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A non-ordinary goods complex of the paleometal period in the southern Russian Far East

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1. Introduction

The subject of non-ordinary, in particularly, prestige, or high-status, goods used in special contexts of social life in prehistory, the pre-state and early state periods is actively debated in current archaeological and anthropological studies. The emergence and development of a prestige goods system are interpreted as important markers of social and sociopolitical evolution and increasing social complexity, in particularly the processes of social leadership formation. The organization of production, distribution, and exchange of valuable goods is considered a function of an arising social elite. Also, the most typical kinds of prestige goods often playing a symbolic role were artistic creations (ornaments, etc.) produced from rare or semi-precious stones, finely made ceramic ware, metal weaponry and ornaments, ivory, exotic objects like tropical marine mollusk shells and turtle shells, etc. (Bender, 1985; Hodder, 1991: 63; Costin, 1991; Underhill, 1992, 2017; Barnes, 1993: 111, 113; Shelach, 1994; Inomata, 2001; Kim, 2001).

East Asia is one of the regions of the world where prestige goods are recognized with certainty in archaeological contexts, mainly as mortuary offerings in burial structures. Goods complexes that include various kinds of high-status objects are detected for the cultures of the Late Neolithic and Early Bronze Age in China (c. 3000–1200 BCE), sites of the Middle and Late Mumun Pottery Period (c. 850-300 BCE) on the Korean Peninsula, and sites of the Yayoi Period (c. 5th c. BC–3rd c. AD) in the Japanese Archipelago. These archaeological contexts, corresponding to communities and societies oriented toward a productive farming economy, contain strong direct and indirect evidence of intensive agricultural activity, growing social complexity, and elaboration of settlement structure (Barnes, 1993: 108–152; Nelson1993:110–163; Imamura, 1996: 182; Liu, 2003; Bale and Ko, 2006; Underhill, 1994, 2017).

The most common kind of high-value goods used in broad chronological and spatial frameworks were ornaments made of green jade and other greenstones, including various lithic materials similar to jade in color. Obviously jade and its imitations had important symbolic and prestige meaning for a long time not only for the population of ancient China but for the occupants of neighboring territories as well (Barnes, 1993:114–115; Nelson, 1993: 11–13; Liu, 2003; Lapteff, 2006; Kawamura, 2017).

Another kind of prestige goods were ceramic wares produced at special high technological and artistic levels. For instance, these are black-polished thin-walled, sophisticated vessels from sites of Longshan cultural circle in Northern China, Huanghe river basin, (c. 2600–1900 BCE), red and white painted vessels of the Lower Xiajiadian culture in Liao river basin of Northern China, (c. 2200–1600 BCE), white and gray-slipped fine ceramics of the Erlitou culture of Middle Yellow river, (c.1900–1500 BCE), and Erligang culture of North China Plain, c. 1600–1300 BCE, red-polished and black-polished earthenware of the Middle and Late Mumun Pottery Period of the Korean Peninsula (Barnes, 1993: 98, 99, 113; Nelson, 1993: 123; Shelach, 1994; Underhill, 1994, 2017; Vandiver et al., 2002; Liu, 2003; Rha, 2006: 21–23; Thorp, 2005: 21–116).

Quite remarkable kinds of symbolic and prestige goods were the products of early bronze metallurgy characterized by specific traits in different regions of East Asia. Some of them are Chinese ritual eating and drinking vessels that first appear in the latest Longshan sites, lute-shaped Liaoning-type daggers that spread from the Liaodong Peninsula into the northwest and mid-west Korean Peninsula in first half of the 1st millennium B.C., slender daggers of the Korean type and mirrors decorated with a geometric pattern of slanting lines that appear in the end of the Late Mumun Pottery Period, and the bronzes of the Yayoi period in the Japanese Archipelago (Aikens and Higuchi, 1982: 187–250; Barnes, 1993: 117–118; Nelson, 1993: 111–113, 132–138; Kim, 2001; Bale and Ko, 2006).

The writing of this article was inspired by data and ideas presented in the article of M. T. Bale and M.-J. Ko focusing on social changes in prehistoric communities of the Mumun Pottery Period, c.1500 to 300 BCE, on the south-central Korean Peninsula (2006). In particular, the authors consider greenstone ornaments, ground-stone daggers, red-burnished pottery, and early bronzes as a complex of prestige goods and products of specialized crafts. The development of these crafts is correlated with the growth of intensive agriculture and social complexity during the Mumun Pottery Period.

Data on the Mumun Pottery Period's prestige-goods complex are of great interest with regard to archaeological evidence from the closest region—the southern mainland part of the Russian Far East. The past history of this area was connected inextricably with the past of the Japanese Sea oikumene in general and neighboring territories of Korea

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and Northeast China in particular (Aikens et al., 2010). In this context it is important to reveal and understand some common traits of archaeological patterns reflecting certain trends of the cultural-historical process.

The present article considers materials from sites of the Yankovskaya archaeological culture, c. 10th–9th—3rd–2nd centuries B.C., in the Primor'e (Maritime) region of the Russian Far East. This culture is synchronic with sites of the Middle (850–550 BCE) and Late (550–300 BCE) Mumun Pottery Period and had its specific image reflected in the economic strategy, the pottery and tool typology, and the mortuary practice patterns. However, the characteristic trait is the presence in the Yankovskaya culture's artifact assemblage of such objects as greenstone ornaments, ground-stone daggers, and red ware. These artifacts were discovered and described long ago but not interpreted until recently as a complex of goods having certain functions and meaning in the prehistoric community. When compared with the Korean evidence one has the opportunity to look at known materials from a new vantage point and try to suggest a new interpretation of them. What role did these artifacts play for bearers of Yankovskaya archaeological culture? Was it similar to Mumun or different?

2. Research data

2.1. Yankovskaya archaeological culture

Sites of the Yankovskaya culture were first discovered on the sea coast of southern Primor'e in the end of 19th century. Systematic scientific investigations of this culture began in second half of the 1950s. By the mid-1980s a series of sites had been excavated, numerous and varied artifacts unearthed, and the first generalizing schemas of chronology, location and economic patterns, and mode of life had been suggested (Okladnikov, 1963; Derevyanko, 1973; Andreeva et al., 1986; Brodyansky, 1987: 169–173). Further investigations contributed to the characterization and understanding of the Yankovskaya archaeological cultural phenomenon. Recent years have been marked by a rising interest in the Yankovskaya cultural phenomenon (Brodyansky and Rakov, 1992; Vostretsov and Gelman, 2011; Brodyansky, 2013; Zhushchikhovskaya, 2013; Lutaenko and Artemieva, 2017; Sergusheva and Moreva, 2017).

The most densely occupied area of the Yankovskaya culture was a narrow zone along the sea coasts of Amursky Gulf and Ussuriisky Gulf in southwestern and southern Primor'e. (Figs. 1, 2). The sites are also located about 4 to 20 km from the coast in the valleys of some rivers that flow to the sea. There are individual cases of well documented sites of the Yankovskaya culture being located at a distance of more than 25–30 km from the sea. The total number of discovered sites is more than 100. The best known and most well-published sites of the Yankovskaya culture are Peschanny-1, Chapaevo, Slavyanka-1, Malaya Podushechka—lower layer, Maihe (Oleny) -1, and Maihe (Oleny) -2 (Fig. 2). Several new sites have been excavated in recent years, though the materials obtained from the investigations have not yet been processed.

The chronology of the Yankovskaya culture has not been worked out completely. The current series of carbon dates obtained from the sites is limited (Table 1). According these data temporal boundaries of Yankovskaya culture are determined generally from 2900–2800 to 2200–2100 B.P. The data in Table 1 permit tracing some differences in the ages of sites located in different zones of the culture area. Sites of the Amursky Gulf area tend to have the oldest ages. Sites located in river valleys at some distance from coast have a tendency toward later ages. Sites of southeastern Primor'e also seem to have been occupied later. However, for more definite and precise determinations, a more representative series of carbon dates is needed for certain sites.

