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SPECIFIC CHARACTER OF LOCALIZATION AND CONSTRUCTION OF HILL FORTS IN MOUNTAINOUS AREAS: A STUDY OF SITES OF THE FIRST HALF OF THE 1ST MILLENNIUM AD IN THE RUSSIAN ALTAI*

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The Russian Altai (administrative territory of the Altai Republic of the Russian Federation) represents a portion of the Altai mountain region, which in turn

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constitutes part of the Altai-Sayan physiographic region. Today, the territory of Altai represents a complex intersection of high mountain ranges separated by deep river valleys and vast intermontane steppes (e.g., Chuya, Uimon, etc.). The system of the Russian Altai is divided into several different parts: southern, central, eastern, north-eastern and north-western Altai.[1] In the present geological period the Altai region is one of the highest mountain regions in the orogenic belt of Southern Siberia. It represents a giant, complex and diverse topographic zone characterized by difficult and in some places impassable montane, mid-montane and low-montane reliefs dissected by erosion by river valleys and hollows.

The Russian portion of the Altai has a rich variety of archaeological monuments such as ancient settlements, pottery kilns, and metal furnaces, together with the remnants of irrigation canals, field systems and long-term fortifications, etc. Thousands of burials have been excavated in the Russian Altai belonging to different historical periods, from the Neolithic to the recent period. By comparison, very few of the ancient settlements in the region have been studied and the medieval settlements are relatively unknown. What is more, even those few ancient settlements in the Altai that have been excavated have been subjected to the most limited exploratory work.

The fortified settlements of the region in particular have only now become the subject of serious study and until recently, most had not been dated. Seven such fortified sites have been recorded and systematically studied: Yalomanskoe, Emurlinskoe, Nizhniy Cheposh-3, Nizhniy Cheposh-4, Manzherokskoe (Manzherok-3), Barangolskoe (Barangol-5), and Cheremshanskoe (Fig. 1). Of these seven, all of which can be classed as 'hill forts', only one, Yalomanskoe, is located in the central part of the Altai. The other six are located in the northern part of the Katun river valley in a linear spread extending slightly less than 40km. All of these sites have been broadly dated to the first half of the 1st Millennium AD. However, in the present article only those hill forts situated in the Northern Altai are considered as the Yalomanskoe settlement differs from the others geographically as well as typologically.

We begin by presenting a historical and cultural picture of the Altai Mountains and foothills between the end of the 1st millennium BC and the first half of the 1st millennium AD, the Hunno-Sarmatian period. The political developments in the eastern part of Central Asia during this period are mainly associated with the activities of the successive so-called 'nomadic' empires, the Xiongnu and Xianbei Empires and the Rouran Khaganate. The changes that took place in the Mongolian steppe significantly influenced events in the Altai Mountains. At this time the Russian Altai was inhabited by the descendants of the Pazyryk culture, transformed to an extent

[1] Alexander Marinin & Galina Samoilova, *Fizicheskaja geografija Gornogo Altaja*, Barnaul 1987, pp. 12-21, 82.

by events in the Mongolian steppe and by epoch-making changes of the third – second century BC related to the Bulan-Koby culture.[2] Due to events of a primarily military nature (campaigns of the Xiongnu or Xianbei), the Bulan-Koby cultural zone was infiltrated by population groups in the Altai from the south. Such changes may have compelled a portion of the mountain population to shift to the foothills in the north.

In addition, important changes occurred to the north of the Altai Mountains in the West Siberian taiga region.[3] The beginning of this period was marked by waves of migrating groups from the Middle Ob region to the south, moving up the Ob River. Representatives of the Kulay culture did not directly reach the Altai Mountains, however the movement of the population group displaced from the north affected the population in the northern foothills of the Altai Mountains.[4] Consequently, a special community was formed in the first centuries AD between the Biya and Katun Rivers, the settlement of which is attributed to the Maima culture. It is most likely, that this community consisted of the descendants of the northern Pazyryk population expelled from the mountain valleys under pressure from the south, together with the local population of the foothills who inhabited the area in the Scythian period, and the northern representatives of the Bulan-Koby culture who had infiltrated the local environment through regular contact and pressure from the south. Further north of the Maima sites, monuments of the Fomin culture are located,[5] a culture formed on the basis of elements of the Kulay culture.

Initially, the main aim of our study of the Altai hill fort settlements was to determine the period in which they were constructed. Some researchers have dated several settlements of this type in the broader region to the Scythian period, the sixth – fourth centuries BC. Our results however contradict this dating. In addition, we intended to establish the reasons for the construction of these defense structures. A third focal point of our research was to define the origins of the architectural traditions that were followed in the construction of the hill forts under study.

In this paper we present some of the results of our studies into the fortified settlements of the Northern Altai. We believe that our work will be of interest to re-

[2] Vasilii Soenov, *Arheologicheskie pamjatniki Gornogo Altaja gunno-sarmatskoj jepohi (opisanie, sistematika, analiz)*, Gorno-Altaisk 2003.

[3] Tatyana Troitskaya, *Kulajskaja kul'tura v Novosibirskom Priob'e*, Novosibirsk 1979. Tatyana Troitskaya & Andrei Novikov, *Arheologija Zapadno-Sibirskoj ravniny*, Novosibirsk 2004.

[4] Alexander Shamshin & Andrei Singayevsky, "Jetnokul'turnaja situacija na territorii Barnaul'skogo Priob'ja v konce III v. do n.je. – I v. n.je.", *Izuchenie istoriko-kul'turnogo nasledija narodov Juzhnoj Sibiri*, Gorno-Altaisk 2007, pp. 51–79.

[5] Yuri Shirin, *Verhnee Priob'e i predgor'ja Kuzneckogo Alatau v nachale I tysjacheletija n.je. (pogrebal'nye pamjatniki fominskoj kul'tury)*, Novokuznetsk 2003.

searchers studying the history of fortification methods as well as those interested in the study of ethno-cultural processes of Central and Northern Asia.

