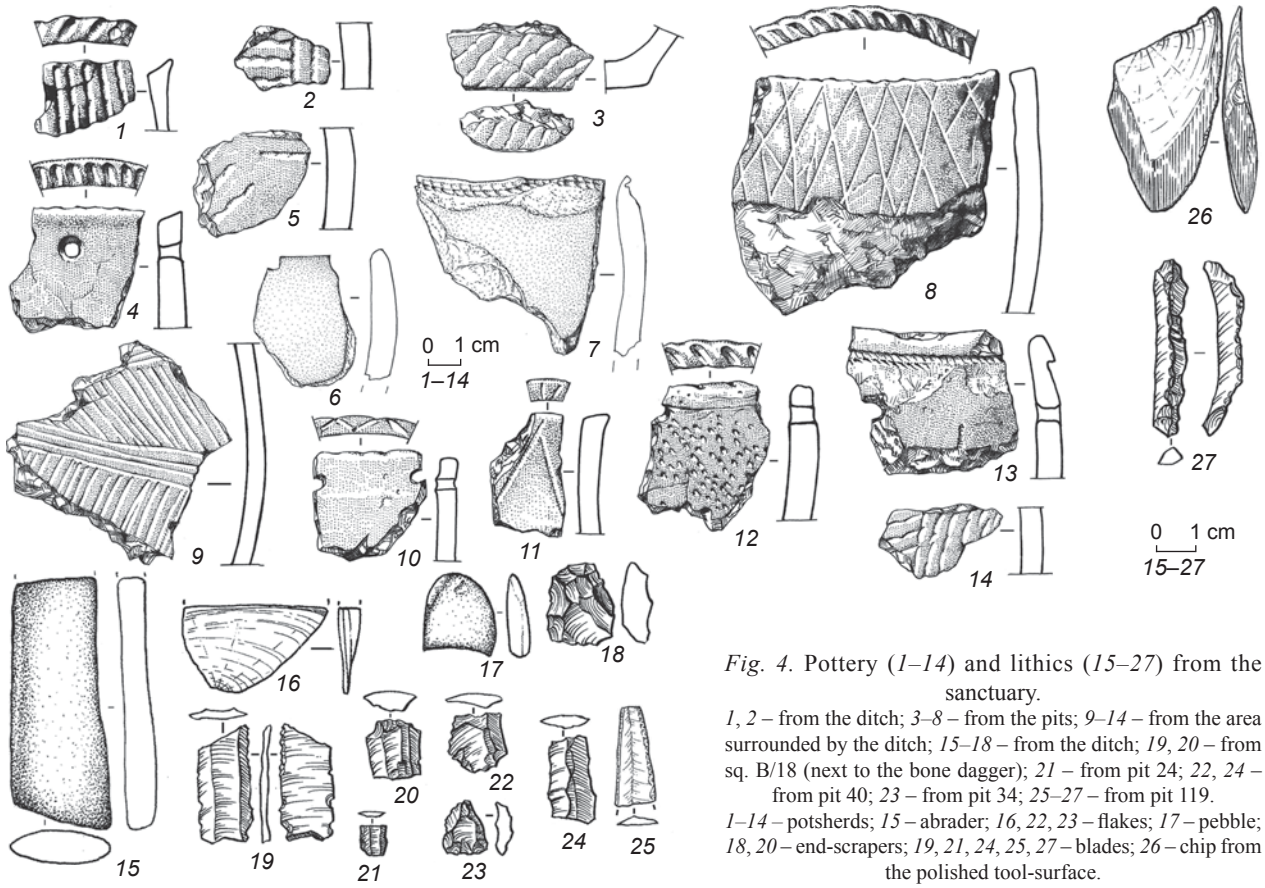


Fig. 4. Pottery (*1–14*) and lithics (*15–27*) from the sanctuary.
1, *2* – from the ditch; *3–8* – from the pits; *9–14* – from the area surrounded by the ditch; *15–18* – from the ditch; *19*, *20* – from sq. B/18 (next to the bone dagger); *21* – from pit 24; *22*, *24* – from pit 40; *23* – from pit 34; *25–27* – from pit 119.
1–14 – potsherds; *15* – abrader; *16*, *22*, *23* – flakes; *17* – pebble; *18*, *20* – end-scrapers; *19*, *21*, *24*, *25*, *27* – blades; *26* – chip from the polished tool-surface.

