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EARLY MEDIEVAL (5TH–10TH CENTURIES) BURIALS WITH BLACKSMITH TOOLS IN WESTERN SIBERIA

The article presents the results of an analysis of the burials with blacksmith tools in western Siberia from the sixth to the tenth centuries AD and identifies the chronological and typological characteristics of the blacksmith tools. Virtually all the burials in question contain an abundance of weapons, belts, jewellery, crockery, and horse harnesses. Thus, we believe that those buried with blacksmith tools may not have necessarily been blacksmiths themselves and may have enjoyed a high social status. The blacksmith tools in the burials may have acted as symbols of belonging to the elite and as ‘attributes of power’.

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Introduction

Blacksmith tools, as well as blacksmiths themselves in ancient and medieval societies have often been the focus of research and scientific discussion. ‘Elite’ tools found along with blacksmith ones in numerous burial places of Eurasia (Ivanov 2001; Pleiner 2006, 72 ff.; Belikova 2010; Jorgensen 2012; Tvauri 2012, 214; Jezek 2015) have raised a whole range of questions concerning the status of the buried individuals (blacksmiths, warriors, rulers or shamans), the role of blacksmith tools in the burial rite, social attitudes towards blacksmiths, mythological ideas surrounding blacksmithing as reflected in archaeological sources, and so on.

Unlike in Europe, where a substantial body of literature is devoted to these questions, burials with blacksmith tools found in Siberia have not yet been specifically studied. The extreme rarity of such research may be because such burials dating from the early Iron Age are not known in Siberia at all – they did not occur on this vast territory until the Early Middle Ages and are so far limited
to a total of seven, all of which were located in the Tomsk–Narym Ob region of western Siberia (the wider Tomsk Region, Russia) (Fig. 1).

This article draws on the archaeological collections and archival materials available in National Research Tomsk State University’s Museum of Archaeology and Ethnography (in the city of Tomsk), the Museum of the City of Seversk, the State Historical Museum (Moscow), the Institute of Archaeology (Russian Academy of Sciences, Moscow), and Institute for the History of Material Culture (Russian Academy of Sciences, Saint Petersburg). Some of the archaeological materials are published here for the first time; others have already been made available before – in rare Russian-language Soviet publications with low-quality pictures and no photographs. As the permitted volume of the article does not allow us to provide pictures of all the finds from the burials in question, only those of the most revealing objects are included here.

Fig. 1. The location of archaeological burial sites with blacksmith tools mentioned in the article. Map produced using National Geographic Basemap using ArcGIS Online. 1 – Cherdashnyi Log-III, 2 – Arkhiejejskaya Zaimka, 3–4 – Timiryazevskij-1, 5 – Timiryazevskij-2, 6 – Mogil’nitskij, 7 – Relka.
Archaeological data

All seven burials with blacksmith tools are located in the Tomsk–Narym Ob region (Fig. 1). On the one hand, in the fifth to the ninth centuries AD, the Verkhneobskaya archaeological culture was widespread in the Tomsk Ob region, characterized by burials under mounds (kurgans), whereby the burial inventory used to be placed both directly in the graves and inside the burial mound (Belikova & Pletneva 1983). On the other hand, in the sixth to the ninth centuries AD, the Relka archaeological culture was present in the Narym Ob region, which also featured burials under mounds, with each mound having several burials. Both of these archaeological cultures are considered to be those of the ‘taiga world’.

Mound 12 of the Cherdashnyj Log-III burial site

The Cherdashnyj Log-III burial site is located in the wide Tomsk Region, 4.5 km from the village of Nagornyj Ishtan. It was studied by Andrew D. Gaman in 1994 (Pletneva & Gaman 2007). Before the excavations, Mound 12 constituted an earthen formation of 6 × 6 m in size. A pair of forging tongs and a hammer (presented here for the first time) were found inside (Fig. 2: 1, 2), as well as two iron arrowheads, bronze jewellery items, fragments of ceramics, and horse teeth.

In the central part of the mound, there was a grave of 2.6 × 1.2 m in size. Judging from the position of the surviving bones, the buried person’s head was towards south-east. The iron items discovered here were fragments of armour, a fragment of a stirrup with elongated suspension loop, bits found together with the bones of a horse’s limbs, a sword (Fig. 2: 6), arrowheads (Fig. 2: 3–4), an iron hook, a buckle, and a disk.