The population that left sites of the Yankovskaya culture lived in the southern part of the Russian Far East during the late sub-Boreal period. That was a time of temporal warming common for the area of Sea of Japan basin as well as for some other regions of the world. The average annual temperatures were slightly higher and the sea level was higher in the comparison with that of the present. That warming stage which began around 3500–3200 BCE was followed by cooling from around 2500–2200 B.P. (Korotky, 1994; Lutaenko and Artemieva, 2017).

The subsistence pattern of the Yankovskaya culture combined the branches of gathering and production. Marine exploitation played significant role in the economy of seacoast settlements. The climatic conditions of late sub-Boreal were favorable for the substantial development of fishing, sea hunting, and sea gathering. Many coastal sites are marked by the deposits of shell mounds up to 1–1.5 m thick. Certain kinds of marine mollusks were an important component of the diet (Lutaenko and Artemieva, 2017). Other gathering components of subsistence were terrestrial hunting and wild plant gathering.

The assemblages of osteofauna from sites of the Yankovskaya culture contain not only the bones of wild animals but specimens of domesticated pigs and dogs, though not in large numbers. There are some materials which are important for the discussion about probable agricultural activity. Individual sites provide finds of carbonized cereal grains and charred seeds. At the Malaya Podushechka site—lower layer, in pit-dwelling N2, grains of barley were found inside a ceramic pot (Andreeva et al., 1986: 158). A new collection of carpological materials, including specimens of millet, barley and soybean, was obtained at the recently excavated seacoast site of Cherepakha 13. The researchers suppose that plant cultivation was a component of Yankovskaya culture subsistence (Sergusheva and Moreva, 2017). Artifact assemblages of the Yankovskaya culture contain tools and implements which might be used in plant gathering activity as well as in agriculture—grinding slabs, stone reaping knives, and some others. In general, the agricultural component did not play a significant role in the subsistence pattern.

The sites excavated in large scale are those with pit-dwellings and seasonal camps without long-term pit-dwellings (Slavyanka-1). The sites are varying in occupied areas. Sites Peschanny-1 and Maihe-1 (Oleny-1) occupy the areas around 3.000 m^2 and 2.500 m^2 correspondingly. Amounts of excavated pit-dwellings at these sites are 14 and 18 ones. The tendency to linear pattern of dwellings disposition is traced. The average depth of a house pit is about 0.3–0.4 m. Pit-dwellings have mostly rectangular or close to rectangular shape. The square of pit-dwelling floor is varying from around 20 m^2 to 270 m^2. The large-squared and very large-squared pit-dwellings (100–270 m^2) are interpreted supposedly as some kind of communal houses. Site Malaya Podushechka-lower layer represents small settlement occupying area not more than 1000 m^2. At this site 7 rectangular pit-dwellings were excavated. The floor areas of 6 houses varied from 12 to 25 m^2. One house had floor area of 50 m^2.

Artifacts assemblages from pit-dwellings do not provide the evidence of social differentiation between houses, and the evidence of certain craft specialization in pottery-making, stone and bone processing, fiber and textile production, etc.

Evidence of mortuary practice was discovered at the sites of Chapaevo and Malaya Podushechka—lower layer. Two kinds of burials were identified—primary individual burials and secondary multiple burials consisting of human skeletal remains in no strict anatomical order. The buried persons were not accompanied by certain complexes of grave goods. Only single artifacts were found sometimes in the burials (see below).

Stone artifacts unearthed at settlements of the Yankovskaya culture are represented by ground (polished) axes and adzes, arrowheads, harpoon heads, knives, dagger-like hilted blades, spearheads, ornaments, pebble net-sinkers, abraders, ground slabs, and some others. The well-preserved bone artifacts in shell-mound deposits are various points, needles, some ornaments, fishhooks, and some others. Ceramic spindle-whorls are characteristic of each settlement's artifacts assemblage. The category with the most numerous artifacts is pottery, represented by isolated fragments and complete vessels.

The pottery was produced of sand tempered clay paste. According to

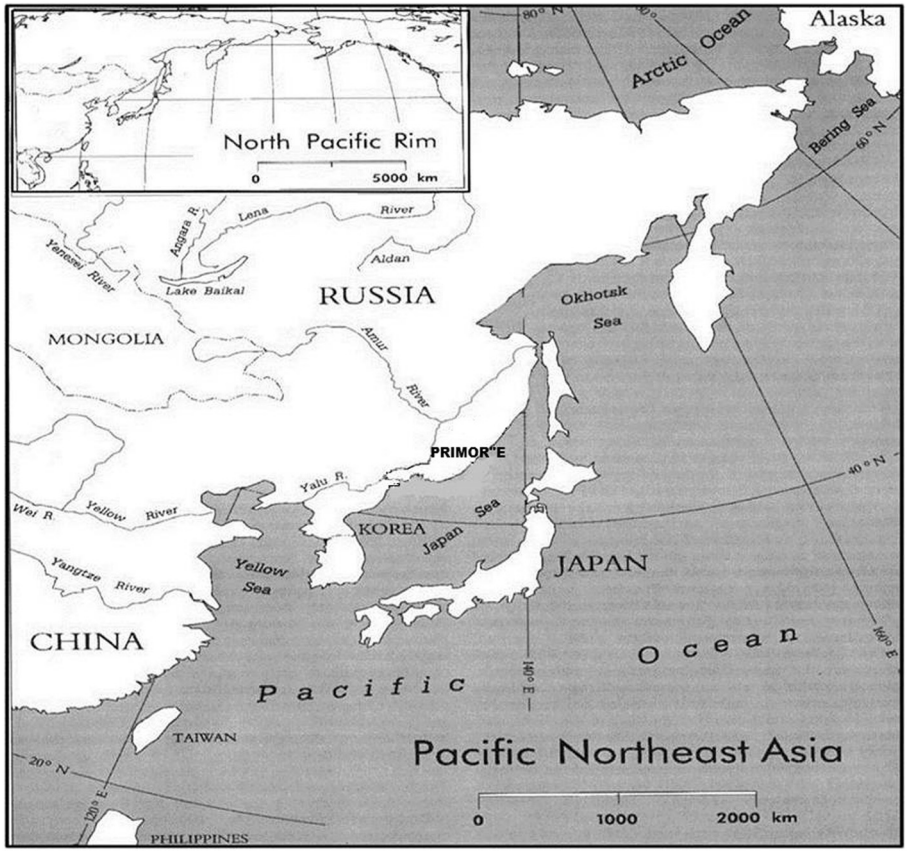

Fig. 1.

petrography observations, in many cases sand temper was added purposely, and in some cases naturally sanded clays were used. In general, Primorye region is abundant in various potters' clay resources (Zhushchikhovskaya, 2005: 37, 44–45). Ceramic wares were formed by hand-making with coiling method. Main shapes – pots and jars with restricted orifice, often necked and roundish body, bowls, dishes, footed bowls and dishes. All wares are flat-bottomed. Most large jars are of about 40–45 cm high, and most large bowls and dishes are of about 30 cm orifice diameter. The surface treatment of the wares included rubbing or smoothing, slipping and sometimes polishing (burnishing). Special technology was red ocher colored slipping applied to certain kinds of pottery. Ocher slipped ware will be considered below. In many cases ceramic vessels were ornamented before firing. Main ornamental compositions are horizontal bands of straight lines, zigzag or meander-like motifs. Technical ways of ornamentation are the incising, dotting, relief application. Potteries were fired at the temperatures around

