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Inskoy Dol: A New Early Bronze Age Site in Western Altai

This article describes Early Bronze Age burial mounds at Inskoy Dol, in the lowland zone of the western Altai. The cemetery includes two groups of mounds differing in funerary rite and burial goods. One of them reveals features typical of the Afanasievo culture (rounded cairns made of 2–3 layers of small and medium-sized stones, a stone enclosure, supine flexed position of the buried, heads directed toward the west, ocher coloring, and egg-shaped vessels with pointed bottoms). The other group corresponds to the Kurota type (rounded cairns made of stones placed flat in a single layer, supine flexed position of the bodies, eastern orientation, ocher coloring, jar-shaped vessels). The Afanasievo and Kurota cemeteries, then, are separate but close to one another. The radiocarbon date of the Afanasievo mounds is the 29th to 27th centuries BC. Excavations at Inskoy Dol make it possible to specify the boundaries of the Afanasievo culture, suggesting that it was distributed not only over the highland, central Altai but over more westerly, lowland areas as well.

Keywords: *Early Bronze Age, Afanasievo culture, Altai, funerary rite, ceramics.*

Introduction

The Early Bronze Age in the Altai Mountains and the Altai foothills still remains understudied. No sites have been identified and no excavations have been carried out in many areas of the foothill zone. Each discovery of a new site is very important for studying the ancient history of the region, which is located on the border of the mountainous and lowland zones. The burial ground of Inskoy Dol is interesting in that it includes the burials of the Afanasievo culture along with burials that currently cannot be correlated with any of the known archaeological cultures. Similar objects were investigated in the 1970s–1980s and were regarded as belonging to the Afanasievo culture, since excavations were carried out over small areas, which did not make it possible to correlate the objects with each other (Khlobystina, 1975; Tsyb, 1984). Later, these burials were identified as the Kurota type of sites (Stepanova, 2012a). On the basis of planigraphic data, the studies at Inskoy Dol have confirmed the validity of identifying the Kurota type of burials: the group of people who left them had their own separate cemeteries. The presence of burials left by the Afanasievo population at this site in the lowland zone of the Altai makes it possible to expand the boundaries of the region where the Afanasievo culture was spread, since until recently most of the Afanasievo burials were found in the Central Altai and in the valley of the Katun River.

The Inskoy Dol cemetery is located in the Chineta archaeological microregion, in Krasnoshchekovsky

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District of the Altai Territory (Fig. 1). It was discovered by P.K. Dashkovsky in 2010 during a survey in the southern part of the Inya River Valley. The necropolises of Chineta II and Khankarinsky Dol were discovered earlier and partially excavated in the northern and central parts of the valley (Dashkovsky, Usova, 2011; Dashkovsky, 2014). The cemetery of Inskoy Dol is located on the second terrace above the floodplain, 2 km to the east-southeast of Chineta village, on the left bank of the Inya River in the southern part of the valley. A study of the topography, planigraphy, and specific features of the mounds has made it possible to establish that the site belongs to different periods and includes objects of the Scytho-Saka period and the Early Bronze Age (Dashkovsky, Meikshan, 2014; Dashkovsky, Goncharova, Meikshan, 2015; and others). Burial mounds of the Early Bronze Age are located in the northern and southern parts of Inskoy Dol, in a group of structures near the ravine and on a small promontory. The investigated mounds of the cemetery can be divided into two groups both on planigraphic grounds (the distance between them is 200 m) and according to the differences in the funerary rite. The southern group includes mounds No. 4, 5, and 9, and the northern group includes mounds No. 6–8 (Fig. 2).

Fig. 1. Location of the Inskoy Dol cemetery.

