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Michałowice, Czarnocin commune, site 1. The urn from grave 80 (photo Jan Bulas)

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Andrey P. Borodovskiy<sup>1</sup>, Łukasz Oleszczak<sup>2</sup>

## Intermountain valley of the Lower Katun during the Hunno-Sarmatian period<sup>3</sup>

**Abstract:** During the period from the last three hundred years BC to the beginning of the new era, (Hunno-Sarmatian period) the Huns in the East and the Sarmatians in the West changed the ethno-cultural situation in the steppe and forest-steppe zones of Eurasia. The cultural change is also noticeable in the north of the Altai mountains. The territory of the intermountain valley of the Lower Katun is characterized by the Maima culture named after the Maima-1 monument. This culture is represented mainly by the settlement sites, such as Dolina Svobody-2, Maima-1, Maima-13, Maima-14, Cheremshanka. The latest research in the area of Mazherok village enabled to define the burial monuments of the Maima archaeological culture (Chultukov Log-1g, Ust-Muny-1). In the 2012 the archaeological excavation was conducted on the Maima culture site Chultukov-Log 9 by the Russian-Polish expedition from the Institute of Archaeology and Ethnology of the Russian Academy of Science (Siberian Branch) and Institute of Archaeology, Jagiellonian University. The results of the 2010–2013 field research in the area of Mazherok village enabled to discover new monuments of the Maima archaeological culture on the territory of the intermountain valley of the Lower Katun, which expressly contributes to the more precise chronology of this cultural formation, geographical range and peculiarities of the development of the area as well as reconstruction of the economic activities of the North Altai population in the Hunno-Sarmatian period.

**Keywords:** Maima culture, Iron Age, Hunno-Sarmatian period, Northern Altai, Lower Katun valley

During the period from the last three hundred years BC to the beginning of the new

era, (Hunno-Sarmatian period)<sup>3</sup> the Huns in the East and the Sarmatians in the West changed the ethno-cultural situation in the

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steppe and forest-steppe zones of Eurasia. The cultural change is also noticeable in the north of the Altai mountains. The territory of the intermountain valley of the Lower Katun is characterized by the Maima culture named after the Maima-1 monument. This culture is represented mainly by the settlement sites, such as Dolina Svobody-2, Maima-1, Maima-13, Maima-14, Cheremshanka. The latest research in the area of Manzherok village enabled to define the burial monuments of the Maima archaeological culture (Chultukov Log-1g, Ust-Muny-1). In the 2012 the archaeological excavation was conducted on the Maima culture site Chultukov Log-9 by the Russian-Polish expedition from the Institute of Archaeology and Ethnology of the Russian Academy of Science (Siberian Branch) and Institute of Archaeology, Jagiellonian University. The results of the 2010–2013 field research in the area of Manzherok village enabled to discover new monuments of the Maima archaeological culture on the territory of the intermountain valley of the Lower Katun, which expressly contributes to the more precise chronology of this cultural formation, geographical range and peculiarities of the development of the area as well as reconstruction of the economic activities of the North Altai population in the Hunno-Sarmatian period.

The time span from the last three hundred years BC to the beginning of the new era is generally called the Hunno-Sarmatian period. It is during this historic period that the Huns in the East and the Sarmatians in the West changed the ethno-cultural situation in the steppe and forest-steppe zones of Eurasia after their advance. The territory of the intermountain valley of the Lower Katun is characterized by the Maima culture named after the Maima-1 monument. It was defined in 1993 in the basin of the rivers of Biya and Katun on the basis of numerous excavations of the Maima-1, Ushlep-5 settlements, and

Sailap, Kurlap sites. Its geographical range is restricted by the Altai northern submountain regions (Fig. 1) (Абдулганеев 1993, 3–5).

Twenty years after the discovery of the Maima culture, its geographical range is still restricted mainly to the Altai northern submountain regions. The Maima culture (Fig. 2) was represented in this territory by several settlements including Dolina Svobody-2, Maima-1, Maima-13, Maima-14, the Cheremshanka stronghold, and one burial on the kurgan cemetery Maima-7.

The latest research (Бородовский, Бородовская 2013) brought the discovery of the burial monuments of the Maima archaeological culture (Chultukov Log-1g, Ust-Muny-1) referred to its various periods on the territory of the intermountain valley of the Lower Katun. It did not only extend the boundaries of its southern geographical range but also shed new light on the location of settlement complexes dated to the period between the end of the 1<sup>st</sup> millennium BC and the beginning of the 1<sup>st</sup> millennium AD.

One of such sites is the multi-cultural settlement of Muny-1. This site yielded, among other features of varying chronology (starting from the material of the Afanasievo culture), a hearth which is of particular interest for us because it contained numerous artefacts of the Maima culture. It has the form of a square-shaped construction built of 5 stones of 0.8×0.9 m, with all the four corners oriented by the cardinal directions. The blocks protecting the hearth were placed edge-wise and dug into the cultural layer of the Scythian and Afanasyev times. The northern wall of the hearth was represented by one block while the opposite southern one included two of them; the western and eastern walls consisted of single small-sized blocks. Inside the stone construction and outside its southern edge, there was a layer of ashes, whose depth reached 25 cm. That hearth yielded a great number of various finds, including shards

