CERAMICS OF THE ULAKHAN-SEGELENNYAKH CULTURE, EARLY BRONZE AGE, YAKUTIA

The principal diagnostic feature of the Bronze Age (2nd millennium BC) Ulakhan-Segelennyakh culture of southern, southwestern, and western Yakutia, which was first described by the present author, is pottery decorated with punched nodes in combination with dentate impressions and stamp imprints. This type of pottery differs from Ust-Mil pottery and resembles both ancestral Ymyiakhtakh ceramics and ceramics made by immigrants. The Ulakhan-Segelennyakh culture did not spread across all Yakutia, but occupied vast taiga regions in the basins of the Aldan, Olekma, Vilyui, and Middle Lena. Most immigrants were descendants of the Glazkovo people, and entered Yakutia along the upper reaches of these rivers.

Keywords: Yakutia, Bronze Age, Ulakhan-Segelennyakh culture, ceramics, decorations.

Introduction

Although entire chapters of summarizing monographs address the cultures of the Bronze Age, very little detailed knowledge is available on Yakutia during this period, unlike the Neolithic (Okladnikov, 1949, 1955; Fedoseyeva, 1968; Arkhipov, 1989; Alekseyev, Gogoleva, Zykov, 1991; Alekseyev, 1996). Since the 1960s, only one culture belonging to this huge territory has been attributed exclusively to the Bronze Age, the Ust-Mil culture identified by S.A. Fedoseyeva and Yu.A. Mochanov. The Ust-Mil culture was first identified on the Aldan River and then in other regions of Yakutia (Fedoseyeva, 1970a, b, 1974; Mochanov, Fedoseyeva, 1976: 524). This culture is described in a monograph by V.I. Ertyukov (1990), who synthesized all Bronze Age materials collected in Yakutia up to and during the 1980s.

Until recently it was believed that the Ymyiakhtakh culture was universally replaced by the Ust-Mil culture, although the date of the latter is still open to debate. The Ymyiakhtakh culture originated during the final Neolithic, while at the late stage of development, bearers of this culture borrowed bronze artifacts from their neighbors (Fedoseyeva, 1980: 215; Mochanov et al., 1983: 18). Later, descendants of the Ymyiakhtakh people mastered bronze technology (Khlobystin, 1998: 175; Everstov, 1999a: 53; Kiriyak, 2005: 11). Researchers have attributed the Ymyiakhtakh culture both to the Late Neolithic (Fedoseyeva, 1980: 215; Alekseyev, 1996: 55) and to the Bronze Age (Khlobystin, 1987).

At different times, scholars have made attempts to divide the Yakutia Bronze Age into early and late stages (Okladnikov, 1955: Ertyukov, 1990), and to single out a specific Chalcolithic period (Zykov, 1978: 37–38). S.A. Fedoseyeva, the principal investigator of Ymyiakhtakh, has recently attributed this culture to the Neolithic/Bronze Age transition (Fedoseyeva, 1999: 58–59; Mochanov, Fedoseyeva, 2001: 32; 2002: 28). It is the author’s opinion that at the outset, the Ymyiakhtakh culture was intrinsically Late Neolithic, and then, due
to migration processes, began transforming into several Bronze Age cultures (Dyakonov, 2007, 2008, 2009; Alekseyev, Dyakonov, 2009). S.I. Everestov’s works on the lower Indigirka and the radiocarbon dates of his finds convincingly demonstrate that descendants of the Ymyiakhtakh people coexisted with those associated with Bronze and Iron Age cultures north of the Arctic Circle. Having adopted full-scale bronze metallurgy, they nonetheless retained their traditional culture, material and spiritual alike (1998, 1999a, b, 2006). At the same time, Ust-Mil sites are few in the North. Presumably, the Bronze Age Sugunnakh culture, derivative of Ymyiakhtakh, existed through the 1st millennium BC – 1st millennium AD north of the Arctic Circle and in contiguous regions of Yakutia (Alekseyev, Dyakonov, 2009; Dyakonov, 2009).