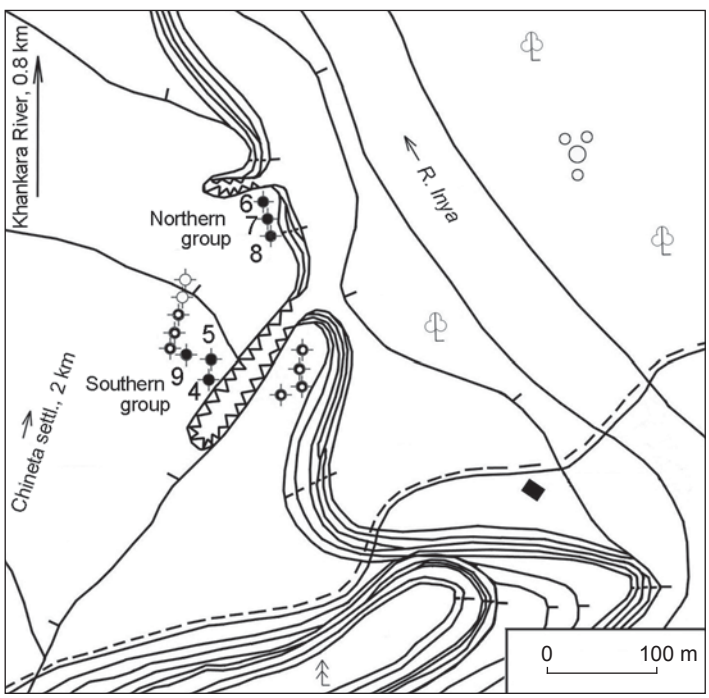

Fig. 2. Map of the Inskoy Dol cemetery.

Description of the funerary rite and pottery

Southern group

Mound No. 4. The width of the mound was 9.75 m along the N–S line, and 9.5 m along the W–E line. The mound of stones laid in one to four layers reached a height of 0.6 m. The stonework was very dense (Fig. 3). Larger stones arranged in a ring and forming a crepidoma were found under the mound. The outer diameter of the ring was 9.6 m; the width was 0.75–1.0 m. A fragment of pottery was found in the lower part of the baulk (Fig. 4). A grave measuring 1.8 × 1.23 × 0.91 m was located in the central part of the structure; the burial was destroyed. Most of the bones, including fragments of a skull, were found at the western wall of the grave; a smaller amount of bones was discovered in the central and northeastern parts of the grave. The deceased was possibly oriented with his head towards the west. Fragments of an egg-shaped vessel were scattered throughout the grave (Fig. 5).

Mound No. 5 was located 5 m to the north of mound No. 4, and constituted a single microgroup with that mound. Despite the high degree of turf formation, the mound and especially the stone enclosure around the perimeter were clearly visible at the level of the present-day surface. The mound had a stone ring

Fig. 3. Mound No. 4.

Fig. 4. Fragment of a vessel from mound No. 4.

Fig. 5. Pottery from mound No. 4.

Fig. 6. Mound No. 5.

enclosure 2.25–3.5 m wide, composed of medium-sized and large stones and slabs. The largest slabs were found in the northeastern sector of the structure. The diameter of the enclosure, which was made of two or three layers of stone, reached 15.25 m along the N–S line, and 15 m along the W–E line; its height was 0.9 m. A passage up to 2 m wide was found in the western part of the structure (Fig. 6). A sub-rectangular structure of stones laid in one layer was inside the enclosure; it was oriented according to the cardinal directions and measured 5.5 × 5.0 m. A burial pit measuring 2.3 × 1.67 × 0.72 m and oriented almost strictly according to the cardinal directions was under that structure. A skeleton of a man who was buried in the supine flexed position, with his head directed toward the west, was discovered inside the grave. A pointed bottom vessel was found 0.15 m to the north of the skull (Fig. 7).

Mound No. 9 was located 10 m to the northwest of mound No. 5. The width of the mound of stones laid in two or three layers was 7 m along the N–S line, and 8 m along the W–E line. The height of the mound was 0.4 m. A ring-shaped crepidoma 0.5–1.0 m wide was under the mound along its perimeter (Fig. 8, 9). A grave of suboval shape measuring 1.95 × 1.44 × 0.49 m oriented with its longer axis along the N–S line was found in the central part of the mound. The burial was looted. Displaced human bones with traces of red ocher were discovered in the center of the grave. Grave goods were not found.

Fig. 7. Pottery from mound No. 5.

Fig. 8. Mound No. 9.

Fig. 9. Crepidoma along the perimeter of mound No. 9.