The bronze items found included a unique image of a warrior with a sword and of a bird with wings spread (Fig. 2: 5), a ring, a buckle, and various jewellery items. There were also remains of a wooden bow and a birch bark quiver, as well as a ceramic vessel in the grave. The ‘rich’ set of the accompanying inventory led Lyudmila M. Pletneva to classify this burial as ‘elite’ and date it to the period from the sixth to the seventh centuries AD (Pletneva & Gaman 2007, 60 f.). We agree with this assessment.

Mound 5 of the Arkhierejskaya Zaimka burial site

The Arkhierejskaya Zaimka burial site is situated on the outskirts of the city of Tomsk. It was discovered accidentally in 1896 and in that same year partially explored by Kuznetsov. Unfortunately, Kuznetsov did not write a report on it, and his fieldwork diaries apparently were lost. In the archives of the Institute for the History of Material Culture we were able to find Stefan K. Kuznetsov’s letters to the Imperial Archaeological Commission, containing important information on the site’s burial rite namely that – as it was said – buried in a copper alloy bowl was the decapitated head of a man (Vodyasov 2018).
The following iron objects were also found in the mound: forging tongs (Fig. 3: 1), arrowheads of different types (Fig. 3: 2–5), fragments of armour (Fig. 3: 6), three buckles, a curved-back knife with a sheath, two fragments of
Fig. 3. Mound 5 of the Arkhierejskaya Zaimka burial site.
swords, a dagger with a scabbard’s iron elements, and one more knife in a wooden sheath with a thin copper-plated frame. The bronze objects found included an image of a bird with wings spread and a human face mask on its chest (Fig. 3: 7), a miniature image of a mythical creature, two badges, an excellently preserved bowl (Fig. 3: 8), and five beads.

A Khorezmian copper alloy bowl and elements of bronze belt sets allow this mound to be dated to the period from the late seventh to the eighth centuries AD (Vodyasov 2018, 95).

**Mound 7 of the Timiryazevskij-1 burial site**

The Timiryazevskij-1 burial site is located on the left bank of the River Tom, opposite the city of Tomsk. Mound 7 was researched by Lyudmila M. Pletneva in 1971 (Pletneva 1984, 64 ff.). The size of this formation is $5 \times 6$ m; its height equals 0.4 m. In the mound, at a depth of 0.25 m, a collection of items was found placed in a vessel including an iron file (Fig. 4: 1), a miniature iron knife, two iron clips, a grindstone, three bronze badges with slits, and a bronze bell. Separately from this collection, also in the mound were an iron knife, two iron arrowheads, and fragments of a ceramic vessel. In the centre of the mound, at a depth of 0.35 m, there was one more collection of items consisting of a bronze pendant (Fig. 4: 4), an iron plate, a bronze buckle, an iron badge with a slit, glass beads, tiny beads, and bits (Fig. 4: 2), as well as remains of iron items and a piece of a bone object. A grave was discovered in the northern part of the mound inside of which were found a ceramic vessel (Fig. 4: 3) and part of an iron object, probably a stirrup. The individual buried here lay with the head oriented to the east.

Pletneva dated Mound 7 to the ninth century (1984, 85). We find it possible to extend this to the period of the seventh to the ninth centuries, based on the fact that the finds also included a belt’s bronze and iron decorative items with slits, widely used during the given period, along with a bronze buckle dating to between the sixth and the eighth centuries, and iron bits (Fig. 4: 2). The closest analogues to the beads from this burial originate from Mound 2 of the same Timiryazevskij-1 burial site dated to the second half of the period from the seventh to the eighth centuries (Zaytseva et al. 2016).

**Mound 9 of the Timiryazevskij-1 burial site**

Mound 9 was studied by Pletneva in 1973 (Pletneva 1984, 67). Prior to the excavations it had been a small formation of $4 \times 3$ m in size and 0.25 m high. Blacksmith hammer (Fig. 5: 1), an iron socketed tool (Fig. 5: 2), a bronze image of a bear ‘in sacrificial pose’ (Fig. 5: 5), four bone arrowheads (Fig. 5: 6–8), and a fragment of a ceramic vessel (Fig. 5: 9) were discovered in this mound.
At the depth of 0.45 m there was a burial containing a human skull (of a man aged 35 to 40 years) under which lay a pair of forging tongs (Fig. 5: 4), an iron knife, an iron harpoon (Fig. 5: 3), iron forceps, and tibias. The position of the skeletal elements allows us to assume that this was a secondary burial.

Pletneva dated this mound to the period from the ninth to the tenth centuries due to the fact that it contained iron forging tongs and hammer. We believe that the tools found cannot constitute a basis for such narrow dating, as analogous forging tongs and hammers existed throughout the second half of the first
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Fig. 5. Mound 9 of the Timiryazevskij-1 burial site.

millennium AD, for instance, at the Cherdashnyj Log-III burial site (from the sixth to the seventh centuries) referred to above. In Mound 9, no objects allowing for such narrow dating were found, thus making a broader time frame from the sixth to the tenth centuries more reliable.

