

L'INSTITUT D'ARCHEOLOGIE  
DE L'UNIVERSITE JAGIELLONNE  
DE CRACOVIE

# RECHERCHES ARCHEOLOGIQUES

NOUVELLE SERIE 2



KRAKÓW 2010

**L'INSTITUT D'ARCHEOLOGIE  
DE L'UNIVERSITE JAGELLONNE DE CRACOVIE**

**RECHERCHES ARCHEOLOGIQUES  
NOUVELLE SERIE 2**

**KRAKÓW 2010**

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L'Eglise StMichel et le monastère paulinien à Cracovie dans le début du XVIIe siècle  
(la reconstruction par J. Poleski)

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## CONTENU

### ÉTUDES

Joanna Dębowska-Ludwin: <i>The necropolis at Tell el-Farkha reconsidered</i> .....	5
Andrei P. Borodovsky: <i>Southern Siberia bone carving of Scythian time</i> .....	21
Sebastian Borowicz: <i>The Cypriot economic system in the Late Classical and Early Hellenistic Periods. An analysis based on the ceramic evidence</i> .....	33
Michał Kasiński: <i>Bemerkungen zu den Funde der Przeworsk-Kultur in Mitteldeutschland in der jüngeren vorrömischen Eisenzeit</i> .....	43
Renata Madyda-Legutko, Judyta Rodzińska-Nowak: <i>Die kulturelle Situation im oberen Sangebiet in der römischen Kaiserzeit im Lichte der neuesten Forschungen</i> .....	65
Anna Lasota: <i>Hand-made storage vessels from the Early Roman Period from south-western Lesser Poland</i> .....	79
Marzena J. Przybyła: <i>Bemerkungen zu einigen lokalen Formen der Schwertgürtelschließen vom sog. Balteus-Typ aus dem Barbaricum</i> .....	93

### RAPPORTS

Paweł Valde-Nowak, Arkadiusz Tarasiński: <i>Results of archaeological rescue excavations at Mucharz (Beskidy Mts.)</i> .....	185
Krzysztof M. Ciałowicz: <i>Excavations at the Western Kom at Tell el-Farkha 2007–2008</i> .....	203
Mariusz A. Jucha: <i>Tell el-Murra. The Polish Archaeological Survey in Ash-Sharqiyyah Governorate (Egypt, the Nile Delta)</i> .....	229
Ján Beljak, Noémi Pažinová, Marek Krápic: <i>Ungewöhnlicher Befund aus Zvolen–Čierne zeme (Slowakei)</i> .....	239
Ewdoksia Papuci-Władyka, Evgenia F. Redina, Jarosław Bodzek, Wojciech Machowski: <i>Polish-Ukrainian Koshary Project, seasons 2007–2008</i> .....	257
Renata Madyda-Legutko, Ilona Smajek: <i>Eine Siedlung der römischen Kaiserzeit in Pakoszówka, Gde. Sanok, Woiw. podkarpackie, FSt. 1, im Lichte der von 2007 bis 2008 durchgeführten Ausgrabungen</i> .....	277
Jacek Poleski, Dariusz Niemiec, Mateusz Woźniak: <i>Medieval church and monastery of the Pauline Fathers “Na Skalce” in Kraków-Kazimierz in the light of archaeological investigations in 2007–2008</i> .....	291

### VARIA

Jan Chochorowski: <i>Professor Marek Gedl. Gelehrter – akademischer Lehrer – Meister – Erzieher – Mensch</i> .....	319
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Andrei P. Borodovsky

## Southern Siberia bone carving of Scythian time

Treatment of “bone” is one of the striking and original components of the culture of ancient population of Siberia (Бородовский 1997). The term “bone” is meant to denote diverse articles made of various organic materials, including bone (tubular and plane), horn (hollow and unbroken) and fang. The epoch of ancient nomads (the 1st millennium B.C.) is the heyday of bone carving in Eurasia.

At present, on the territory of Southern Siberia, several hundreds of articles of artistic bone carving production which relate to the Scythian epoch are known. The number of specimens of carved bone, found on different territories (Fig. 1), varies from 4% to 54%: in the Ob'-Irtysh area – 4%, on the Upper Ob' River – 10%, in the Altai – 54%, the Minusa Depression – 9% and Tuva – 24%. Such peculiarities are scarcely occasional since each of these regions is characterized by obvious cultural originality, including in a series of cases (the Altai, the Minusa Depression and Tuva) the striking peculiarity of the Scytho-Siberian animal style.

In the Scythian time, on the territory of Southern Siberia and in contiguous regions, several centres of artistic bone carving production (the Tuvinian, Minusinsk, Altaic, Upper Ob', Ob'-Irtysh and Kazakhstan ones) were formed (Бородовский 1999).

These centres differ in the following indications: peculiarities connected with utilization of different kinds of natural materials; specificity of cutting out raw material and also of types of bone carving-blanks; originality of the technique of artistic carving; influence of treating other materials upon artistic carving; originality of ornamental trimming of articles; peculiarities of artistic images and compositions; and, at last, toning of carved articles up and down, coating them with paint or incrustation.