hunting practice, or as a beater for a tambourine. Perhaps the item had a different purpose. Notably, a series of similar items, referred to as "antler sleeves", was recorded at the Late Pleistocene site of Afontova Gora II (Pozdnepaleoliticheskaya stoyanka Afontova Gora II…, 2021: Fig. 29, 37, etc.).

A fragment of a dagger made from the bone of an elk (Fig. 5, *4*) is a typical item of Neolithic and Mesolithic sanctuaries and burials in the northern part of Eurasia. Thick bone points made of animals' metapodia were particularly significant in the settlements and sanctuaries of that period. At the site of Veretye I (northeastern Europe), a special pit with such items, interpreted as a cache, was found (Oshibkina, 1997: 177).

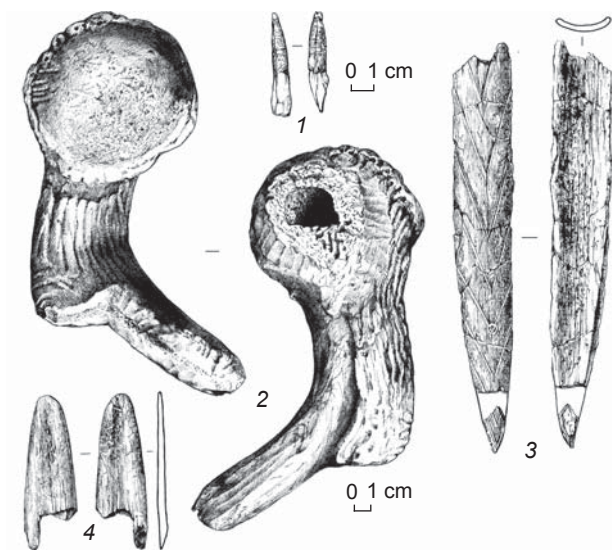


Fig. 5. Bone items of the ritual complex.
1 – pendant of elk tooth; *2* – antler striker; *3* – bone side-bladed dagger; *4* – fragment of a bone dagger.

Description of the main set of offerings from pit 148–149. The compact arrangement of the items suggests that they were placed in the pit in some kind of organic container. The dimensions of the pit made in the ditch are 1.5 × 2.3 m, the depth is 0.44–0.48 m. The offerings were placed in the upper part of the pit, on the northern step, slightly below the level of the modern surface.

It is expedient to describe the set of items from bottom to top, in accordance with the sequence of their deposition, which probably also had a sacred meaning.

The lowermost accumulation included five end-scrapers (Fig. 6, *8*, *9*, *11–13*), two knife-like blades (Fig. 6, *4, 7*), a chip from a polished item (Fig. 6, *6*), a polished adze (Fig. 6, *10*), and a core with three refittable flakes (Fig. 6, *1–3*, *5*). One of the end-scrapers was fashioned on an exhausted wedge-