Two vessels were found in the burials, and a large fragment of the body of a third vessel was discovered in the cairn. The egg-shaped vessel with pointed bottom from mound No. 5 was almost intact. Its total height was 19.5 cm; the height of the rim reached 2.6 cm; the diameter of the rim and the body was 12 and 15 cm, respectively. The vessel was smoothened on the inside and outside with a hard object (on the inside, possibly, with a stamp). The rim was decorated with impressions made with a denticulate tool. Horizontal rows of impressions at the top of the object were made by two tools or an object with two working edges; below, diagonal and vertical rows can be seen (see Fig. 7, 10).

The vessel from mound No. 4 was partially preserved (Fig. 5). The diameter and height of its rim were 11 and 1.8 cm, respectively; the diameter of the body reached 14 cm. It was undecorated but smoothened with a hard tool. The wall of the vessel from this mound was decorated with impressions similar to rope imprints (Fig. 4).

Technical and technological analysis of the pottery was carried out using the methodology of A.A. Bobrinsky. The analysis has shown that the vessels were made of ferruginous claylike raw material of medium plasticity

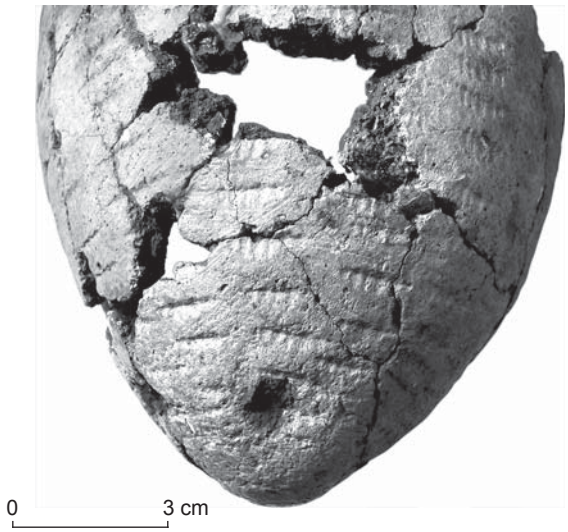

Fig. 10. Fragment of a vessel from mound No. 5.

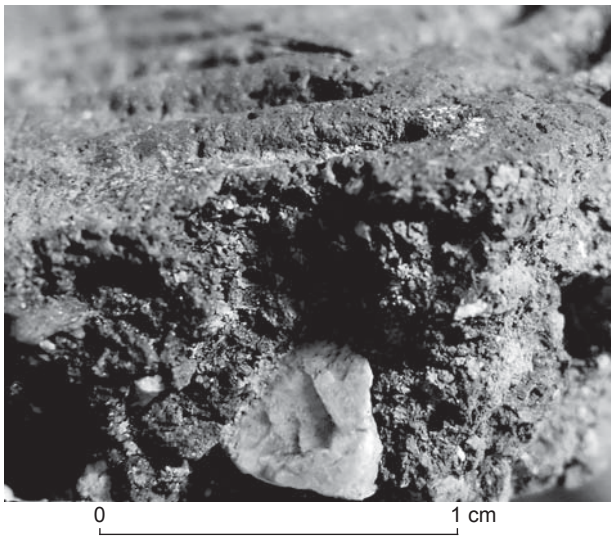

Fig. 11. Additions to the paste of a vessel from mound No. 5.

from various sources typical of mountainous areas. Grog and organic additives were added to the paste. The vessel from mound No. 5 was unusual in its composition of natural impurities (Fig. 11): its paste contained a significant amount of small limestone fragments, which is not typical for the pottery from the mountainous and lowland Altai (Stepanova, 2015a). Since limestone outcrops are present on the territory of Krasnoshchekovsky District, the use of local raw materials was quite possible. Grog was sometimes added during manufacture of the Afanasievo pottery, but this was a declining tradition (Stepanova, 2015b).

Northern group

Mounds No. 6 and 7 were located on a small hill, 200 m to the northeast of the above group of mounds, in the northeastern part of the cemetery. Prior to the excavation, these mounds were practically indistinguishable at the level of the present-day surface. For studying these objects, an excavation pit measuring 19.5 × 11.25 m was made, encompassing objects No. 6–8. The southern rim of mound No. 6 and the northern rim of mound No. 7 overlapped each other, forming virtually a single structure (Fig. 12, 13).