Description of the Sites

The *Nizhniy Cheposh-3* hill fort (Fig. 3) is situated on the high left-bank terrace of the Nizhniy Cheposh River, in the Katun river valley, 2km to the north-east of the centre of Cheposh village at an altitude of 445m.[6] The fortified settlement is semi oval in shape. The size of the settlement measures 170x300m forming an area of less than 5ha overall. A defense system of deep shafts and continuous ditches is visible, in some parts forming up to three successive lines. The northern part of the settlement is protected by a steeply sloped terrace. A discontinuous external counterscarp bank was recorded outside some parts of the outermost ditch. In 1996, Petr Shulga cut a trench through the defences in the northern part of the monument. As a result dwelling pits and a ditch were recorded.[7] In 2009, a further trench was cut in the north-western part of the fortification line (Fig 3; 1). Three ditches and the remains of a rampart were recorded. The rampart remains were represented by a compacted body of clay and soil (Figs. 4 and 5). Under this two deep pits were recorded. These were filled with a dense clay soil. Against the pits two post-holes were identified. The evidence suggests a rampart of a double row of frame-and-pillar design, the space between them filled with a clay-soil matrix. The pits may have served as the foundation for a tower or platform, projecting above the rampart located at the edge of the terrace. The large external ditch was for defence, the smaller ditch was probably used for drainage purposes. In addition a sheep burial was recorded under the remnants of the rampart. Most likely this was a sacrificial offering made during construction of the fortifications.[8] The most numerous findings from the site are fragments of ceramic ware, with 1618 fragments of ceramic vessels found in an exploratory trench at Nizhniy Cheposh-3. Among other ceramic objects found at this site, as with the others, spindles were common. A small scraper was also found made from the fragment of a ceramic vessel. Of the finds recorded at Nizhniy Cheposh-3 artifacts made from bone are very well preserved. Certain items are of particular importance for dating purposes: fragments of a Hunnic-type recurved bow, a piece of a small cosmetic brush and a tube used to drain urine from a cradle (Fig. 9; 1-19, 24, 21-23).

[6] All heights are given according to the Baltic system of heights (BSV), adopted in the USSR in 1977 and based on a zero point at Kronstadt, and still used in the Russian Federation countries.

[7] Peter Shulga et al., "Gorodishha Nizhnij Cheposh-3 i 4", *Izvestija Altajskogo gosudarstvennogo universiteta. Serija istorija i politologija*, 2010, Iss. 4/2 (68/2), pp. 249–253.

[8] Vasilii Soenov et al., *Cheposhskie gorodishha*, Gorno-Altaisk 2011a.

The *Nizhniy Cheposh-4* hill fort (Fig. 3) is also situated on the high left-bank terrace of Nizhniy Cheposh River, in the Katun river valley, and about 2km to the north-east of Cheposh village. Located to the south-west of Nizhniy Cheposh-3 at an altitude of 443m, it is separated from that site by a fairly deep ravine. The settlement covers an area of 170x190m, about 3ha. The defense system of shafts and ditches is quite visible and exists in two-three lines. The most extensive line of defense (triple) can be observed in the south-eastern part. The north-eastern inner part of the settlement represents a "citadel", covering an area of 75x100m. On the north side of the "citadel" the edge of the terrace is further protected by a counterscarp bank. In 1996, Petr Shulga cut two trenches inside and outside the "citadel" area. A dwelling pit was recorded at this time.[9] The team from Gorno-Altaisk University laid a trench in 2009 in the northern part of the fortification of the "citadel" (Fig 3; 2). Two ditches and two shafts were recorded. A deep pit filled with overfired clay was also discovered beneath the shafts (Figs. 6 and 7). The pit may represent part of the foundation for a projecting upper structure, located at the end of the rampart wall or perhaps a post-hole and pillar protective structure.[10] Less than 100 fragments of ceramics were recorded at Nizhniy Cheposh-4.

The *Barangolskoe* hill fort (Fig 2; 3) is located on the eastern edge of Barangol village on a wide hillside and covers an area of 105x75m (approx. 0.7ha) at an altitude of 423m. The site was discovered and surveyed by Andrei Borodovsky who recorded a number of dwelling pits.[11] At this site the only investigation was by standard field survey and a 1x1m. test pit. Information on the stratigraphy of the monument was obtained through fragments of pottery recorded in the trench and in areas where the monument's upper cultural layer had been damaged by fallen trees.[12]

The *Manzherokskoe* (Manzherok-3) hill fort is located on the eastern edge of the village of the same name, 120m east of the extreme structure of the village at an altitude of 440m.[13] A significant part of the cultural layer of the settlement was destroyed during the construction of power lines and a local pipeline (Fig 2; 1). The defended area stretches east-west along the edge of the terrace of the left bank of the Manzherok River. The area occupied by the defences rises smoothly to the east. The

[9] Shulga et al., *ibid.*

[10] Soenov et al., *ibid.*

[11] Andrei Borodovsky, "Prodolzhenie arheologicheskogo obsledovanija pravoberezh'ja gornoj doliny Nizhnej Katuni", *Sohranenie i izuchenie kul'turnogo nasledija Altaja, Vypusk XVI*, Barnaul 2007, pp. 183–189.

[12] Vasilii Soenov, "Polevye arheologicheskie issledovanija Nauchno-issledovatel'skoj laboratorii po izucheniju drevnostej Sibiri i Central'noj Azii", *Drevnosti Sibiri i Central'noj Azii*, Gorno-Altaisk 2010a, Iss. 3(15), pp. 3–6.

