Ancient Cultures of Tuva and Its Environment in 4th–1st Millennia BC[1]

Древние культуры Тувы и ее соседей в IV–I тысячелетии до н.э.

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1 Редакция «ВК» обратилась к авторам настоящей публикации за «сиквелом» их статьи, опубликованной в легендарном издании ЮНЕСКО, посвященном Центральной Азии, в далеком 1990 г., с целью открыть этим материалом рубрику «Золотой фонд», которой предстоит знакомить читателей с актуальными, но не оцифрованными архивными материалами. Выяснилось, что авторы действительно готовы опубликовать результаты исследований, накопившихся по указанной теме (см. [Kilunovskaya, Semenov, 1990]) за прошедшие почти тридцать лет. Так появилась на свет нынешняя статья.

Tuva, a landlocked, sparsely populated region and once a province of Imperial China, is now one of Russia's republics. Archaeological research here started already in the beginning of the 20th century, and its second half saw a number of impressive finds, such as the Acheulean paleolithic industry and the dig at the site of the Arzhan kurgan (burial mound), the oldest Scythian monument in Eurasia. Extensive archaeological research carried out across the flood zone of the Sayano-Shushenskaya Dam in 1965–1983 led to a number of major discoveries dating from the Stone Age to Middle Ages. A stratigraphic representation and temporal attribution of these cultures is given at the Toora-Dash site.

Key words: Tuva, archaeological research, impressive discoveries of the 20th c., the Achelian Paleolithic industry, excavation of the Arzhan mound, Scythian monument, Sayano-Shushenskaya HPP, periodization of cultures, the Toora-Dash site

Тува — географически замкнутый и малонаселенный регион, бывший некогда провинцией императорского Китая, — в настоящее время является одной из республик Российской Федерации. Археологические исследования здесь начались уже в начале XX в., во второй половине которого совершены наиболее впечатляющие открытия, такие, как ашельская палеолитическая индустрия и раскопки кургана Аржан — на сегодняшний день являющегося самым древним скифским памятником в Евразии. Интенсивные исследования, проводимые в зоне затопления Саяно-Шушенской ГЭС (1965–1983 гг.), привели к открытию серии археологических объектов от каменного века до средневековья. Периодизация культур стратиграфически представлена на стоянке Тоора-Даш.

Ключевые слова: Тува, археологические исследования, открытия XX века, ашельская палеолитическая индустрия, раскопки кургана Аржан, скифский памятник, Саяно-Шушенская ГЭС, периодизация культур, стоянка Тоора-Даш

No other territory on the planet Earth is so extremely remote from the ocean as the Sayan-Altai upland. It is surrounded by taiga on the north and deserts on the south, and was once called the "crown of Asia" by Academician Vladimir Obruchev. Equidistant from all centres of ancient civilization, the Sayan-Altai upland has nevertheless concentrated and preserved within itself the diverse forms of traditional cultures which originated as early as the New Stone Age. It is justly considered to be the cradle of the Ketic, Samodic, Turkic-Mongolian and Tungus-Manchurian peoples. Many features of contemporary Sayano-Altaic Shamanism hark back to the native art of the Bronze Age — a fact fairly convincingly demonstrated by a comparison of drawings found on Yenisei rocks with the drums now used by Tuvinian and Altaic shamans (*kams*). The Sayan-Altai upland also gave birth to the world-famous Scythian animal style and this undoubtedly bears witness to links between European and Asiatic peoples and the tribes which have populated this area since time immemorial. However, there is much in the art of this territory (now the Republic of Tuva) which is as yet not fully studied or understood [Weinstein, 1971, pp.77–82].

One of Tuva's enigmas is the origin of the local name of the Yenisei, the region's main river — Ulug-Khem. The root "kem" or "khem" is the stem of the names of many small and large rivers in the Sayan-Altai upland, but the language from which this hydronym derives is not known. Researchers have postulated a Finnish or Iranian origin, referring to the existence of several rivers in the world with names containing the same root. These are the Pskem Darya and Raskem Darya in Eastern Turkestan, the Kemijoki in Finland, the Kembach in Austria and the Cam in England.

A lack of native written sources, combined with extremely scanty information about the Central Asian peoples in the Han Historical Chronicles and in reports by late classical authors, makes the material obtained by archaeologists especially valuable

for the study of the Sayan-Altai. This material is indeed mute but reliable testimony to the grandeur of bygone ages, peoples and events: a pit dug out or a post set in, remnants of a camp-fire, a broken clay pot or a splintered stone all are vestiges of human activity which can be deciphered and interpreted by the archaeologist [Murzaev, 1984, pp. 259–270].

An archeological "culture" is a special concept implying the presence of certain characteristic features which when consistently found together permit the linking of archeological sites within a particular era, a particular culture. Thus, for example, the Tuva nomads, a people related to the Scythians, usually buried their dead on the left or right side with their legs drawn up and heads turned to the west or north-west; the Huns, who succeeded the Scythians, laid their dead on their backs with the head turned northwards. This distinctive feature is reliable proof of the change of cultures which took place with the emergence of a new ethnic group.

While forming in step with technical progress, the culture of each new historical stage almost always retained some features of an older, archaic tradition, through which we can determine its sources and trace borrowings from related cultures. The pottery from a burial site of the Afanasievo culture, for instance, is undoubtedly akin to the ceramics from the ancient pit graves of Eastern Europe, which enables researchers to speak about the migration of the ancient Eurasian population and to establish the routes and time of this migration. The archeological fact, confirmed by data obtained by anthropologists, philologists and even physicists, thus turns into a historical fact, which justifies the assertion that in the period from 2700–2500 BC a certain part of the population moved from the territory between the Volga river and the Ural to the Sayan-Altai upland. In the course of investigations, anthropologists determined the racial type of the human remains, philologists analysed the toponyms of the regions, establishing the language spoken by the peoples that succeeded one another, and physicists ascertained the period when different burials were made to an accuracy of 50–100 years, using the latest methods of dating [Semenov, 1993, pp. 25–30].

It is a series of dates closely grouped on the chronological chart that shows the lifetime of a particular culture. But in addition to absolute dates, archaeologists also make wide use of relative ones which help define the temporal sequence of cultures, their chronological coordination. Of great importance in this case is the stratigraphy of cultural layers at those sites where people lived for a period of 1 000 years or more since they were best suited for hunting and fishing, or where the dead of different eras were buried in the same barrows. Such a column, or sequence, enables there-searcher to determine the sources and signs of the heyday, decline and eventual fall of cultures. The accumulation of new material makes it possible to further sub-divide periods or genetic sequences, the comparison of which helps to establish links between different territories, to identify common and specific features in the development of particular peoples who inhabited those territories and in the cultures they left to posterity.

The genetic sequences, constructed for the Minusinsk steppes and Tuva, coincide only in isolated, yet very important portions. Comparison of them shows quite clearly that the Paleometal Age started in both regions at the same time, being connected with the emergence of the culture of ancient cattle-breeders who came from the area between the Volga River and the Urals. Its subsequent development led to the formation and flowering in the Sayan-Altai upland of what is called the Okunev culture with origins going back to the Siberian Neolithic. The rock images characteristic of this culture, which occur here, have many analogies in the art of the Middle Amur area, the upper reaches of the Ganges, and in the petroglyphs of the Yinshan mountains. This testifies to wide-ranging migration streams penetrating into the Sayan-Altai upland from the lands of Eastern Europe and Central Asia.

At the end of the Bronze Age the population of Tuva and the Minusinsk basin was made up of various ethnic groups which ultimately developed into Scythian-Siberian communities. In approximately the VIII and VII BC the steppes of Eurasia were occupied by this single super-ethnos whose materi-

al culture was hallmarked by the so-called Scythian triad: weapons (daggers, battle-pickaxes — *chekan*, *klevets* — bow and arrows), horse harness and the art of ingenious forms.

The power of these nomadic peoples, their swift spread over such huge territories was largely the result of their masterly riding skills, which guaranteed their utmost mobility in battle and the capacity to open up the far-flung spaces of the steppe needed for the constantly expanding grazing areas. The horsemen were long the effective "corsairs" of the steppe, known from the Great Chinese Wall to the Mediterranean by a variety of names: The Yueh-Chi, Usuns, Sakas, Massagetae, Issedonae, Scythians, Sarmatians, and others. The model of nomadic civilization, which had arisen in the first millennium BC, was successively revived as the Hunnu Empire, the Turkic Khanates, the Mongol and Dzungar Khanates.

There is no doubt that the culture of the early nomads of Central Asia is an inalienable part of world culture and it cannot be understood without a thorough study and reconstruction of all the links composing the single chain of human development.

The Republic of Tuva is a huge territory in Central Asia divided by the Sayan mountain ridge but connected by the Yenisei, which crosses this ridge from south to north. Both Tuva is made up of steppe-land dotted with hundreds of barrows and forest-covered mountain ranges. Here the journey from arid, almost desert-like areas to the taiga and even glaciers takes less than one day. The confluence of two mighty rivers, the Bii-Khem (Big Yenisei) and the Kaa-Khem (Little Yenisei), forming the great Ulug-Khem, is the geographic centre of Asia *(see Fig. 1)*.

Fig. 1. **Map of archaeological sites of Tuva**

More than a hundred years ago this region first attracted the attention of scholars.

Some sought the solution to the mystery of Man's origin here, others tried to prove that the peoples who had destroyed the Roman Empire came from the depths of the Asiatic continent, while a third group, drawing on the teachings of Tibetan mystics, strove to attain genuine esoteric knowledge.

Individual researchers regarded the Sayan-Altai upland as the genetic homeland of the Finno-Ugrian peoples. One of the originators of this bold hypothesis was Matthias Alexander Castren, a philologist of genius who worked in the middle of the XIX. He lived a mere thirty-nine years, of which ten were spent in expeditions to the European North and Siberia. His studies of the Ugric and, later, Samoyedic languages, brought Castren to innermost Asia [Semenov, 1996, pp. 405–407].

From 1887 to 1889 the expedition of the Finnish archaeologist Johannes Aspelin and the artist Karl Vuori worked in Tuva. Aspelin was largely attracted by ancient inscriptions which he thought to be the prototypes of Germanic runes. These signs were first called runes by the Swedish officer Johann Stralenberg, a prisoner of war who lived in Siberia from 1713 to 1721. In 1893, however, the Yenisei runes were deciphered and scholars proved their Turkic-language origin. As a result, the hypothesis about the Central Asian origin of the Finns was refuted.

The Tuvinians, the descendants of the Turkic-speaking peoples, live up to now in their historic homeland, preserving the traditional elements of the culture and nomadic way of life of their ancestors. Their leather vessels and wooden utensils, for example, find analogies in two-thousand-year-old burials.