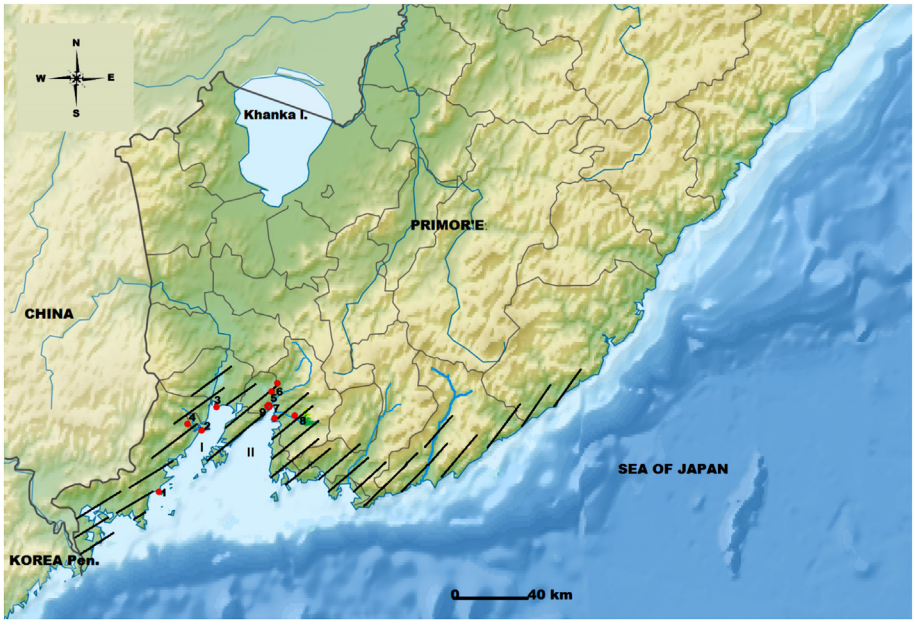

Fig. 2.

Table 1
C-14 chronology of sites of the Yankovskaya culture.

Site location	Site	Carbon date
Southwestern Primor'e (coastal area)	Slavyanka-1	2830 ± 40; 1130–900 cal. BCE
	Zaisanovka-2	2600 ± 50; 990–540 cal. BCE
		2480 ± 50; 800–400 cal. BCE
Southwestern Primor'e (river valleys at a distance from the coast)	Barabash-3	2415 ± 45
		2435 ± 90
		2180 ± 60
		2220 ± 60
Southern Primor'e (river valleys at a distance from the coast)	Malaya Podushechka - lower layer	2450 ± 50; 770–40 cal. BCE
	Maihe-1 (Oleny −1)	2195 + /-25; 370-190 cal. BCE
		2155 + /-25; 360-120 cal. BCE
		2050 + /-20; 110-10 cal. BCE
Southeastern Primor'e (coastal area)	Petrova Island.	2050 ± 20; 110–10 cal. BCE

750–900 °C according to the data of petrography observation, SEM analysis, re-firing testing. These temperatures may be achieved in bonfires and simplest kiln-like devices. At site Malaya Podushechka-lower layer, the remains of several destroyed kiln-like structures were unearthed (Zhushchikhovskaya, 2005:77). In general, ceramic wares played important role in dairy life of Yankovskaya culture's settlers. There are distinguished cooking pots, storage jars, table serving bowls and dishes. Supposedly, footed bowls and dishes were used for the special cases like fests, ceremonies, or rituals.

Pottery assemblages provide evidence of local variation of the Yankovskaya cultural pattern. The variability appears in pottery morphology, decoration standards, and technology The sites, located compactly along the southwestern and partially southern coast, show maximal variety of ornamental motifs and compositions, and vessels' shapes, most elaborated technology of surface treatment, in particularly, the cases of high quality burnishing. At the same time, pottery assemblages of these sites contain some features—mainly, in the ornamentation—of similarity with southern Primor'e late Neolithic ceramics tradition. According to Table 1 data southwestern coastal sites have most early dating. Sites located in river valleys at some distance from the coast in southwestern and southern Primor'e show more restricted set of pottery ornamental motifs and compositions, decreasing of vessels shapes variety. Carbon dates from these sites are some later than the ones from southwestern coastal sites. Pottery assemblages from sites of southeastern and eastern coastal Primor'e are characterized by a limited range of shapes and ornamental patterns and technological non-refinement. These sites are interpreted as the result of moving of some groups of Yankovskaya culture's population along the seacoast eastward. Supposedly, these sites are the latest ones (Zhushchikhovskaya, 2005:98–99).

Sites of the Yankovskaya culture provide evidence of the earliest coexistence of iron and bronze artifacts in the southern Russian Far East, in particular, in the Primor'e region. Iron implements are represented by multifunctional axes, knives, arrowheads, and fishhooks. These artifacts are few in number, and certain ones (fishhooks) are isolates. There is no evidence of local metal production. However, recently the records of supposed blacksmith craft were discovered at the settlement Barabash-3 in south-western Primor'e. Here inside rectangular-shaped pit-dwelling the remains of furnace-like construction and assemblage of cast iron items were unearthed. Oval-shaped furnace-like construction (1.5 × 1.0 m) was built of burnt clay and stones. The floor of furnace was covered by small-sized particles of charcoal. Nearby two complete cast iron axes and several broken fragments were discovered. No metal slag samples and any special craft instruments were found (Kluiev, 2012). So, the assumption about blacksmith craft is not based on direct evidence. Bronzes from excavated sites are represented by only a few specimens, primarily indeterminate small fragments (Andreeva et al., 1986: 60; Kon'kova, 1989: 41).

It should be noted that the first imported bronzes appeared in Primor'e around 1000 BCE and were the result of a wave-like migration of people from more western continental territories of Eurasia—supposedly southern Siberia where in the end of 3rd millennium BCE bronze-producing cultures flourished (Kon'kova, 1996; Zhushchikhovskaya, 2005: 128–133). The period 1000–0 BCE was the time of almost simultaneous appearance and spread of the first metals—bronze and iron—on the mainland of the southern Russian Far East. Poor development of metalworking knowledge was characteristic of this period. The specific nature of the first metals introduced in this territory is the reason for not defining Bronze and Iron Ages but rather a Paleometal period represented by a series of archaeological cultures within the framework of the final 2nd millennium BCE–early 1st millennium CE. The Yankovskaya culture is one of the most outstanding archaeological representatives of the Paleometal period (Aikens et al., 2010).

The archaeological record of the Yankovskaya culture leads to the conclusion that developed social stratification and sociopolitical leadership were absent. “Poor” and “rich” burials or dwellings cannot be distinguished at some sites. There are no excavated traces of any large ritual structure of labor-intensive construction. At the same time, site assemblages contain artifacts supposedly connected with prestige functions, artifacts that are used in special cases and situations. These artifacts determine in large measure the external image of the Yankovskaya culture, distinguishing it from earlier and later cultures of the southern Russian Far East. The artifacts discussed are greenstone ornaments, ground-stone daggers, and red ceramic ware.

2.2. Greenstone ornaments

Artifact assemblages of most of the excavated sites of the Yankovskaya culture contain ornaments made of various types of

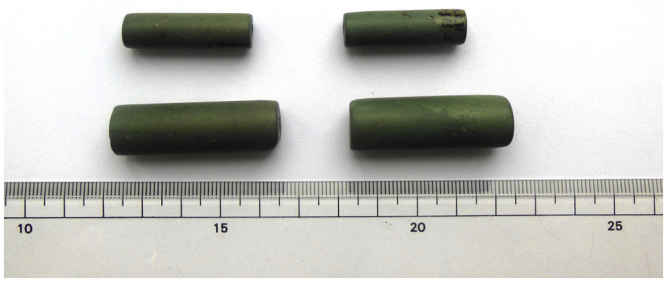

Fig. 3.

Table 2
The distribution of greenstone beads at sites of the Yankovskaya culture.