[13] Andrei Borodovsky, "Mikrorajon arheologicheskih pamjatnikov u s. Manzherok Majminskogo rajona Respubliki Altaj", *Drevnosti Altaja*, Gorno-Altaisk 2002, iss. 9, pp. 42–52.

dimensions of the elongated-oval site cover an area of 500x100m (approx. 5ha). The remnants of fortification now resemble grassed-over shafts and ditches. The strongest fortifications (five shafts and ditches) are on the east and south-east sides of the settlement. Traces of the fortifications are least visible in the western (lower) part. On the north, east and south sides of the fortification the ditches differ considerably in depth. A 1x1m. test pit at the site revealed evidence for the stratigraphy,[14] and sherds of pottery were recorded here and in areas where the cultural layers had been damaged by a field road.

The *Emurlinskoe* hill fort (Fig 2; 2) is situated on the north-eastern edge of a high terrace on the left bank of the Emurla River, the left tributary of the Katun, 0.55km to south-west of the river mouth and 3.7km to south-east of Cheposh village at an altitude of 462m. The site extends from the north-east to south-west in an irregular oval shape. Its maximum size is 80x55m with an area of approx. 0.4ha. The area occupied by the settlement rises gradually from the north-west to the south-east. The visible line of fortifications includes a shaft and a ditch which is turf-covered and survives as a shallow gutter-like depression. On the south-east side the settlement is protected by the steep slopes of the high terraces of the Emurla River and has no visible fortifications (it is possible that there was originally a counterscarp bank here which became smoothed with time). The other sides of the settlement were protected by shafts and a ditch. It can be seen that the ditch is located on the inside of the defense system. In the north-western sector there is a gap in the fortification system and three small hummocks, apparently connected to the entrance gates – perhaps towers? Through the western part of the settlement a modern dirt road runs north-east – south-west.[15] A field survey was carried out to clarify the thickness and characteristics of the cultural layer and a 1x1m test pit was cut to recover information about the stratigraphy of the monument. Fragments of pottery were found in the trench and in areas where the monument's cultural layer has been destroyed by the road.

The *Cheremshanskoe* hill fort is located in the southern outskirts of Cheremshanka village on a high alluvial terrace. The settlement has been completely destroyed by a sand pit. At the end of the 1980s a few household pits and a square dwelling pit (size 5x5m) were discovered in the quarry wall. After observation the part of the site which has not been destroyed was referred to as a natural fortress.[16] Fragments of

[14] Vasilii Soenov & Nikita Konstantinov, "Hronologicheskaja i kul'turnaja prinadlezhnost' Manzherokskogo gorodishha (Severnyj Altaj)", *Istoricheskie, filosofskie, politicheskie i juridicheskie nauki, kul'turologija i iskusstvovedenie. Voprosy teorii i praktiki*, 2011, Iss. 6 (12), pp. 183-190.

[15] Vasilii Soenov et al., "Emurlinskoe gorodishhe na Altae", *Drevnosti Sibiri i Central'noj Azii*, Gorno-Altaisk 2013, Iss. 5(17), p. 88.

[16] Sergei Kireev, "Poselenie Cheremshanka", *Ohrana i issledovanie arheologicheskih pamjatnikov Altaja*, Barnaul 1991, pp. 84–88; Sergei Kireev, "Novoe obsledovanie gorodishha Cheremshanka", *Altaj i tjurko-mongol'skij mir*, Gorno-Altaisk 1995, pp. 135–139.

pottery were found where the cultural layer had been destroyed and in excavation pits.

Summary

All six fortified settlements in the lower part of the montane Katun river valley have a number of characteristics in common. These settlements are located at the entrance of small rivers to the valley on the edge of the high terraces of the Katun valley. Their fortifications are often represented by several successive rows of shafts and ditches. Some also have ramparts made from wood, earth and clay. The fortification lines of the settlements usually extend in several directions with the strongest often placed where the settlement extends onto a valley terrace. Counterscarp banks are often found at the edge of the terrace. The sites generally have an irregular plan view. For example, Emurlinskoe, Nizhniy Cheposh-3, Nizhniy Cheposh-4, Manzherokskoe are irregular oval in shape; Barangolskoe is semi-polygon in shape.

Non-ceramic Finds

Aside from the ceramic material mentioned above, archaeozoological materials were collected from Nizhniy Cheposh-3 and Nizhniy Cheposh-4 and studied at the The Zoological Collection laboratory of Kemerovo State University by Sergey Onishchenko. As a result osteological materials were used for species determination. The main bone material was attributed to skeleton parts of domestic animals (sheep, horse, cow, etc.).[17]

Radiocarbon Analysis

During the excavation work at sites Nizhniy Cheposh-3 and 4, soil and charcoal samples were taken for radiocarbon analysis (Fig 8). Nine samples were dated by Lubov Orlova of the Institute of Geology and Mineralogy of the Russian Academy of Science.[18] Four of the analysis of soils span a wide time range, from 900 BC to AD 1146. The remaining five samples (three on charcoal and two on soil) have a calibrated range within 160 BC – AD 400.

Interpretation and Discussion

The Altai is one of the highest mountain areas of the orogenic belt of Southern Siberia, forming a huge uplifted mass containing various topographical structures. It

[17] Sergei Onishchenko, "Prilozhenie 6", Vasilii Soyonov, Synaru Trifanova, Nikita Konstantinov, Evgeniya Shtanakova & Denis Soyonov, *Cheposhskie gorodishha*, Gorno-Altaisk 2011, pp. 89-102.

[18] Lyubov Orlova, "Prilozhenie 1", Vasilii Soyonov, Synaru Trifanova, Nikita Konstantinov, Evgeniya Shtanakova & Denis Soyonov, *Cheposhskie gorodishha*, Gorno-Altaisk 2011, pp. 74–76.

is characterized by mountainous ranges that reach various altitudes, the upper parts of which are often impassable, broken and divided by river valleys and intermountain hollows.[19] Taking into account the way that this type of landscape provides natural features easily adaptable for fortification, the local population did not have to construct purpose-built hill forts or fortified settlements for their protection. The natural fortification capacity of the relief was sufficient to close off access to places where settlements were traditionally located and where production means and goods, etc. were stored.[20] That military operations were relatively frequent is reflected in frequent finds of damaged human skeletons and arrowheads and traces of cutting weapons of this period that have been recorded by anthropologists in the Altai Mountains.