Mound No. 6. Its diameter reached 9 m, and its height reached 0.35 m. The object represented a ring 1.5–2.0 m wide, laid mostly in one layer of small and medium-sized stones. In the central part of the mound, there were very few stones. A grave pit measuring 2.0 × 1.2 × 0.94 m from the daytime surface was in the central part of the object; the longer axis of the grave was oriented along the NE–SW line with slight deviations. The grave contained the skeleton of a man who was placed in a supine flexed position, with knees to the left, and his head towards the east (Fig. 14), and was abundantly sprinkled with red ocher. Grave goods were not found.

Mound No. 7. The diameter of this mound, which was mostly made of one layer of small and medium-sized stones, was 7.5 m; the height was 0.35 m. As with the previous mound, this object had a ring 1.5–2.0 m wide, made of small stones along the perimeter of the structure (Fig. 12, 13). There were almost no stones in the center of the mound. The grave pit was shifted from the center of the object to the south, and was oriented with its longer axis along the NE–SW line. Its size from the level of the ancient surface was 1.54 × 0.9 × 0.79 m. A double burial with poorly preserved bones was discovered in the grave (Fig. 15). The deceased were probably buried in a supine flexed position, with their heads directed toward the east, and were sprinkled with red ocher. A jar-shaped vessel was found in the northwestern corner of the grave, at the feet of the first skeleton. The diameter of its rim was 19.2–19.6 cm; the diameter of the body was 24 cm; the diameter of the bottom was 19.7–20.5, and its height was 17.9–18.1 cm (Fig. 16). The vessel was made of ferruginous low-plasticity raw material, which included large fractions of natural impurities. Artificial additives have not been found in the paste. The surface of the item was smoothened with a denticulate tool on the inside and outside.

Mound No. 8 adjoined mound No. 7 to the south, but did not cover its rim (Fig. 12, 13). The diameter of the mound laid in one to three layers of medium-sized stones was 7.25 m along the N–S line, and 6.75 m along the W–E line. The height of the burial mound was 0.5 m. Because this object was located at the very edge of the promontory, the southern rim of its mound partially slid down. This mound differed from two previous ones. River boulders and pebbles were used for its construction, whereas

