The emergence of the Tagar culture

Nikolay Bokovenko*

Keywords: Iron Age, Scythians, Siberia, Minusinsk, Tagar culture, horse riding, barrow burial, kurgans, pyramids, mummification

Introduction

The early nomads of Eurasia, whom ancient writers called Scythians and Sakas, occupied the great Eurasian Steppe from the beginning of the first millennium BCE. The Scythian culture is well known from the excavations of numerous rich, elite barrows north of the Black Sea, but their theatre of action actually stretched from Hungary to the Great Wall of China. In the steppe zone of Central Asia a number of cultures of the Scythian-Saka type appeared at this period, for example, the Aldy-Bel’, Maiemir, Tasmola and Tagar cultures. The Tagar culture, which succeeded the Karasuk culture in southern Siberia (Legrand, above) belongs to the earliest stages of the Scythian group, and is dated to the ninth-eighth century BCE (Sementsov et al. 1998; Vasiliev et al. 2002; Bokovenko et al. 2002).

This paper studies the sequence of the Tagar culture in the Minusinsk basin in southern Siberia. It is a sequence which shows how mobile horsemen emerged from their Bronze Age background to dominate their region and spread their culture many thousands of miles westwards into Europe.

Early investigations

The earliest archaeological discoveries in southern Siberia dating to the Scythian period are associated with the Russian incursion into the Siberian steppes in the early eighteenth century. The Russian emperor, Peter the Great, sent the first academic expedition headed by D.G. Messerschmidt (1721) to Siberia and ordered the investigation of barrows. In 1722, the first barrow to be scientifically excavated on the Yenisei River belonged to the Tagar culture. Subsequent expeditions, headed by G.F. Miller (1733-1744) and P.S. Pallas (1770) conducted scientific excavations, made artefact collections and described outstanding monuments from different periods.

The nineteenth century was characterised by extensive studies of local enthusiasts such as P.K. Frolov, N.M. Martyanov, D.A. Klementz and others who supplemented the archaeological collections of local museums. In the 1920s, professional archaeologists (S.A. Teploukhov, S.V. Kiselyov, M.P. Gryaznov and so on) explored many more archaeological sites of the Sayan and Altai mountains and elaborated their cultural chronological system (Teploukhov 1929; Kiselev 1951; Gryaznov 1968; 1969; Chlenova 1967; 1992).

* Institute for the History of Material Culture, Russian Academy of Sciences, Dvortsovaya nab., 18, 191186, Saint-Petersburg, Russia. (Email: sakasiberia@hotmail.com)

Received: 14 June 2005; Accepted: 27 February 2006; Revised: 18 May 2006

860
Climate and resources

The Minusinsk Valley is located in the southern area of the Krasnoyarsk district and the Republic of Khakasia (Figure 1). The bottom of the valley, originally covered with bunchgrass steppe vegetation, is at a height of 300–350m and surrounded by the high Sayan mountains. The modern climate is continental with a mean annual temperature of about 0°C.

In 2001/2 a joint expedition by the Institute for the History of Material Culture and Dutch scientists carried out environmental investigations in the region, targeting the lakes of Kutuzhekovo and Shushenskoe in the Minusinsk valley and the two White Lakes in the Uyuk valley in Tuva. They used pollen analysis and geochemical methods to study lake deposits, along with archaeological and radiocarbon data. The results of these investigations testify to climatic development in that region during the first millennium BCE, continuing changes that began in the Bronze Age. A cool phase occurred during the eleventh-ninth centuries BCE, when increasing humidity reached a maximum, followed by a warming trend (Figure 2). Both the pollen record and the geochemical data show a pronounced shift to humid climatic conditions at the start of the early Iron Age (Kulkova 2003). The significant increase in humidity and the slight temperature rise in the steppe that occurred about the first millennium BCE probably became widespread. This has been well traced from western Central Asia to western Siberia (Levina 1996), and probably stimulated movement of some nomads across long distances. This change in climate was progressive, not static, as assumed by Khazanov (1984/1994).