Site	Excavated area	Number of greenstone beads	
		Total number	Number of beads in Burials
Peschanny-1	Around 1500 m^2	14	No burials at the site
Slavyanka-1	Around 400 m^2	4	No burials at the site
Chapaevo	Around 200 m^2	21	10
Malaya Podushechka-lower layer	Around 750 m^2	25	13
Cape Obryvisty	Around 600 m^2	3	No burials at the site
Maihe-1 (Oleny-1)	Around 700 m^2	2 or 3	No burials at the site
Maihe-2(Oleny-2)	Around 1500 m^2	2 or 3	No burials at the site

greenstone. The mineralogical kinds of greenstone are determined to be tuff, jasper-like flint, and sometimes opal. The common trait was a color varying from greenish-gray to bluish-green. The dominate type of ornament is tubular beads (Fig. 3). The length of beads generally varies from 2 cm to 6.5–7 cm, in individual cases to about 10 cm. The diameter varies from 0.5 cm to 1.5 cm. The beads were carefully polished. The central longitudinal channel was produced by drilling. Researchers note that the channel was not always drilled symmetrically inside the bead's tube (Okladnikov, 1963: 30, 68).

Other types of greenstone ornaments are represented by very few specimens. At the Chapaevo site a small axe-shaped bead or bead-like pendant was found. The channel was drilled along the bead's "burr-like" part. Also known are a single comma-shaped greenstone pendant and a single small bi-conical bead. Both were discovered at the Peschanny-1 site (Okladnikov, 1963: 68,134).

At sites of the Yankovskaya culture only complete specimens of greenstone ornaments were discovered. In some cases the beads are partially damaged. However, no evidence of the production process was recorded—unprocessed raw greenstone material, greenstone debris, greenstone cylinders, tubes without drilled channel, or others.

The number of greenstone beads found at various sites differs. The maximal numbers of beads were recorded at sites with burial grounds—Malaya Podushechka-lower layer and Chapaevo. At the sites of Peschanny-1, Maihe-1 (Oleny-1), and Maihe-2 (Oleny-2) greenstone beads were found mainly inside the pit-dwellings. Table 2 presents the distribution of greenstone beads at excavated sites. In addition, greenstone beads were found at some other sites of the Yankovskaya culture.

The records of sites with burial grounds are of special interest. The total area of the Malaya Podushechka, lower layer, settlement, located on a low hill slope, covers approximately 1000 m^2. Badly preserved remains of seven pit-dwellings and a complex of 17 burials were discovered in an excavated area of around 750 m^2. The human remains in the burials were poorly preserved. Most burials were single primary ones in a shallow pit enclosed with stones or on slightly deepened flat ground. The deceased was in a supine position with extended limbs. In one case, a single secondary burial was recognized, and in another case, a multiple secondary burial was identified.

All greenstone beads found at this site are of the tubular type. Inside pit-dwelling N2 one bead was discovered. Eleven beads were found outside of pit-dwellings. Thirteen beads were discovered in burials (Table 3).

Besides greenstone beads, some other artifacts made up grave-goods complexes of the noted burials: in burial N1—a polished stone axe, in burial N4—two polished pendants of reddish-yellow chalcedony and a ceramic spindle-whorl, in burial N8—a polished pendant of reddish-yellow chalcedony, in burial N 9—a polished opal pendant, and in burial 14—a polished stone axe and a ceramic vessel. The grave goods were poor in other burials where greenstone beads were absent.

At the coastal settlement of Chapaevo, poorly preserved remains of pit-dwellings and burials were unearthed. A group of burials was discovered on the floor of an abandoned pit-dwelling. The skeletal remains of approximately 12–14 human individuals were detected. Some were buried in a supine position, while others were preserved as discarded skeletons and skeletal parts. Eight greenstone tubular beads were found near the skulls of two skeletons placed side by side (Burials N 1, 2). One more tubular bead was found within the "cemetery" of this pit-dwelling.

A single individual burial in a "sleeping" side position with flexed legs was discovered inside a layer of a shell-mound that filled another abandoned pit-dwelling at this settlement. The grave goods complex contained an assemblage of 20 stone net-sinkers, a broken ceramic pot, and an axe-like greenstone bead placed in the skull area (Andreeva et al., 1986: 37).

Table 3
The distribution of greenstone ornaments (**b**eads) in the **b**urials at the Malaya Podushechka Site.

Burial N	The Kind of Burial, The Age of Buried	Number of Beads	Location of the Beads at the Buried
N1	Primary single; adult	1	Skull zone
N4	Primary single; adult	1	Skull zone
N5	Primary single; adult	1	Chest zone
N8	Primary single; adult	1	Skull zone
N9	Primary single; child	2	1—Skull zone, 1—Legs zone
N10	Primary single; adult	1	Pelvis zone
N11	Primary single; adult	1	Pelvis zone
N14	Secondary single; adult	3	No exact data
N15	Primary single; adult	2	Neck zone

2.3. Red ceramic wares

This category of ceramic wares is represented first by vessels with a bright cherry-reddish or raspberry-reddish surface produced by an ocher slip. Specimens of ocher-slipped ware most frequently occur in assemblages from settlements of long duration and camp-like sites located primarily along the sea coasts of Amursky Gulf—Peschanny-1, Chapaevo, Slavyanka-1, Stark, and others. The number of ocher-slipped specimens in all the ceramic assemblages varies primarily from 5% to 15%. Red ocher-slipped ware includes a relatively limited set of vessel shapes: small and medium-sized deep and shallow bowls, bowls and dishes on a low conical foot, and rarely—small or medium-sized pots. Most of the specimens of this ware are fragmented vessels, though in rare cases there is a complete one (Figs. 4, 5, 6, 7).

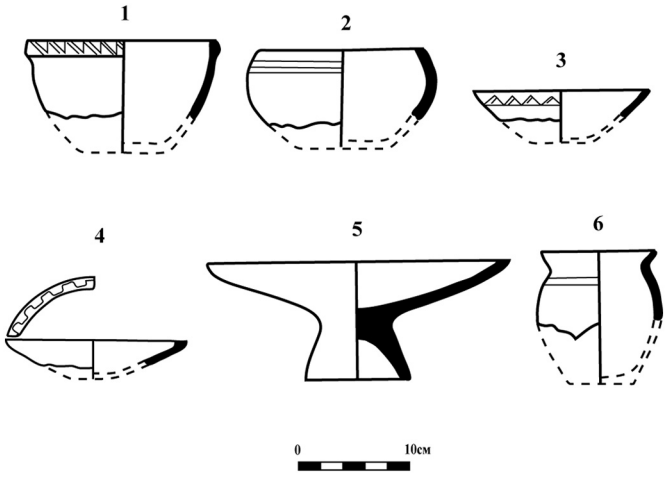

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Ocher-slipped ware was produced from local clay raw materials in correspondence with the pottery-making traditions of the Yankovskaya culture. The method of shaping vessels was hand construction of clay bands; firing was most often at temperatures of 700–800 °C, though sometimes at 850–900 °C. However, the technological methods of paste preparation, shaping, and surface treatment applied to these wares are characterized primarily by great care and accuracy. Usually the paste of ocher-slipped ware has a tendency toward a thinner texture than that of ordinary ware. The thinner texture of paste resulted in thinner walls, smooth surface, and fine contours of the formed vessel.

The ware's surfaces were covered by an ocher slip 0.5–1 mm thick. The ocher slip was applied to the vessels' observable surfaces—exterior surfaces of deep bowls and small pots, and to interior surfaces of low, shallow bowls and dishes. The vessels were usually covered by a painted layer before being fired in an oxidizing regime, after which the ocher slip acquired strong cohesion with ceramic body and a more intensive color. In many cases ocher painted surfaces were treated by burnishing and glossed lightly. Sometimes the coloring slip was applied to the surface of a fired vessel. In this case, the ocher layer was matte and had weak cohesion with ceramic body.