The question therefore arises as to why, when and by whom fortified settlements were constructed by the inhabitants of the Altai in the first half of 1st Millennium AD given the pre-existing natural features that could be adapted easily for defensive purposes.

As can be seen from Fig. 1, the greatest number of fortified settlements and hill forts are located in the northern foothills of the Altai despite this representing a smaller land area. This apparently excessive number can be explained in terms of the weak defensive potential provided by the terrain itself, for this determines the number and specific geographic location of ancient fortified settlements. The result has been the creation of this relatively great number of defended settlements located in the valleys of the Katun River (lower reaches) and the Biya River and in the valleys of their inflows, some of these sites clearly dating to the first millennium BC (Ust-Isha-2, Ust-Isha-3, Berezovka-4, Solontsy-3, Piket, Malaya Berezovka, Souskhaniha, Ust-Karaguzh-1, Berezovka-2), while other sites are dated to the first half of the first millennium AD (Saylap, Kurlap, Kurlap-2, Egona-I, Ust-Isha-3a, Eniseyskoe-5, Biyskoe settlements 1-7, Bekhtemir).

Matters of their date aside, a closer analysis of the topographic location of the fortified settlements of Altai and its northern foothills allows us, with a certain degree of confidence, to distinguish two sub-groups of fortified site: that is to say, promontory forts and terraced fortified settlements.[21] The promontory fort group consists of monuments situated on the headlands, and the terraced fortified settlement group of monuments located at the edge of wide terraces. One settlement, however, Ust-Isha-2, is located on an outlying free-standing hill but is assigned here

[19] Marinin, & Samoilova, *ibid.*, pp. 12-16.

[20] Vasilii Soenov, "Polevye kamennye fortifikacionnye sooruzhenija Gornogo Altaja", *Izvestija Altajskogo gosudarstvennogo universiteta*, 2010b, Iss. 4/1(68), p. 233.

[21] Vasilii Soenov et al., "Osobennosti topograficheskogo razmeshhenija i hronologija gorodishh Altaja i severnyh predgorij", *Terra Scithica*, Novosibirsk 2011b, pp. 252-260.

to the promontory group, as its fortification is determined by the relief. It may be, though, that future work will identify further examples of such hill-top fortifications standing on outlying hills, in which case we might need to create a third group in the future consisting of 'outlier forts'. The hill fort at Yalomanskoe is also attributed to the promontory group, although it differs quite significantly from the sites under study here in terms of its geographical location and its structural elements (for example, the use of stone in the construction of fortifications).

With these provisos in mind, we can see that the fortified settlements of the first (promontory) group are distributed mainly across the northern foothills of the Altai. Ust-Isha-2, Ust-Isha-3, Ust-Karaguzh-1-2, Berezovka, Berezovka-4, Piket, Solontsy-3, Kurlap, and Egona-I, are located on headlands (Ust-Isha-2 on outlier) and are often protected by a single ditch moat from the lower side. It should be noted, though, that Egona-I, in contrast to the other sites in this group, has a circular shaped fortification similar to the settlements of the terrace group.

The second group, the terraced fortified settlements, are found both in the Northern Altai and in its foothills – the interfluvial of the Biya and Katun, and on the right bank of the Biya (Fig. 1). Included in this group are the following sites: Saylap, Kurlap, Kurlap-2, Eniseyskoe-5, Bekhtemir, the complex of settlements around Biysk, Ust-Isha-3a Cheremshanskoe, Manzherokskoe, Barangolskoe, Nizhniy Cheposh-3 and Nizhniy Cheposh-4, and Emurlinskoe. These monuments are located at the edge of terraces and, compared with the promontory forts, their fortifications are less dependent on their surrounding terrain. The fortifications often consist of several rows of shafts and ditches usually running in several different directions, with the most powerful constructions where the settlement extends onto the terrace with counterscarp banks at the edge of the terraces. The plans of these sites often reveal an irregular shape. For example, Biyskoe-3, Nizhniy Cheposh-3, Nizhniy Cheposh-4, and Manzherokskoe have the form of an irregular oval, while Ust-Isha-3a, Biyskoe-7, and Barangolskoe have the form of an irregular shaped polygon.

To determine the chronology of the sites researchers have to rely mainly on the available ceramic material, given that other artifacts (e.g., bone arrowheads and their fragments, spindle whorls, whetstones and smoothing tools, beads, etc.) can rarely be reliably associated with a specific period. The peculiarities of the ceramics enable all settlements of the Russian Altai and its northern foothills to be divided into two chronological groups: seventh – second century BC (the Scythian period) and first century BC – fifth century AD (the Hunno-Sarmatian period). On this basis the promontory forts of the northern foothills of Altai have been dated to the seventh

– second centuries BC which researchers have attributed to the Bolsherechenskaya and Bystrianskaya archaeological cultures.[22] By contrast, the terraced settlements of the Altai and the promontory forts of the northern foothills date to the first century BC – fifth century AD (Saylap, Kurlap, Kurlap-2, Yeniseyskoe-5 Bekhtemir, complex settlements around Biysk, Egona-I, Ust-Isha-3a, Cheremshanskoe, Manzherokskoe, Barangolskoe, Nizhniy Cheposh-3, Nizhniy Cheposh-4).

Determining the cultural attribution of the fortified settlements of the Altai and its northern foothills is a difficult issue and at this stage requires special study. Saylap, Kurlap, Kurlap-2, Ust-Isha-3a, and Cheremshanskoe were attributed to the Maiminsky culture almost immediately after this was distinguished.[23] On the basis of the ceramic materials, though, Manzherokskoe, Barangolskoe, Nizhniy Cheposh-3, and Nizhniy Cheposh-4 should be attributed to the Maima culture. It is likely that Eniseyskoe-5 and Egona-I also belong to the same group of monuments.