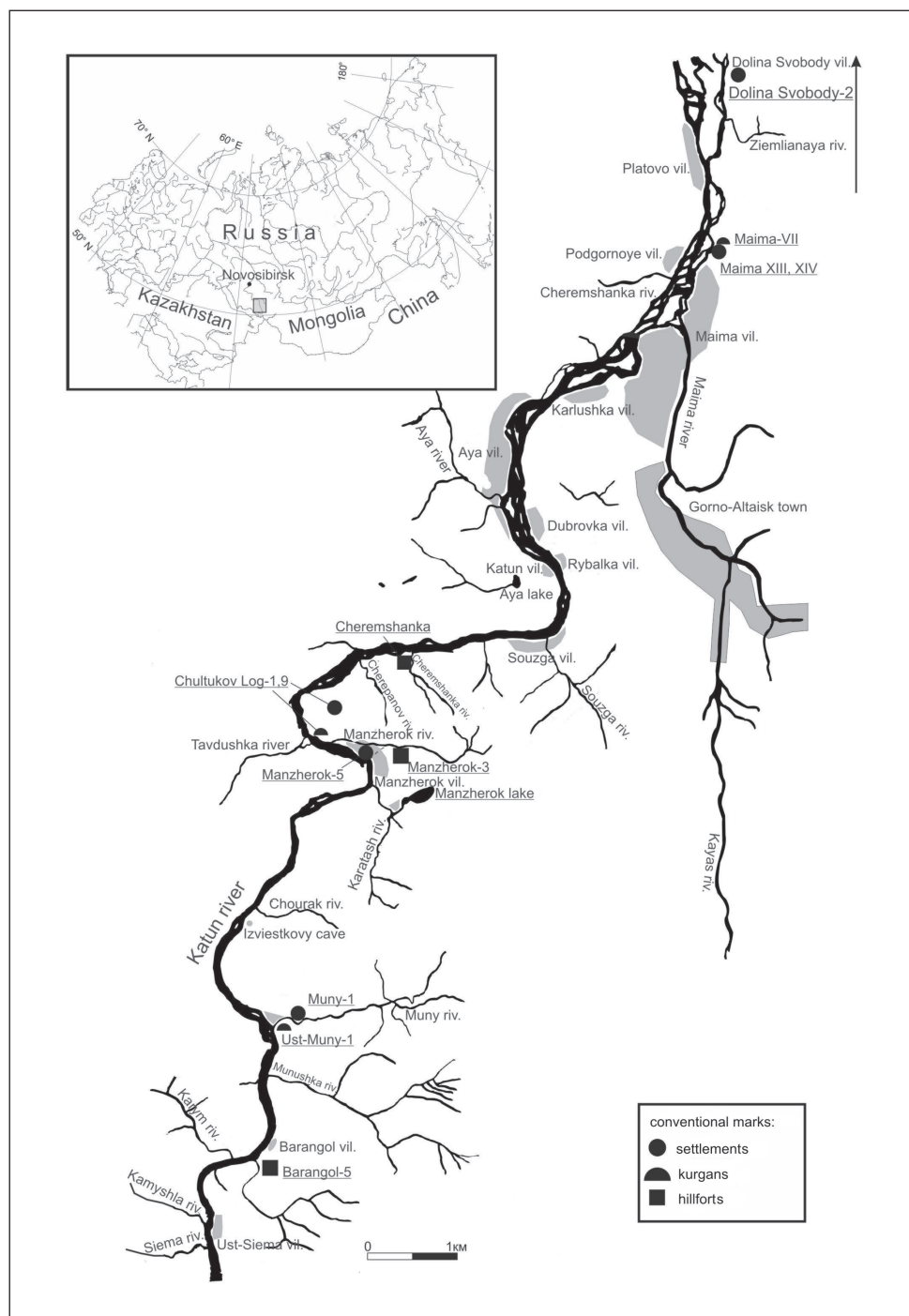
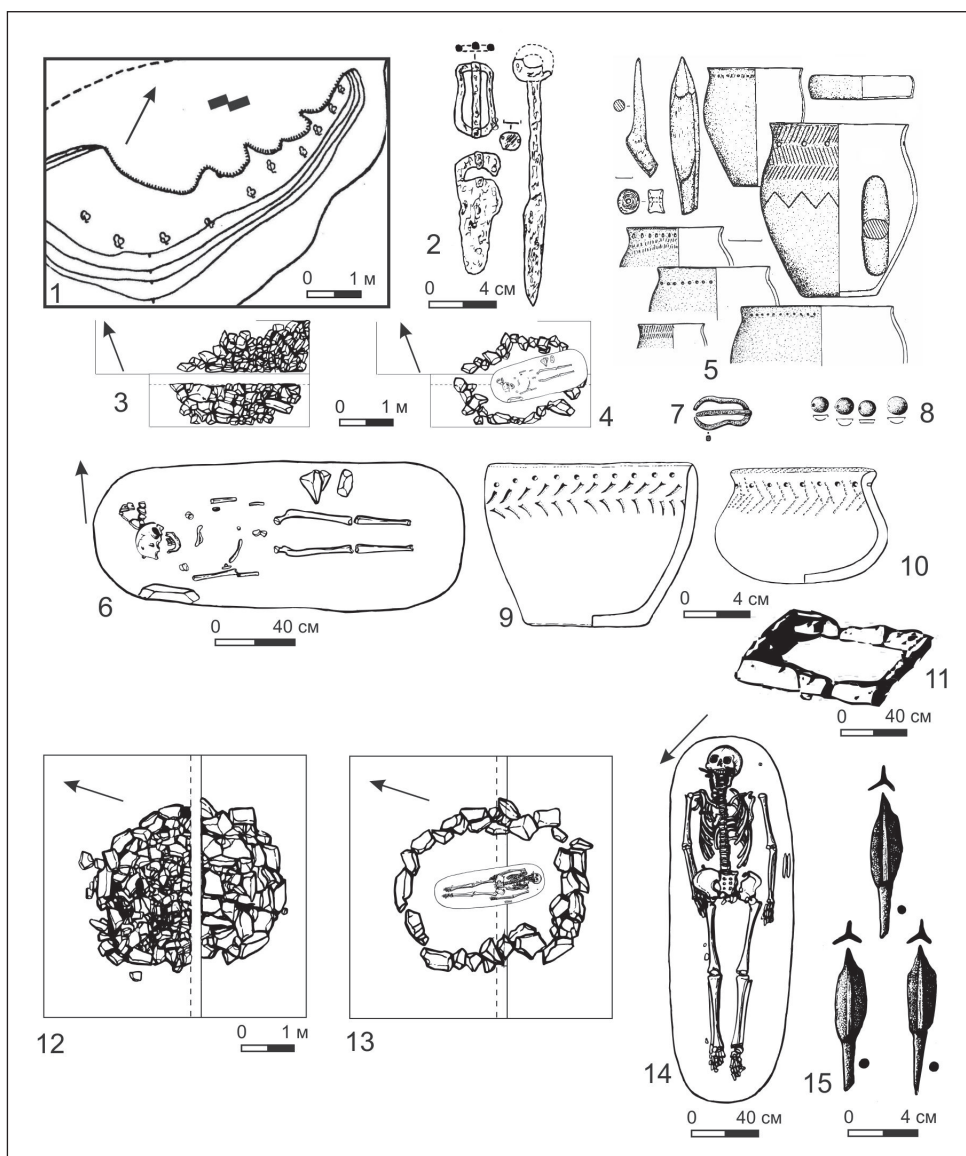