There are many sources of natural ocher pigment in southern Primor'e. Mostly these are small lenses of hematite material, often within clay deposits. In some cases ocher sources are of great scale. Our experiments in ceramic technology show that red slip can be prepared by mixing powdered ocher pigment with a certain amount of powdered clay and water. This slip mixture is applied with brush to the surface of formed and little dried pot like usual non-painted slip is applied. The burnishing may be applied to ocher painted surface after its drying to “leather-hard” condition. Then the pot is dried finally before firing operation. The firing in oxidizing atmosphere makes the color of ocher pigment more bright and intensive. Another way of ceramics painting is the rubbing of dry powdered ocher pigment in the walls after the firing. In this case the ocher covering appears in its natural color. The dry applied ocher painting is not lasting and has relatively short-timed effect.

A specific firing effect, used probably for the decoration of Yankovskaya culture's red pottery, was partial blackening or smudging. More frequently the blackened zone is a narrow band along the rim and sometimes on the interior surface of some bowls and dishes. The combination of black rim and red walls looks fine. Partial blackening of pottery is known in archaeological and ethnographical cases. For instance, the blackening of vessels' upper part and inner surface was used in pottery-making of the Badarian culture in Egypt during the 5th millennium BC. It was thought that after oxidizing firing, the vessels were placed in an inverted position into a smudging sphere (Spencer, 1997). According to the data on traditional pottery-making of Nigeria, partial blackening is produced after the completed oxidizing firing when red-hot pots are plucked from the fire and covered in certain areas by wet leaves for several minutes. Carbonized matter penetrates into the fabric pores and gives the black color to the surface (Slye, 1968). It seems likely that a similar method was applied to the production of partially blackened ware of the Yankovskaya culture.

In many cases the ocher slip covering of the surfaces of bowls and dishes is combined with incised or high-relief ornamental decoration of a simple geometric band-like structure. Sometimes a black-painted decoration of short stripes and round spots combined in no specific order was applied to an ocher-colored surface. In all cases the black paint looks faded and poorly preserved. This paint decoration was probably applied after the firing.

Relatively close to ocher-slipped ware are bowls, footed bowls, and dishes, and sometimes pots carefully produced but not covered with an ocher slip. The surfaces of these vessels, fired in an oxidizing regime, are of a reddish-yellow or light-orange color, polished perfectly, and decorated with band-like incised or high-relief geometrical compositions, or in rare cases, with black painted spots and stripes. A decorative effect of rim zone blackening was also applied. At all sites where ocher-slipped wares are present, series of red but non-ocher slipped wares are also found. The total number of the specimens of ocher-slipped and non-ocher slipped red pottery comprises 10%–25% of the ceramics assemblages at the sites.

On the whole, the production of red wares was more labor-intensive than the production of ordinary wares. The external features of fine red-ware bowls, footed bowls, and dishes seem to correspond most closely to table-ware functions at prestige events during certain rituals, celebrations, and festivities. There is no documented case of finding these wares in burial complexes. At sites with complexes of pit-dwellings (Peschanny-1, Chapaevo) specimens of red ware were discovered both inside the pit-dwellings and outside in inter-dwelling spaces. This indicates that these wares functioned in the context of “life” but not in the context of “death.”

Table 4
The distribution of ground-stone daggers at sites of Yankovskaya culture.

Site	Excavated area	Number of ground daggers	
		Completed specimens	Fragmented specimens
Peschanny-1	Around 1500 m^2	1	4
Slavyanka-1	Around 400 m^2	4	2
Chapaevo	Around 200 m^2	0	0
Malaya Podushechka-lower layer	Around 750 m^2	0	3
Cape Obryvisty	Around 600 m^2	0	1
Maihe (Oleny) -1	Around 700 m^2	0	1
Maihe (Oleny) -2	Around 1500 m^2	1	1

2.4. Ground-stone daggers

Sites of the Yankovskaya culture contain assemblages of polished stone tools, in particular, hilted blades traditionally interpreted as daggers or dagger-like blades (Okladnikov, 1963; Andreeva et al., 1986: 58–148). Raw materials for making these blades, as well as other polished artifacts, were mostly local slates (shale) and andesites widespread in the Primor'e area.

The total number of ground-stone daggers found at excavated sites is not substantial (Table 4). It may be said that the ground-stone dagger is a rare artifact at sites of the Yankovskaya culture. In addition, most daggers from excavated sites are fragmentary.

In addition to those from excavated sites, several ground-stone daggers that are attributed to the Yankovskaya culture were found in non-stratified contexts. There have been occasional finds at various places on the southern and southwestern sea coast of Primor'e, mainly in the vicinity of known sites (Kon'kova, 1989: 21. 42–43; Yanshina and Shoda, 2014).

Daggers of the Yankovskaya culture do not make up a strong typological series. They vary in details of proportion and shape (Fig. 8). Sometimes it is difficult to distinguish between a ground-stone dagger and a ground-stone blade that might be interpreted as a spearhead.

Some variations in the shape of the top of a dagger's hilt can be distinguished: straight-lined and slightly flanged ("T-shaped"), arc-shaped or angle-shaped, knob-shaped, and straight-lined. The point where a dagger's blade and hilt join is formed by shoulders of angled or smoothed contour, or by slight side protrusions. It must be noted that

Fig. 9.

Table 5
Size and proportions of ground daggers of the Yankovskaya culture.

Parameter/ratio index	Total range	Dominate range
Total length	12–28 cm	21–23 cm
Length total: width max.	3.2–7.5	4.1–6.5
Length total: length hilt	2.3–4.0	2.3–3.2

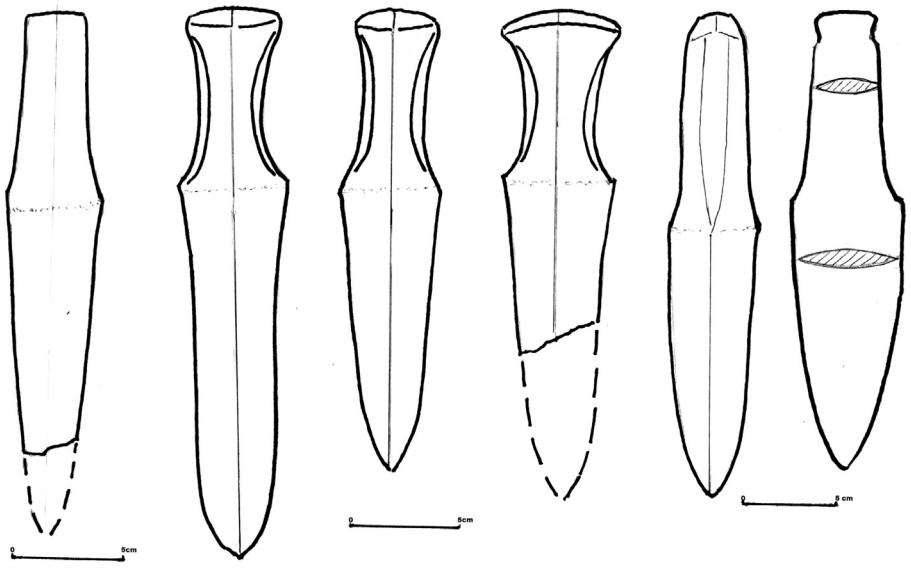

Fig. 8.

daggers with side protrusions have, in the most of cases, a T-shaped hilt top (Fig. 9:3).

Based on data from measurements of complete specimens, it is possible to note the indexes of size parameters and main proportions (Table 5). The cross-section of ground-stone daggers is a varying characteristic. Three main kinds of cross-section are distinguished: rhomboid, hexagonal, and lenticular. The specific kind of cross-section is dependent on how the dagger was processed. Thus, daggers of rhomboid and hexagonal cross-sections have a longitudinal ridge-shaped sharpening on both surfaces. In some cases the dagger's hilt and the blade differ in their cross-sections. With few exceptions, all surfaces of ground-stone daggers are carefully polished. The thickness of the dagger's "body" is about 1–2 cm.