The available evidence does at least allow us to differentiate between settlements of the first half of 1st millennium AD and settlements of the preceding Scythian period. In addition, the plan-form of the hill forts located in the northern foothills of the Altai have been shown to differ from the Xiongnu settlements of the same era in Mongolia and Transbaikal. Whereas the Xiongnu hill forts are rectangular or square in shape[24] those in the Altai foothills are irregular in shape with 'smoothed' angles. Hence, we appear to be dealing with a West Siberian tradition of hill fort construction, the principal features of which include typical 'round' hill fort shapes and the use of wood-and-earthen constructions. At the same time, fortifications of the Northern Altai tradition of hill fort construction differ from West Siberian and Xiongnu architecture in the use of clay mud in fortification construction although the origins of this feature remain to be determined.

On the basis of the available evidence therefore, it may be assumed that all these settlements belong to the Maima culture archaeological complex. Unfortunately, monuments dating to the Hunno-Sarmatian period in the northern foothills of the Altai have failed to attract the attention of researchers. Burials of this period and in this area have not been studied. Only about thirty settlements were discovered

[22] Mikhail Abdulganeev, "Drevnejshie gorodishha severnyh predgorij Altaja", *Izvestija laboratorii archeologii*, Gorno-Altaisk 1997, pp. 53–61.

[23] Mikhail Abdulganeev, "K jetnokul'turnoj situacii v severnyh predgor'jah Altaja v seredine I tys. do n.je. – seredine I tys. n.je.", *Problemy izuchenija istorii i kul'tury Altaja i sopredel'nyh territorij*, Gorno-Altaisk 1992, p. 62; Kireev, *ibid.*, p. 138.

[24] Vladimir Mogilnikov, Hunnu Zabajkal'ja, *Stepnaja polosa aziatskoj chasti v skifo-sarmatskoe vremja*, Moskow 1992, p. 258; Yuri Khudyakov, "Drevnie i srednevekovye fortifikacionnye sooruzhenija v Juzhnoj Sibiri i Central'noj Azii", *Voennoe delo i srednevekovaja arheologija Central'noj Azii*, Kemerovo 1995, pp. 62, 63; Igor Kyzlasov. "K ujasneniju samobytnosti gunnskogo obshhestva: istoricheskie i arheologicheskie osobennosti", *Aziatsko-tihookeanskij region: Arheologija, jetnografija, istorija*, Vladivostok 2008, p. 50.

during field surveys. No large-scale excavations of these settlements have been conducted. Added to all this, ancient Chinese written sources of the period do not describe events in the areas located to the north of Central Asia. Based on this level of knowledge concerning the archaeological sites in the Altai foothills it is therefore not possible as yet to determine the political and military reasons for the construction of fortifications with any certainty.

It seems likely that the hill forts were built over a very short chronological period, as a response to external threat, the traces of which have not been archaeologically recorded. Judging by the ethno-cultural conditions of the time as determined on the basis of the archaeological evidence, the emergence of fortifications in the northern Altai in the first half of 1st millennium AD could have resulted from the movement of populations from the north, provoked by Kulay migrations.[25] Under pressure from population groups settling further north, the Maima population moved south into the Altai Mountains. Having occupied the mountain valleys of Northern Altai they encountered the Bulan-Koby population group which already inhabited the area. Thus, it may be concluded that the forts were built by adherents of the Maima culture both to protect themselves against a potential threat from the north, and to consolidate their hold on territory occupied or bordered by the Bulan-Koby population.

Conclusion

This study of the specific location of the fortified settlements of the Altai and its northern foothills has enabled us to identify two groups of hill fort sites: promontory forts and terraced settlements. It is now clear that the specificity of their topography quite closely correlates with the chronology of settlements dated using artifacts and radiocarbon analysis. The promontory fort is associated mainly with the Bolsherechenskaya and Bystrianka cultures, dated to within the seventh – second centuries BC. The terraced fortified settlements belong to the Maima culture of the Hunno-Sarmatian period, dating back to the first century BC – fifth century AD. There are, however, three exceptions to the promontory fort group which include two sites dating to the Hunno-Sarmatian period (Kurlap and Egona-I) and one site that is isolated geographically and displays different architectural features (Yalomanskoe).

It may be concluded that the fortified settlements of Altai and its foothills, with the exception of the Yalomanskoe settlement, preserve South Siberian construction and fortification traditions, which differ significantly from the corresponding traditions of Xiongnu. The influence of different fortification traditions can be traced throughout the Hunno-Sarmatian period in changes in the topographical

[25] Troitskaya, *ibid.*, p. 47.

positioning of settlements and construction technique. In the first century BC – fifth century AD the number of fortified settlements increases, but the basic features of the South Siberian construction traditions persist in the plan-forms of the fortifications and in the use of wooden or wood-and-earthen architectural features, etc.

Artificial fortifications cannot compete with the defensive properties of a terrain that includes mountains or high hills, so in the Altai there was no established tradition of creating fortified settlements. The tradition of building settlements emerged in the Altai during the Hunno-Sarmatian period with the population of the steppe areas of the Katun valley (lower reaches), the Biya and the Upper Priobye and the foothills where fortified settlements had existed since the early Scythian time. According to our observations, the fortifications at settlements in the Northern Altai appeared and functioned over a relatively short period of time during the Hunno-Sarmatian period, probably in connection with political turmoil associated with that time.

At the same time, we must acknowledge that our knowledge of the sites of the Altai Mountains and the northern foothills is fairly limited. Only a broad chronological epochal dating has so far been achieved for these settlements rather than the more specific dating that might be acquired through a comprehensive excavation programme. The internal layout of the settlements is virtually unstudied, especially with regard to identifying constructions used as domestic space. Further study of these fortifications is required to clarify our views on their proposed chronology and cultural associations.