On the dry steppes the Tuvinians raise sheep and camels, in the mountains — goats, and up near the line of eternal snows they graze yaks. Moving in search of pastures the Tuvinians follow the strict routes fixed in the clan consciousness since time immemorial. One such route downstream the Yenisei leads to a narrow gorge over 240 km in length — the Yenisei canyon, which crosses the Sayans from south to north.

This natural corridor, connecting Tuva and the Minusinsk steppes, has been used since the Paleolithic era. Here the nomad paths run partly along the banks of the river, then suddenly rise up to the winter pastures in the mountain ranges, then run downward again to the riverside terraces where one often encounters the ancient camp sites of shepherds and hunters. One of these sites, now no longer extant was located on the right bank of the Yenisei at the foot of the majestic Alaga mountain. This was Toora-Dash, the first place of its kind discovered in Central Asia *(see Fig. 2)*. The thirteen layers of the site, like the pages of a book entitled "The Earth", tell the story of historical eras from the Neolithic to the Late Medieval. One cannot overestimate the importance of Toora-Dash with its clear-cut stratigraphic sequence, which is constantly used by researchers when compiling periodic and chronological charts of the ancient Tuva cultures *(see Fig. 3)*. Until this discovery they had at their disposal only artefacts from excavated burials [Semenov, 2018].

Since the Neolithic period in Central Asia and Southern Siberia (from the 8th–7th to the mid-3rd millennium BC) has still not been adequately explored, the material of the Toora-Dash site (now destroyed as a result of the construction of the Sayano-Shushenskaya hydroelectric power station) provides a key source for the further study of that era. Excavations of the site were conducted through seven field seasons (1978–1984) and had been preceded by five years of prospecting work carried out in the Yenisei canyon. Stretching for large distances along both banks of the river are steep cliffs; the waters abound in whirlpools, rapids and reefs.

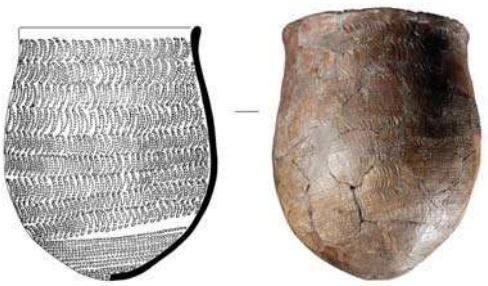
Toora-Dash was situated in the zone of mountainous forest-steppe where the slopes served as excellent pastures for ibex and domestic animals while the taiga-covered gorges were home to Siberian deer (*marals*), wild boars and bears. Here cattle-breeding went hand in hand with hunting, and the proximity of the water and taiga enabled people to catch fish and to gather cedar kernels, mushrooms and berries.

Fig. 2 (left). **View of the multi-layered Toora Dash site from Mount Alaga. The Sayan canyon of the Yenisei**
Fig. 3 (right). **The multi-layered Toora Dash site**

Excavations of the four lower cultural layers of the site uncovered hearths, around which animal bones, waste from the flint working of stone, fragments of pottery, stone and bone implements were concentrated. The hearths were apparently placed in the centre of small transportable dwellings 3–4 m in diameter, resembling the present day chum, a type of cabin covered with birch bark and animal skins *(see Fig. 4)*. Until recently many natives of the Sayan taiga lived in such dwellings, among them the Tofalars and the Tuvinians-Todzhanians.

The main criterion for identifying a Neolithic culture during excavations was pottery, the ornamentation and shape of which depended on the area in which it was made. Since pottery is fragile and rather heavy, it was not carried over from one camp to another, but manufactured anew at each site. In the prehistoric world ceramic vessels were not objects of exchange or trade, and so the range across which they are found can be taken to mark the areas of particular cultures and cultural communities. For example, the ceramic ware excavated at the Toora-Dash site had round bases and was decorated exclusively with a comb-impressed ornament *(see Fig. 5)*. Some of it was totally covered by a "walking", comb or herringbone pattern. The creators of the comb pottery settled throughout the entire Sayan canyon of the Yenisei but no site of theirs has been found beyond the mountains so

Fig. 4 (left). **Stone buildings in the first cultural layer of Toora Dash site. Neolithic**
Fig. 5 (right). **Ceramic vessel. Neolithic. Toora Dash site**



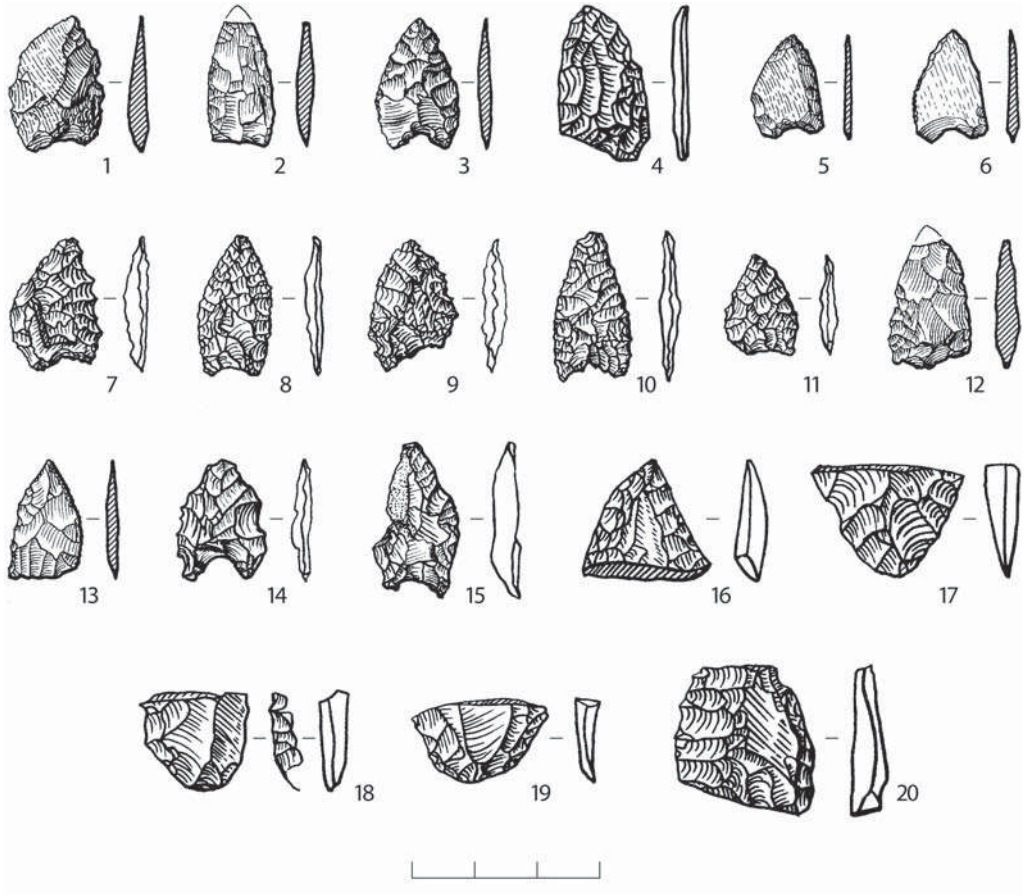
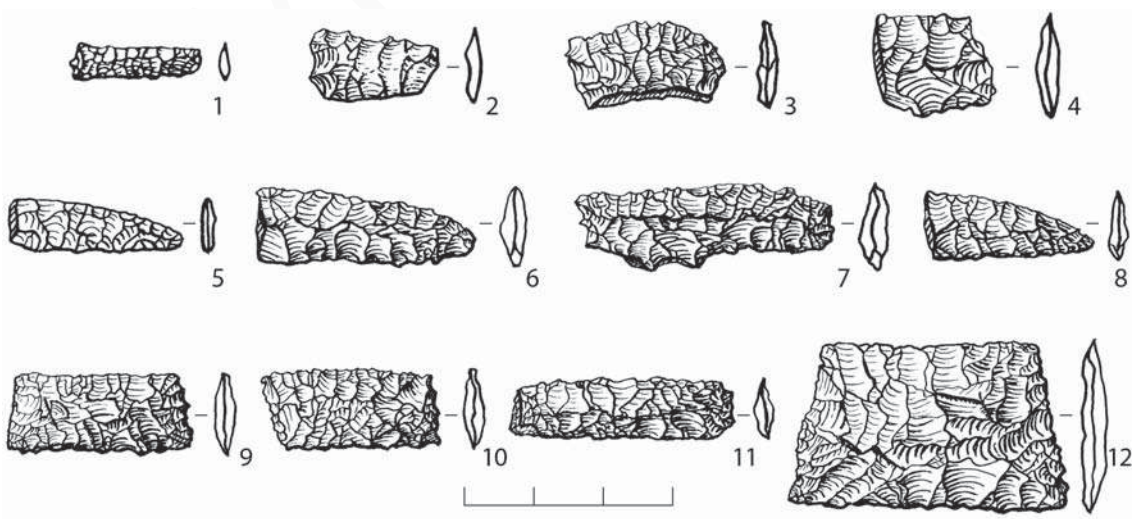


Fig. 6. **Flint implements: Arrowheads, scrapers. Neolithic. Toora Dash site**

Fig. 7. **Flint inserts. Neolithic. Toora Dash site**



far. The range of this culture is explained by the fact that its members were chiefly hunters and fishermen as the mountain gorges and rivers were the best environment for such people to support themselves. The Neolithic inhabitants of the site hunted Siberian ibex, moufflon, wild goat, dzeren, kulan, wild boar, bear, deer and fox. The animal remains and sets of stone and bone weapons unearthed in the cultural layers at Toora-Dash confirm these conclusions.

The amazing variety of arrowheads found testifies to the wide use of the bow *(see Fig. 6)*. Arrows were made of flint, jasper, quartzite and chalcedony. Heads had a triangular or oval asymmetric form and a small notch at the base. For hunting of bears and large hoofed animals' spears and throwing darts were used, the tips of which were also made from flint and jasper, but sometimes they presented a composite of several flint inserts retouched on both edges. Such inserts were set into a wood or bone base, 3–5 on each side, and fixed by means of resin or other binding substances. Inserts could likewise form the composite edges of knives and daggers intended for cutting up the carcasses of animals *(see Fig. 7)*.

A large number of longitudinal and transverse scrapers and smaller scrapers with an oval working edge were used for dressing skins and working wood. Push-planes and small stone hatchets fulfilled the same function. Single-edged bone harpoons and other tackle were used for catching large fish *(see Fig. 8)*. Some of the artefacts found here can be interpreted as needles for knitting such tackle.