By the end of the second millennium BCE the natural conditions of the steppe-like valleys of the Sayan and Altai mountains in central southern Siberia were most favourable for sheep breeding. Sheep pasturing was limited territorially in the Minusinsk valley as compared to, for example, the Kazakh steppe where people could migrate about 1000km with their cattle. Seasonal migrations in the Sayan and Altai mountain regions were mostly vertical. Just at the beginning of the first millennium BCE, significant progress in horse breeding can be traced (new forms were invented and more reliable types of bronze bridles were made) and became the basis for a society of horsemen (Bokovenko 2000).

The increased resources and opportunities for growth coincided with social stratification, and the emergence of a structured system of authority, as will be seen from the material culture (below).

Chronology

After the excavation of the royal barrow Arzhan 1 in Tuva by M.P. Gryaznov, it became clear that the Scythian period in Central Asia started at least as early as the seventh century BCE (Gryaznov 1984). Dendrochronological and radiocarbon dating now indicate that Arzhan dates to the end ninth- beginning eighth century BCE (Zaitseva et al. 1996). The St. Petersburg Radiocarbon Laboratory Database has recently produced about 440 radiocarbon measurements for 105 sites located in Khakasia and Tuva, resulting in the dating of many sites in Asian territories to the pre-Scythian and initial Scythian periods (tenth-eighth century BCE) (Bokovenko et al. 2002) (Figure 3).
The emergence of the Tagar culture

Figure 1. The Minusinsk valley showing the location of Iron Age sites (Tagar culture).
Gryaznov (1968) proposed four phases for the Tagar culture which are still accepted today, but with a new chronology as follows:

<table>
<thead>
<tr>
<th>Chronological phase</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bainovo</td>
<td>end 10th-8th century BCE</td>
</tr>
<tr>
<td>Podgornovo</td>
<td>8th-6th centuries BCE</td>
</tr>
<tr>
<td>Saragash</td>
<td>6th-3rd centuries BCE</td>
</tr>
<tr>
<td>Te's</td>
<td>2nd-1st centuries, BCE-lst century CE</td>
</tr>
</tbody>
</table>

These phases are used as a framework to describe the cultural sequence that follows. Currently, most of our information comes from burials.

**Funerary rites**

Even today the Tagar burial grounds are quite visible because of the presence of vertical stone slabs around the kerb forming the enclosures or mounds. Graves in the earliest dated cemeteries are not numerous, but, by contrast, cemeteries belonging to the subsequent period contain hundreds of mounds and diverse burial monuments. A characteristic feature of the Tagar burial tradition, as in the Karasuk culture that preceded it, is that the dead were buried in square or rectangular enclosures made of vertically standing stone slabs, covered...
The emergence of the Tagar culture

Figure 3. Radiocarbon dates from early Tagar monuments and the princely mound Arzhan 1. Note: camera = chamber.

with a pyramidal burial mound. Occasionally the stones were arranged in horizontal rows with vertical stones set at the corners of enclosures and along their perimeters.

A general trend in the Tagar burial tradition was that the enclosures and the graves they contained increased in size and depth over time (Figure 4). The stone cists were gradually replaced with timber frames that had strong multi-layered floors. The number of bodies buried in each stone cist also increases through time. In the early period the dead were buried in a supine position with their heads consistently oriented to the south-west, and only occasionally to the north-east. In the case of the collective graves, the orientation varied.

864
<table>
<thead>
<tr>
<th>Phases</th>
<th>Fences</th>
<th>Graves</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bainov phase</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
<tr>
<td>End 10th - 8th century B.C.</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podgornovo phase</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
<tr>
<td>8th-6th century B.C.</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
<tr>
<td>III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saragash phase</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
<tr>
<td>6th-3rd century B.C.</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
<tr>
<td>IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tes’ phase</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
<tr>
<td>2nd century B.C. - 1st century A.D.</td>
<td>![Image of burial structures]</td>
<td>![Image of burial structures]</td>
</tr>
</tbody>
</table>

Figure 4. Development of burial structures in the Tagar culture.
The emergence of the Tagar culture

In the Bainov phase the burial enclosure is small, still based on the Karasuk pattern with walls up to 1m high constructed of stone slabs, and sometimes with taller slabs 1 to 2m high at the corners (Figure 5). Each enclosure contains one tomb, also built from slabs of stone, and each tomb contains a single skeleton. As in the earlier period, one or two vessels were placed at the head of the deceased person and the same four pieces of meat (from sheep rather than oxen) were laid at the feet. In the male graves, one or two vessels with liquid were usually set at the head and some pieces of beef or more rarely mutton or horsemeat were left at the feet. In a male burial, a dagger and a battle-axe were usually placed adjacent to the body, a knife on the left side of the belt, and a quiver with arrows placed at the feet (Chlenova 1967: Table 1). A knife or a small bag with toilet articles including a mirror and a comb were attached to women's belts. Women's clothes were decorated with numerous beads and pendants. Complex sets of beads decorated the clothing; headdresses adorn the hair of the deceased.