Fig. 1. Archaeological sites of the Maima culture in the mountain valley of the lower Katun River



**Fig. 2.** Maima culture in the mountain valley of the Lower Katun River. 1 – plan of the Cheremshanka stronghold; 2 – the inventory discovered in kurgan № 87 of the Maima VII group (iron knife, silver buckle, iron buckle with mobile prong); 3 – embankment of kurgan № 70, Chultukov Log-1; 4 – crepidoma and burial, kurgan № 70, Chultukov Log-1; 5 – finds from the Cheremshanka stronghold; 6 – kurgan № 61, Chultukov Log-1, plan of the burial; 7 – iron buckle from kurgan № 61, Chultukov Log-1; 8 – bronze appliques from kurgan № 61, Chultukov Log-1; 9 – clay vessel from kurgan № 61, Chultukov Log-1; 10 – clay vessel from kurgan № 70, Chultukov Log-1; 11 – stone hearth, Maima I settlement; 12 – stone construction of kurgan № 1, the Ust-Muny-1 group; 13 – crepidoma and burial from kurgan № 1, Ust-Muny-1; 14 – kurgan № 1, Ust-Muny-1, plan of the burial; 15 – iron arrowheads from the burial in kurgan № 1, Ust-Muny-1

from two vessels ornamented with large pearls and roll moulding around the rim, a considerable amount of animal bones (two sheep jaws, a horse knucklebone, and a cow tooth), fragments of smooth-walled ceramic products. There was a clay biconical spindle whorl found in a one-metre distance from the northern edge of the hearth. It is noteworthy that such square-shaped hearths made of blocks are regarded as one of the specific features of Maima culture settlements in the North Altai.

Another distinctive hearth of the Maima culture made of stone blocks was also discovered on the multi-cultural settlement complex of Manzherok-5. It was located opposite the Manzherok rapids on the Katun River. Unlike the Muny-1 settlement, the construction of the Manzherok-5 hearth could be easily used not for household but ritual purposes. This fact can considerably contribute to the interpretation of a special form of the Maima hearths made of stone blocks of the Hunno-Sarmatian period.

Among all the objects discovered at the location of the previously known stronghold of Cheremshanka in 2011–2012, one should mention a half of the clay spindle whorl ornamented by three concentric rings. Other discovered items included a needle made of a roe deer prong, a thread of horn beads, a large bone spearhead, a drilled fish bone, and a stone stamper with traces of wear. The obtained collection of ceramic vessels exceeds 50 objects. Apart from the Cheremshanka site, the sites of Manzherok-3 and Barangol-5 are regarded as quite perspective for revealing cultural layers of the Maima culture on the territory of the intermountain valley of the Lower Katun. As far as this type of the Maima culture sites with defensive works is concerned, one will have to resolve a number of tasks, i.e. firstly, to conduct a correct and justified comparison of the fortified settlements from the North Altai

submountain regions and from the boundary territory of low- and medium-altitude mountains; secondly, to account for the diversity of site types functioning in the Maima period, including the use of earlier fortifications of the Scythian time and constructions of the Maima culture sites; thirdly, to correlate the existence of fortified sites, not fortified settlements and burial complexes in the Maima culture. Special attention should be paid to the topography of archaeological monuments of the Maima culture located along such small tributaries of the Katun as the rivers of Souzga, Cheremshanka, Manzherochka, Muny, Munushka, and Barangol.

The interesting incidental findings of the Hunno-Sarmatian period on the territory of the intermountain valley of the Lower Katun include a copper kettle probably originating from the town of Manzherok. The information about this copper kettle was provided by S.M. Kobzev in 2006. According to the information from the former owner, “The metal vessel that was allegedly described in the local press was found in 2004 during construction works at one of the holiday camps in the region of the town of Manzherok”. In 2006, the kettle was delivered from Biysk to the academic department of archaeology, ethnography and source studies of the Altai State University for authentication. The “Manzherok kettle” can be preliminary dated back to the developed (Bely Bom) stage of the Bulan-Koby culture of the 1<sup>st</sup> half of the 4<sup>th</sup> century AD (Тишкин 2006, 147–154). However, the inquiry conducted by A.P. Borodovskiy among the local people, owners and personnel of all camps located in the region of the town of Manzherok, as well as the analysis of the local Gorny Altai press for 2004–2005, has raised doubts about whether this find actually originated from the region of Manzherok.