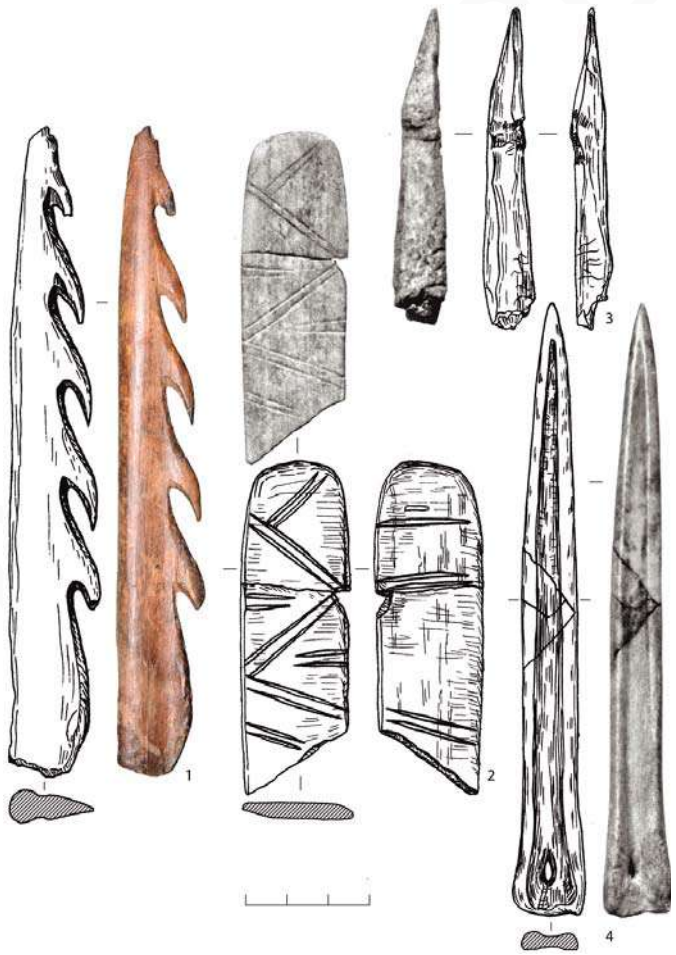


Fig. 8.
Bone articles: Harpoon, ornamented wooden plate (fossilized), point drill, tool for knitting nets. Neolithic. Toora Dash site

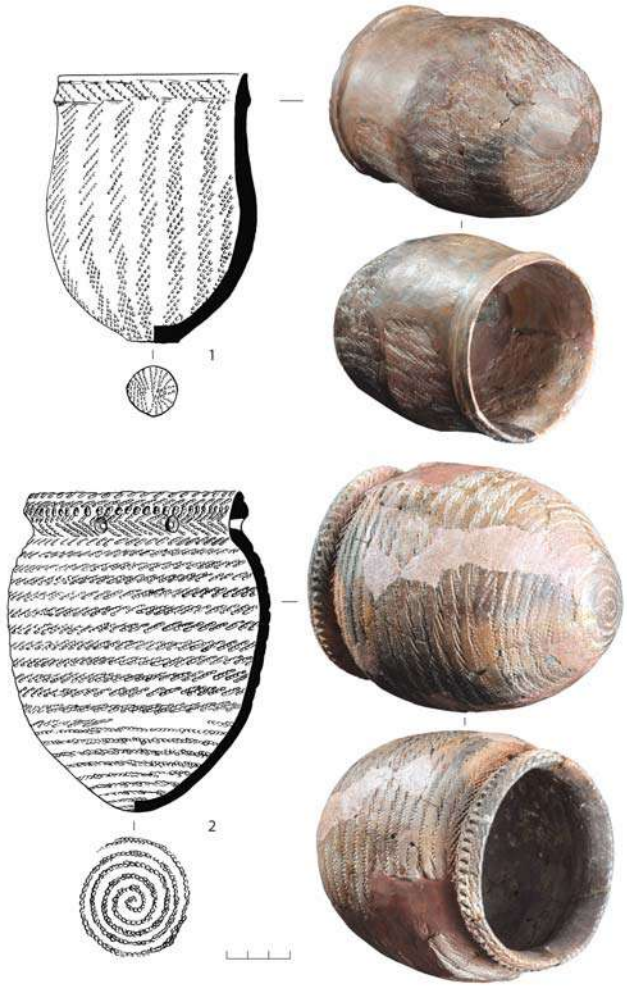


Fig. 9.
Ceramic vessels. Eneolithic. Toora Dash site
Fig. 10.
Ceramic vessels. Eneolithic. Toora Dash site

Women's implements from Toora-Dash take the form of miniature bone needles with a small eye and larger awls for sewing clothes from skins and coarse fabrics. Ornaments include beads made from the atrophied teeth of Siberian deer (maral) alternating with cylindrical pieces of bone.

The Todzha depression (the north-eastern area of Tuva), which abounds in large lakes, was settled by the creators of a different Neolithic culture. The pottery of this ancient population is decorated with various kinds of rectangular and triangular stamped motifs and large dentiform ornament. A number of scholars, Valery Chernetsov and Alexei Okladnikov, among others, associate this culture with the proto-Samoyeds [Chernetsov, 1973, p. 14]. For a long time, the basis of the stone industry in Todzha remained the wedge-like core from which micro-blades were chipped to form the composite edges of cutting tools, arrowheads and darts. Simple stone implements were used as well: scrapers, arrowheads with a notched base and *radoirs* (large scrapers) similar to those found in the Sayan canyon of the Yenisei.

After the Neolithic era came the Eneolithic or Copper-Stone Age which covers the period from the 3rd to the early 2nd millennium BC. It saw the production of the first articles in copper, gold and silver as well as other native metals including meteorite iron. At this time cattle-rearing already dominated the steppe expanses of Eurasia. The first horse-drawn carriages made their appearance, and on them nomad shepherds undertook long journeys in search of better pastures and ore deposits. In all probability, the Sayan-Altai upland was an ideal location in both these respects and in the mid-third millennium BC it was settled by newcomers from Eastern Europe who brought the first Eneolithic culture to Southern Siberia and Central Asia. This culture is known as the Afanasievo culture after excavations made at Mount Afanasieva in the Minusinsk basin.

At the Toora-Dash site, too, traces of this culture were unearthed — in the 5th layer overlapping the strata containing Neolithic pottery *(see Fig. 9)*. The vessels found have much in common with the pottery of the ancient Pit Grave culture of the area between the Volga and the Urals, the lower reaches

of the Don and the Dnieper. The Eneolithic was characterized by round-bottomed egg-shaped vessels embellished with comb impressions, false reliefs and horizontal and zigzag lines, but flat-bottomed pots also occur *(see Fig. 10)*. Metal had not yet supplanted stone articles. The flint arrowheads, grindstones and pestles for crushing rocks were still widely used. It is likely that the first Siberian cattlemen passed through Tuva to Mongolia and Eastern Turkestan (now in China) where burials of Europeoids of the Afanasievo type have been discovered [Semenov, 2012, pp. 155–165].

Such a tremendous migration from Eastern Europe to the innermost depths of Central Asia has no precedent in prehistory and the Tuvinian sites furnish important evidence of it. There are ample grounds to identify the creators of the Afanasievo culture with the speakers of proto-Tocharian languages who lived at a later date in the oases of Karasahr and Kucha which lie in the deserts of Eastern Turkestan. It was there, in Buddhist rock temples, that researchers found manuscripts written in the unknown related languages which came to be called Karasahr and Kuchan, or Tocharian A and Tokharian B. In 1907 these manuscripts were deciphered by the German philologists Emmanuel Sieg and Ernst Sieggling who established the Indo-European origin of the peoples that left them to posterity. This was the discovery of a hitherto unknown Indo-European language spoken by one of the extinct peoples of Central Asia [Semenov, 1993, pp. 25–30].

The Eneolithic culture influenced the formation of the Okunev culture, which was discovered in the Minusinsk basin and called after the Okunev ulus (settlement or nomad camp) near Abakan where excavations were made. This culture is distinguished by barrows with square stone enclosures within which one to ten persons were buried in stone cases. The anthropological type of those buried varies from area to area and in some cases the survival of an Europeoid appearance has been noted. This facial type matches well with that of the people interred in the pit graves and catacombs of Eastern Europe, but the overwhelming majority of the occupants of the barrows were mongoloids, a fact repeatedly mentioned by Dr. Gleb Maksimenkov, who identified the Okunev culture.

During this era round-bottomed pottery totally disappeared but the flat bottoms of the vessels were still ornamented as a sort of tribute to the older tradition. The objects found testify to a sudden flourishing of art, as exemplified by a multitude of stone statues, rock drawings and engravings on slabs inside tombs. The grave goods quite often include small works of art, such as devotional female figurines or engravings on bone plates. These plates bear depictions of nothing more than faces framed by straight loose hair, yet in one case we can see an earring between the strands of hair and make out jewellery on the body. The arms and waist are not shown.

The Okunev culture, which spread in Tuva in the second millennium BC, differs somewhat from the Minusinsk version in that it is represented by single burials in stone cases, sometimes forming small cemeteries of 5–6 graves, and by peculiar anthropomorphic masks carved on the rocks *(see Fig. 11)*.

Fig. 11.
Images of masks of Aldy-Mozaga rock site. Bronze age. Tuva

Such images are much in evidence at ancient religious sites on the River Amur, the upper reaches of the Indus and other large rivers.

At Toora-Dash, the key site in Tuva, Okunev ceramics and articles made of stone and bronze were found in the 6th and 7th cultural layers *(see Fig. 12 and 13)*. The pottery of the 6th layer is still close to that of the Eneolithic *(see Fig. 14)*. The flat-bottomed vessels display elements of both Neolithic and Afanasievo ornamentation which testifies to the absorption of the local Upper Yenisei population by the incoming representatives of the Afanasievo culture.