To which we should add that virtually all of these fortified settlements are located in the vicinity of modern settlements which has a negative impact on the state of their preservation. Many sites are being damaged by modern economic activity. Today every effort must be taken to preserve these rare and unique archaeological sites of the Altai which represent an essential source for the study of historical process in the region.

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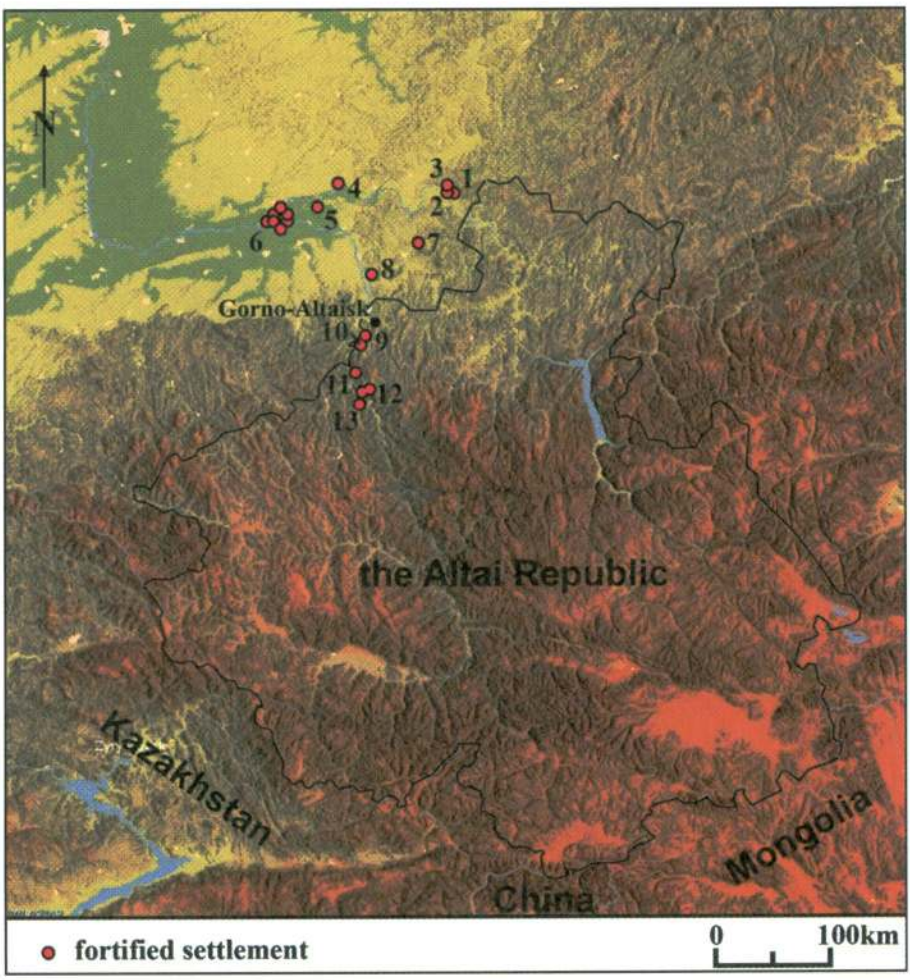

Figure 1. Map of the Altai Republic with the fortified settlements of the first half of the 1st Millennium AD. *1* – Saylap, *2*– Kurlap, *3* – Kurlap-2, *4* – Bekhtemir, *5* – Yeniseyskoe-5, *6*– complex of settlements around Biysk, *7* – Egona-I, *8* – Ust-Isha-3a, *9*– Cheremshanskoe, *10* – Manzherok-3 (Manzherokskoe), *11*– Barangol-5 (Barangolskoe), *12* – Nizhniy Cheposh-3 and Nizhniy Cheposh-4, *13* –Emurlinskoe.