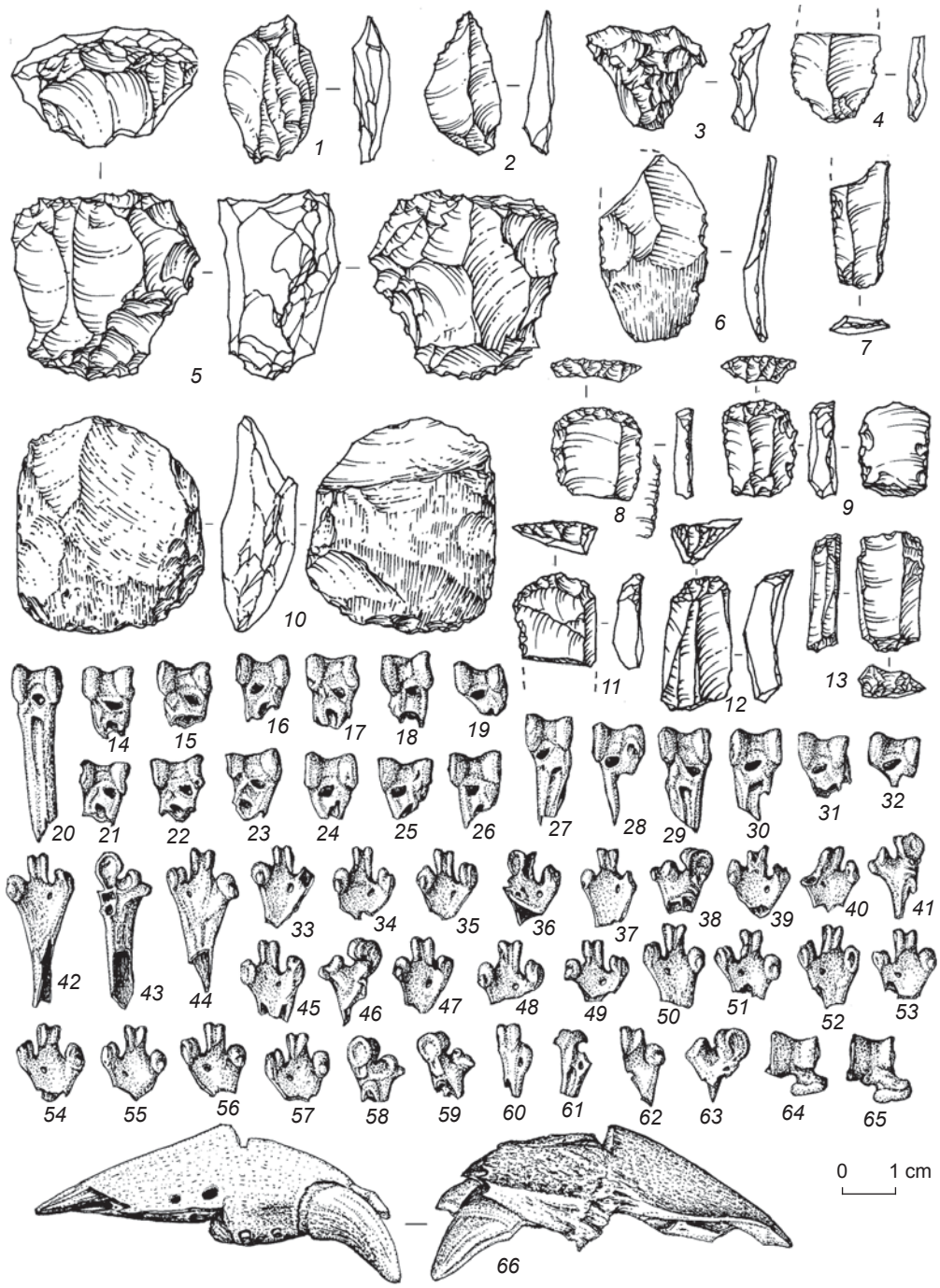


Fig. 6. Artifacts made of stone (*1–13*) and bone (*14–66*) in the set of offerings from pit 148–149.
1–3 – flakes; *4*, *7* – blades; *5* – core; *6* – chip from the polished tool surface; *8*, *9*, *11–13* – end-scrapers; *10* – polished adze-like tool; *14–63* – fragments of bird bones; *64*, *65* – tarsal bones of badger; *66* – mandible fragment of badger.

shaped core bearing negative scars of microblade removals (Fig. 6, *13*). One blade was found in the groove of a bone side-bladed dagger. Thus, in terms of technological characteristics, the lithic industry of the sanctuary (the predominance of blade technology, insert technology, ventral retouching, design of end-scrapers) generally corresponds to the lithic collections of the Barabinskaya Neolithic culture, and has parallels in the Early Neolithic complexes of the Trans-Urals and Western Siberia (see (Zhilin et al., 2007; Zhilin, Savchenko, 2010; Kosinskaya, 2015)), as well as in the Mesolithic and Upper Paleolithic complexes of the West Siberian Plain (Gening, Petrin, 1985; Gening, Petrin, Kosinskaya, 1973).