Ultimately researchers interpreted such features of the Yankovskaya culture's ground-stone daggers, like ridged surfaces, lateral horizontal protrusions, and hilt tops formed in special ways, as imitations of certain characteristics of metal weapons produced in metal-working centers of South and Western Siberia during the end of 2nd–first half of 1st millennium BCE (Okladnikov, 1963: 169–171; Andreeva et al., 1986: 187–190; Kon'kova, 1989: 42–43; Kon'kova, 1996). It is difficult to ascertain the exact function of ground-stone daggers. It is doubtful that stone daggers were used effectively as weapons for close combat, such as metal daggers were. More likely is the idea that the function of ground-stone daggers of the Yankovskaya culture is ritual or symbolic (Kon'kova, 1989: 40–43).

At sites with the remains of pit-dwellings (Peschanny-1, Malaya Podushechka-lower layer, Maihe-1, Maihe-2) ground-stone daggers have been found primarily inside the pit-dwellings. No case of finding a dagger in a burial was noted.

A unique case of an assemblage of locally concentrated artifacts, including ground-stone daggers, was recorded at the Slavyanka-1 site, where long-term pit-dwelling remains were absent. This site, located on a rock terrace in close proximity to the sea, is a camp site. The identifying feature of the site's landscape is a cape named Chirok, which protrudes into the sea. The top of the cape is roundish-flat and about 10 m in diameter. Excavations on the cape's top did not reveal evidence of pit-dwellings or other structures, though traces of some fireplaces were detected. A variety of artifacts was scattered over the cape's top, primarily in the lower level of the cultural layer and on the ground surface—ground-stone weaponry, tools, and ceramic ware. The collection of stone artifacts included daggers, spearheads, arrowheads, harpoon heads, knives, and axes, represented primarily by complete, carefully polished specimens. The ceramic ware assemblage consisted mainly of fragmented red-ware bowls, footed bowls, and dishes. All the specimens of greenstone ornaments (tubular beads) from this site were found on top of the cape together with some other stone bead-like ornaments. The area on top of Cape Chirok is interpreted as a place for collective rituals or festivities connected with male activities such as the hunting or fishing (Andreeva et al., 1986:169; Zhushchikhovskaya, 2005:110). According to ethnographic and archaeological records, collective festivities, often accompanied by ritual eating and drinking, were a component of traditional community life (Gebauer, 1995; Hayden, 1995; Blitz, 1998).

3. Discussion and conclusion

The combination, or complex, of certain artifacts—greenstone ornaments, especially tubular beads, red ceramic wares, and ground-stone daggers—is characteristic for most of the excavated sites of the Yankovskaya archaeological culture. The spatial distribution of sites containing this complex shows a tendency toward concentration in the southwestern and southern Primor'e territories, close to the Korean Peninsula and the adjacent region of Northeast China. At sites located in southeastern and eastern Primor'e red wares are absent or very few, greenstone tubular beads occur in only a few cases, and there are no definite finds of ground-stone daggers.

This complex is not linked to local cultural contexts that preceded the Yankovskaya culture. Late Neolithic sites excavated in Primor'e and dated to the 2nd millennium B.C. contain no specimens of tubular greenstone beads or pendants, red ware, or ground-stone daggers. Table 6 provides data on the presence of these artifacts in assemblages of other archaeological cultures of the Paleometal period in the southern Russian Far East.

Sites of the Lidovskaya culture, represented by the remains of settlements, are thought to be the result of an eastward migration through Primor'e of a bronze-bearing population that came from more western regions. A few sites of the Lidovskaya culture provide some evidence of contacts with the Yankovskaya culture, the latest sites of which are known in southeastern and eastern Primor'e. Artifact assemblages of the Lidovskaya culture contain small numbers of weapon-like ground-stone blades interpreted as imitations of bronze spearheads. However, there are no data on true ground-stone daggers being found. At many sites of the Lidovskaya culture specimens of red ocher-slipped wares have been unearthed. These include necked pots with a roundish body. Only a few specimens of greenstone ornaments, including small tubular beads, were discovered at the sites (D'yakov, 1989: 134–172; Kon'kova, 1989: 21, 37–39).

The Uril'skaya archaeological culture of the Middle and Lower Amur valley has many traits indicating the same technological and economic level as the Yankovskaya culture. Various stone ornaments occur at sites of the Uril'skaya culture, but greenstone tubular beads are not characteristic. Tubular beads were produced primarily from clay, reddish chalcedony, and dark-colored shale. In some cases hexagonal beads made of greenish shale were found. Only a few specimens of imperfectly-polished blade-like ground-stone artifacts are known, though they are not interpreted definitely as daggers. Pottery-making traditions differ significantly from those of the Yankovskaya culture, while at some sites of the Uril'skaya culture red ocher-slipped and carefully polished large and medium-sized pots, and sometimes bowl-like vessels, occur (Derevyanko, 1973: 192–193; Grebenshchikov and Derevyanko, 2001: 31).

Early stages of the Krounovskaya culture, which are closely connected with the early farming Tuanje culture of neighboring Northeast China, were synchronic with late stages of the Yankovskaya culture. It is supposed that both cultures had episodic contacts and interactions in some areas of Primor'e. However, no greenstone ornaments, red ceramic wares, or ground-stone daggers were found at sites of the Krounovskaya culture.

Thus, the Yankovskaya culture is the only one in the Paleometal period of the southern Russian Far East represented by assemblages in the 'three-component' combination. Red ware appears in the assemblages of the chronologically-close Lidovskaya and Uril'skaya cultures, though few specimens of greenstone tubular beads from sites of the Lidovskaya culture are reminiscence of the greenstone ornaments of the Yankovskaya culture. The ground-stone dagger as a specific type of artifact is recognized only for the Yankovskaya culture.

Neighboring territories of Northeast China are included in the area where the categories of artifacts discussed occur in archaeological sites of the Late Neolithic and Bronze Age periods. The earliest evidence of greenstone ornaments may be noted for the Neolithic. Most famous is the series of zoomorphic and geometrically-shaped carved jade ornaments from the cemeteries of Hongshan culture, 2945 ± 70—2180 BCE, in the western part of the modern Liaoning province (Ye, 1992; Nelson, 1995: 35–37). Greenstone tubular beads, together with carved jade objects, were unearthed at the Yaojingzi site, 4726 ± 79 BP, in the western part of the modern Jilin province. In particular, tubular beads were among the grave goods in the burials (Nelson, 1995: 107–111).

Tubular beads produced from greenstones (amazonite, etc.), jade, and other stones (agate, opal, etc.) were found at Bronze Age sites in eastern and northwestern Jilin province, and in neighboring areas of the Heilongjiang province—in territories close to the Korean Peninsula

Table 6
Data on the presence of greenstone ornaments, red ware, and ground-Stone daggers in archaeological cultures of the paleometal period in the southern Russian far east.

Cultural context			Artifacts		
Culture	Area	Dating	Greenstone Ornaments	Red Wares	Ground-Stone Daggers
Lidovskaya	Eastern and northeastern Primor'e	c.500–0 BCE	Very rare small tubular beads	Several specimens (necked pots)	No clear specimens
Uril'skaya	Middle and Lower Amur River valley	11th–10th—5th–4th c. B.C.	No clear specimens	Several specimens (necked pots)	No clear specimens
Krounovskaya	Western, central, southeastern Primor'e	4th–3rd c. B.C.—3rd–4th c. A.D.	No specimens	No specimens	No specimens

and the Primor'e region. These sites are mostly dated within the framework of the second half of the 2nd–end of 1st millennium BCE. Tubular beads were unearthed primarily in the burials and cemeteries (Yang et al., 1990: Tables LII, LIV, LVIII; Nelson, 1995: 209–211, 218–220, 240–243).