The material obtained from the 7th layer points to a transition to the Middle Bronze Age and to links

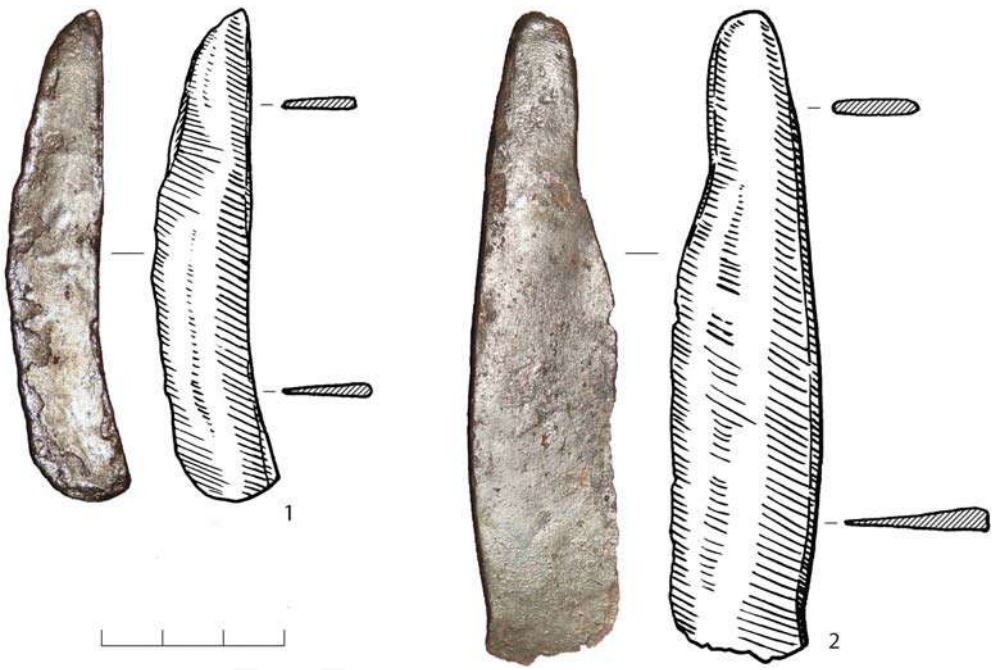
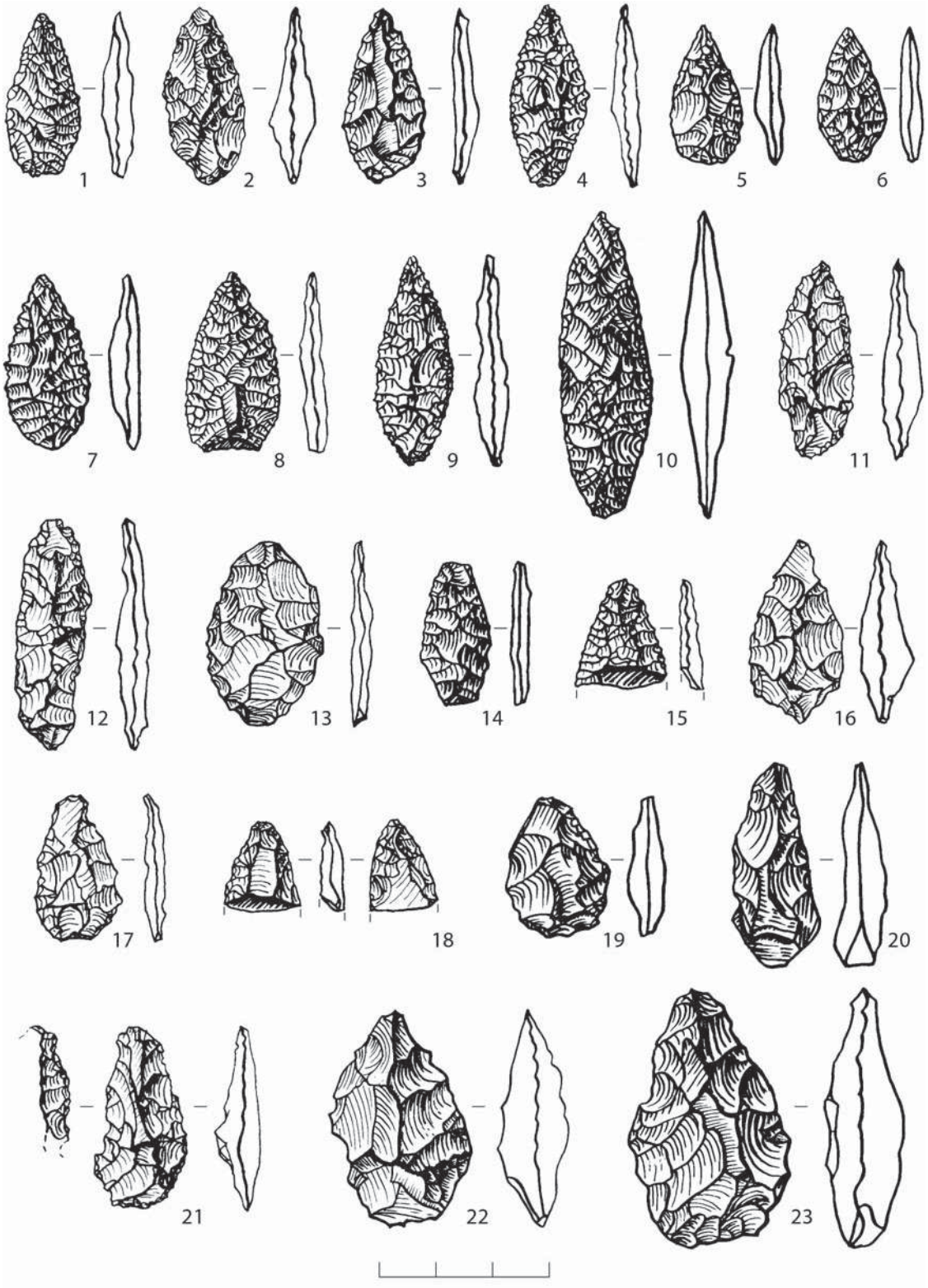


Fig. 12 (left, up). **Bronze knives. Bronze age. Toora Dash site**
Fig. 13 (right, P. 41). **Flint implements: Arrowheads, scrapers. Eneolithic. Toora Dash site**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between Tuva's Okunev culture and the Bronze Age Andronovo and Karasuk cultures called after the eponym burial grounds near the village of Andronovo and the Kara-Suk River where they were discovered. This layer yielded bronze single-edged knives which have extensive analogies in Eastern Kazakhstan, the Steppe Altai and Western Siberia, and flat ornamented pebbles either relating to new symbolic systems of counting or serving as amulets (heavily stylized anthropomorphic images?), similar to those found at Karasuk sites north of the Sayans. Hearths also occur here, round and square, comparable with the Indian male (square) and female (round) hearths. On the round hearths food was prepared for sacrifice, on the square ones it was consumed by fire. Quite often, tiny calcinated bones are found in the hearths. Of particular interest are pits containing bulls' and rams' heads and smaller holes filled with the crushed bones of domestic animals. Similar cult burials of bulls', sheep's and horses' heads have been unearthed in the Okunev barrows of the Minusinsk basin, while holes filled with the crushed bones of small hoofed animals were found in the round Dashly 3rd temple in Afghanistan dating from the 12th c. BC. All this is indicative of certain conceptions connected with cattle-raising cults having been common to the peoples of the Central Asian Bronze Age. Be that as it may, these peoples dwelt in the same kind of cabin as their Neolithic predecessors and continued to hunt ibex and mouflon with stone-tipped arrows and weapons of bone and antler, since metal

Fig. 14.
Pottery. Bronze age. Toora Dash site

implements were still rather rare [Semenov, 1997, pp. 152–160].

The peak of the Minusinsk Bronze Age is customarily identified with the Karasuk culture of the 14–9th cc. BC. Its origins are connected in the closest possible way to the spread of the Iranian-speaking Andronovo tribes that also influenced the genesis of the Dandybai-Begazin culture in Kazakhstan and the Irmen culture in Western Siberia. It is worthy of note that in Tuva, which the tribes of the Andronovo community did not reach, artefacts of this culture do not occur.

The Karasuk culture is characterized by small barrows with rectangular stone enclosures and burials in stone cases oriented towards the north-east. The large number of such barrows found in the Minusinsk basin point to a possible demographic explosion connected with the initial phases of nomadic cattle-raising.

The Karasuk culture left marvellous bronze items turned up in chance finds not only in the Minusinsk basin but also in Tuva, Mongolia and China. Dating from the final stage of the Bronze Age are mysterious objects of unknown use, similar to artefacts found in warrior burials at Anyang, the capital of the Chinese Shang dynasty, five-petal buckles and bent knives with ornamented handles.

Probably a product of that same time are a large number of rock drawings (petroglyphs) representing chariots and wheeled carriages drawn by horses and oxen *(see Fig. 15)*. There is no doubt that the chariots known to the people of the Andronovo culture could have penetrated the Minusinsk steppes, and then reached Mongolia and the China of the Shang dynasty.

Thousands of burials without goods belonging to what is known as the Mongun-Taiga type and dating from this same period, have also been found in Tuva [Kilunovskaya, 2018, pp. 86–95]. These sites are essentially large cromlech-lined stone barrows with ground-level chamber tombs. The most outstanding among them are the kereksur-burials,

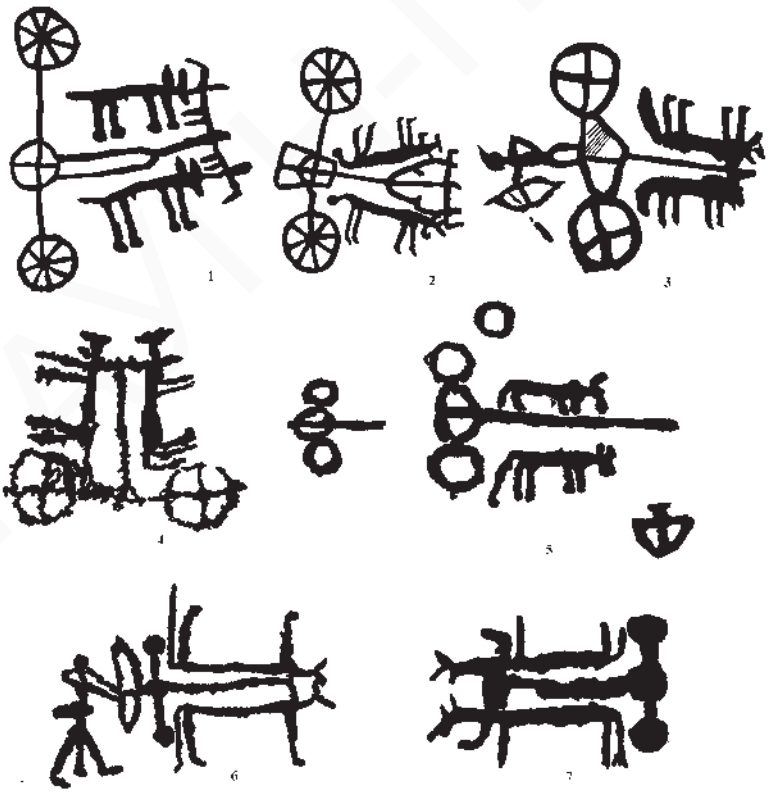


Fig. 15.
Images of chariots. Petroglyphs. Bronze age. Tuva

which feature cromlechs up to 100 m in diameter with inner stone rays ranging in number from 4 to 32. They are reminiscent of a solar disc or a gigantic spiked wheel. Some are associated with stag stones (stellae bearing representations of animals and Scythian weapons) and may already be dated to the early Scythian period.