Another important result of the expedition research of preceding few years is the



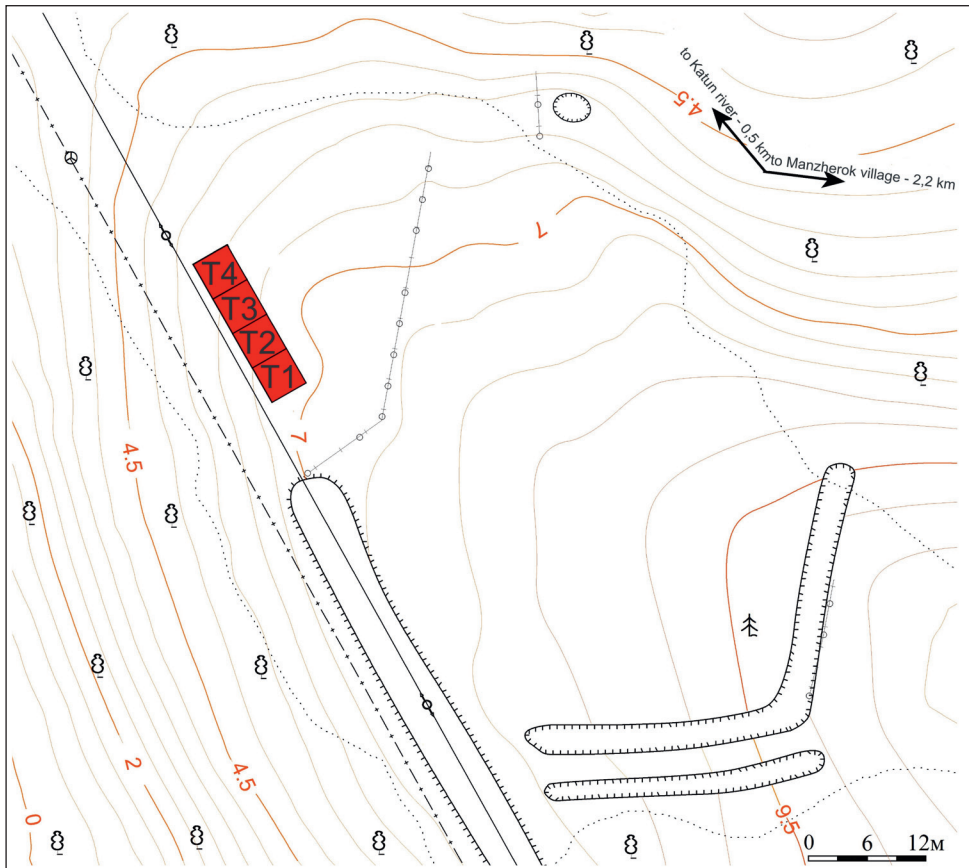


Fig. 3. Chultukov Log-9 – location of the site

search for one-layer settlements of the Maima archeological culture on the Katun high terraces located above the flood-plain, where such monuments have not been discovered thus far. The likelihood of the presence of Maima settlements on these territories is very high, which is proven by the similar topographic location of the Maima-1 settlement in the submountain region (Акимова *et al.* 2008, 21–23) and by stray finds of the Maima culture artefacts on the high terraces in the region of the Manzherok. For example, numerous ceramic fragments collected by the residents of the Manzherok from the destroyed settlement layer of the Chultukov Log-9 site since the beginning of the 1990's

include several typical rims of the vessels attributed to the Maima culture and ornamented by hollows and notches.

The excavations conducted in 2012 on the Maima culture settlement at Chultukov Log-9 covered a total area of 64 m<sup>2</sup> and yielded 16 archaeological features (Figs. 3, 4). Cultural deposits were revealed over almost the entire investigated area. They can be divided into two main formations (Fig. 5). The upper layer (layer 2) was densely saturated with finds and characterised by a dark, nearly black colour. The underlying layer (layer 3) was of a brighter, grey and brown-grey colour, and was also rich in finds. During the excavation work in 2012, the two layers and