Red ocher-slipped pottery is characteristic for many Bronze Age sites of Northeast China. They occur in settlements and burials and vary significantly in their shapes at different sites. According to published data, ocher-slipped wares at any site comprise a small part of the total ceramic assemblage. In most of cases red ocher-slipped vessels were mainly plain and polished (Nelson, 1995: 206–250).

At some Bronze Age sites of Northeast China, in the Jilin and Heilongjiang provinces, stone imitations of bronzes occur—spearheads, arrowheads, knives, daggers, and semi-spherical button-like ornaments. These not-numerous artifacts do not present a definite morphological series. It should be noted that in some sites stone imitations of bronzes were found together with the original bronze artifacts, such as button-like ornaments, knives, and arrowheads, as well as with evidence of local bronze-casting activity (Nelson, 1995: 206–250).

In the Japanese Archipelago tubular greenstone beads and comma-shaped pendants appeared in the Late and Final Jomon, and continued into later times. According to recent views, these kinds of ornaments first came to northern Kyushu from the Korean Peninsula as the result of cultural communication between neighboring territories (Kawamura, 2017). Representative assemblages of finely made tubular greenstone and glass beads, comma-shaped pendants, and ceramic vessels covered by a red ocher slip, as well as large series of bronze daggers and blades, mirrors, and *dotaku* bells are characteristic for sites of the Yayoi period, in particular for ritual and burial complexes. At the same time, non-numerous ground-stone replicas of bronze weapons, and among them a few daggers, were found at some Yayoi sites (Aikens and Higuchi, 1982: 187–250; Pearson, 1992: 135–142; Shoda et al., 2009).

The territory where greenstone ornaments, red ware, and ground-stone daggers are represented in large series as components of a complex of prestige goods associated in large measure with mortuary practices during the Bronze Age period is the Korean Peninsula. Other components of this complex in many cases are bronze weapons—daggers, arrowheads, and some others (Nelson, 1993: 147–153; Kim, 2004; Bale and Ko, 2006; Ahn, 2011; Chong, 2012).

In the course of this article it is important to note that the Yankovskaya archaeological culture represents a case of co-existence of three artifacts categories that are basic for the Mumun prestige goods complex. It is interesting to compare the features and appearances of these artifacts in Mumun and Yankovskaya cultural contexts.

Greenstone ornaments are frequent at Middle and Late Mumun sites. The most common kind of ornament is the tubular bead. Another characteristic kind is the comma-shaped pendant or *gogok*. The finds of greenstone ornaments are associated mostly with burials and in less degree with pit-houses. The number of beads in the burials varies from a few specimens to more than one hundred, which correspond to complete necklaces. The size of greenstone beads changes from small (2 cm in length) in early Middle Mumun to large and very large in Late Mumun. The ornaments were made of such raw materials as amazonite, jasper, and jade. Researchers note strong evidence of local production of greenstone ornaments. Archaeological records indicate the development of craft specialization in producing greenstone ornaments from early Middle to Late Mumun (Nelson, 1993: 132, 139–152; Bale and Ko, 2006; Chong, 2012).

The morphology and provenance of greenstone ornaments in Mumun Period sites and sites of the Yankovskaya culture are obviously similar. In the case of the Yankovskaya culture, greenstone ornaments—especially tubular beads—may be interpreted as mortuary goods. However, in contrast to Mumun greenstone ornaments, those of the Yankovskaya culture are not abundant at certain sites and in the burials. Buried individuals of the Yankovskaya culture were usually adorned with only a single greenstone bead, though in a few cases with two or three.

The presence of red ware is a common trait of pottery assemblages of the Mumun Period and the Yankovskaya culture. The most important characteristic of red-ware production in communities of Mumun and Yankovskaya culture was the especially careful treatment requiring intensive labor and time. Surely, these vessels were a special category in earthenware production. Judging by the published data, it may be concluded that the technological level of polishing and firing of the Mumun red ware was more elaborate than that of the Yankovskaya culture's red pottery. It probably indicates a developed craft specialization in the production of these wares at Korean Peninsula (Nelson, 1993: 123, 125; Rha, 2006:20–23; Bale and Ko, 2006: Figs. 6, 7).

Morphological features and functional patterns of the red, or red-polished, wares of Mumun sites and the Yankovskaya culture sites differ significantly. Mumun red ceramics are mostly pots with a structured neck and globular body covered with pigment and brightly polished plain walls. Red vessels were mainly found in burials together with greenstone ornaments and ground-stone daggers and interpreted as products of specialized crafts, mortuary goods, and status markers (Nelson, 1993: 123; Bale and Ko, 2006: Figs. 6, 7). For sites of the Yankovskaya culture red ware is not associated with mortuary practices and rituals. The bowls, pedestal bowls, and dishes of red color and often ornamented walls are thought to have served as table ware for special foods and drinks at festive or sacred ceremonies.

In comparing ground-stone daggers of the Mumun period in Korea and the Yankovskaya culture in Primor'e one can note substantial differences.

First, ground-stone daggers interpreted as replicas of bronze daggers are found in Mumun sites in representative numbers, especially in the sites of Middle and early Late Mumun. For example, according to data published in 2006 the total number of daggers found at late Early–late Middle Mumun sites of south-central Korea is 59 (Bale and Ko, 2006: 174), in contrast to 17 complete and fragmentary specimens discovered at the principle excavated sites of the Yankovskaya culture.

Second, the archaeological record shows that the development of the shapes of ground-stone daggers standardized through time, which is reflected in features of contour and proportions (Nelson, 1993: 128–131; Bale and Ko, 2006: 173; Shoda et al., 2009: 197–291). The

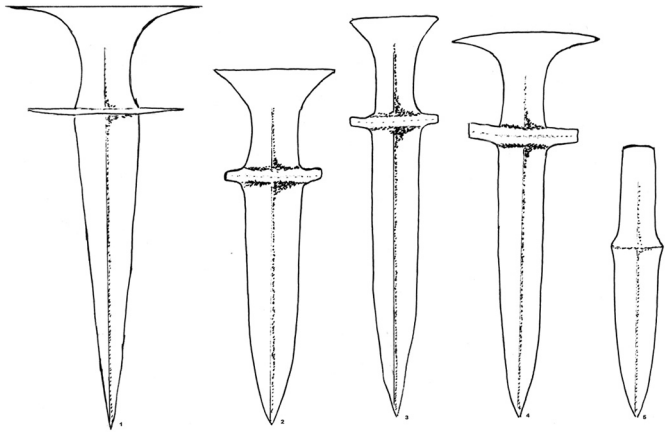

Fig. 10.

most common type of ground-stone dagger of the Middle–early Late Mumun has a flanged high-relief separation between hilt and blade that looks like an imitation of a metal blade guard, a straight-lined hilt top with flanged edges ("T-shaped"), and a sharpened blade tip (Fig. 10). In many cases the blade length exceeds the hilt length by 2–3 times. The total length of Mumun ground-stone daggers varies from about 20 cm to 40–50 cm or even slightly more. However, extremely long daggers are not numerous. The surface polishing of Mumun daggers is usually of high quality. In general, the morphological features and careful treatment of the daggers represented at the sites indicate labor-intensive and specialized production of these artifacts, although direct evidence of a local production process is lacking (Bale and Ko, 2006: 174–175).

Mumun daggers may be interpreted as skillful imitations of metal weapons with very sharp edges and clear lines accenting the guard and hilt top. Undoubtedly, direct prototypes of Mumun ground-stone daggers were original metal items. However, they seem not to be the "lute"-shaped, *biwa*-shaped, or Liaoning-type bronze dagger of the late Early–Middle Mumun period, or the Korean-type slender bronze dagger of the Late Mumun period (Nelson, 1993: 133–135; Yi, 2007; Chong, 2012). Evidently, some other bronzes were the originals for the ground-stone replicas, but this subject is beyond the scope of this article.