Pottery represented primarily by plain vessels with appliquéd rolls constitutes the main diagnostic element of the Bronze Age Ust-Mil culture (Ertuykov, 1990: 85, 111). This pottery differs markedly from ceramics of preceding and succeeding cultures. Stone and bone artifacts in Ust-Mil assemblages are few and characterless (Alekseyev, 1996: 70). The attribution of Yakutian petroglyphs to specific Bronze Age cultures remains as contentious as the attribution of single bronze artifacts to the same period. Single burials, which some researchers attribute to the Bronze Age Ust-Mil culture are poorly documented and their attribution is still problematic (Ibid.: 72; Dyakonov, 2010). Beside diagnostic rolled ceramics, researchers attribute vessels decorated with punched nodes, dentate impressions, and stamp imprints (type XIV, according to V.I. Ertuykov) to the Ust-Mil pottery, though they differ sharply from typical Ust-Mil ceramics (Ertuykov, 1980, 1990, 1992; Alekseyev, 1996). At the same time, V.I. Ertuykov notes that ceramics decorated with punched nodes have not yet been found in distinct Bronze Age horizons, so its attribution to the Ust-Mil culture is provisional (1980: 94). According to S.A. Fedoseyeva, ceramics decorated with nodes could have spread among the Ymyiakhtakh people together with Seima-Turbino bronze ware (1980: 205). Fedoseyeva points to the possibility that in some areas west of the Lena, the Ymyiakhtakh culture was succeeded not by the Ust-Mil culture but by another culture marked by pottery decorated in the comb design, or that the latter two cultures coexisted (Ibid.: 211).

In V.I. Ertuykov’s opinion, the traditions of decorating pottery with comb impressions and nodes penetrated Yakutia from the Cis-Baikal region, most probably, via the upper reaches of the Lena and Vilyui in the middle and end of the 2nd millennium BC (1990: 112). Ertuykov also suggests that migrations of the bearers of these traditions were few and their influence on the formation of the Ust-Mil culture was indiscernible. At the same time, Ertuykov associates the appearance of some bronze artifacts (such as Muriya celts, Khatyngnakh and Syuldyukar knives) with the bearers of precisely these ceramic traditions (Ibid.), without, however, considering the possibility that these artifacts may represent a separate culture or subculture.

Thus, until recently it was believed that the Bronze Age in Yakutia was represented by the Ust-Mil culture solely and that this culture was distributed all over Yakutia and even spread to contiguous regions (Ibid.: 111). As we now believe, during the Bronze Age, at least three cultures existed in the region: Ulakhan-Segeleen’yakh, Ust-Mil, and Sugunnakh (Alekseyev, Dyakonov, 2009; Dyakonov, 2009: 19). The principal diagnostic feature of the Ulakhan-Segeleen’yakh culture is ceramics decorated with punched nodes, dentate impressions, and stamp imprints. Pottery of this type has been described in our paper presented at the Second International Conference “Ancient Cultures of Mongolia and Baikal Siberia” held in Irkutsk on 3–7 May, 2011 (Dyakonov, 2011). The article continues studies in the same area. The present author attributes archaeological sites and complexes containing such ceramics to the Ulakhan-Segeleen’yakh culture. Other components of this culture (lithic and bone artifacts, economic and ritual activities of the culture’s bearers, etc.) and their specifics require further examination and therefore will not be discussed in this article. Here we touch briefly upon the chronology and distribution area of the culture—the territory, throughout which ceramics of this kind were discovered.

**Description of Ulakhan-Segeleen’yakh ceramics**

In Yakutia, ceramics decorated with punched nodes, dentate impressions, and stamp imprints have been found on the Middle Lena, Olekma, and Vilyui (Fig. 1). As mentioned above, pottery of this type was attributed to the Ulakhan-Segeleen’yakh culture named after the multilayered site Ulakhan-Segeleen’yakh (Tok River in the Olekma basin)*. At this site, the culture under