In the Podgornovo phase, the burial enclosures continue to be small and are frequently attached to each other (Figure 6). They contain 1-2 tombs in the centre. The tomb itself is often a timber chamber rather than a stone cist. Multiple tombs contained two to three deceased, but single burials are more common. From that time on in the Tagar culture, numbers of bodies were successively buried in a tomb, and entrances provided for the purpose.
The Saragash phase saw the further elaboration of burial ritual and of the construction of the burial superstructures. Enclosures of 2-300m² composed of 8 to 20 stones housed two or more semi-square collective graves (Figure 7). Side by side within the vaults up to 200 people were buried in succession through a special entrance. Some individual graves were built, presumably for men and women of high rank. Children were buried either separately in small stone boxes or in collective graves with the women. Accompanying artefacts are approximately the same as in the earlier stage, except that the pottery, tools, and armament display some changes in form. The general trend was to decrease the size to that of a miniature. At the same time numerous bronze and gold plaques in the shape of stags were sewn on the clothing of the dead. The pottery of this period is usually undecorated.

Social stratification is especially apparent in the burial of this period. Barrows of about 20m in height are located in the Salbyk Valley in the centre of the Minusinsk basin and exemplify this trend. The pyramidal Bolshoi Salbykskii Mound excavated by S.V. Kiselev had a pyramidal embankment 11m high. The enclosure-sill was constructed from immense stone slabs that were placed vertically. The slabs weighed up to 50 tons each and measured 6m in height. The length of each side was 70m. An entrance made of vertically set stone slabs was placed on the eastern side. The square grave at this site, measuring 5 × 5m in depth, had been completely robbed at the time of the excavation, but the remains of seven skeletons, some fragments of gold foil, and a bronze knife survived. The immensity of the
mound and the labour expended to construct the stone slab sill implies that an elite person, a chief of the confederation of Tagar tribes was buried there (Kiselev 1951: 189; Gryaznov 1968: 191; Vadetskaya 1986: 95).

The tombs of the Tes’ phase show considerable variety, but it is possible to define several types of funeral rite (Figure 8). The burials are generally covered by huge kurgans with monumental enclosure-kerbs built of stone. In the centre lies a large tomb, 30 to 50m² in plan and up to 3m deep. The tomb has an elaborate timber structure of two storeys, roofed with logs and a thick layer of birch-bark. The chamber might contain the remains of several dozen bodies (Kuzmin 1987). Skulls are trepanned, evidently in order to remove the brain (Figure 9: D). In all cases the tombs had been set on fire (Gryaznov 1969).

It is evident that these pyramid burials also involved the mummification of the body. The process of mummification can be reconstructed (Figure 9; B). The skeletal remains (skulls and separated bones), were exposed for some period of time then were buried in crypts (Tagarski Ostrov, Malaya Inya, Buzunovo, Kop’evo etc.). An attempt was then made to recombine the parts of the body, not always successfully (Tepsei VIII). The spine, hands and vertebrae were fastened with thin rods, to reconstitute the shape of the body (Medvedka II, Mayak, Sabinka etc.). Meanwhile the head was modelled in clay and fastened to the reconstituted body. The whole mannequin was then painted, clothed and provided with a mask (Kuzmin & Varlamov 1988). Similarly complex operations are found in burials in the Altai (at Bashadar, Pazyryk, and Ukok) (Grjaznov 1950; Rudenko 1960; Polos’mak 2001)
and in Tuva (at Urbjun, Balgazin etc.) (Grach 1980). Although the mummies themselves did not always survive, traces of mumification have been discovered in various mounds in south Siberia dating from the first millennium BCE.