There are no close analogies to the described stone daggers of the Middle–early Late Mumun type among the ground-stone daggers of the Yankovskaya culture. Rather such morphological features of Yankovskaya culture daggers as the slightly flanged T-shaped hilt top and side protrusions at the hilt's base seem like a rough replication of the characteristic traits of Mumun daggers. Yankovskaya culture daggers seem to be evidence of indirect rather than close acquaintance with metal originals. It must be noted that some researchers earlier offered the opinion that the origin of ground-stone daggers of the Yankovskaya culture was influenced by the Mumun ground-stone dagger tradition (Shoda et al., 2009).

Together with daggers of sophisticated shape, specimens of simpler forms were discovered at Mumun sites. An interesting case is the Middle–early Late Mumun Yulhari site in the Kimhae area where a large tomb of some sociopolitical leader was excavated. The series of ground-stone daggers from the tomb included several perfectly shaped specimens with an imitation guard and flanged hilt top, as well as a single weapon with a leaf-shaped blade separated from a very short hilt by slight shoulders (Gyeongnam Development Institute, 2007). This dagger looks quite similar to daggers with simple shoulders of the Yankovskaya culture. Thus, daggers of elaborate shapes coexisted with daggers of simpler forms during the Middle–early Late Mumun.

Third, Mumun ground-stone daggers were found also in burials and pit-houses. In the burials, daggers often make up mortuary units with the red-polished earthenware and greenstone ornaments. The number of daggers in one burial varies from a single specimen to several (Nelson, 1993: 139–153; Bale and Ko, 2006; Yeongnam Institute …, 2007).

In general, the Yankovskaya culture's complex of non-ordinary artifacts looks weakly reminiscent of the prestige goods complex of the Mumun period on the Korean Peninsula. The most important differences between the examined components of the Yankovskaya culture's and Mumun's complexes concern patterns of manufacture and functional contexts. Mumun greenstone ornaments, ground-stone daggers, and red ware, produced in large numbers and at high technological levels and indicating craft specialization, functioned as prestige goods and mortuary offerings. In the case of Mumun sites, this complex may be interpreted as the marker of a prehistoric community with developing social stratification and a relatively stable economic base.

In the case of the Yankovskaya culture, archaeological contexts of the greenstone ornaments, ground-stone daggers, and red ware allow supposing special functions for these artifacts. However, definite determination of these functions is problematic at present. Only greenstone ornaments seem to be connected with mortuary practices. At bottom, these are single artifacts showing a relatively stable presence in burials but in extremely small numbers (1–3 specimens for one burial). It seems likely that greenstone ornaments were symbolic goods rather than prestige ones.

Red ware may be interpreted as an attribute of communal actions or events, such as festivities and sacred ceremonies. The case of the Slavyanka-1 coastal campsite reflects a connection between red ware and ground-stone daggers as traditionally "male" artifacts. In this context the daggers may have functioned as symbolic things or prestige items.

Because greenstone ornaments and ground-stone daggers from sites of the Yankovskaya culture were made of stone raw materials widespread in the research area one can suppose there was local production of these artifacts in spite of the absence of direct evidence of the manufacturing process. Obviously, scales of production were very limited. It is likely that the production of greenstone ornaments and ground-stone daggers was of a relatively episodic and non-specialized nature. Some tendency toward specialization can be traced for the production of red ceramic wares.

It may be assumed that the appearance and existence of greenstone ornaments, ground-stone daggers roughly imitating metal originals, and red ware at settlements of the Yankovskaya culture located not far from the Korean Peninsula was the result of certain kinds of cultural impulses from the Mumun community cultural area. The Middle Mumun period was a time of significant growth of the population on the Korean Peninsula and, correspondingly, an increasing in its cultural activity. The most remarkable evidence of those processes was the migration of peoples and their traditions to the Japanese archipelago and formation of the Yayoi culture (Aikens and Lee, 2013). The Yankovskaya culture may supposedly be interpreted as having transferred physical images of certain items which were socially important for Mumun people. However, the concrete meaning and roles of these things seem not to be the same in the societies with different levels of complexity. For the Yankovskaya culture, with the lack of evidence of social stratification, a symbolic meaning for the considered artifact categories is more likely than a prestige or power meaning.

A separate subject for discussion is the possibility of crossing and interaction of the two considered cultures. Was the non-ordinary artifact assemblage of the Yankovskaya culture the result of direct close connections with the Mumun population? At present, archaeological records do not give a definite answer at this question. The investigated sites of the Yankovskaya culture reveal no evidence of the presence of a Mumun cultural component in the technological and morphological standards of ceramics, stone and metal artifacts, house construction, or settlement patterns. So, there is no reason to suppose there was cultural influence or shifting from the Korean Peninsula during the Mumun period and Yankovskaya culture.

At the same time, it is quite important to note the single

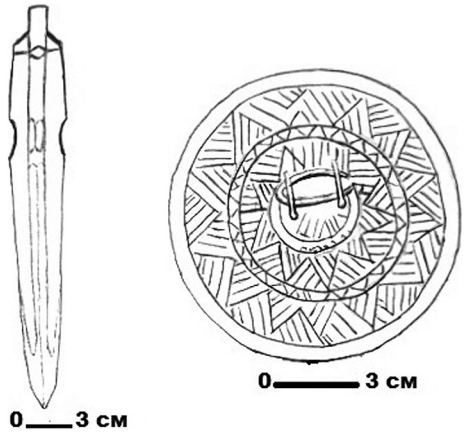

Fig. 11.

documented find in the Primor'e region of the remains of a burial in a stone cist containing bronzes of Korean origin. That was a chance and not stratified discovery in 1959. The damaged stone cist was unearthed during road building works in the Maihe River valley, southern Primor'e (Okladnikov and Shavkunov, 1960). The place of the find, named Izvestkovaya hill, was not far from the Yankovskaya cultural sites of Oleny (Maihe)-1 and Oleny (Maihe) -2, which were discovered and excavated later.

The cist, constructed of stone slabs, was of rectangular shape and similar to stone cists of the Korean Bronze age, or Mumun period (Nelson, 1993: 150–152). The most interesting artifacts found together with the cist remains were two daggers of slender type (Korean-type) and a round mirror decorated on one side with a geometric pattern composed of triangular hatched zones (Fig. 11). These bronzes are quite similar to the slender daggers and Korean type mirrors which were typical grave goods and produced locally on the Korean Peninsula in the late Bronze Age corresponding to the Mumun period (Nelson, 1993: 132–138; Kim, 2001; Yi, 2007).

This unique assemblage remains today the only documented evidence of probable direct infiltration of the bearers of Mumun cultural traditions into the territory of the Yankovskaya culture in the Paleometal period. In this respect one has to note the case of occasional non-documented finds of slender bronze daggers in the area of the eastern sea coast of Ussuriisky Gulf.[1] It may be expected that in the future more traces of intercultural contacts will be detected at new excavated sites of the Yankovskaya culture.

The objective difficulties in studying the relationships between past cultures of the Korean Peninsula and the southern Russian Far East are caused by the current situation in archaeological knowledge of the North Korean region. At present, the archaeological science of East Asia is certainly lacking in materials from excavations and analytical and conceptual data concerning this area that are important for a correct understanding of the cultural processes and events of the prehistory. Undoubtedly, the elimination of this informational “blank spot” will provide new opportunities for the archaeology not only of the Korean Peninsula but also of neighboring regions.

It can be supposed that during the 1st millennium BCE some parts of East Asia—the Korean Peninsula, the southern margin of the Russian Far East, Northeast China, and the Japanese Archipelago—were involved in processes of intercultural communication. Common trends in the usage of non-ordinary artifacts indicate the particular appearance of this tendency. The meaning of these artifacts was determined in great measure by the social and economic contexts of the prehistoric communities.

[1] The information was received from Dr. Nadezhda G. Artemieva.

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