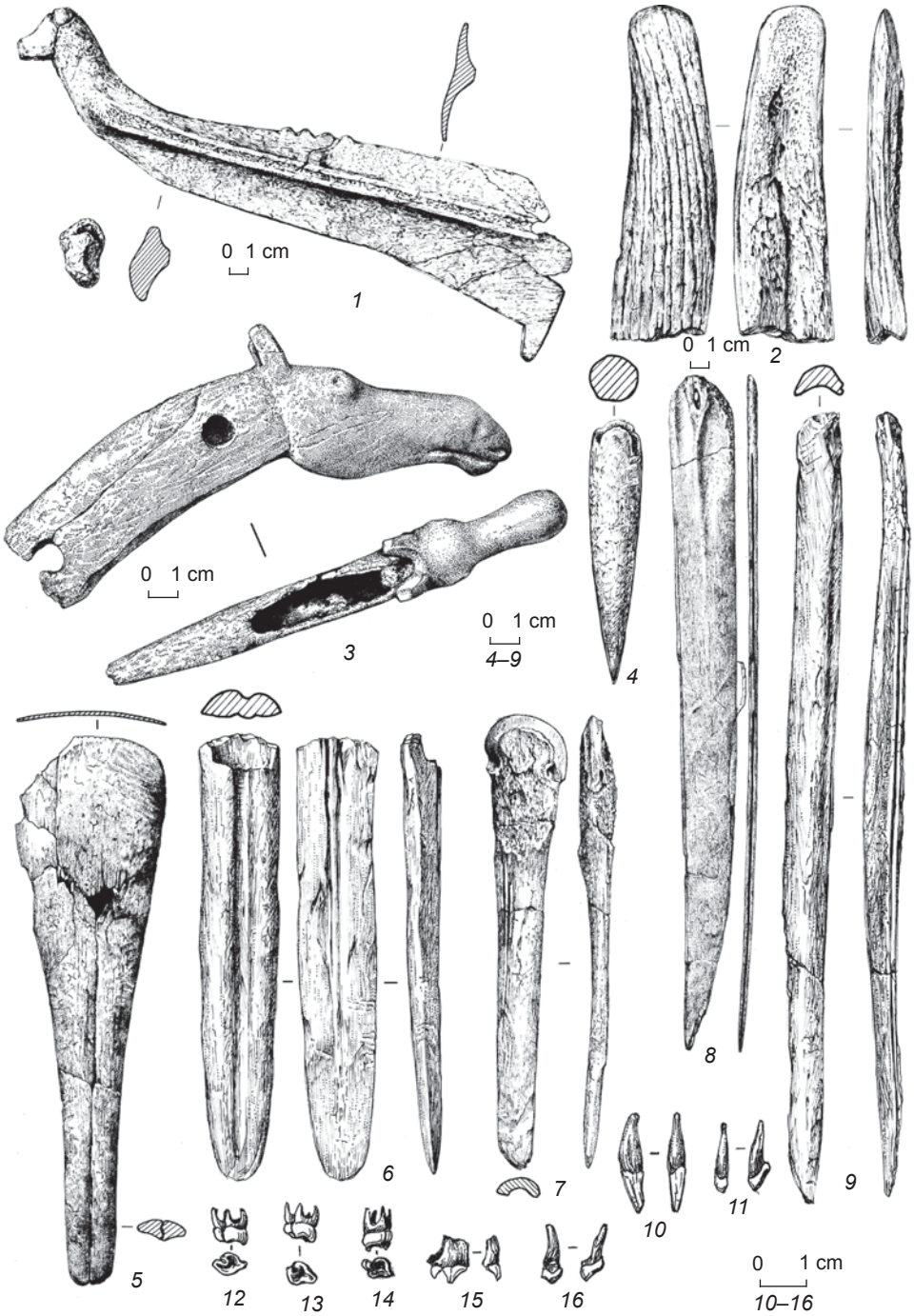


Fig. 7. Bone and antler items in the set of offerings from pit 148–149.
1 – bird figurine; *2* – antler burnisher; *3* – figurine of elk's head; *4* – cone-shaped artifact from antler; *5* – spatula with serrated working edge; *6*, *7* – bone burnishers; *8* – blade-sided dagger with insert; *9* – tool blank; *10–16* – teeth of small predator.