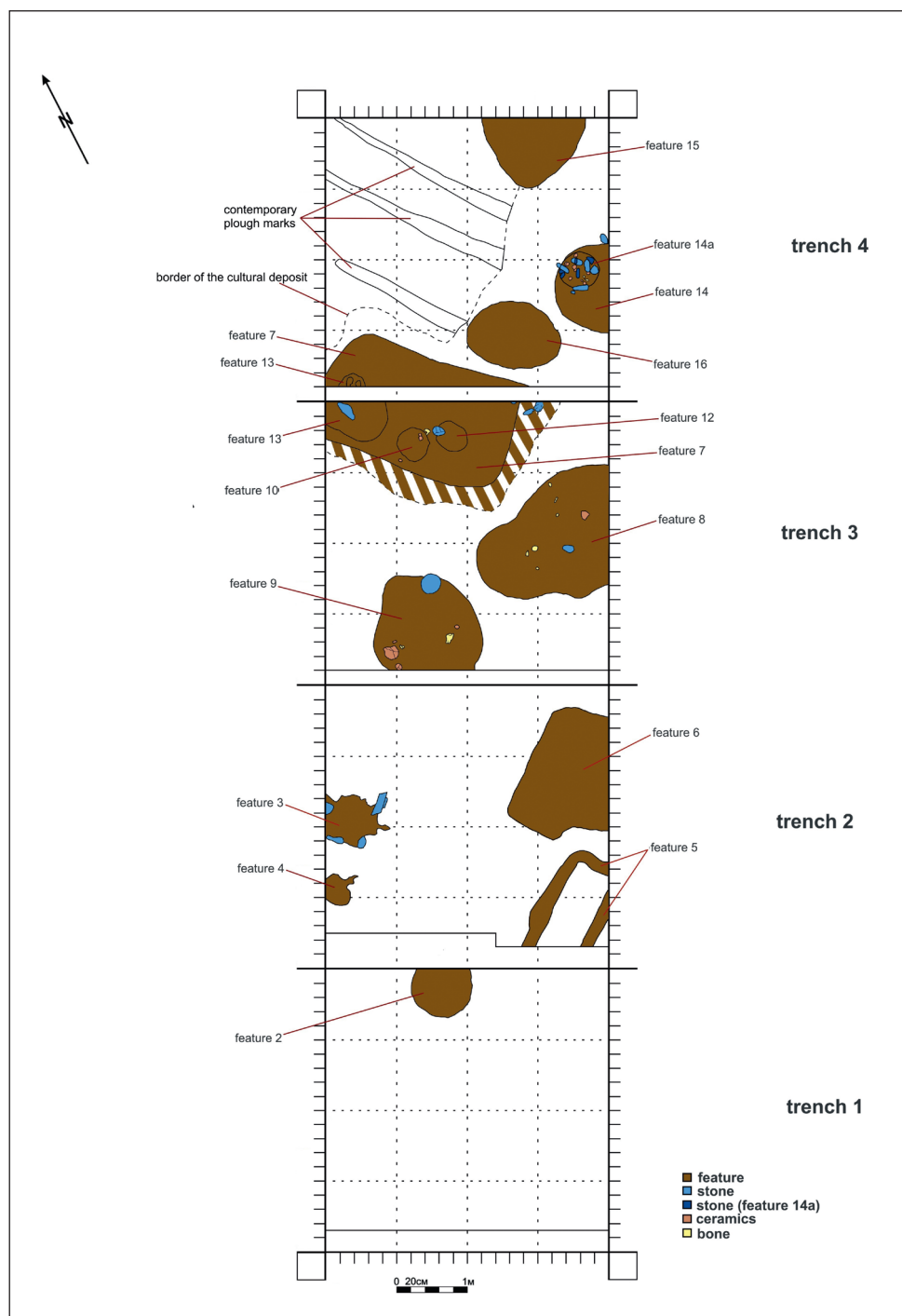


Fig. 4. Chultukov Log-9 – plan of the site

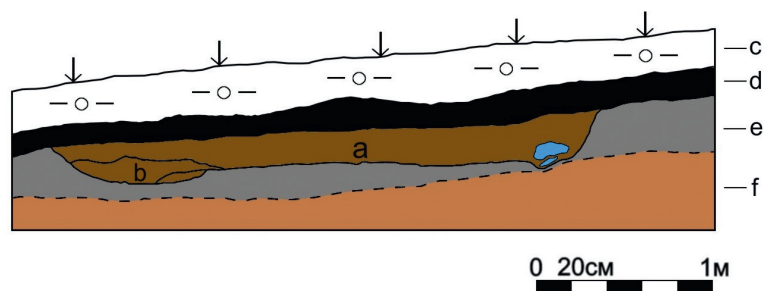


Fig. 5. Chultukov Log-9 – northern profile of trench 3: a – feature 7; b – feature 13, c – humus, d – layer 2; e – layer 3; f – undisturbed soil

pits produced a total of 3,500 finds (including osteological material – approximately 2500 fragments). Over the entire investigated area, the only place where cultural deposits were not recorded was the corner of trench 4, situated in the north-western corner, where only some traces of contemporary plough marks were noticeable against the background of undisturbed soil. It can be assumed that at that place the border of the settlement has been identified.

The Chultukov Log-9 settlement (Fig. 3) occupies an area of approximately 5000 m<sup>2</sup>. It is situated on the edge of a promontory and is protected by steep slopes from the west, north and north-east; the approach from the south and south-east was defended by a ditch, about 2m wide. The ditch was very poorly preserved and, as yet, can only be identified as a slight depression in the ground. The Cheremshanka stronghold, approximately 1 km to N-NE from the discussed settlement, is also situated on an elongated promontory and is defended by the steep slopes of the terrace (Киреев 1991, 84; after: Соёнов 2003, 25). Generally, a location on exposed promontories seems typical of the vast majority of the Maima culture settlements. However, choosing a location on top of promontories is also popular in other cultures, for example in the Fominskoye and Odincovo cultures from the Biya River valley (Абдулганеев, Кунгурова

2005, 4–11). It is also known from earlier times – in the northern Altai foothills a group of promontory strongholds was identified that belong to the period between the 7<sup>th</sup> and the 2<sup>nd</sup> century BC (Соёнов, Константинов, Соёнов 2011, 252–255). Locating them on high promontories made settlements much easier to defend.

Among the archaeological features discovered on the site at Chultukov Log were hearths, pits, post-holes and a dwelling of the semi-sunken floor hut type (feature 7). The latter was more or less rectangular, approximately 200×300 cm in size. Its recorded thickness reached 30 cm. Several other pits were recorded within the structure (feature 10, 12, 13). The traces of burning and burnt-out clay in one of such pits suggest that the hut was provided with a hearth.

The two hearths discovered at Chultukov-Log are of particular interest. One of them had an irregular, nearly square stone setting. However, no traces of burning or burnt-out clay were found there. It should be emphasised that these hearths differed from the hearths typical of the Maima culture, such as those discovered by M.T. Abdulganeev in the settlement of Maima I (Абдулганеев 1992). The main difference is the lack of ash in the heart discovered at Chultukov Log; its shape is also less regular and smaller, less numerous stones were used in the construction.