The development of the Karasuk culture in the Minusinsk steppes culminated in the emergence of the Scythian-type Tagar culture (called after excavations at Lake Tagar). From the 7th to 3rd c. BC this culture extended across the south of the Krasnoyarsk region and the steppes of the Minusinsk basin which abound in barrow cemeteries. The tall stone slabs installed in the mortuary enclosures invest these graves with a majestic appearance and since the 18th c. have continually attracted travellers and researchers to the antiquities of the Minusinsk basin [Semenov, 2015, pp. 138–151].

The artefacts of the Tagar culture form part of the broad circle of Siberian finds of Scythian culture. The Tagar culture is thus closely related to the Pazyryk and Bolshaya-Rechka cultures of the Altai, the Uyuk-Saglyn culture of Tuva, the Tasmola culture of Northern Kazakhstan and a number of Sakian cultures in the Semirechie and the lower Syr-Darya areas. The inhabitants of the Minusinsk steppes probably belonged to one of the branches of the Iranian-speaking peoples who settled extensively in the Eurasian steppes. The culture of these peoples is distinguished by unified types of weapons and horse harness, which produces an apparent homogeneity, yet their ceramic articles, funeral rites and barrow designs are fairly heterogeneous, illustrating the polyethnic nature of the Scythian-Siberian continuum.

Despite the fact that the barrows of the Tagar culture have long been studied and a large amount of archaeological material has accumulated, many questions are still far from resolved. Some researchers, for example, identify the Tagar tribes with the Dynlyn people mentioned in Chinese chronicles. Opinions also diverge on the occupation of these tribes. Some scholars state that during the Scythian period the inhabitants of the Minusinsk steppes mainly engaged in nomadic herding while others are inclined to think that their economy was based upon the husbandry of domestic stock. Whatever the case, it is beyond doubt that the Tagar culture represents the peak of the bronze-casting industry and crafts. Although their graves had been almost completely pillaged even before the Modern era, the Tagar barrows have yielded a plethora of bronze and bone artefacts. For the most part, these are weapons and ornaments made in the common Scythian-Siberian traditions. Among the most characteristic objects are hemispherical bronze bosses, sometimes coated with gold. Three or five such bosses usually decorated the headgear of a male warrior, less often that of a woman. Bone knives, as they have come to be called, were hung on women's costumes. In addition, their dress was lavishly embellished with beads made of cornelian, argillite and other stones, alternating with bronze and gold pieces; attached to the belt were bags containing a mirror, an awl and a needle. Men were buried with a set of weapons including a bronze battle axe, a knife, a dagger and a quiver with arrows. In every grave there always was a large ceramic vessel at the head of the corpse. A small in cense cup was sometimes placed at the feet. Bronze work was often decorated with images in the animal style. Tagar art is also richly represented by petroglyphs on the slabs of the barrow enclosures and on tall monumental stellae set at the corners of funerary structures left by this distinctive ancient culture.

As early as the turn of the 20th c., the huge number of Scythian artwork, known to have been found in the steppes of Southern Siberia, in Central Asia and the Ordos (the region in the bend of the Hwang Ho from which the Huns emerged at a later date), led scholars to conclude that the Scythian animal style had formed in Inner Asia. Not all scholars, however, shared this opinion. Some argued in favour of the convergent development of Scythian art in the East, in Siberia, and in the West, in the Black Sea coast area. The discovery of the Sak-Kyz hoard in north-eastern Iran provided powerful support for the hypothesis that the animal imagery in Scythian culture originated in Asia Minor. In the re-

searchers' opinion, these new elements, which had not occurred in nomad art previously, were brought back by the Scythians from their incursions into Asia Minor not earlier than the 6th c. BC. This view was held by such renowned scholars as Mikhail Artamonov, Vladimir Lukonin and Dmitry Rayevsky, to name but three. Yet Central Asia which harbours such an inexhaustible mine of ancient cultures suddenly lifted one of its enigmatic veils and rekindled the scientific debate about where the Scythian animal style had formed.

Twenty years ago a barrow with unusual constructional features, situated in Tuva, in the centre of the Uyuk depression surrounded by the Uyuk and Kartushibinsk mountain belts on the south and north respectively, was excavated. It was given the name "Arzhan", which is used in Tuva for sacred mineral springs. In summer water did spring from under the stone cover of the mound. In fact, this water was generated by the melting of ice buried beneath the tumulus. Nevertheless, the mound was dubbed "arzhan". The word itself also has a Sanskrit origin, being a corruption of the "rashiyana".

The appearance of such an enormous structure was linked with the first wide-ranging unification of the early nomads, known in the specialist literature as the Arzhan tribal union. Buried in this mound was one of its first kings with a queen and fifteen nobles. The mound is 120 m in diameter and 3–4 m in height. It is made up of radically arranged log cells clad in stone. Arzhan was explored by Dr. Mikhail Gryaznov and the Tuvinian archaeologist Maongush Mannay-ool. According to their calculations, it was built by 1 500 people over a period of 7–8 days. The area abounds in large earth barrows ranging from 25–30 to 100 m in diameter and from 1 to 3 m in height *(see Fig. 16)*. They form chains and separate groups, comprising part of the

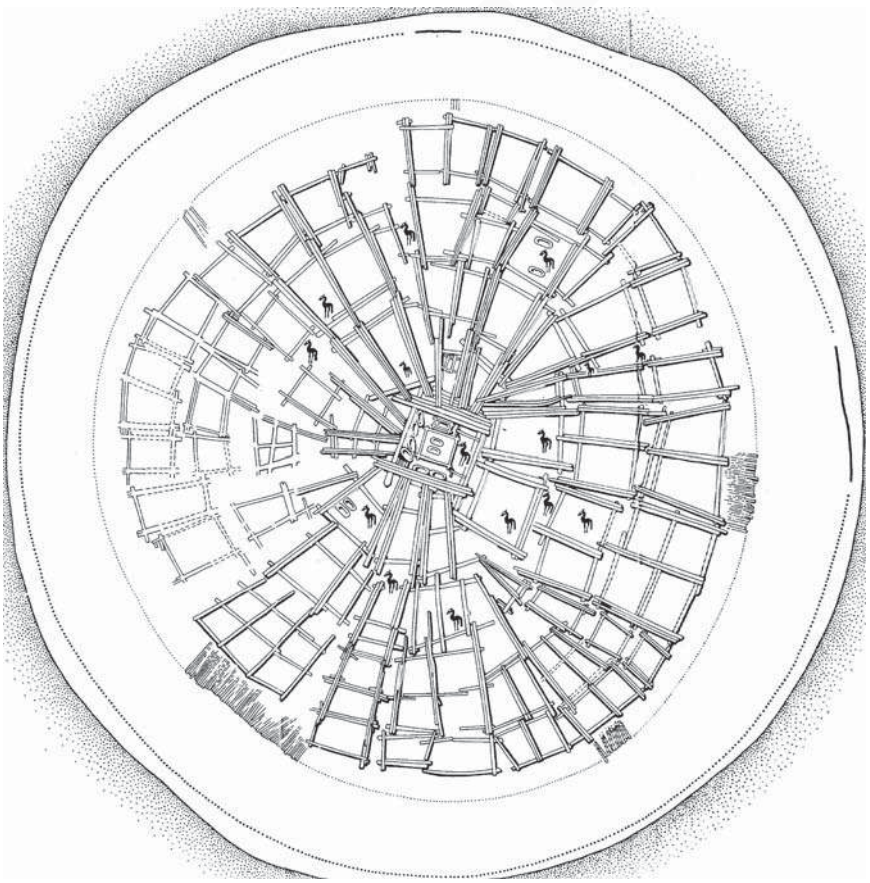


Fig. 16.
Plane of the mound Arzhan. 9th–8th cc. BC

historic scenery in the Uyuk depression. The barrows date from different periods of Scythian culture in Tuva. The presence of numerous burials covered with comparatively large mounds makes it possible to regard the Uyuk depression as the Gerrhos or the royal domain of the Central Asian Scythians who led the Arzhan tribal union from the VIII BC onwards and later continued to maintain links with the extensive conglomeration of territories extending from the Ordos to Central Asia [Semenov, 2002, p. 232].

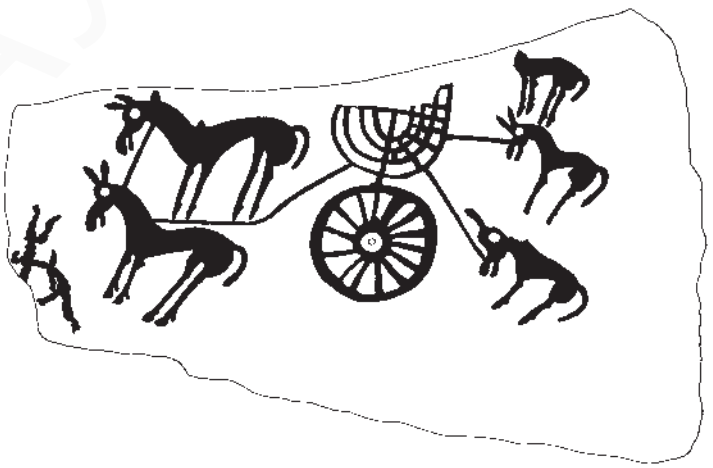
The discovery in Tuva was an important landmark in Scythian studies and prompted scholars to raise once more the question about the Central Asian origins of the Scythian-Siberian-type cultures.

The sites of the Scythian period (8–5th cc. BC) are grouped together and termed the Aldy-Bel culture. Aldy-Bel burial sites occur in, Central Tuva on the right and left banks of the Ulug-Khem and in the valleys of the Khemchik and Kaa-Khem Rivers. These sites usually contain several graves (from 2 to 8) beneath each of the burial structures which, like most Tuva barrows, are formed of stone and surrounded by a stone cromlech or a kerb *(see Fig. 17)*. The dead were interred lying on their sides with their legs drawn up and heads turned to the northwest or west like a sleeping man or a human foetus. The center of this chiefdom was also in the Uyuk depression, where the "Royal" mound Arzhan 2 was investigated [Čugunov, Parzinger, Nagler, 2010] *(see Fig. 18)*.