Over the stone offering items, there were 50 bone epiphyses of small birds' limbs (probably from partridges*) (Fig. 6, *20–63*), a fragment of a mandible (Fig. 6, *66*) and tarsal bones of a badger (Fig. 6, *64*, *65*), and also several fragments of tubular bones of birds

*Hereinafter, the identification of bones of mammals and birds was carried out by W. Rendu, the Head of the International Laboratory "Archaeozoology in Siberia and Central Asia" (IRL 2013, Centre National de la Recherche Scientifique, France – Institute of Archaeology and Ethnography of the Siberian Branch of the Russian Academy of Sciences), for which the authors express their gratitude.

Fig. 8. Antler finial shaped as an elk's head, with a handle.

and teeth of small predators (Fig. 7, *10–16*). Above this accumulation, a cone-shaped item made of antler was found (Fig. 7, *4*). It can be assumed that this is a "crane's beak" from a ritual mask. Similar masks have been known among Siberian natives up to ethnographically modern period (see (Maski…, 1975: 8)). Notably, the artifact has close parallels with the items of the ritual cache of the Neolithic sanctuary Sakhtysh II (Central Russia) of the Volosovo culture (Krainov, 1992b: Fig. 138). Above this find, there is a tool in the form of a massive spatula with a serrated working-edge, made from the central part of the skull of a large elk (Fig. 7, *5*). Its length is 28 cm. A bone burnisher was found next to the spatula (Fig. 7, *7*). A very close parallel to that tool has been reported from the Early Neolithic burial ground Kanaljorden, Motala, in southern Sweden (Hallgren, Fornander, 2016: Fig. 12, p. 170).

Still above, four humerus bones of swan, belonging to at least three individuals, and two massive bones of a large ungulate (elk?) were situated, which were the blanks for bone tools bearing signs of primary trimming (Fig. 7, *9*). There was also a side-bladed dagger, or rather its bone base (see Fig. 7, *8*), 29.4 cm long. Grooves were carved on its both sides. In the middle part of one of the grooves, a blade was inserted. Daggers of this kind, as well as relevant blanks, are most often found in the complexes of the Mesolithic and Early Neolithic sites of Northern Eurasia (see, e.g., (Krainov, 1992b: Fig. 109, *2*; Oshibkina, 1992a: Fig. 51, *1*; Gurina, Krainov, 1996: Fig. 56, *44*, *53*; Khlobystin, 1996: Fig. 89, *16*, *17*; 90, *20*, *26*; Zhilin et al., 2020: Fig. 65, 114, 118, 166, *2*; 167, *1*; Grünberg, 2016; Grünberg et al., 2016: Fig. 19, 20)).

A finial made of antler shaped as an elk's head, with a small curved handle (see Fig. 7, *3*; 8), was located over all the above mentioned items. The head's length is 9.1 cm, width along the cheekbone 4.2 cm, width in the frontal part 2.6 cm. The handle's dimensions are 11.2 × 4.0 × 2 cm. At the bottom and top, the handle has two fastening holes 1.4 cm in diameter. The figurine is amazingly realistic and skillfully made (Fig. 8). This is a three-dimensional sculpture of the animal's head with a characteristic pendulous lip, marked line of the mouth, nostrils, bulging expressive eyes, and alert ears. Parallels to the finial (some are almost identical to the one described) are known in materials from burials and sanctuaries predominantly in northwestern Europe of the Mesolithic-Chalcolithic period (see, e.g., (Gurina, 1956, 1996a, b; Oshibkina, 1978, 1992a, b; 1996; 2017; Tsvetkova, 1969, 1970; Loze, 1979; Krainov, 1988; Studzitskaya, 1997; Zhulnikov, Kashina, 2010a, b; Loze, 1970; Rimantiene, 2005)). A similar item on a long bone handle was recently discovered in the Orenburg steppe zone (Morgunova, 2020: Fig. 2, 3, pp. 16–17). Currently, the finial from the Ust-Tartas-1 marks the eastern border of the distribution area of such items.