By the end of the first millennium BCE the ritual did not include the burial of mummies, but rather of dolls, filled with grass that are traced especially to the Tashtyk culture. They were dressed in clothing; their heads were covered with the painted masks; and a small sack containing burnt bones was put inside the body (Vadezkaya 1999). Smaller tombs constructed in the same way stand one against the other, each containing a single tomb constructed of slabs. There are also many tombs, particularly children’s graves, which are located within various sections of the barrows.

If we compare the tombs belonging to the successive phases of the Tagar culture we can readily observe the close affinities between them in tomb structure, grave furnishings and funerary ritual. This implies the development of an indigenous cultural group over a period of ten centuries during which there were no abrupt changes in the economic, domestic or social patterns and no sudden displacements of large numbers of people. However, penetration of small groups of the population is not excluded.

**Grave goods**

The material culture of the Tagar Period is extremely varied with thousands of bronze artefacts of very fine quality placed in the burials. These artefacts testify to a highly developed bronze-casting industry stemming from very old traditions. Weapons are represented by
The emergence of the Tagar culture

three main categories: daggers, battle-axes and arrowheads (Figure 10). Daggers may have guards at right angles to the blade and roller-shaped handles, or butterfly-shaped guards and pommels in a variety of forms such as roller-shaped, ring-shaped, or zoomorphic. By the end of the Tagar Culture the form of the guards had degenerated. The earliest battle-axes have a head, are round in section, and contain a polyhedral or mushroom-shaped butt on a long sleeve. Later, the sleeve became shorter and the butt was often made in the form of an animal figurine such as a goat or a stag. Sometimes the sleeves were decorated with a rather fine depiction of an animal (Chlenova 1967: Table 8: 10-11; Bokovenko 1995: 304). The earliest arrowheads have two points on a hollow shaft, often with a tenon. The later arrowheads, dating to the sixth-fourth centuries BCE, are tetrahedral or trilobed, and stemmed. Variations in form are achieved through modifying the shape of the fins and the impact point of the arrowhead. The classification of arrowheads has been elaborated in much detail (Chlenova 1967: Table 12: 12). Bone arrowheads are trilobed or tetrahedral and occasionally bullet-shaped but generally of the simpler standard forms that were already well developed during the Neolithic and the Bronze Age.

Utilitarian implements are numerous and versatile. The blades of practically all Tagar knives are the same, and the differences are manifest mainly in the shape of their handles. The handles may be ring-shaped, with an arch, with small or large holes, openwork, loop-shaped, insert-type. They have zoomorphic forms and can be decorated with various incised
motifs (Bokovenko 1995: 306, 313). Artefacts related to the bronze casting industry are represented mainly by bi-valve stone and clay moulds (Grjaznov 1969). Numerous devices such as clamps, nozzles, and pouring gates used in casting as well as technologically complex and highly artistic bronze artefacts such as bridles, cauldrons and art works indicate a highly specialised and developed bronze industry.
The emergence of the Tagar culture

Items of horse harness are extremely numerous as well. Although almost all of them are accidental finds, their diversity and the high quality of production point to the great value that the Tagar society placed on this category of object (Figure 11). Around the ninth-eighth century BCE, bronze bridle bits replaced the three-holed bridle bit, carved from horn and used at an earlier date. These bits were cast with a stirrup-shaped end where an additional
Figure 12. Utensils: wooden dishes, little tables and scoops (1-4, 16-17), clay vessels (5-15) and bronze cauldrons (18-21).

hole into the strict frame-shaped cheek pieces was cast. These were used to break horses. In the sixth-fifth centuries BCE, stirrup-shaped bits were replaced with those that had a single ring into which the two-holed cheek pieces were inserted (Bokovenko 1986: 18; Chlenova 1992: 215; Bokovenko 2000: 309). The total bridle system including the various strap connecting pieces, pendants, and cheek pieces continued to be refined. The abundance and diversity of horse-harness items and the numerous petroglyphs illustrating horses are evidence of the great role that horse breeding played in the Tagar society.