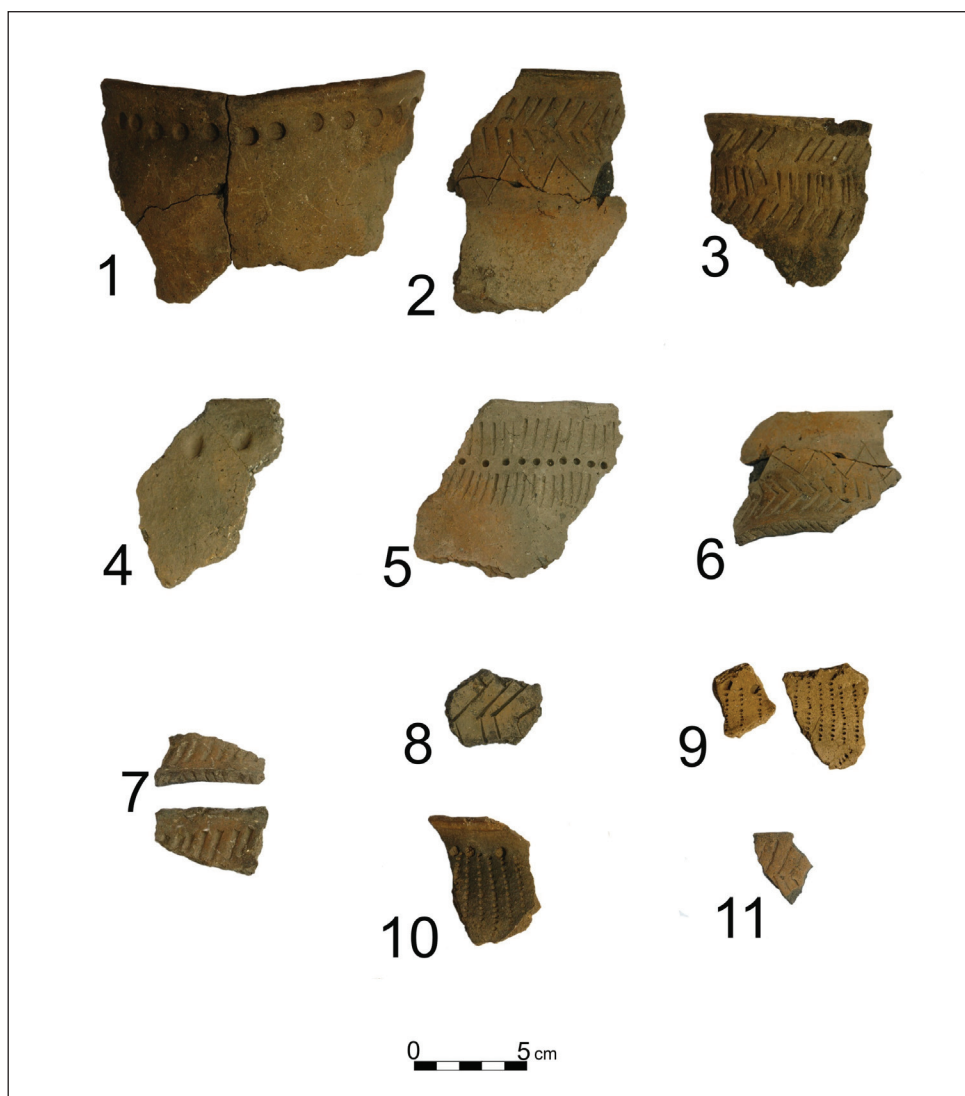


Fig. 6. Chultukov Log-9 – ceramics

In this latter site, apart from the traits known from Chultukov Log-9 (a nearly square shape, stone setting), the hearths revealed a thick layer of ash (up to 9 cm) and distinct traces of burning. Nearly square hearths are also known from the Manzherok region, from such settlements as Muni-1 or Manzherok-5 (Бородовская 2009, 155).

The pits discovered in the Chultukov Log settlement are distinguished by their large dimensions (except for features 1 and 2). One of the largest (200×200 cm) is feature 8. Most of the pits are oval, the only exception being feature 6 whose shape resembles a rectangle or a square. Within feature 14 another, smaller pit was discovered, with a large number of stones in a seemingly random arrangement.



Fig. 7. Chultukov Log-9 – spindle whorls: clay (1-5), stone (6), bone (7)



Fig. 8. Chultukov Log-9 – harpoon, bone

The interpretation of feature 5 is another issue. The feature consists of a number of hollows arranged in such a way that, approximately, they probably form a rectangle. The hollows resemble the traces left by small fauna (which are commonly recorded on the site). However, their arrangement and regular spacing suggests an anthropogenic origin. Explaining the function of this structure will probably become possible only after investigating the larger area and perhaps finding some other features of this type.

The most numerous group of finds on the site are pottery shards, with 1,032 fragments

discovered (Fig. 6). Among them were rim parts of the Maima culture vessels, decorated with hollows and notches (Fig. 6:1). In total, there were 137 rim fragments and 181 decorated shards. Most of the shards are rough, hand-made and well fired. The rims are often slightly everted. The ornamentation is typical of the Maima culture, and includes rows of circular hollows below the rim and rows of slanted notches, often arranged in herring bone or zigzag patterns (Fig. 6:2, 3, 8, 11). Fragments decorated with stamps were also discovered (Fig. 6:7).

Pottery representing the Maima culture finds numerous references in the Bystrianska culture – these two units are most likely genetically connected. However, it should be emphasised that differences also exist: the settlements attributed to the Bystrianska culture reveal no thick cultural layers, and stone tools connected with agriculture are rarely discovered there (Абдулганеев 1998, 167).

Among the finds from Chultukov Log-9 were spindle whorls made of various



Fig. 9. Chultukov Log-9 – tools made from the pelvic bones of cattle

materials (Fig. 7). There was one stone spindle whorl (Fig. 7:6), one made of bone (Fig. 7:7), and five specimens made of clay (Fig. 7:1–5), including one partially preserved object cut out in the form of a ceramic disk from a fragment of a vessel (Fig. 7:4). Of particular interest seems to be a clay spindle whorl decorated with a row of notches around the perimeter (Fig. 7:2). Clay spindle whorls, including analogically decorated specimens, are known from numerous sites of the Maima culture, for example from Ushlep 5, Kurlap, Maima 1 (Абдулганеев 1998, 167).

An interesting category of finds discovered at Chultukov Log-9 are stone saddle querns. Three specimens were found, and the collection is supplemented by seven other stone tools, which most likely are handstones used to grind grain. These tools are connected with agricultural activity. The relatively large

number of such artefacts discovered within the limited area covered by the trenches clearly points to the important role of farming in the economy of the local population. Stone saddle querns and handstones were also discovered on other settlements of the Maima culture, for example at Cheposh-2, Maima-1 (Абдулганеев 1998, 167).

The settlement at Chultukov Log-9 yielded numerous bone artefacts, which is typical of Maima culture settlements. Among the discovered artefacts was a buckle, a harpoon (Fig. 8), and tools made from the pelvic bones of cattle (3 specimens, including one with apertures for fastening to a strap or cord – Fig. 9). Another category of bone artefacts comprised bow fittings in the form of thin, elongated plates. Nine such artefacts were found in the test trench in 2011. Another two fittings were discovered in 2012 (Fig. 10).