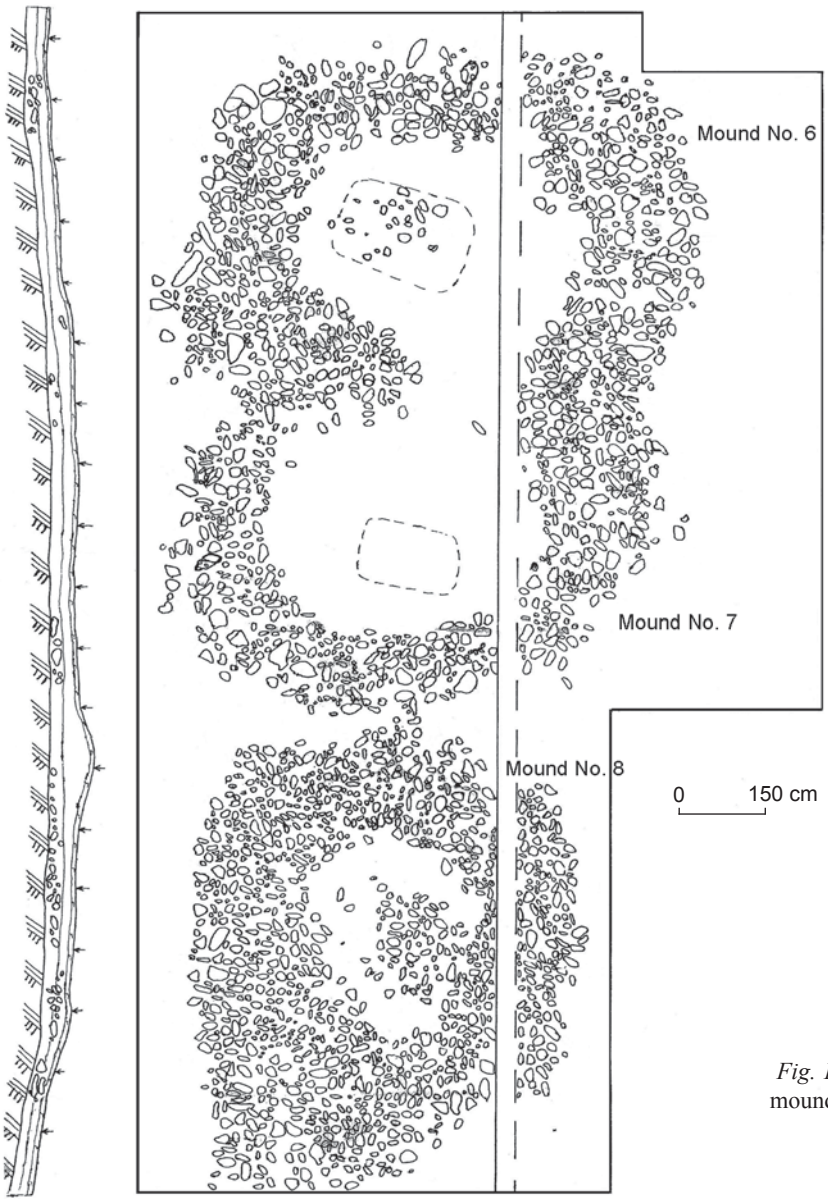

Fig. 12. Map of mounds No. 6–8.

Fig. 13. Mounds No. 7 and 8.

Fig. 14. Burial in mound No. 6.

Fig. 15. Burial in mound No. 7.

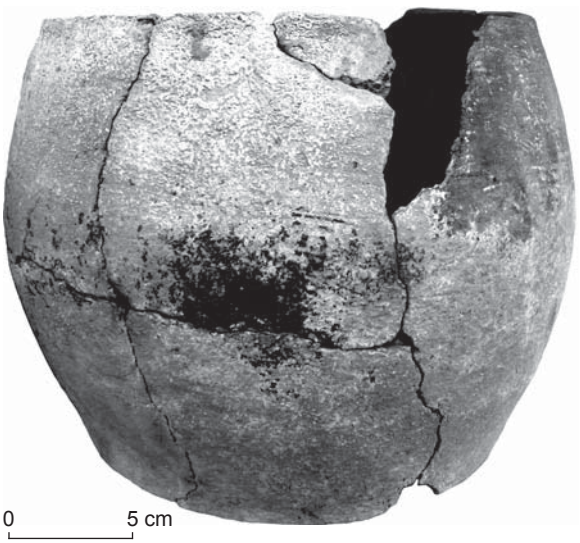

Fig. 16. Pottery from mound No. 7.

mounds No. 6 and 7 were built using crushed stone. The stones in the mound were laid evenly over the entire area of mound No. 8, which is another difference from mounds No. 6 and 7. A grave spot was not found under the mound. Mound No. 8, apparently, was made for ritual purposes.

Findings and discussion

The objects from the southern group typically have cairns of rounded shape, made of small and medium-sized stones laid in two or three layers. Ring-crepidoma, made of vertically placed slabs and large stones which were laid flat, is along the perimeter of the structure. The graves were flat. The deceased were buried in a supine flexed position (mound No. 5), with their heads to the west (mounds No. 4 and 5), and were sprinkled with red ocher. Egg-shaped vessels with pointed bottoms were found in the burials.

Two mounds (No. 6 and 7) from the northern group were made of stones placed in one layer. Large stones, which did not form a closed structure, were laid on the periphery of the objects. The deceased were placed in flat graves in a supine flexed position, with their heads to the east, and were sprinkled with red ocher. A jar-shaped vessel was found in one burial. As opposed to these two mounds, a third mound (No. 8) was built of river boulders and pebbles, which were laid in two or three layers, and did not contain a grave.