In the uppermost layer of the set of offerings, there was a bone tool made from the shoulder blade of a large elk, 55 cm long (see Fig. 7, *1*; 9). This is a massive cutting tool of the scythe or reaping-hook type, shaped like a stylized image of a bird, with a massive head and neck and four dents cut on the back. Most likely, this is a stylized image of a swan. To enhance the resemblance to a bird, a tool made of antler, probably a scraper-knife, was specially placed over the item* (see Fig. 7, *2*; 9), which symbolized the wing—natural texture of its surface resembles folded feathers. It should be noted that a similar bird-shaped artifact was found in the cultural layer of the Early Neolithic site at Tartas-1; its sides, denoting the back and the right wing, were decorated with denticles.

*The traceological analysis was made by L.V. Zotkina, for which the authors are grateful.

Fig. 9. Bone figurine of a bird and an antler burnisher imitating a wing.

Results of the radiocarbon analysis of samples from the Ust-Tartas-1 sanctuary

Sample No.	Material	Place of discovery	Lab sample code	Radiocarbon age, BP	Calendar date, years cal BC	
					±δ	±2δ
1	Bone tool	Pit 85	GV02392	7610 ± 82	6569 (7.3 %) – 6546 6532 (60.9 %) – 6396	6640 (2.3 %) – 6616 6606 (86.9 %) – 6340 6313 (6.3 %) – 6258
2	Bird bone	Accumulation of artifacts (set of offerings, pit 148–149)	GV02393	6960 ± 68	5967 (5.1 %) – 5954 5900 (63.2 %) – 5760	5985 (95.4 %) – 5726
3	Animal tooth	"	GV02394	6389 ± 57	5471 (20.2 %) – 5433 5390 (48.1 %) – 5310	5476 (85.8 %) – 5296 5260 (9.6 %) – 5220
4	Bird bone	"	GV02395	6610 ± 59	5616 (21.3 %) – 5586 5566 (34.7 %) – 5516 5501 (12.4 %) – 5482	5635 (95.4 %) – 5474
5	Fragment of an elk-bird's shoulder blade	"	GV02828	6439 ± 72	5476 (63.2 %) – 5358 5346 (5.1 %) – 5333	5534 (91.1 %) – 5298 5259 (4.3 %) – 5220

This find is extremely important, since it is a link between the Early Neolithic Tartas-1 and the sanctuary described in this work. Fragments of similar items also occur in the Neolithic complexes of the Ural peat-bogs. In general, in the Mesolithic and Early Neolithic complexes of these sites, there are very numerous tools made from elks' shoulder blades, with long cutting-edges, which have been identified by the excavators as broad knives (Zhilin et al., 2020: Fig. 160, 162, 165). The Baraba finds show additional working, which was carried out in order to embody the ornithomorphic image. The presence of one such tool in the set of offerings at the sanctuary determines its sacred meaning.

Five dates were generated on a bone tool found in pit 85, two bird bones, an animal tooth, and an item made of an elk-bird's shoulder blade from the offerings set of the sanctuary under study—using the unique research installation "Accelerator Mass-Spectrometer of the INP SB RAS"*. These findings allowed the conclusion to be made that the sanctuary existed within the 7th–6th millennium BC (see *Table*).

Discussion of results

Features of irrational practice are well known at the Mesolithic and Early Neolithic sites in the northern part of Eurasia. They occur at burial grounds in the form of elements and in separate burials (see (Pesonen, 1977; Gurina, 1996a, b; Grünberg, 2016: 19–20; Grünberg et al., 2016)), as well as in the immediate vicinity of the settlements (special sanctuaries were often arranged next

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to the settlements: for example, one of these was found on the outskirts of the settlement of Veretye I) (Oshibkina, 1992b: 28; 2017; etc.).