Mound 58 of the Timiryazevskij-2 burial site

The Timiryazevskij-2 burial site was situated not far from the Timiryazevskij-1 burial site, on the territory of the village of Timiryazevskoe and has now been destroyed by construction work. It was explored by Michael F. Kosarev in
1959 (Pletneva 1984, 70). Mound 58 was a small rounded and barely noticeable formation. At a depth of 0.2 m a burial was discovered with only tubular leg bones preserved.

In the mound were found forging tongs (Fig. 6: 1), an adze (Fig. 6: 2), a chisel (Fig. 6: 3), a hammer (Fig. 6: 4), a bronze buckle (Fig. 6: 5), two copper alloy items (Fig. 6: 6–7), and seven bronze belt stripes (Fig. 6: 8).

Pletneva dated this mound between the ninth and the tenth centuries (1984, 86). We do not agree on this dating, as the solid bronze buckle with fixed flap found in the mound (Fig. 9: 5) is widely present in complexes of the sixth to the eighth centuries in southern and western Siberia (Gavrilova 1965, tables 18: 5, 31: 24; Zaytseva et al. 2016, 286). We suggest it be dated between the sixth and the eighth centuries.

**Fig. 6.** Mound 58 of the Timiryazevskij-2 burial site.
Mound 2 of the Mogil’nitskij burial site

The Mogil’nitskij burial site is located in the south of Tomsk Region, on the right bank of the River Tagan, 1.5 km from the village of Mogil’niki. In 1962, Vladimir I. Matyushchenko studied two mounds here (1965). Several objects from Mound 2 were presented in a publication by Pletneva (1973), whereas the forging tongs are published here for the first time.

Mound 2 was 7 m in diameter and 0.75 m high. It contained one burial where the deceased lay stretched out on the back, with the head oriented to the south-east. Two iron rings, tongs (Fig. 7: 1) placed in a bag, arrowheads (Fig. 7: 2–4), knives (Fig. 7: 5–6), an iron knife (Fig. 7: 6), an iron dagger (Fig. 7: 7) placed over the bag with the tongs, and elements of belt sets (Fig. 7: 8–10) were also found in the mound.

Pletneva dated this mound to between the eighth and the ninth centuries (1973, 101). We agree with this assessment.

Burial 7 in the Mound 1 of the Relka burial site

The only burial place, other than in the Tomsk Ob region, where blacksmith tools were found was on the adjacent territory of the Narym Ob region, on the Relka burial site. The burial site is located on the territory of the village of Molchanovo in Tomsk Region. The burial in question was researched by Matyushchenko in 1963 and published by Lyudmila A. Chindina (Chindina 1977, fig. 6).

Fig. 7. Mound 2 of the Mogil’nitskij burial site.
Mound 1 was $24 \times 16$ m in size and 1.6 m high. Sixteen graves were studied in it. Burial 7 was located in the south-eastern half of the mound. The burial contained many objects (Figs 8, 9).

Fig. 8. Mound 1 of the Relka burial site. Iron objects.
Fig. 9. Mound 1 of the Relka burial site. Bronze objects.
The found iron items include a bent sword (Fig. 8: 1), fragments of armour (Fig. 8: 2–5), a knife (Fig. 8: 6) with a sheath (Fig. 8: 7), an arrowhead (Fig. 8: 8), a blacksmith hammer (Fig. 8: 9), bits (Fig. 8: 10), and an adze (Fig. 8: 11).

The copper alloy items found include two anthropomorphic images (Fig. 9: 1–2), jewellery items (Fig. 9: 3, 4, 7, 11), sheath elements (Fig. 9: 5–6), and elements of a belt (Fig. 9: 8–10). Also, the burial had two ceramic vessels, an iron arrowhead, a bronze ring, and a glass bead.

Chindina dated this burial to the eighth century (1977, 76). We agree with this assessment.

The descriptions given above show that blacksmith tools could either be placed in the burial or in the mound. Placing various items not only in graves but also in mounds points to the early medieval burial rite spread in the Tomsk-Narym Ob region. Different ways of placing blacksmith tools can be identified when these are found directly inside a burial. In Mound 9 of the Timiryazevskij-1 burial site, tongs, together with other items, were discovered under a human skull, whereas a hammer lay nearby. In Mound 2 of the Mogil’nit’skij burial site, tongs were found inside the wicker bag over which an iron dagger was placed.