*The etymology of these toponyms is worth noting. Ulakhan-Segeleen’yakh is the left tributary of the Toko River. According to the Yakutian ethnohistorian and historian Gavrili Ksenofontov, the word ‘sögelöön’ refers to larch branches from which mattresses were made; the “blankets” were also woven from such twigs (Ksenofontov, 1992: 233). ‘Nöök’ is the possessive affix (Leontyev, Novikova, 1989: 46; Bagdaryyn Syulbeh, 2004: 8). The adjective ‘ulakhan’ means ‘large’, ‘main’, etc. If so, Ulakhan Sögelöönökh (pronounced “Ulakhan-Segeleen’yakh” by Russian speakers) would mean ‘large stream where larch twigs are available’. However, E.K. Pekarsky’s *Yakutian Dictionary* provides an alternative translation: ‘sögelöön’ can also mean ‘lucky in hunting’ (1959, col. 2299). In this case Ulakhan Sögelöönökh would mean a place well suited for hunting and trapping.
consideration was first recorded in distinct stratigraphic position within cultural horizon VII dated to the Bronze Age (Kirillin, 1996; Alekseyev, 1996). In addition to the ceramics, lithics, bone artifacts as well as bones of animals and fish, the site yielded 20 fragments of a ladle whose shape was completely reconstructed*. All the reconstructed vessels are round-based, open, and have a distinct neck (Fig. 2, 14, 18, 22, 23). No traces of ring-building or coiling are visible on fractures of the potsherds. The pottery appears to be handmade using pressing and subsequent percussion method with an anvil (a smooth stone) applied to the inside. According to S.A. Vorobiyev who conducted experiments on shaping ceramic vessels (some made in the field at Ulakhan-SEGelenniyakh), this pottery making technique could have been used in Yakutia from the Early Neolithic until the Middle Ages (1999: 69–71). Generally, in his view (Ibid.: 71), the entire technique consisted in modeling the vessel by hand from a lump of clay and paddling it against an anvil, placing a ring woven from willow twigs on the future mouth, tampering the walls, truncating the upper part of the ring, smoothing the surface, and applying a design. Apparently, padding rather than modeling on a template was used in this case since the latter method leaves little room for subsequently modifying of shape (Zhushchikhovskaya, Pankratova, 2000: 131), whereas the Ulakhan-SEGelenniyakh vessels have rather complex profiles.

The vessels were manufactured with the help of a waffled paddle. Five vessels bear imprints of rhombic cells; one vessel bears imprints of square cells. Cell sizes vary from 0.5 × 0.5 cm to 1.0 × 1.0 cm. All ceramics are double-layered, possibly due to layer-by-layer building: additional pieces of paste were stuck to the almost finished vessel and then thoroughly beaten with the paddle. The vessels are approximately 20–30 cm high. Their walls are 0.2–0.8 cm (mean 0.3–0.5 cm) thick. Body sherds are thinner than rim and base fragments. Ceramic paste is comprised of sand, grass, and wool. It should be noted that the admixture of wool and plant components is more typical of Ymyiakhtakh pottery, though it is sometimes encountered in Ust-Mil pottery due to the impact on it of the Ymyiakhtakh ceramic tradition (Dyakonov, 2001; Dyakonov, Ertyukov, 2001).

Four vessels show traces of ancient repair. Remains of a black substance, most likely birch bark pitch, is preserved on their walls. The layer contains potsherds stuck together with pitch. Thus, the ancient technique of ceramic vessel repair has been reconstructed as follows: a crack was first mended with hot pitch; then pieces of pitch 1.5 cm wide were placed on the interior and exterior surfaces; finally holes were drilled on either side of the crack and laced with cordage.

Decorations on the vessels are impressively intricate (Alekseyev, 1996: 69–70, 72, 77, 79, 139–140, pl. 40–42).

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*A.S. Kirillin restored the vessels and described their morphological features.
The lips are decorated with plain dentate impressions inclined to the right and with imprints of a two prong semicircular stamp. Rims are ornamented with interior-punched nodes arranged in continuous horizontal bands. Rows of round dentate impressions and imprints of a pronged (two prong or figurate) stamp are located below. Some decorative compositions are comprised of several elements. The first – a band of nodes – is present in all compositions. The second element consists of one or two rows of round dentate impressions. On one vessel these
impressions are paired. The third element is composed of two parallel horizontal bands of comb imprints, either continuous or discontinuous. The fourth element is represented by stylized phallic figures made by a figurate pronged stamp (Fig. 3).

As mentioned previously, in Yakutia, anthropomorphic figures on pottery appeared in the 2nd millennium BC (Dyakonov, 2002) with the arrival of groups, who mastered the technology of copper and bronze. The tradition of rendering symbolic anthropomorphic images was typical of the Bronze Age of the Cis-Baikal region. This, apparently, was one of the sources of migration which contributed to the origins of the Bronze Age culture in Yakutia. In terms of technique, style, and manner of rendition (e.g., arms shown as two horizontal lines, horned heads, imitation of a round dance), anthropomorphic figures from horizon VII of Ulakhan-Segelennyakh bear some similarity to images present on certain Bronze Age vessels in the Cis-Baikal region (Alekseyev, 1996: 72–73; Gorunova, Novikov, 2009).