Fig. 10. Chultukov Log-9 – bow fittings, bone



Fig. 11. Chultukov Log-9 – arrowheads of the Hunnic type, bone

These finds are of particular importance mainly due to the fact that such artefacts have previously been known only from cemeteries. The excavations also produced three bone arrowheads of the Hunnic type, 6–7 cm long (Fig. 11). Among the bone artefacts were also two small tubes, most likely needle-cases (three iron needles were found) (Fig. 12).

Apart from bone tools and osteological material (ca. 2,500 fragments of animal

bones, including horse, cattle, maral (red deer), and roe deer), numerous fragments of raw material or ‘semi-products’ were found, which is also quite typical of the Maima culture. Of particular interest is the discovery of the bones of Pleistocene animals (one of them bore traces of processing) which were found approximately 0,5 m beneath the Iron Age cultural layer.

A few iron artefacts were discovered, too. The most interesting is an iron knife for fur processing. It was revealed in the test trench in 2011, which was also the location for the above-mentioned iron needles. During the excavations in 2012, a total of 6 metal artefacts were recorded, including two knives, a belt fitting, and a bronze plate – so far the only bronze object discovered in the settlement.

Along the southern margins of the nearby cemetery at Chultukov Log-1, ten burials attributed to the Maima culture were found (Бородовский, Бородовская 2009, 79; Бородовская 2009, 157). The disproportion between the insignificant number of known burials and the dense settlement network of the Maima culture might stem either from the specific nature of the burial rite or the special location of cemeteries. As for the settlement complex in the Manzherok region, the



Fig. 12. Chultukov Log-9 – needle-cases (bone), needles (iron)

thickness of the cultural layer on the Maima culture site and its saturation with finds clearly indicates a permanent, long-lasting occupation beginning from the 2<sup>nd</sup>/1<sup>st</sup> century BC. In light of the above, the question remains open as to where the inhabitants of the settlement buried their deceased. The relatively few Maima culture burials discovered in the Chultukov Log-1 cemetery do not provide a sufficient answer to this question.

If we would like to classify the discussed settlement into one of the settlement types identified for the Hunno-Sarmatian period by Soionov (Соёнов 2003, 25–26) (open settlements of the Maima I type, the Denisova Cave type, the Cheremshanka type), the Chultukov Log has most in common with the Cheremshanka type, which groups settlements situated on elongated promontories, protected by steep slopes, and where a cultural layer was recorded. The presence of numerous pits and a thick cultural layer

saturated with finds on the Chultukov Log-9 settlement testifies to a long-lasting occupation and a settled life-style. Querns and other stone tools confirm the important role of agriculture. Numerous animal bones discovered at the site speak of the considerable role of animal husbandry (and hunting), while the bone harpoon and fish bones suggest a supplementary role for fishing.

Two more settlements of the Maima culture were discovered in the valley of the Katun River (Manzherok-13) and upper reaches of its small tributary, the Manzherochka River (Manzherok-14). These monuments are characterized by various saturations of the cultural layer, which reflects their different functions. The Manzherok-13 settlement in the Katun valley is a summer, seasonal place of residence. The upper settlement of Manzherok-14 as well as Chultukov Log-9 was used as a long-term settlement complex. It is noteworthy that all these settlements are interpreted as places for processing leather (pebble stone) and vegetable fibre (bone fibre beaters).

The long absence of burials that can be related to the settlement complexes as well as the lack of dated objects found within them has long prevented scientists from justifying the chronology and ethnic affiliation of the monuments of the Maima type in the Altai submountain regions. Nowadays the situation has changed, i.e. the discovery of intact entombments of the Maima culture of the Hunno-Sarmatian period (Бородовский, Бородовская 2009, 79–81) made it possible to deal with this problem. In particular, the general layout of the Maima cemetery of Chultukov Log-9 was considerably different from Chultukov Log-1, the complex of the previous Scythian epoch, located on the same territory (the northern region of the Manzherok town, Maima district, Altai Republic). All the Maima burial mounds (No 59b, 60, 61, 62, 63, 67, 70, 73, 86, 99) were located along the Katun bed, by the very edge of its terrace.



In this case there was much space left among the chains of burial mounds of the Scythian time located perpendicularly to the river bed in the back of the terrace on Chultukov Log-1 (of the Bystrianka, northern local variant of the Pazyryk, Kara-Koby cultures).

The tombs of the Maima burial sites included numerous coal pieces and proofs of heat-treated ground. The average dimensions of burial pits were 1.70×0.7 m, the depth from the surface varied from 19 to 50 cm. The deceased were placed on their back, their head oriented to the north-west, west, south-west, east, south-west-north-east, and north-east; the arms were straightened along the body. In most burial mounds, there were no wooden constructions. Apart from other items, the accompanying inventory includes convex bronze plaques. In the Maima burials, such plaques were located exclusively on the buried people's skulls. In one case, a fragment of the headband embroidered with two rows of asymmetrically arranged hemispheric ventricose plaques, was preserved. It is noteworthy that such hemispheric plaques used as headpieces were previously recorded within the entombments of the Verhneob culture of the Early Middle Ages in the Novosibirsk Priobye (Молодин *et al.* 1996, 148, fig. 208). Another interesting group of finds includes iron buckles with movable prong, which are early Roman provincial forms, discovered in the entombments of the Hunno-Sarmatian time on the Maima-7 monument (Акимова *et al.* 2008, 31–33) and Chultukov Log-1. Such objects determine the epoch and can be found within the complexes of the North Black Sea region of those eras dated back to the middle of the 1<sup>st</sup> century AD (Труфанов 2004, 160, 163; fig. 2, 5–8; 168).