The form of the burial chambers varies from stone cases (made on the bottom of shallow pits

Fig. 17.
Burial site of Aldy-Bel culture. Bay-Dag 8. 7th c. BC

Fig. 18.
Plate with an engraving of a chariot from the mound Arzhan 2. 7th c. BC



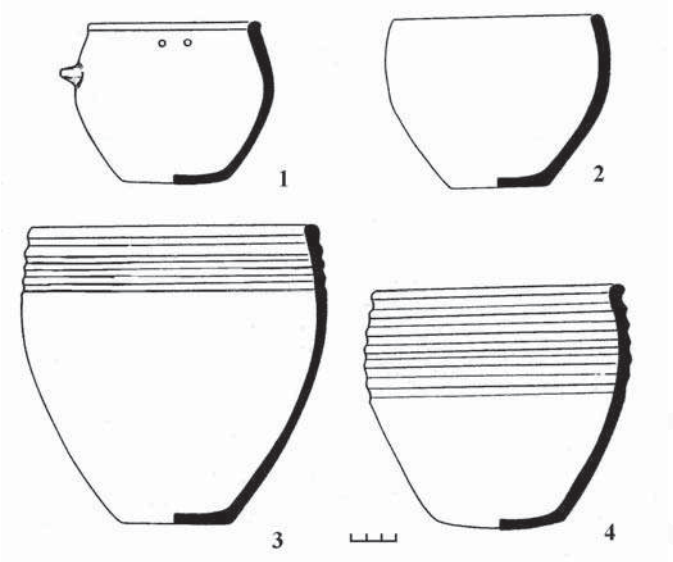


Fig. 19.
Ceramic vessels. Koptu-Aksy burial site. Aldy-Bel culture. 7th–6th cc. BC

from four huge slabs set vertically) and small wooden cells to simple holes in the ground and stone-lined pits with wooden ceilings. Burials in wooden coffins hollowed out of a single large trunk are also found. As a rule, each grave contained one or, less frequently, two skeletons. All the dead journeyed to the other world accompanied with funerary goods. In men's graves these usually consisted of weapons such as arrows, knives and — very seldom — pointed *chekans* and daggers, all fastened to a belt with bronze adornments such as clasps, buckles and quiver hooks which have survived down to the present time. Female burials contained mirrors, beads and other ornaments. The Aldy-Bel sites are characterized by an absence of pottery in the graves and only in rare instances do remains of wooden vessels occur at the head of the dead. On the other hand, ceramic vessels were usually placed in the tumuli above the graves and this was connected with ritual funeral feasts held by the relatives after the interment. Such a find was made at the burial site of Koptu-Aksy in the valley of the Kaa-Khem River *(see Fig. 19)*. It consisted of jar-like clay pots with grooved lines towards the top, resembling early Tagar pots from the Minusinsk basin. The graves of the Aldy-Bel type are the first to have yielded articles made of iron.

Excavations in the valley of the Bayan-Kol River, a left-bank tributary of the Ulug-Khem, have considerably enriched our knowledge of the material culture of the Aldy-Bel Scythians [Kilunovskaya, Semenov, 1990, pp. 36–47]. Two barrows at the Saryg-Bulun site were found to contain rings of stones, which partly overlapped in a figure of eight. Instances of such overlapping are extremely important for the researcher as they provide a micro-stratigraphic sequence and make it possible to distinguish the earlier burials from the later ones. Seven burials — 3 of children and 4 of adults — were discovered in the barrows of Saryg-Bulun. The most remarkable is the mummified body of a youth (aged between 13 and 15 who had passed the initiation rite to become a warrior), buried in a tree trunk coffin. This is rather unusual since as a rule only children were buried in such a manner *(see Fig. 20)*. Well-preserved leather and wood articles as well as weapons were uncovered here. The youth lay on his left side, his head turned southwest and his legs strongly bent at the knee. The skin on his face was well preserved but there was no skin on the back of his head, from which we can deduce that he had perhaps been deliberately scalped. An analogous skeleton was found in the Pazyryk Barrow II in the Altai. The corpse was wearing leather trousers and a sleeved jacket, under which lay the remains of a fur and linen garment. The shred of leather covering the ear bears traces of red paint.

Fig. 20.
Mummified teenager's burial in a wooden deck. Saryg-Bulun burial site. Aldy-Bel culture. 7th–6th cc.

Fig. 21 (right).
Wooden bow, arrows, *chekan*-battleaxe. Saryg-Bulun burial site. Aldy-Bel culture. 7th–6th cc.

The youth's weapons survived best of all: there is a socketed *chekan*-battle-axe, with a loop-like butt and a pick round in cross section, mounted on a 70 cm-long handle by means of a wooden dowel; a similar dowel is used for fixing the point *(see Fig. 21)*. Of particular interest are, of course, a quiver and bow which were the first to be found in a burial of such early date. The bow is made of a solid piece of birch split off the tree trunk in such a manner that it has a segmental cross section. Its total length is 100 cm and its breadth 4 cm. Tendons, still surviving in the upper part, were glued onto the external flat side of the bow. On the inner, round, side it was covered with fish (burbot) skin. The ends of the bow have notches for fixing the string. The quiver which was attached to the belt had a bronze tip and eight bronze rings and contained ten arrows. The belt and the quiver were connected by thinner straps.

Other graves at Saryg-Bulun also contained very valuable material such as gold and amber ornaments and beads of Mediterranean glass, all testifying to the extensive links between ancient Tuva's population and certain territories of Eurasia which by the time of Christ had formed a single transcontinental system known as the Silk Road *(see Fig. 22)*. As can be seen from the excavations, the transit trade between Central Asia and the coastal regions had been conducted in Tuva and north of the Sayans several centuries before the Silk Road came into being. This is demonstrated by articles in amber found at Saryg-Bulun, which could have been brought from the Yellow Sea or the shores of the Persian Gulf; by soda glassware from the eastern Black Sea area (the glass-making centres imported soda from Libya); and by numerous cowries, which could only have been gathered on the shores of the Indian Ocean *(see Fig. 23)*. Thanks to these connections, which

Fig. 22.
Glass beads from the Mediterranean. Saryg-Bulun burial site. Aldy-Bel culture. 7th–6th cc. BC

Fig. 23.
Amber bead. Saryg-Bulun burial site. Aldy-Bel culture. 7th–6th cc. BC

might have arisen as early as the 8th or 7th c. BC, the Grecian historian Aristaeus of Proconessa, whose works are known from Herodotus' compilations, was able to collect interesting data on the peoples living to the east of the Black Sea. Among the various semi-fantastic inhabitants of the eastern steppes, unknown to the Greeks, he mentioned the Issedonae, Arimasps and the gold-guarding griffins of a country, which many scholars are inclined to see as the Sayan-Altai upland.

The religious and mystic importance of the griffin in Scythian culture is attested to by numerous representations of this fabulous creature in bronze and gold. In the Pazyryk barrows of the Altai, where articles of leather and wood have survived in the permanently frozen subsoil, we encounter griffin images made in appliqué on horses saddlecloths, cheek pieces and other trappings. The horses themselves, which were supposed to accompany their master to the other world, are depicted wearing masks with deer antlers and goat horns. Horse bridles from the Pazyryk Barrow I and the barrows of the Ukok plateau were decorated with the wooden masks of the Egyptian household god Bes, as images of this god were meant to protect the dead against all kinds of evil during the journey through infernal worlds, which was especially important for a deceased ruler. The image of Bes reached the nomads of the Altai by way of Achaemenid Persia [Semenov, 2015, pp. 78–98].

Between 1989 and 1991 three barrows were excavated near Mount Kosh-Pei [Semenov, 1994, pp. 75–79]. Quite unexpectedly the exploration of these burials was strongly hampered by the presence of ground water: in the vicinity of the site there was a lake without any outflow fed by a subterranean river in the channel of which the barrows lay. These veritable Orcus springs had evidently flowed through the burial site during or soon after the funerals. This is confirmed by the fact that the floors and the lower beams of the timber cells have been well preserved and the wood has become water-seasoned. The grave goods found would tend to suggest that those buried here were of high social status and belonged to the ruling elite of Scythian society. The cells yielded many gold and bronze ornaments, iron weapons, beads, bronze mirrors, a bronze pot-shaped incense cup and other objects *(see Fig. 24)*.

Deserving of particular mention are artefacts in the animal style and jewelled objects bearing the stamp of the outstanding mastery achieved by Scythian artists. Most likely, these crafts were practised among the Scythian nomads at specialized centres the produce of which then circulated over the entire Sayan-Altai upland. Thus, the extremely fine gold beads and hemispherical gold bosses, 3–4 mm in size, with soldered-on loops no more than 1 mm in diameter, which have been recovered from the Kosh-Pei burials, find direct analogies in the "gold" Chilikta barrows of the Upper Irtysh excavated in the late 1940-s early 1950-s by Dr. Sergei Chernikov. Gold chains of twisted wire with cornelian pendants occur in Kazakhstan (the Sary-Bu-

Fig. 24. **Profile of the 3rd kurgan. Kosh-Pei burial site. Uyuk-Sagly culture. 6th–4th cc. BC**

lak burial mound) [Semenov, 2015, pp. 151–168]. All this points to Iranian-speaking or kindred peoples living both in Tuva and Kazakhstan during this period. That the Tuvinian nomads of the Scythian era were an Iranian-speaking people is also proved by a large number of Iranian hydronyms, specific rites such as the cutting of horses' tails as a sign of mourning (in the Arzhan barrow the bottom of the kings' burial chamber was covered with horses' tails) and, finally, by artworks executed in the animal style.

The artefacts found at Kosh-Pei are mostly gold plaques sewn onto clothing; they depict panthers pawing the ground or standing on extended clawed feet, eagles with outstretched wings, owls and griffins. The birds' bodies and wings are decorated with a variety of patterns, the long turned-up beaks and small ear tufts being well designated. Worthy of special note is the figurine of a wolf cut from foil and glued on to an iron base (apparently a belt buckle). The beast's contours are strikingly expressive and graphic; the dynamic quality of its pose is emphasized by comma shaped ornamentation on the body.

Among the belt ornaments, the butterfly-like gold-plated iron plaques similar to those found in the Altai, the Minusinsk region and the Baikal area are the most remarkable; they date from the 5th and 4th cc. BC. Quite unusual is the large figure of a horse carved from gold foil with its legs drawn up under the belly in a manner very typical of the Scythian-Siberian animal style. The wing on its back indicates that this is a flying, or sun horse. Such a horse is known among the Indians under the name Dadhikara *(see Fig. 25)*.