In the Aldan valley, vessels decorated with nodes were found at Ust-Chuga II, Sumnaghin II, Ughino I, and Tangha I (Amga River). At Ust-Chuga II, pottery of the Ulakhan-Segelennyakh type was discovered in distinct stratigraphic context within cultural horizon II (Vorobiyev, 2007) (Fig. 1, 5). Fragments of at least seven vessels were found. Three are ornamented with interior-punched nodes. The first vessel is represented by eight fragments of the rim and adjoining area (Fig. 2, 3, 4). This thin-walled vessel is decorated with at least three horizontal bands of vertical imprints of a six prong comb, two lines impressed above the first band which may represent traces of technical winding, and another band of nodes below it. Vertical imprints of the same stamp are visible on the interior of the rim (Ibid.: 23–24, 107, 109, pl. 28, 7, 10; 30, 2, 4). The second vessel was identified by a rim sherd (Fig. 2, 2). The sherd is ornamented by at least two bands of vertical imprints of a seven prong stamp connected by a “bridge” of six rectangular impressions of a comb stamp (three arranged broadwise, and two – lengthwise), and a row of nodes in the zone of the upper band (Ibid.: 24–25, 107, 109, pl.. 28, 11; 30, 3). The third vessel is represented by 35 fragments of waffled ceramics (Fig. 2, 13). The fragments are decorated with three bands of vertical imprints of a seven prong stamp, a line roughly impressed above the upper band, and a row of nodes in the zone of this band (Ibid.: 26, 108–109, pl. 29, 1; 30, 6). The paste of the vessels contains sand and quartz grains (Ibid.: 24, 27, 29).

Discussing the cultural affinities of pottery from Ust-Chuga II horizon II, S.A. Vorobiyev wrote that the totality of criteria (thin walls, horizontal belts of decoration, punched nodes, comb design, and waffle imprints) links this pottery not with the pure Ust-Mil culture, but with its southwestern variant. In this regard, Vorobiyev considered ceramics from Aldakai I on the Amedichi River (the left tributary of the upper Aldan) and Ulakhan-Segelennyakh on the Tokko River (the left tributary of the Chara) to be the closest parallels. The distribution range of ceramics displaying these peculiarities of shape and decoration extends further west, into the upper Vitim basin and areas around Lake Baikal (Ibid.: 30–31). Hence it follows that Vorobiyev spoke of an unspecified local variety of the Bronze Age culture, being unable to identify it with Ust-Mil. A date of 3145 ± 75 BP (SOAN-6687) with the calibrated (±2 σ) interval of 1610–1210 BC was generated on charcoal from Ust-Chuga II layer II (Alekseyev, Dyakonov, 2009: 36). This date concurs with radiocarbon dates obtained for cultural horizon VII of Ulakhan-Segelennyakh.

At Sumnaghin II on the Aldan River (Fig. 1, 6), a rim sherd (Fig. 2, 17) with a single row of nodes (Ertyukov, 1980: 92, pl. II, 28; 1990: 39, 130; pl. 17, 1) was found. At the multilayered site of Ughino I (Fig. 1, 7), cultural layer I attributable to the Early Iron Age (Mochanov et al., 1983: 38) contained a rim sherd of a plain vessel (Fig. 2, 7). The fragment is decorated with a row of nodes; at least one band of slanting imprints of a three prong comb grouped in fives is located below it. The impressions of a plain paddle slanting to the left decorate the lip (Ertyukov, 1980: 92, pl II, 29; 1990: 40, 127, pl. 14, 2; Mochanov et al., 1983: 205, pl. 103, 8). According to researchers, cultural layers I (Early Iron
Age) and II (Bronze Age Ust-Mil culture) were disturbed by tillage and modern building works (Mochanov et al., 1983: 38; Ertuyukov, 1990: 40), so archaeological remains could be mixed at the site.

Site Tangha I on the Amga River (Fig. 1, 8) yielded a rim fragment of a waffled vessel (Fig. 2, 6) ornamented by a row of nodes (Kozlov, 1980: 57, pl. II, 16; Mochanov et al., 1983: 367, pl. 262, 20). Judging by the illustrations, the lip was decorated with semioval impressions resembling a horizontally elongated oval with a truncated left part. Notably, at this site, lips decorated in a similar way were recorded on typical Ymyiakhtakh waffled vessels (Kozlov, 1980: 57, pl. II, 10, 25, 31; Mochanov et al., 1983: 367, pl. 262, 25, 30, 31). It is the author’s opinion that this fact points to the early origins of the Ulakhan-Segelennyakh complex and suggests that it was formed on the Ymyiakhtakh base.