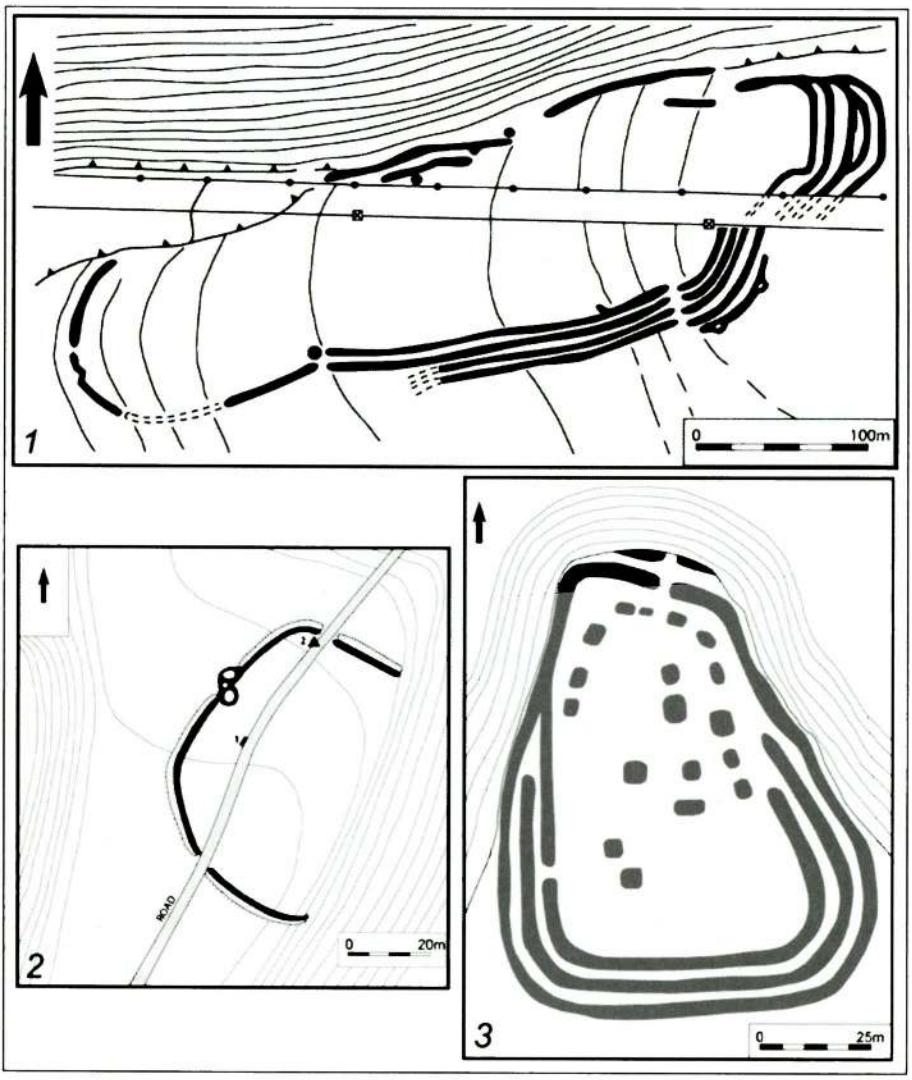

Figure 2. Plans of the fortified settlements of the Northern Altai: *1* – Manzherok-3 (Manzherokskoe), *2* – Emurlinskoe, *3* – Barangol-5 (Barangolskoe) (by Borodovsky (*1, 3*) and Soyonov (*2*).

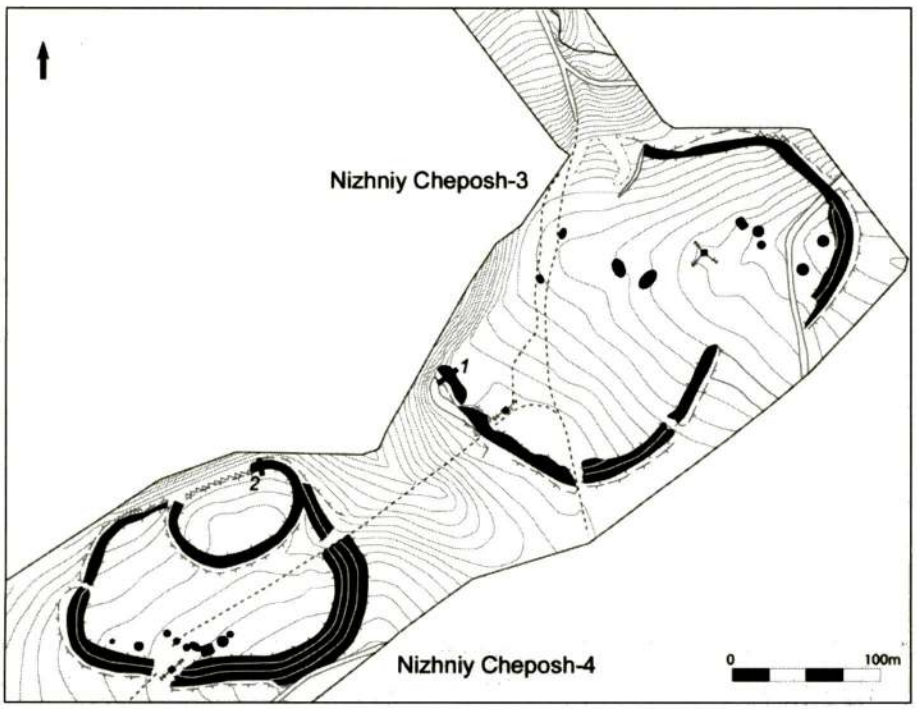

Figure 3. Plan of the fortified settlements of Nizhniy Cheposh-3 and Nizhniy Cheposh-4 (by Tishkin). *1* – The trench 1 on Nizhniy Cheposh-3, *2* – the trench 1 on Nizhniy Cheposh-4.

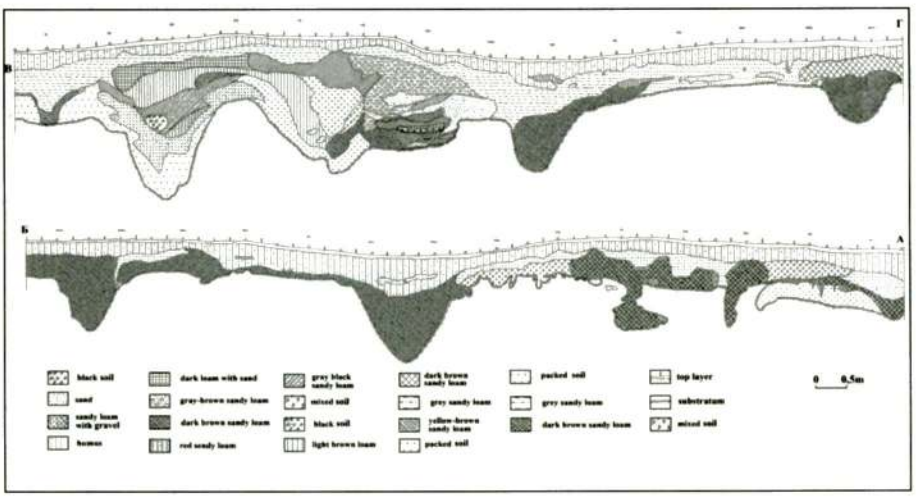

Figure 4. Profiles of the trench 1 at Nizhniy Cheposh-3.

Figure 5. Photos of the trench 1 at Nizhniy Cheposh-3.*1* – View of the trench, *2* –the northwest wall of the trench, *3* –the southwest wall of the trench.