Common features of the mounds of both groups include the rounded shape of the cairn, use of stone for the construction, supine flexed position of the bodies, and the use of ocher. However, there are many more differences between the objects of both groups: the cairns in the objects from the southern group were composed of crushed stones laid in several layers; there were crepidomas made of large stones along the perimeter. The objects from the northern group were made of mostly rounded stones in one layer;

crepidomas were not found; the buried persons in the graves of the southern group were oriented to the west, while in the northern group to the east; egg-shaped vessels with pointed bottoms appear in the objects of the southern group, while a flat-bottomed jar has been found in the mounds of the northern group; in the southern group, the paste of the vessels included grog and organic materials, while in the northern group, artificial additives were not found, and the pottery was made of low-plasticity clay.

The posture, orientation, and coloring of the buried with ocher, as well as egg-shaped vessels with pointed bottoms, as is the case with mounds No. 4, 5, and 9 of the southern group, are typical for the sites of the Afanasievo culture (Vadetskaya, Polyakov, Stepanova, 2014). The cairns seem to belong to the group of enclosures made of several flat layers of small and medium-sized stones (wall-enclosures or rings), which occupy the second largest place among the Afanasievo structures in the Altai Mountains (Ibid.: 315). Crepidomas in the mounds of the southern group also have some parallels (Abdulganeev, Larin, 1994; Larin, 2005). However, the presence of an opening in the western part of the crepidoma in mound No. 5 is not typical of the Afanasievo culture. Perhaps it was made purposefully as the entrance to the sacral space. According to scholars, such a construction of the Afanasievo mound may be correlated with cosmological beliefs (Kuzmin, 1992: 127).

Vessels from mounds No. 4 and 5 also belong to the Afanasievo culture. The peculiarity of the object from mound No. 5 is that it was decorated with a tool with unusually long teeth, the imprints of which left vertical rows. For the Afanasievo culture, ornamenting tools with small teeth are typical, whose imprints form horizontal rows, while vertical and diagonal rows are very rare (Stepanova, 2010a, b, 2012b). Undecorated vessels with traces of smoothening, as the vessel from mound No. 4, are known from the funerary and settlement Afanasievo complexes (Vadetskaya, Polyakov, Stepanova, 2014, Fig. 4, *4*; 37, *1*; 52, *11*; 53, *14*; and others).

Notably, the features which were observed in the mounds (No. 6–8) of the northern group (rounded cairns in the form of rings of stones placed flat, supine flexed position of the bodies, heads directed toward the east, coloring of the deceased with ocher, burial of two persons in a single grave, and the absence of grave goods or the presence of jar-shaped vessels) are typical of the Kurota type burials (Kurota-2, Boitygem-1, Bersyukta-1, Bike-1, Elekmanar cemeteries) (Kubarev, Cheremisin, Slyusarenko, 2001; Stepanova, 2012a; Vadetskaya, Polyakov, Stepanova, 2014: 325–327, fig. 59–69, 198). It is noteworthy that vessels of jar-like form in the Altai Mountains are known from the burials of the Ulita type; in the forest-steppe Altai, from the sites of the Elunino culture; and on the territories adjacent to the Altai Mountains, from the Bronze Age burials (Kiryushin, 2002; and others). However, there is not a single burial of the Afanasievo culture containing such vessels. Mounds with cairns without burials, as burial mound No. 8, are known from the sites of the Kurota and Pokrovka types, for example, at the burial grounds of Elekmanar, Pokrovka-4, and Shchuchiy Log-1 (Vadetskaya, Polyakov, Stepanova, 2014: Fig. 69, *5*, *6*; Shulga, 2006; 2010). However, it should be noted that the Pokrovka objects contain vessels of other types, such as flat-bottomed pots and censers, but no jars.