In the Middle Lena basin, ceramics decorated with punched nodes have been recorded at the sites of Khongsuor and Nemyugyuntsy (Fig. 1, 10, 11). At Khongsuor (on the Buotoma River, the right tributary of the Lena), a rim sherd (Fig. 2, 15) with two rows of closely set nodes was found. The lip is decorated with dentate impressions slanting to the right (Ertuyukov, 1990: 70, 127, pl. 14, 3).

N.P. Prokopiyev’s unpublished materials from Nemyugyuntsy, a site discovered in the Erkeeni valley (approximately 50 km south of Yakutsk), in a ploughed field near the village hospital, contain a small fragment of a rim (Fig. 2, 1) demonstrating at least one row of nodes and indistinct comb imprints located below it.

Pottery decorated with punched nodes has also been encountered at several sites in the Vilyui River basin: Ulakhan-Ediek I and II, Ust-Chirkuo I, Syangda (Tyung), and Khoto-Tuualkh. A rim sherd with a thickened and outward slanting lip decorated with impressions of a two prong stamp (judging by the illustrations, the impressions are oval in the middle part of the lip and punctuated near the inner edge) was found at Ulakhan-Ediek I (Fig. 1, 2). A row of nodes is located right below the lip (Antipina, 1980: 41–42, pl. I, 15; Ertuyukov, 1990: 57, 127, pl. 14, 8; Mochanov et al., 1991: 104, pl. 29, 1). Ulakhan Ediek II (Fig. 1, 2) contained a rim fragment (Fig. 2, 5) decorated with two horizontal rows of nodes; the lip shows straight and parallel impressions of a three prong stamp (Antipina, 1980: 42, pl. I, 20; Ertuyukov, 1990: 57, 127, pl. 14, 6; Mochanov et al., 1991: 104, pl. 29, 3).

An assemblage of pottery with nodes consisting of six vessels was found at Ust-Chirkuo I (Fig. 1, 1). Surface finds from the site area on the beach at Vilyui include fragments of presumably three vessels decorated by a ribbed paddle. The first vessel is represented by a rim sherd (Fig. 2, 11) with an everted lip bearing two horizontal rows of nodes (Mochanov et al., 1991: 100, 25, 3). The second vessel was identified by a rim sherd (Fig. 2, 20). Paired incisions slanting to the left dissect what appears to be an appliquéd roll decorating the lip. A horizontal row of nodes is located below it (Ibid.: 100, pl. 25, 12). The third vessel is represented by a rim sherd (Fig. 2, 16) ornamented with a similar appliquéd roll stretching from the lip down towards the body, and with two horizontal rows of nodes (Ibid.: pl. 25, 15).

S.A. Fedoseyeva excavated Ust-Chirkuo I in 1962–1963 and found a rim sherd (Fig. 2, 19) which, judging by the drawing, was ornamented with three rows of closely set nodes and straight impressions of a paddle running along the outer edge of the lip (Fedoseyeva, 1968: 54, 110, fig. 14, 6). Initially, Fedoseyeva attributed the lower layer that contained the sherd to the Middle Neolithic (Ibid.: 137). Later, the site’s stratigraphy was refined. A small rim fragment (Fig. 2, 8) with a straight lip and a node was found in the first cultural layer dated to the Early Bronze Age (Mochanov et al., 1991: 76, pl. 1, 9). The second cultural layer (Late Neolithic Ymyiakhtakh culture) contained a rim sherd of what appears to have been a plain vessel (Fig. 2, 21) with a round lip and a horizontal row of nodes just below (Ibid.: 82, pl. 7, 5).

In the test pit at Syangda (on the Tyung River, the left tributary of the Vilyui), nine fragments of plain ceramics were found. One fragment represents a small rim sherd (Fig. 2, 10) decorated with at least two horizontal rows of nodes. The lip bears left slanting imprints of a three prong almond-shaped stamp (Ibid.: 49, 158, pl. 84, 2). Syangda is the northernmost site in Yakutia (Fig. 1, 3), where pottery of this sort has been recorded.