The kurgan group of Ust-Muny-1 is connected with the final stage of the Maima culture. To date, just one burial mound has been examined. A buried man lied in the centre of the burial pit on his back, his arms stretched along the body and head oriented to the south-east. The accompanying inventory was represented by four iron trefoil arrowheads, a round iron buckle, horn bow fitting, iron knife, bronze plaque and two poorly preserved iron objects. This burial complex is dated back to the middle of the 1<sup>st</sup> millennium AD.

It is noteworthy that the Chultukov Log-8 settlement was located between the Cheremshanka site of the Maima culture and the kurgan complex of the Maima culture of Chultukov Log-1g. This spatial arrangement of the archaeological monuments of one culture but different functions can testify not only to their synchronous localization but also reflect the peculiarities of the North Altai settlement pattern in the Hunno-Sarmatian period. The site (Cheremshanka) and settlement (Chultukov Log-9) were located upriver in respect of the burial monuments (Chultukov Log-1g). A similar arrangement was typical of the Muny-1 settlement and Ust-Muny-1 burial mound group further up the Katun River. In general, the results of the 2010–2013 field research enabled us to discover new monuments of the Maima archeological culture on the territory of the intermountain valley of the Lower Katun, which directly contributes to the more precise chronology of this cultural formation, geographical range and peculiarities of the development of the area as well as the reconstruction of the economic activities of the North Altai population in the Hunno-Sarmatian period.

### Śródgórska dolina dolnej Katuni w okresie huńsko-sarmackim

W okresie od ok. III/II p.n.e. do początków n.e. plemiona Hunnu na wschodzie oraz Sarmatów na zachodzie odmieniły oblicze Wielkiego Stepu eurazjatyckiego. Zmiany są zauważalne również w południowosyberyjskich górach Altaju. W górskiej dolinie dolnej Katuni, na północnym Altaju, w omawianym okresie występowała kultura majmińska (od stanowiska Maima-1). Kultura ta znana jest przede wszystkim ze stanowisk osadowych, takich jak Dolina Svobody-2, Maima-1, Maima-13, Maima-14, Cheremshanka. Podjęte w ostatnich latach badania w rejonie miejscowości Manzherok doprowadziły do odkrycia obiektów sepulkralnych kultury majmińskiej (na stanowiskach Chultukov Log-1g, Ust-Muny-1). W roku 2012 rosyjsko-polska ekspedycja z Instytutu Archeologii i Etnologii Rosyjskiej Akademii Nauk (Oddział Syberyjski) i z Instytutu Archeologii Uniwersytetu Jagiellońskiego przeprowadziła badania na osadzie Chultukov Log-9. Ogółem badania prowadzone w rejonie Manzheroka w latach 2010–2013 doprowadziły do odkrycia nowych stanowisk kultury majmińskiej, a także pozwoliły dokonać obserwacji na temat zasięgu i chronologii tej kultury oraz gospodarki ludności zamieszkującej Północny Altaj w okresie huńsko-sarmackim.

#### References

- Абдулганеев М.Т.**, 1992 *К этнокультурной ситуации в северных предгорьях Алтая в середине I тыс. до н.э – середине I тыс. н.э (по материалам поселений)*, Проблемы изучения истории и культуры Алтая и сопредельных территорий, Горно-Алтайск, pp. 59–63.
- 1993 *Майминская культура. Предварительные итоги и перспективы изучения*, Культурно-генетические процессы в Западной Сибири, Томск, pp. 3–5.
- 1998 *Поселение Майма-1 и культурно-хронологическая атрибуция земледельческих поселений горного Алтая*, Древние поселения Алтая: Сборник научных трудов, Барнаул, pp. 165–171.
- Абдулганеев М.Т., Кунгурова Н.Ю.**, 2005 *Новые поселения эпохи железа на реке Бия*, (in:), В.И. Молодин (ed.) Актуальные проблемы археологии, истории и культуры. К юбилею профессора Т.Н. Троицкой, Новосибирск, pp. 4–12.
- Акимова Т.А., Бородовский А.П., Бородовская Е.Л., Киреев С.М.**, 2008 *Археологические памятники и объекты Майминского района*, Горно-Алтайск.
- Бородовская Е.Л.**, 2009 *Горная долина нижней Катунь в эпоху металла* (Диссертация на соискание ученой степени кандидата исторических наук), Новосибирск.
- Бородовский А.П.**, 2011 *Горная долина нижней Катунь в скифское время*, (in:), Материалы международного симпозиума «Тетра Scythica», Новосибирск, pp. 29–35.
- Бородовский А.П., Бородовская Е.Л.**, 2009 *Археологическое наследие горной долины Нижней Катунь*, Новосибирск.

2013 *Исследования памятников майминской культуры на территории горной долины нижней Катунь, Полевые исследования в Верхнем Приобье. Прииртышье и на Алтае 2011–2012 гг.* Археология, этнография, устная история, Барнаул, pp. 6–10.

**Соёнов В.И.**, 2003 *Археологические памятники Горного Алтая гунно-сарматской эпохи (описание, систематика, анализ)*, Горно-Алтайск.

**Соёнов В.И., Константинов Н.А., Соёнов Д.В.**, 2011 *Особенности топографии и хронологии городищ Алтая и северных предгорий*, (in:) Материалы международного симпозиума "Ter-ra Scythica", Новосибирск, pp. 252–260.

**Молодин В.И., Бородовский А.П., Троицкая Т.Н.**, 1996 *Археологические памятники Кольванского района Новосибирской области, Материалы Свода памятников истории и культуры народов России*, Новосибирск.

**Тишкин А.А.**, 2006 *Об археологических находках из частных коллекций, Теория и практика археологических исследований*, Барнаул, pp. 147–154.

**Труфанов А.А.**, 2004 *Пряжки ранних провинциально-римских форм в Северном Причерноморье*, Российская археология 3, pp. 160–170.

<http://www.naukawpolsce.pap.pl /aktualnosci/ news, 394795, rosyjsko-polskie-badania-wykopaliskowe-na-altaju-w-rosji.html>

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