Stone Age sanctuaries have been reported from the sites of the Mesolithic to Early Neolithic periods in the north of Eastern and Western Europe. They differ from the North Eurasian ones in size and content of sacrificed goods (see (Oshibkina, 1992b: 28; etc.)). However, in this area, no complexes with evident architecture have been found, which allows us to consider the sanctuary in Baraba as something peculiar. In Central Europe, in the western part of modern Hungary, ca 30 rondels and other structures of the Lengyel culture were found. One of these structures, Gétye-Gyomgyáló-lejtős, is an oval-shaped earthen fence with four gaps (or gates) in the ditch (Barna et al., 2019). Here, as at the site under study, the ditch and the pits for offerings have been identified by geophysical methods. The dimensions of this site were 96 × 115 m. The entrances are oriented to the cardinal points, suggesting association of the semantics of the complex with the astronomical position of the sun. Fragments of ceramics, stone tools, and animal-bones were found in the structure. The sites in Western Hungary are similar to the sanctuary under study in their earthen architecture with pits for offerings and the irrational purpose.

The artifacts recovered at the Baraba site make it possible to formulate assumptions regarding some manifestations of ritual practice; although the authors admit that not all proposed interpretations will be supported by colleagues. First of all, we have solid ground to assume that food products were brought to the site as offerings—at least fish and meat. Fish bones and scales (moreover, with traces of burning) were found in pits 20, 28, 30, 40, 119, 156, 181 (see Fig. 3). As a rule, other finds were associated with them. Animal bones (elk, badger) were recorded in pits 18, 30, 40, 129, 130, 132, 148–149, 156. Bird bones were found in pits 18, 128. Most likely, the pits also contained meat (without bones), fish, and plant foods, which have not survived to our time.

Offering foodstuffs to representatives of the other world is a traditional practice at sanctuaries; it is also characteristic of human ritual activities up to the present. A great number of papers, mostly ethnologic, addressed this topic.

A special role in the ritual practice belonged to the dog, which was clearly manifested in the sanctuary under study. In pit 29, there was a dog's skull, which belonged, according to the paleozoological identifications, to an old individual that had anomalies in its lifetime. The remains of dogs—a scapula and bones of a limb in the articulation—were also found in pit 156. Skulls of dogs with traces of burning (41 individuals) and artificial damage were found at the settlement of Veretye I, the skulls of 6 individuals in Nizhny Veretye, 8 individuals in Sukhosh, etc. (Oshibkina, 1992b: 11). Burials of five dogs were found in the Mesolithic complex of the cemetery in Holland, in the northwestern Europe (Kooijmans, Hamburg, Smits, 2016: 599). The list of examples could go on.

The importance of animal teeth as offerings is undeniable. They were used to make pendants and sewed-on pieces for clothes. In the Late Paleolithic and Mesolithic, such rituals took place in almost all populations of Eurasia (Krainov, 1992b: 106). At the sanctuary under consideration, animal teeth (canines of a dog or fox) were found in the filling of the ditch, teeth of an elk were found in the filling of the ditch and pit 127. Teeth, like bones, could be substitutes for the animal itself (Oshibkina, 1992b: 24).

The swan was of particular importance in the ritual practice of the Early Neolithic Barabinskaya people. This is evidenced by the occurrence in the main set of offerings of the sanctuary not only of a bird-tool, but also of humerus bones of several individuals. Veneration of the swan is manifested by the sculptural images of swans' heads made of antler and wood at Veretye I (Ibid.: Fig. 36, 37). A massive cutting tool in the form of a stylized figurine of a swan from the main set of offerings (see Fig. 9) was apparently used both in household and ritual activities. Since ancient times, the population of Siberia has shown a special attitude towards the swan as a sacred bird. This was reflected in the Paleolithic site of Malta (Eastern Siberia): a remarkable sculptural image of a "grazing" swan has been found at the site (Gerasimov, 1931; Abramova, 1962).