A small fragment of a rim (Fig. 2, 9) was found at the lake site of Khotu-Tuulakh (Fig. 1, 4). This sherd is decorated with at least two horizontal rows of nodes. The lip demonstrates dentate impressions slanting to the left (Ibid.: 166, pl., 92, 6).

The finds described above represent all known finds of pottery with punched nodes (the list may be incomplete).

Closest parallels

Ceramics decorated with punched nodes were widespread during the final Neolithic and Bronze Age in the Trans-Baikal, Cis-Baikal, and Angara regions as well as in Western Siberia. The closest analogues to Ulakhan-Segelennyakh pottery have been recorded in the Cis-Baikal area. Thus L.P. Khlobystin (1987: 332) mentions that rows of nodes and lines made with a dragged and periodically pressed stick are the most typical decoration elements occurring on Glazkovo vessels. According to V.V. Krasnoschekov and A.V. Tet’enkin, ribbed and plain ceramics decorated with nodes have been found at Ust-Chikal’tui-1 (cultural layer I) in the Upper Lena,
south of Zhigalovo village, and at Ust-Minya-1 (cultural layer I) in the Kirenga River basin (right tributary of the Lena) in the northern part of the Irkutsk Province (Fig. 1, 13, 14). The sites Ust-Karenga-12, -14, and -16 (cultural layer I in all cases) on the Vitim River (Fig. 1, 15) are spatially close and, presumably, attributable to the area of the Ulakhan-Segelenniakh culture. Ceramic assemblages from these sites contain waffled vessels with an evereted rim decorated with pits, nodes, and stamp imprints (A.V. Tetenkin and V.M. Vetrov, personal communication). Radiocarbon dates obtained for these sites – 250 ± 40 BP (LE-2649) and 3670 ± 40 BP (LE-2650) (Vetrov, Samuilova, 1990: 123) – generally coincide with dates generated for the south Yakutian sites of the Ulakhan-Segelenniakh culture. A.N. Alekseyev noted the similarity between vessels from the Olekma and Vitim. According to Alekseyev, the Vitim River being the area where the Amur basin, Trans-Baikal region, and Yakutia join, was evidently one point through which the tradition of decorating vessels with nodes penetrated Yakutia (Alekseyev, 1996: 77).

The settlement of Aldakai I (Fig. 1, 12) on the Amedichi River in the upper Aldan River basin, contained ceramics combining elements of Ymyiakhtakh pottery (round-based vessels, waffled décor) and those typical of synchronous cultures in the Trans-Baikal and Cis-Baikal regions (appliquéd rolls dissected by a multipronged stamp, impressed flutes, etc.) (Vorobiyev, 2003: 62–63). This may not be a typical Ulakhan-Segelenniakh assemblage because punched nodes are absent. One fragment of a mouth, however, reveals an applied boss, which might imitate a node (Ibid.: 58, 62, fig. 9, 13). In addition, the Aldakai assemblage comprises vessels ornamented with rolls – elements not typical of Ulakhan-Segelenniakh pottery. Based on the radiocarbon date obtained for the floor of a dwelling – 3185 ± 65 BP (SOAN-4730), V.S. Vorobiyev (Ibid.: 46, 62) attributed Aldakai I to the Bronze Age. Vorobiyev refrains from attributing it to Ust-Mil, while acknowledging autochthonous features (Ibid.). In addition to local traits and marked influence of the Baikal Late Neolithic and Bronze Age cultures, the Aldakai I assemblage demonstrates affinity with the Late Neolithic Voznesenovskye culture of the Amur region. Arrow heads with a tetrahedral point shaped by a specific technique imitating burnin blow is worth mentioning in this regard (Ibid.: 48–50). A similar technique of arrow head shaping was recorded among finds from Late Neolithic settlements on the Lower Amur: Kabachi, Kolchem-3, Malayn Gavan, and Goncharka (Shevkomud, 2004: 54, 85–86, 113, pl. 36, 7; 64–1, 6, 7). At the same time, archaeological materials of the Voznesenovskye culture differ significantly from Aldakai finds.