Vessels were made of clay, carved from wood, or were cast from bronze (Figure 12). As wooden objects withstand time poorly, they are found only rarely, but include small tables,
The emergence of the Tagar culture

round, ellipsoid, and square wooden trays, cauldron-shaped vessels, and scoops. The colour of pottery was dependent upon the firing methods. The predominance of greyish-yellow shades indicates that the vessels were unevenly fired in an open fire without a special oxygen supply. At the end of the Tagar Period vessels with ring-shaped bases and cauldron-shaped vessels were predominant. A great number of bronze cauldrons on conical bases have also been found in the Minusinsk Basin. They vary in size from small, containing up to five litres in capacity, to extremely large ones that have a capacity of several hundred litres. Classification of the cauldrons is based on the typology of the handle (Bokovenko 1981: 42-52). Herodotus mentions cauldrons in connection with sacrifices (Herodotus IV: 60-61), but these containers were probably poly-functional.

Toilet articles were stored either in small leather bags or in wooden chests (Figure 13). Numerous carved and figured combs made of bone are known. Some wooden combs survived in the Dalnii Mound. A particularly interesting item used for combing hair is decorated with a compass ornament and a zoomorphic figure on one of the ends. Bronze awls and beads from glass, carnelian, and paste are typical finds. Headdresses and the clothing worn by the deceased were decorated with semi-spherical bronze plaques sometimes covered with gold foil. Breastplates, diadems, and pendants with zoomorphic heads and other ornaments were included in the burial. Mirrors of three types were used (Bokovenko 1995: 312). One type had a rim around the edge, the second was disc-shaped manufactured in different sizes, and the third had a side handle often decorated with a beautiful animal figurine.

Art

Artefacts made in the animal style are widely represented in the Yenisei River region. Miniature sculptures are made in the form of numerous and diverse animals including deer, feline beasts of prey, goats, griffins, horses and boar (Figure 14). Animal art is represented in engravings, in cast bas-relief figures, and in three-dimensional hollow sculptures. All of them are executed at a high technological level indicating high aesthetic standards in the Tagar Culture (Zavitukhina 1983: 35).

Petroglyphs of the Scythian Period are found on practically all the rocks and stones that form the Tagar mound enclosure kerbs. The motifs depict either single themes or complex compositions referring to scenes of everyday life, ritual, and hunting (Bokovenko 1998). The Scythian-Siberian style spread across vast territories from India to China (Francfort et al. 1990). On the whole, the works of art from the Minusinsk Basin provide convincing evidence that the content and mode of execution was superior to those found on objects of arts of the neighbouring areas.

The symbolic images on objects and petroglyphs on stone slabs of tombs reflects the existence of a widespread religious system (Figure 15). The rock cut images of the Scythian period from the Yenisei region testify to shamanistic rituals, where the people with characteristic attributes of the shaman are shown. (Khyzyl-Khaja, Bojary etc.) (Kilunovskaja 1998). But the archaeological evidence also indicates the influence of other religious practices. Okunevo, Pazyryk and Tagar cultural material is infused with Buddhist ideas, while including shamanistic funeral ceremonies such as at Pazyryk (Sorokin 1978; Kuzmin
1992). It is possible to assume that the system of religious art amongst the peoples of Central Asia in the Scythian period reflected in rock art represented a synthesis of shamanism and a northern variant of Dualism, as well as an eastern variant of Zoroastrism (Boyce 1979). All this can be termed the ‘Sajano-Altay’ religious system (Bokovenko 1996).
Discussion

Continuing the traditions of the Karasuk culture, the Tagar peoples still practised a mobile pastoralism associated with the movement of animal on winter pastures. The large
number of bronze sickles, which were used to mow wild cereals, indicates that agriculture played some part in the economy. However, the emphasis was now on sheep rather than cattle.

The continuity of culture from the preceding Karasuk period and throughout the first millennium BCE implies that the people of the Minusinsk basin were undergoing development of their own rather than pressure from immigrants. The increasing size and complexity of the burials implies social changes.

Burial rites and art reflects contact over a wide region of Eurasia, and China. Although this society was highly mobile, as it used mobile troops – horsemen, it also had deep and enduring roots in its own region.

In conclusion, it is possible to say that the Tagar culture, which developed out of the traditions of previous Bronze Age cultures, created a unique culture with a complex local development and a long reach. In the first millennium BCE its separate elements penetrated nearby regions and on into China, and even further into Europe.

Acknowledgements

The Russian Foundation for Humanities, Grant 03-01-00099a, and INTAS 03-51-4445 supported a part of this research. This paper was first given at the Hsu Seminar in Early Chinese Studies at the University of Pittsburgh in April 2005.
The emergence of the Tagar culture

References


Nikolay Bokovenko