In two cases – in Mound 12 of the Cherdashnyj Log-III burial site and in Mound 7 of the Timiryazevskij-1 burial site – the blacksmith tools were discovered at a shallow depth inside the mounds and above the burials themselves. As for Mound 58 of the Timiryazevskij-2 burial site and Mound 7 of the Relka burial site, the reports do not provide us with any more specific context of how the blacksmith tools were found, as is also the case with Mound 5 of the Arkhierejskaya Zaimka burial site and the forging tongs discovered there.

**Early medieval blacksmith tools in western Siberia: typological and chronological characteristics**

Today, we can only speak of 12 early medieval blacksmith tools found in western Siberia, namely, 5 tongs, a pair of forceps, 4 hammers, a chisel, and a file. All of them come from burial complexes; none was found in settlements. The area of their distribution (Fig. 1) is limited to the Tomsk-Narym Ob region (i.e., the present territory of the wider Tomsk Region). This category of tools is one of the numerically smallest in western Siberia where several thousands of burials dated between the fifth and the tenth centuries AD have been explored.

The rarity of these tools is also true for other territories of Eurasia, for instance, in the sub-Urals, among 2000 medieval burials studied, only 5 contained blacksmith tools (Ivanov 2001, 174). Blacksmith tools are also rare in the European part of Russia (Biryukov 2001, 165).

Iron blacksmith tools appear in western Siberia during the period from the sixth to the seventh centuries. All the early medieval iron tongs represent the same type of blacksmith tongs meant for working with smaller objects. Their
length ranges between 150 and 280 mm. Such tongs were only suitable for producing or repairing small items. Possibly, the tongs of this type were also used in jewellery production and casting of copper alloys (Jorgensen 2012, 4).

Notably, no larger size tongs traditionally used for taking wrought iron bloom out of a furnace were widespread in western Siberia in the Early Middle Ages. This type of tongs appeared here only in the beginning of the second millennium AD (Pletneva 1997, fig. 38: 3).

Another category of blacksmith tools consists of 4 hammers. Their length ranges between 55 and 80 mm. The hammers weigh less than 100 g. Given their size and weight, all the hammers in question fall within the category of so-called ‘small hammers’ used for dealing with either copper alloys or small items (Jorgensen 2012, 19). Forging wrought blooms required the use of blacksmith hammers of around 500 g and over (Pleiner 2006, 77; Jorgensen 2012, 19).

The hammers from the sixth to the ninth centuries have a distinctive feature, that is, open socket for fixing the handle, and these hammers are made in the same way as the adzes dated to the same period. Olga B. Belikova correctly noted that socketed hammers were widespread solely in the first millennium AD (Belikova 2010, 106 f.).

A socket is also present in the single chisel (Fig. 6: 3) dating to the Early Middle Ages that was found in western Siberia. We are not aware of any other socketed blacksmith tools being found in the rest of Eurasia. Thus, the socket for fixing the handle is attributed to early medieval hammers and chisels of western Siberia. This type of tools was used between the sixth and the ninth centuries. Most probably, at the turn of the first to the second millennia AD socketed tools ceased to exist and were superseded by blacksmith tools (hammers and chisels) with a hole for the handle.

Of great interest is the iron file (Fig. 4: 1) discovered in Mound 7 of the Timiryazevskij-1 burial site. The length of its preserved part is 80 mm. On all four faces of the tool, there are criss-cross notches made for metal processing. Such files with criss-cross notches on all their faces were found in settlements of Ancient Rus; however, they are dated to a later period – that of the twelfth to the fifteenth centuries (Kolchin 1953, 216).

The typologies in the case of blacksmith tools are not really helpful for their precise dating. Unfortunately, we did not have the opportunity to conduct metallographic analysis, which might provide better dating options (Saage et al. 2018, 62).

The fact that small forging tongs and small ‘light’ hammers were widespread in the absence of forging tongs for taking out wrought iron and heavy tools supports one of our hypotheses about the specifics of metallurgy development in the taiga zone of western Siberia. Accordingly, during the Early Middle Ages iron smelting was not particularly developed here and iron metallurgy was mostly down to re-forging ready iron blooms and semi-finished iron products of foreign origin (Vodyasov & Zaitceva 2017). No iron-smelting furnaces are known to have
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Blacksmith tools, burial rites, and social status

The discovery in burials of blacksmith tools along with other prestigious objects (weapons, belts, jewellery, and horse harnesses) raises a number of questions in relation to the buried people’s social status in life and to the functions these very blacksmith tools performed in burial rites. If no blacksmith tools had been found in the studied burial mounds, the status of the deceased would most probably have been defined by researchers as ‘social elite’, ‘warriors of high rank’, ‘leaders’, ‘cult persons’, etc. However, the presence of these tools complicates such an interpretation and leads to some questions such as: ‘Who exactly were the buried people before their death?’ and ‘Does the burial inventory in fact reflect their real place in society?’