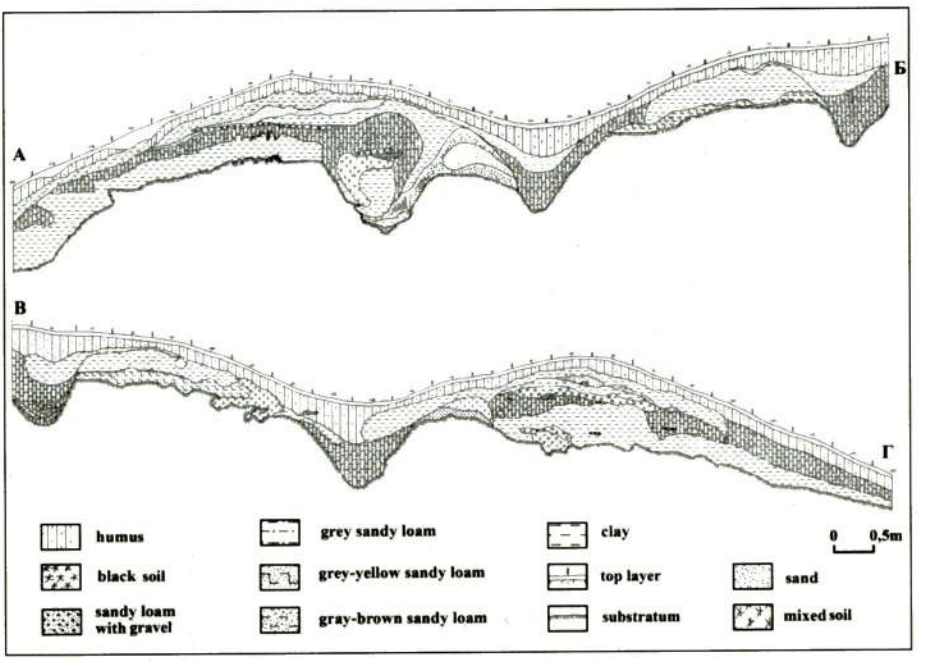

Figure 6. Profiles of the trench 1 at Nizhniy Cheposh-4.

Figure 7. Photo of the trench 1 at Nizhniy Cheposh-4.

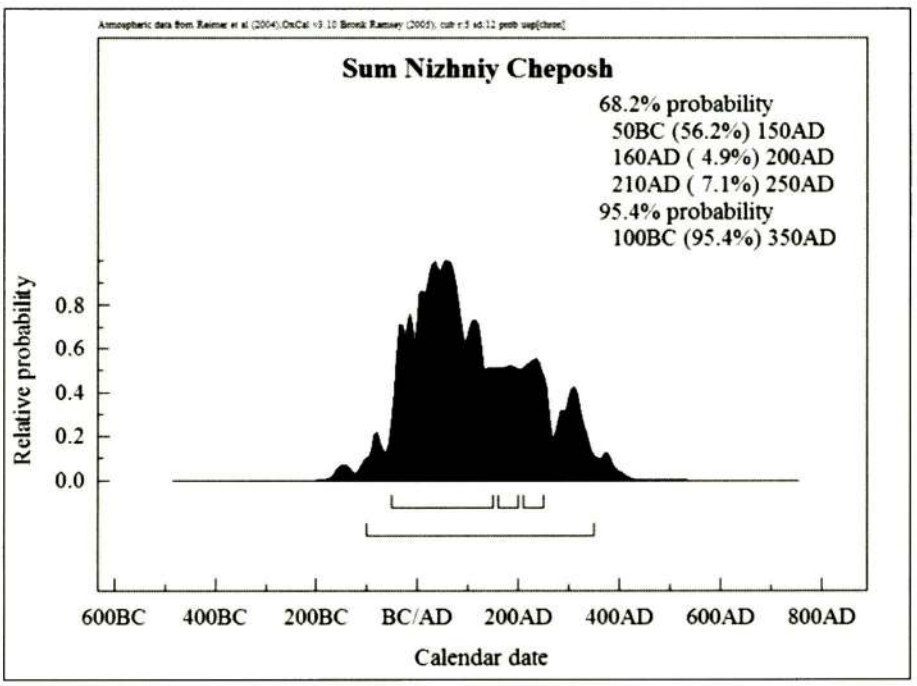

Figure 8. Summary graph of radiocarbon dating results for Nizhniy Cheposh-3 and Nizhniy Cheposh-4.

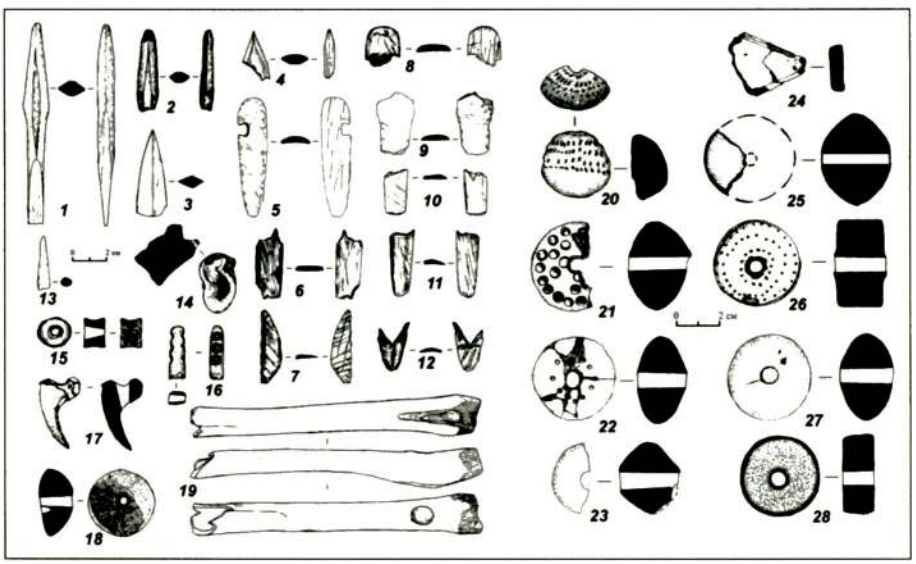

Figure 9. Materials from the fortified settlements. *1-19, 24, 21-23* – Nizhniy Cheposh-3; *20, 28* – Manzherokskoe; *25* – Emurlinskoe.