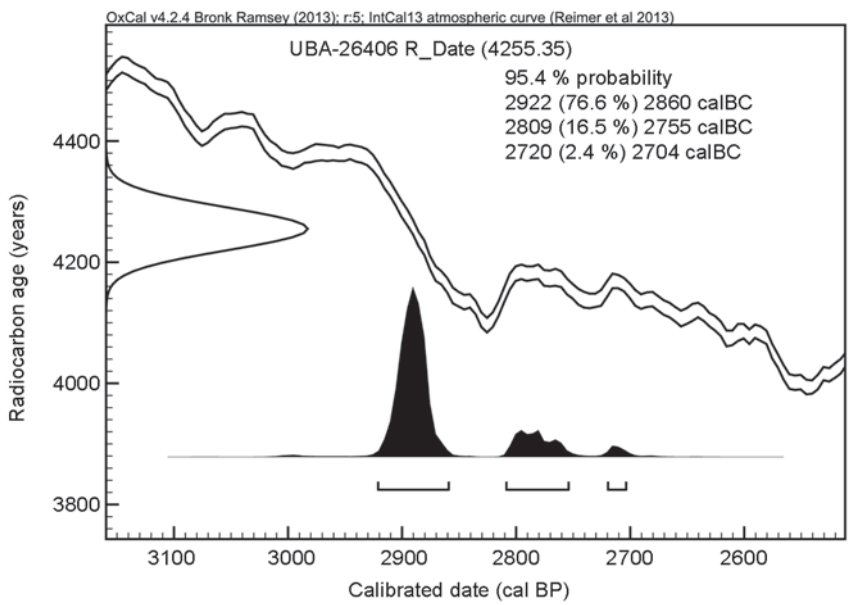

Fig. 17. Calibrated date and radiocarbon age of mound No. 9.

The time when the burials of the Kurota type appeared was determined using the relative analogies and the radiocarbon date of 4275 ± 85 BP (SOAN-7862) (Soenov, Trifanova, 2010: 176). Date calibration performed with the OxCal 4.3 software, using the Int Cal13 calibration curve, established the time of death of the person with a probability of 95.4 % as being during the period of 3265–2581 BC. Such finds as a knife from Elekmanar, vessels of a specific form with pointed bottoms from several Kurota burials, and flat-bottomed vessels with obvious signs of borrowing from the traditions of flat-bottomed Afanasievo pottery (Nizhny Tyumechin-1, Kara-Koba-1) (Vadetskaya, Polyakov, Stepanova, 2014, Fig. 69, *6*; Stepanova, 2012a: Fig. 3) make it possible to date the sites of the Kurota type to the mid 3rd millennium BC and to consider them synchronous to some sites of the Afanasievo culture. The influence of the population with other traditions on the Afanasievo culture is reflected in the funerary rite, for example, in the orientation of the deceased to the northeast and east-northeast (Kara-Koba-1, enclosure 8, Pervyi Mezhelik-1, enclosure 4, etc.) (Vadetskaya, Polyakov, Stepanova, 2014: 10–12, 17, 53, 328, fig. 19, *5*).

The time when the Afanasievo objects were created at the Inskoy Dol burial ground was established using the date that was obtained from the human bones from the burial in mound No. 9: 4255 ± 35 BP (UBA-26406)* (Fig. 17). The date was calibrated by A.V. Polyakov with the OxCal 4.2.4 software, using the Int Cal13 calibration curve. It has been found with a probability of 95.4 % that the person died within the period from 2922 to 2704 BC, which corresponds to the chronological framework of the Afanasievo culture, based on ^{14}C-dates, most of which correspond to the above interval (Polyakov, 2010).

Conclusions

Original materials of the Afanasievo and Kurota type have been obtained for the Altai foothills. The observations at the cemetery of Inskoy Dol enabled identification of the differences between the burials of the Kurota type and the burials of the Afanasievo culture. It has been proven that the group of population that left the burials of the Kurota type had separate cemeteries. Studies at Inskoy Dol have shown that differences in funerary rite and material culture of both groups of population were not accidental, but were caused by the fact that two groups of people with different cultural traditions lived there in the Early Bronze Age.

On the basis of studies of the Afanasievo burial mounds in the Altai foothills, the area where the sites of this culture occur was expanded. It was concluded that the low mountains of the Western Altai were inhabited by the Afanasievo tribes. According to the radiocarbon date, the group of the Afanasievo burials in Inskoy Dol emerged in the 29th to 27th centuries BC, which corresponds to the main series of dates of the Afanasievo culture (Polyakov, 2010). Thus, the chronological framework of this culture has been clarified, and the base of the radiocarbon dates for the Afanasievo culture in the Altai has been expanded. Further research at the Inskoy Dol cemetery is promising for studying the Early Bronze Age of the Altai.

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