In pit 148–149, an extraordinary artistic antler finial was found (see Fig. 7, *3*; 8). It was noted above that such tops could have crowned various items—shamans' staffs or wands, fronts of the boats, ski ends, and possibly other things (Stolyar, 1983; Studzitskaya, 1997), and their sacred meaning is indisputable.

First of all, it should be noted that today this find marks the eastern border of the area of distribution of carved items and rock art images. A.M. Zhulnikov and E.A. Kashina developed the map of distribution of such artifacts (2010b: 72, fig. 1), which shows that staffs, finials, and images of elk heads occur in the taiga zone of Europe from northern Scandinavia to the Urals. This confirms the anthropological data that the earliest Neolithic populations of Baraba are close to the Mesolithic-Neolithic populations of the northwestern part of the East European Plain, who migrated to Western Siberia in the 9th–8th millennium BC (Chikisheva, Pozdnyakov, 2021: 143). The area of their distribution generally coincides with the area of the northern Eurasian anthropological formation identified by T.A. Chikisheva (2012). This hypothesis was supported by paleogenetic data (Molodin, Pilipenko, Pozdnyakov, 2017: 153–154).

The topic of who could have owned the staff finials—shamans (Gurina, 1956: 242; Stolyar, 1983: 157) or "every man of the community" (Zhulnikov, Kashina, 2010b: 73)—requires discussion. The finial from the West Siberian sanctuary likely testifies in favor of the former assumption. First, it comes from the sacred complex. Second, in pit 148–149, containing offerings, and in the ditch, there were other sacred items: for example, a "crane's beak" from a mask or an antler striker. This assumption is also confirmed by the Scandinavian petroglyphs depicting sacred scenes. Represented on petroglyphs are elk-headed staffs (Helskog, 1988), anthropomorphic characters with elk-headed staffs (Ibid.; Kolpakov, 2007), sometimes together with animals (elks) (Hallström, 1960), fronts of the boats, in which individual members of the crew hold such symbols in their hands (Ibid.), and phallic characters with elk-headed staffs, apparently performing a ritual dance (Kolpakov, 2007); all these provide wide opportunities for all kinds of reconstructions of myth-making (Zhulnikov, Kashina, 2010b: 74–77). It is important for us that the above examples and the discovery of the finial in the form of an elk's head *in situ* at the sanctuary indicate that the Early Neolithic Barabinskaya people had developed sacred ideas, similar to those of the population living far to the west.

Finally, one cannot fail to note the use of stone and bone tools as offerings, which was also quite a common manifestation of sacrifices in the ritual practices of humans.

Another special topic for myth-making is represented by the attitude to a partridge, which is evidenced by the occurrence in the main pits at the sanctuary of its articular bones, possibly used as parts of a necklace or sewed-on pieces for clothes. A huge mass of myth-making is associated with birds, the manifestation of which has been survived among the aboriginal population up to the present time.

Conclusions

The described structure, with several various sets of offerings, is a unique sanctuary, a type of sacred-landscape place of the Early Neolithic population in Western Siberia.

The analysis showed that the ceramic complex of the sanctuary belonged to the Early Neolithic Barabinskaya culture. The derived radiocarbon dates make it possible to date the object reliably within the 7th–6th millennium BC. In addition to pottery and lithics of a clearly Neolithic morphology, the sanctuary also yielded such indicative tools as side-bladed daggers and sacral items, including the elk-headed finial and the stylized ornithomorphic tool.

The spiritual culture of Early Neolithic people in the Irtysh basin is characterized by the highly developed "symbolic behavior and symbolic representation" (Kornienko, 2015; Watkins, 2006, 2009, 2010). These are reflected: in the construction of an architectural structure in a specially selected place; the separation of this structure from residential and utility buildings; the standardization of the main images-symbols (elk, dog, bird); and the use of offerings.

The ritual complex of the sanctuary under study has no analogs; although such items as elk and bird figurines are not rare finds at the Neolithic sites in the northern regions. The studied complex is also remarkable for numerous manifestations of ritual practice testifying to the extremely complex mythology that had developed among West Siberian hunters and fishermen at the dawn of the New Stone Age.

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