Assemblages with pottery decorated with nodes attributable to the Bolshaya Bukhta culture have been found at certain sites in the northeastern part of the Amur basin and on Sakhalin Island; isolated finds of this kind have been recorded on the continental coast of the Tatar Strait (Deryugin, Losan, 2009: 52, 66, pl. 10). Radiocarbon dates, primarily generated on charred remains of food on vessels from the settlements of Golyi Mys-1 and Bolshaya Bukhta-1, indicate that the Bolshaya Bukhta culture existed within the range of the middle – first half of the 1st millennium BC (Shevkomud, 2008: 168), most probably in the 7th–4th centuries BC (Deryugin, Losan, 2009: 52). Bolshaya Bukhta pottery is represented by round-based and thin-walled vessels decorated with rows of nodes and compositions made using a retreating paddle technique. Pottery is accompanied by stone tools which have a Neolithic appearance (Shevkomud, 2008: 164, 168, pl. 5, 3, 4). Specialists mention the eastern Siberian affinities of Bolshaya Bukhta, specifically its ties with the Neolithic and Bronze Age cultures of Yakutia (Ibid.: 169; Deryugin, Losan, 2009: 52).

Conclusions

The diagnostic features of Ulakhan-Segelenniakh ceramics include the following:

1. The vessels are handmade using the pressure technique. Subsequently the paddle-and-anvil technique was used (sometimes thin layers of clay were added). Both single- and double-layered ceramics were encountered. A similar technology can be traced in Yakutian archaeological collections from the Early Neolithic to the Middle Ages.

2. Most vessels have curved profiles, with a neck, distinct lip, and round base. Vessels of this shape are only occasionally encountered in the Late Neolithic assemblages of Yakutia (Fedoseyeva, 1980: pl. 2; Vorobiyev, 1999: 75, fig. 2) and at the sites of the Ust-Mil culture not prevailing there (Ertukov, 1990: pl. 24; 1992: fig. 2).

3. Data concerning the paste of the Ulakhan-Segelenniakh pottery are available from few sites only, and no petrographic analysis has yet been carried out, so our conclusions are tentative. Sand, grit (quartz grains), wool, and plant remains are visually detectable in some potsherds. Such a composition is most typical of Ymyiakhtakh ceramics, therefore, the presence of organic admixtures in the paste suggests genetic links between the Ulakhan-Segelenniakh and Ymyiakhtakh cultures. This is also true for other Bronze Age cultures of Yakutia (Ust-Mil and Sugunnakh).

4. Both vessels with technical décor (waffled and to a lesser degree, ribbed) and plain vessels were found. The presence of waffled, ribbed, and plain vessels is typical of Ymyiakhtakh sites (Fedoseyeva, 1980) and for the Early Iron assemblages of Yakutia (Konstantinov, 1978). Such vessels are also characteristic of the Glazkovo
culture (Khlobystin, 1987: 331). Typical Ust-Mil pottery is plain.

5. Apart from simple decorations, intricate patterns are present on Ulakhan-Segelennyakh vessels: horizontal rows of round dentate impressions, ornamental bands made by pronged and figured stamps, including anthropomorphic images imitating a round dance. From one to three horizontal rows of interior-punched nodes are necessarily present in the rim zone. Lips are normally decorated with dentate impressions and stamp imprints. Importantly, neither applied decoration, typical of Ust-Mil, nor incised patterns are present (the latter are very typical of Ymyiakhtakh).

In sum, in the 2nd millennium BC, the Ulakhan-Segelennyakh culture spread throughout southern, southwestern, and western Yakutia, extending to its central regions. Its principal diagnostic feature is pottery decorated with punched nodes combined with dentate impressions and stamp imprints. These features link Ulakhan-Segelennyakh with both the autochthonous Ymyiakhtakh and intrusive cultures (Dyakonov, 2007, 2008, 2009, 2011; Alekseyev, Dyakonov, 2009). The Ulakhan-Segelennyakh vessels were made using a paddling technique; they are round-based and have a curved profile; the walls are of medium thickness. Waffled pottery is most typical, although ribbed and plan ceramics are also encountered. Ulakhan-Segelennyakh pottery differs drastically from Ust-Mil and Ymyiakhtakh in a number of ways. Ulakhan-Segelennyakh mostly derived from Glazkovo, the elements of which were introduced via the headstreams of the Lena, Vilyui, Olekma, and Aldan. Based on calibrated radiocarbon dates, the chronological range of Ulakhan-Segelennyakh should be estimated at 1900 ± 400…1350 ± 350 BC, or 550 years at least. The distribution range appears to have been patchy and included vast taiga areas of southern, southwestern, and western Yakutia.

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Received December 21, 2011.