One of the finest works executed in the animal style is a gold finial bearing the figure of an ibex, made from foil in two halves *(see Fig. 26)*. The ibex seems to be standing at the peak of a mountain, on a hemispherical base. In all probability it was the finial of a hat. A gold plaque resembling the Segner wheel can be classed among the solar symbols *(see*

Fig. 25.
Gold sewn-on plaques. Kosh-Pei burial site. Uyuk-Sagly culture. 6th–4th cc. BC

Fig. 26.
Gold sewn-on plaques. Kosh-Pei burial site. Uyuk-Sagly culture. 6th–4th cc. BC

Fig. 27.
Gold final. Kosh-Pei burial site. Uyuk-Sagly culture. 6th–4th cc. BC

Fig. 27). This widespread motif is suggestive of a flaming rolling wheel with spokes. It was usually employed for the decoration of dagger scabbards. The Kosh-Pei II and Doge-Baary burial sites on the Bii-Khem River have yielded foil-stamped figures of flying ibexes and mouflons with legs drawn up and horns thrown back on the neck, figures of wild boars, of standing and recumbent goats as well as round and diamond-shaped sewn-on plaques cut from gold foil. The configurations seen in these representations of animals are reminiscent of the rock images engraved by the craftsmen of that era.

Two amulets made of wild boar tusks have been discovered in the Uyuk barrows and one of them is a work of art in its own right. The tusk is covered with engraved patterns in the style of enigmatic pictures when one figure fits into the other and the lines of the body and the ornament are intricately interwoven. At the centre of the composition is the figure of a horse with a richly ornamented trunk and rear legs thrown up over the back (such stylization occurs in Altaic art of the Scythian era). Behind the horse looms the head of a wolf. Growing out of the horse's muzzle is the figure of a stag with curlicues on the body and a bird standing by its legs. The wolf and the bird are the main characters found on ornamented tusks, which were a widespread type of object throughout the different regions of the Scythian world [Semenov, 2015].

The Tuva nomads took a great interest in the wild boar. Representations of it are found on rocks and stag stones and its tusks were used as ornaments. The wild boar was apparently identified with some chthonic figure of Iranian mythology. Thus, the combat of a man and a wild boar depicted on a gold pole-top found by Dr. Alexander Grach in the Balgazyn steppe in Tuva has been interpreted as a combat between the legendary forefather Targitaus and a demon. It is of interest that on one of the stag stones found in 1989 the wild boar is depicted in the lower part of the stone beneath the weapon while the middle part is occupied by stags with beak-like muzzles, and the upper part by the nested curled-up panthers *(see Fig. 28)*. This stone was encountered nearby the unearthed barrows on the slope of Mount Kosh-Pei.

From the V BC collective tombs in timber cells also appear in Central Tuva (the Aimyrlyg, Suglug-Khem and Kui-lug-Khem sites), on the Khemchik (Ozen-ola-belig, Kyzylgan), to the south of

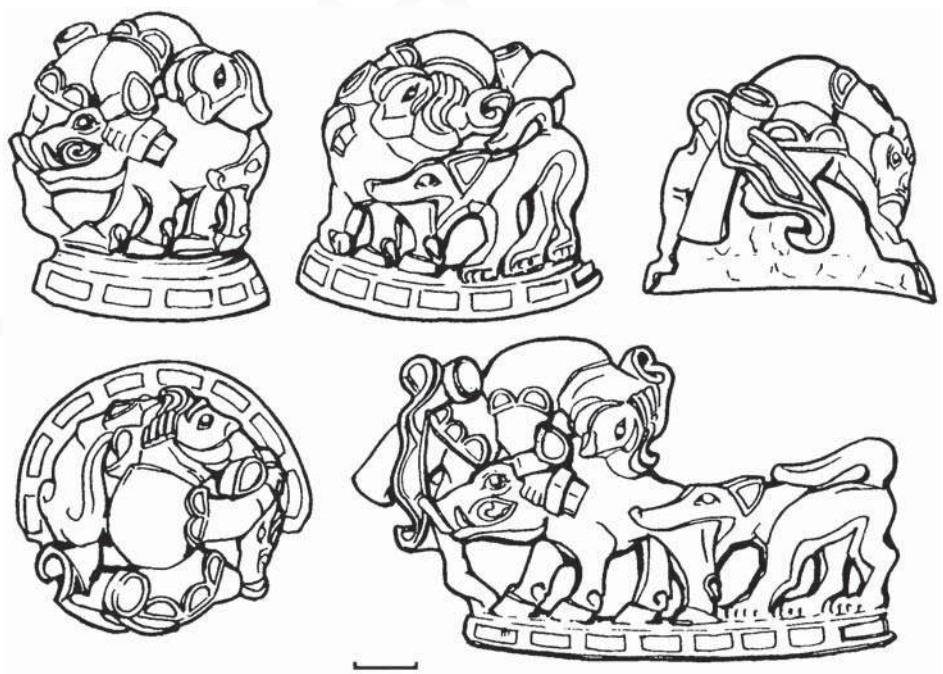


Fig. 28.
Gold pole-top. Balgazyn steppe in Tuva (by A.Grach). Uyuk-Sagly culture. 6th–4th cc. BC

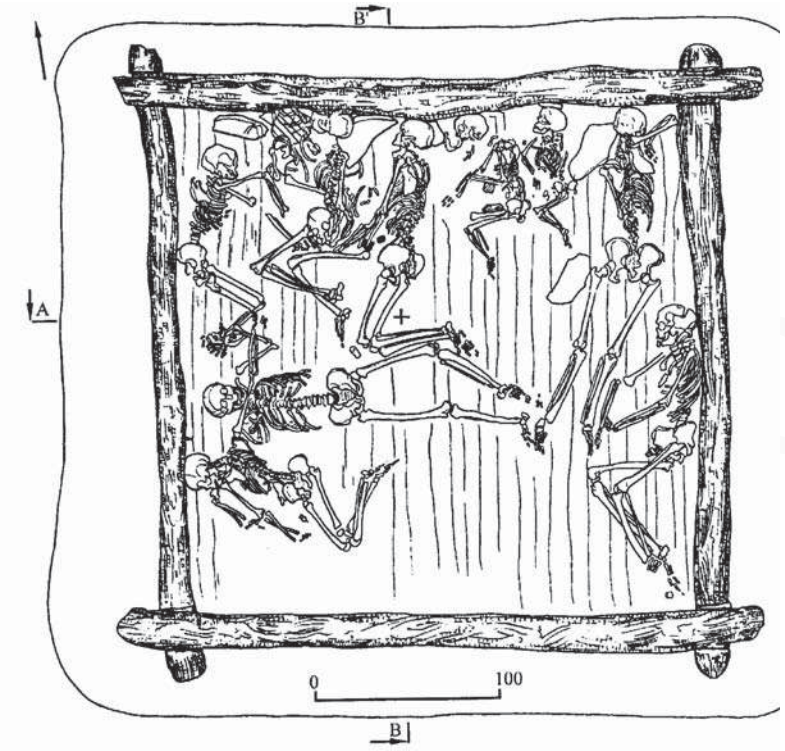


Fig. 29.
The Suglug-Khem burial site. Uyuk-Sagly culture. 3rd–2nd cc. BC

the Tannu-Ola mountain range (Sagly-Bazhi) and in Mongolia (Ulangom). These burials belong to the new, Sagly, culture of the Scythian type and were made in large cells, comprising three to five layers of timbers in 2–3 m deep pits both with and without stone tumuli above. In these houses of the dead between one and fifteen bodies lay on their sides with their legs drawn up and their heads oriented towards the west or northwest. The grave goods changed too and now included a large number of ceramic vessels, one or two by each skeleton. Food intended for the deceased's journey lay in wooden bowls, on small tables, in birch-bark boxes and simply in the centre of the cell. The bones of various animals found in the corners was all that remained of the sacrifice with which relatives of the deceased appeased the spirits when constructing the grave. At a number of sites, burials in stone cases and crypts located in separate groups or chains have been found in close proximity to cells.

The 3rd and 2nd cc. BC saw the rapid surge to dominance of the Hunic tribes in the north of China, the Ordos, who gained control of vast tracts of land in the north and east of Central Asia, including part of the Sayan-Altai upland. Tuva's Scythian tribes apparently remained here until the 2nd c. BC, as is demonstrated by numerous burials from that time; subsequently, they were drawn into the whirlpool of political events and moved to the west, to the Middle Asian Semirechie, where they came to be known as the Yueh-Chi and Usuns [Semenov, 2010, pp. 101–112]. The further movement of these steppe tribes led to the destruction of the Hellenistic state of Graeco-Bactria and the complete disappearance of the geopolitical entities which had arisen in the wake of Alexander the Great's campaigns. One of Tuva's prehistoric monuments dating from the 2nd c. BC is the Suglug-Khem burial mound in which 18 large log cells — collective tombs — have been excavated [Semenov, 2003] *(see Fig. 29)*. Of the 100 people interred were first mention should go to the Scythian nobles, probably in their time the organizers of military expansion to the West. Their weapons consist of large *akinaki*-daggers and massive *chekans* of iron; their funerary garments are covered with hundreds of sewn-on gold plaques and their necks are adorned with torques, all testifying to a high social status.