The special attitude of society towards the blacksmith and their high social status, as well as the connection between them and magic, can be seen in many ethnographic, folklore and archaeological materials across Eurasia (Ardzinba 1988; Scott 1990, 185 ff.; Ivanov 2001; Grigg 2002; Pleiner 2006, 72 ff.; Belikova 2010, 180 ff.; Jorgensen 2012; Jezek 2015). And here the sacralization of blacksmithing and of the blacksmith could result in blacksmith tools themselves becoming a symbol of high social status and some sort of an attribute of power (Jezek 2015, 134).

In many medieval societies, there existed ideas of a close relationship of military rulers with blacksmithing (Jorgensen 2012, 25 f.; Kramarovskij 2013, 20). That is why we cannot exclude the fact that this symbolism of blacksmith tools acting as a marker of a high status and power became reflected in the burial rite of the early medieval population of the Tomsk-Narym Ob region.

A more unequivocal interpretation is hard to produce due to the absence of knowledge about the sex and the age of the people buried with blacksmith tools. Only in one case (that of Mound 9 of the Timiryazevskij-1 burial site) we know that the deceased was a man aged 35 to 40.

Now we shall turn to an analysis of the burial inventory found in the complexes under study in the Tomsk-Narym Ob region. In our view, all the burials with blacksmith tools here can be, with reservations, divided into two groups. The first one is comprised of five ‘elite’ burials with rich and diverse items (Mound 12 of the Cherdashnyj Log-III, Mound 5 of the Arkhiejejskaya Zaimka, Mound 7 of the Timiryazevskij-1, Burial 7 in Mound 1 of the Relka, and Mound 2 of the Mogil’nitskij burial sites). In this group, in different combinations, were found a prestigious set of weapons (swords, daggers, arrows, knives, and fragments of armour), decorated belts, cult bronze items, jewellery, horse harness, working tools, and crockery. It would be of no exaggeration to say that these burials are
among the ‘richest’ early medieval burials discovered and studied so far on the territory of Tomsk Region.

The second group includes two burials with blacksmith tools (Mound 9 of the Timiryazevskij-1 and Mound 58 of the Timiryazevskij-2 burial sites). Overall, these contained ‘typical’ items (with the exception of the blacksmith tools themselves) and did not stand out among the other burials of the Tomsk-Narym Ob region.

We doubt that it is at all possible to arrive at an unequivocal interpretation as to the status of the people buried with blacksmith tools and other objects. In some cases, in our view, blacksmith tools could act as a symbol of power to accompany the buried social elite members (rulers or warlords) – who had not been involved in blacksmithing in life but had been linked to it at the level of the world view and of the sacred as perceived by their society – in the Hereafter. Most probably, the ‘elite’ burials (the first group referred to above) are part of suchlike manifestations of burial practices.

In other cases, we cannot exclude the possibility that the presence of blacksmith tools in ‘typical’ burials – the ones that did not contain any unusual items – indicates the fact that the deceased (the second group referred to above) had indeed been blacksmiths in life.

Conclusions

The question as to why burials in the Tomsk-Narym Ob region in the Early Middle Ages with blacksmith tools occurred at all remains unanswered. We can only suggest that it was precisely during this period that some radical changes were taking place in the region associated with the spread of iron products and blacksmithing technologies (Vodyasov & Zaitceva 2015, 473 f.). These changes were probably influenced by the ‘Turkic circle’ cultures. Also, since the time of the First Turkic Khaganate (the middle of the sixth century to the 730s AD) imported Turkic-looking objects are known to have entered the taiga cultures of western Siberia. These contacts intensified considerably since the time of the Second Turkic Khaganate (the 670s AD to the middle of the eight century) (Savinov 2016, 28). The changes that happened probably affected the local world views, thus leading to the emergence of ‘elite’ burials containing blacksmith tools. However, this hypothesis does not account for the fact that such burials are only found in the Tomsk-Narym Ob region and not in any other areas or cultures of western Siberia that also experienced southern, ‘Turkic’ influence at that time.

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VARAKESKAEGSED (5.–10. SAJAND) LÄÄNE-SIBERI SEPATÖÖRIISTADEGA MATUSED

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