The excavation of the grave of a Scythian noble in the Suglug-Khem burial mound has enabled researchers to reconstruct the funerary clothing of the early Tuva nomads *(see Fig. 30)*. It consisted

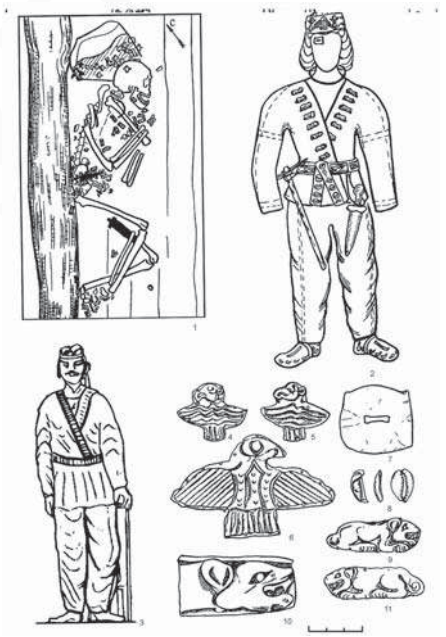


Fig. 30.
Men's clothing reconstruction. Suglug-Khem burial site. Uyuk-Sagly culture. 3rd–2nd cc. BC

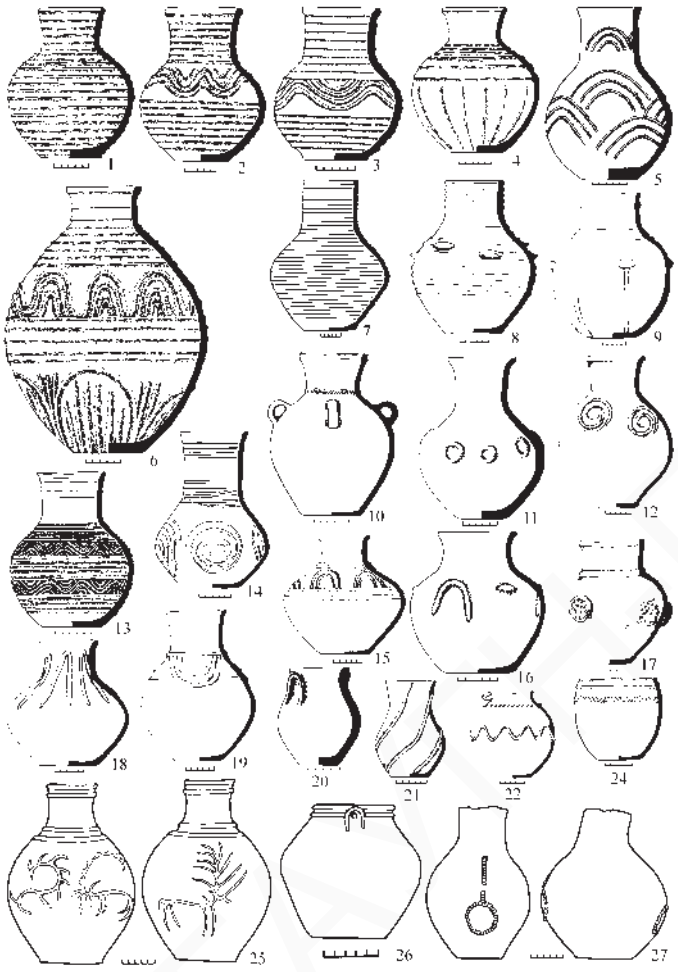


Fig. 3.
Ceramic vessels. Suglug-Khem burial site. Uyuk-Sagly culture. 3rd–2nd cc. BC

of a cloth or leather diadem with small eagle-or owl-shaped gold plaques sewn onto it and a large plaque in the centre; a jacket decorated with gold plaques representing beasts of the cat family along the edges; and a belt covered with cowries wrapped by gold foil with a buckle made of a large gold plate shaped like the head of a beast of prey. Sewn along the seams of the trousers were long gold strips and on the footwear (most likely soft boots) — gold strips and bits of gold foil shaped like commas, circles, rectangles and so on. In addition, the clothes were decorated with tiny paste beadwork of green colour, hemispherical bosses, geometric figures and other objects. A gold-plated iron torque was put on the neck of the deceased and a gold eye patch — a square with a slit in the centre — on the right eye. This last fulfilled the same function as coins in Slav burials. This motif is closely as so dated with the ideas that a dead person's gaze can be fatal or indeed the gaze of some other dangerous creature, for example, the Ukrainian Viy or the Irish Balor which both derive from the Indo-Aryan image of the Vay, a deadly wind. It was not for nothing that in some Altaian barrows — Shibe, among others — the eyelids of the dead are sewn shut. The weapons — a chekan, a large iron dagger, etc. — were attached to the belt.

For all that, however, the most remarkable artefacts yielded by the Suglug-Khem site were a wide-range of pottery. It includes vessels with a spherical body, flattened bottom and tall narrow neck; vessels of the jar type; vessels with a shortened neck, stuck-on knobs, handles and cones; mugs and beakers *(see Fig. 31, 32)*. Many of them are decorated with flutes, wave and spiral designs. Some are covered with painted intricate curvilinear patterns. Such vessels occur in the Altai, Kazakhstan's Semirechie, Mongolia and the Xinjang-Uigur autonomous region of China.

Yet the bulk of material excavated from Scythian barrows comprised arrowheads of many different varieties. The earliest bronze double-edged socketed arrowheads with a barb were found in the Arzhan barrow. Most common, however, were three-edged socketed heads; they were used throughout the en-

tire Scythian era. More specific are arrowheads with a split fitting and a barb on the base. Quite often both tanged and socketed heads were made of bone. With socketed heads the shaft went into the tip, with the other kind they were attached by means of strong, thick threads. Traces of threading have often survived on the arrow shafts with bronze tips.

Displayed at this exhibition are specimens of bows and arrows with bronze and bone heads as well as *tomara*-arrows made entirely of wood. Other types of weaponry are also fairly well represented and include iron and bronze daggers, *chekans* and other battle-axes. Daggers differ in their finials and guards. There is a unique dagger with a finial shaped like two griffin heads upon long curved necks with their beaks facing each other. It should be noted that the guards on early daggers are narrow and resemble moustaches; on later daggers they are solid, butterfly or wing-shaped. Iron daggers are larger than bronze ones. The most massive of these are called *aki-naki*. *Chekans* of both the socketed and eye varieties were used for close combat. They were fastened onto a long handle by wooden dowels. A sharpened counter weight was fixed on the other end of the handle.

Some early socketed *chekans* had a metal head in the form of a bird of prey or a griffin — a motif linked with the Scythian warriors' cult of the sun. Axes with pointed and blunt ends were also used in close combat.

As a rule, weapons were fastened to the belt, an important element of costume made in a variety of fashions by ancient craftsmen. There were wide belts with slits to take small straps on which various objects would be suspended; narrow belts of thinner leather, decorated with several bronze rings; narrow belts braided from leather thongs (usually for women). Attached to the end of the belt was an ornate bronze buckle with a fixed hook at the front. As a rule, it had an oval frontal part and a trapezoidal or rectangular frame like rear. As well as bronze, buckles were also made of bone. Particularly striking are bone lamellar buckles of elongated proportions with a large orifice at the open end and with one or more small holes near the belt end.

Fig. 32.
Ceramic vessels. Suglug-Khem burial site. Uyuk-Sagly culture. 3rd–2nd cc. BC

They are decorated with geometric ornament. One such buckle (Suglug-Khem site) bears an engraved representation of a man with thin hands folded on his belly and an ornament around the border. This find is especially valuable in that only a few representations of human beings dating from the Scythian period have been encountered in Tuva. Another fragment of a buckle (Suglug-Khem site) depicts a panther mauling a doe. This Scythian artefact is marked by the highest level of workmanship.

Besides buckles, belts also featured relatively large bronze and iron hooks for attaching quivers. Belts were mainly embellished with various plaques, not infrequently hemispherical ones resembling buttons with a loop on the back side and decorated with different kinds of ornament. Women's narrow belts were fastened by means of ring-shaped bronze plaques, embellished with cowries and numerous pendants made of musk-deer teeth, the atrophied teeth of Siberian deer, and crutch- and hoof-shaped ornaments. Suspended from the belt on a separate strap was a small bag containing all the owner's indispensable accessories: mirrors, combs, needles in cases, bronze knives and awls.

Bronze mirrors of the Scythian period occur in a large variety of types *(see Fig. 33)*. The earliest feature a knob or a loop on the reverse. In one case, instead of a loop we see a small figurine of an ibex (Saryg-Bulun site) *(see Fig. 34)* which stands on four legs with its head raised high and its horns thrown back over the spine. Another, medal-shaped, type of mirror has a handle on the side. In some mirrors the reverse of the handle had a loop carrying a strap on which various objects were suspended. Such handles were decorated with images of animals, as exemplified by a lying panther on a mirror from the Kosh-Pei site and by a standing ram on one from Suglug-Khem.

Much less is known about women's costume than about men's. In some cases, women had tall

Fig. 33. **Bronze mirrors. Suglug-Khem burial site. Uyuk-Sagly culture. 3rd—2nd cc.BC**

birch-bark hats; they wore high coiffures with iron or bronze, occasionally gold-covered, hairpins, necklaces made from beads of Mediterranean glass and semiprecious types of stone (amber, argillite) and gold pectorals. Men and women alike wore gold and bronze earrings of various types, among which mention should be made of an earring with a conical pendant decorated with granulation — a technique most commonly used by the Scythians for gold jewellery and also known in the Black Sea coast area.

One cannot help taking delight in the beautiful decor of the horse harness which has been studied with the utmost thoroughness on the basis of material obtained from the Arzhan barrow where 160 horses were buried. Bridles with bits and cheek pieces have survived on the skulls of many horses. The bits are of the stirrup-like and annular types; the cheek-pieces are pointed, straight-topped, decorated with animal heads etc. The Aldy-Bel barrows have yielded stirrup-like bits and U-shaped cheek pieces which are known in the Altai, East and North Kazakhstan. The stirrup and the rigid saddle did not exist at that time.

The influence of the culture of the Scythian circle spread far beyond the habitat of the Scythians, Sakas and other Iranian-speaking peoples which were related to the Scythians by ancestral origin. Individual items from the Scythian culture penetrated into the Siberian taiga and the north-eastern regions of Europe. These were mainly objects of prestigious character, including so-called ceremonial pole-axes which served as signs of secular or priestly authority. At present only five pole-axes of this kind are known and all of them were chance finds. They have a distinctive butt shaped like a wolf or a griffin. The socket of the pole-axe is also crowned by a griffin. One of the pole-axes, adorned with heads of large-eared griffins, comes from the Republic of Komi in north-east European Russia and was found not far away from the town of Syktyvkar. This pole-axe is distinguished by its lavish decor and large dimensions (total length 32.5 cm, width of the pick section 7.5 cm).

In the opinion of anthropologists, the culture of the early Tuva nomads developed on the basis of that of the underlying local population which was Europeoid in type. This population penetrated Central Asia at the end of 3rd and 2nd millenniums BC, leaving burial sites typologically akin to the Okunev culture of the Minusinsk steppes (the Bronze Age). The early nomad culture is also linked with that of Tuva's Bronze Age through a number of features surviving in the funerary rite (the type of burial: the contracted posture on the side with a westward orientation, the use of stone cases), the jar-like form of ceramic vessels with applied mouldings and grooved ornament, and so on. During the Huns' expansion part of Tuva's Scythian population might have moved to Semirechie

Fig. 34.
Bronze mirror. Saryg-Bulun burial site. Aldy-Bel culture. 7th–6th cc. BC

which, according to historical chronicles, saw the appearance of the Wusun whose material culture has many common features with that of Tuva. The Scythian population, which remained in Tuva, went through the complex processes of assimilation and the culture that emerged here at about the time of Christ was already different from the Scythian one and it laid the foundations for the ethnogenesis of the Turkic peoples of the Sayan-Altai upland. Here we are already entering a completely different era, which is a subject in its own right.

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