Depending on local natural resources, the raw material base of these centres displays some slight differences. For example, in Tuva (Fig. 2), the main raw material (98%) was antler of maral (red deer), and only in very rare cases (2%) – fang of wild boar was treated. The Minusa Depression is noteworthy chiefly for production of articles of antler of maral (65%) and elk (35%). In the Altai, raw materials used for the same art objects are remarkable for their considerable diversity. Among them, antler of maral (66%) and elk (1,5%), ramming bone (31%) and cover of hollow antler (1,5%). The same diversity of raw material is typical of the Upper Ob' Area, where it is represented by antler of maral (71%) and elk (21%), as well as tubular (4%) and metacarpal (4%) bone. In the Ob'-Irtysh Area, 80% of articles are

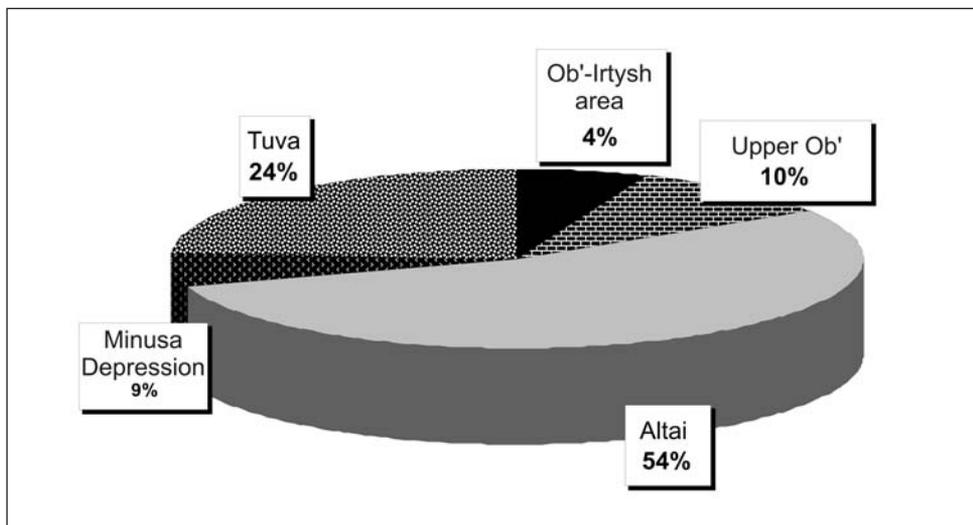


Fig. 1 Distribution of carved bone artifacts in Early Iron Age Southern Siberia

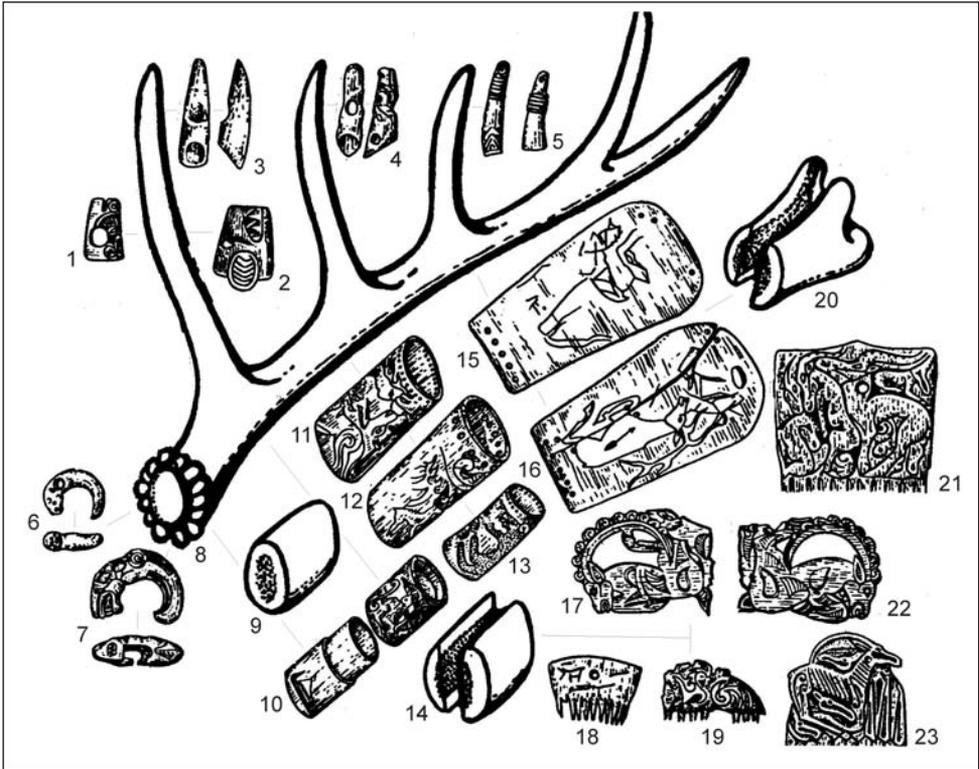
those made of antler of elk, and the remaining ones (20%) – of other materials.

There are also certain differences in the application of horny tool-blanks (Fig. 3). Long horny shoots were more frequently used in the Altai and on the Upper Ob'. In Tuva and the Ob'-Irtysh Area such blanks were not frequently used and in the Minusa Depression they have not been met till now. But, on the other hand, cylindrical "stumps" of long horny shoots are the most common finds in all the above-mentioned centres, excluding the Minusa Depression. Only there and in the Altai blades of horny shoots are met, whereas double horny blades are much more widespread from the Ob'-Irtysh Area to the Yenisei (Fig. 3:5), excluding Tuva. Single horny blades are still more frequently met (Fig. 3:2, 4, 7). They are represented on all examined territories, however, only in the Altai and Tuva, such tool-blanks were made in the process of splitting ramifications of maral's antler. The Upper-Ob' area is remarkable for the greatest variety of tool-blanks, including

those obtained by splitting of shed antlers' sockets.

In all the afore-named centres, the ways of bone carving are diverse enough, but they differ in occurrence. In Tuva, high relief and relief types of bone carving, in association with the notched type, are especially prevalent. In the Altai, such combinations of bone carving are met not so often, whereas on the Upper Ob' they are absent and each kind of bone carving exists independently. Moreover, towards the west, the predominance of high relief bone carving declines. In the Altai, carving which cuts tool-blanks through is present too.

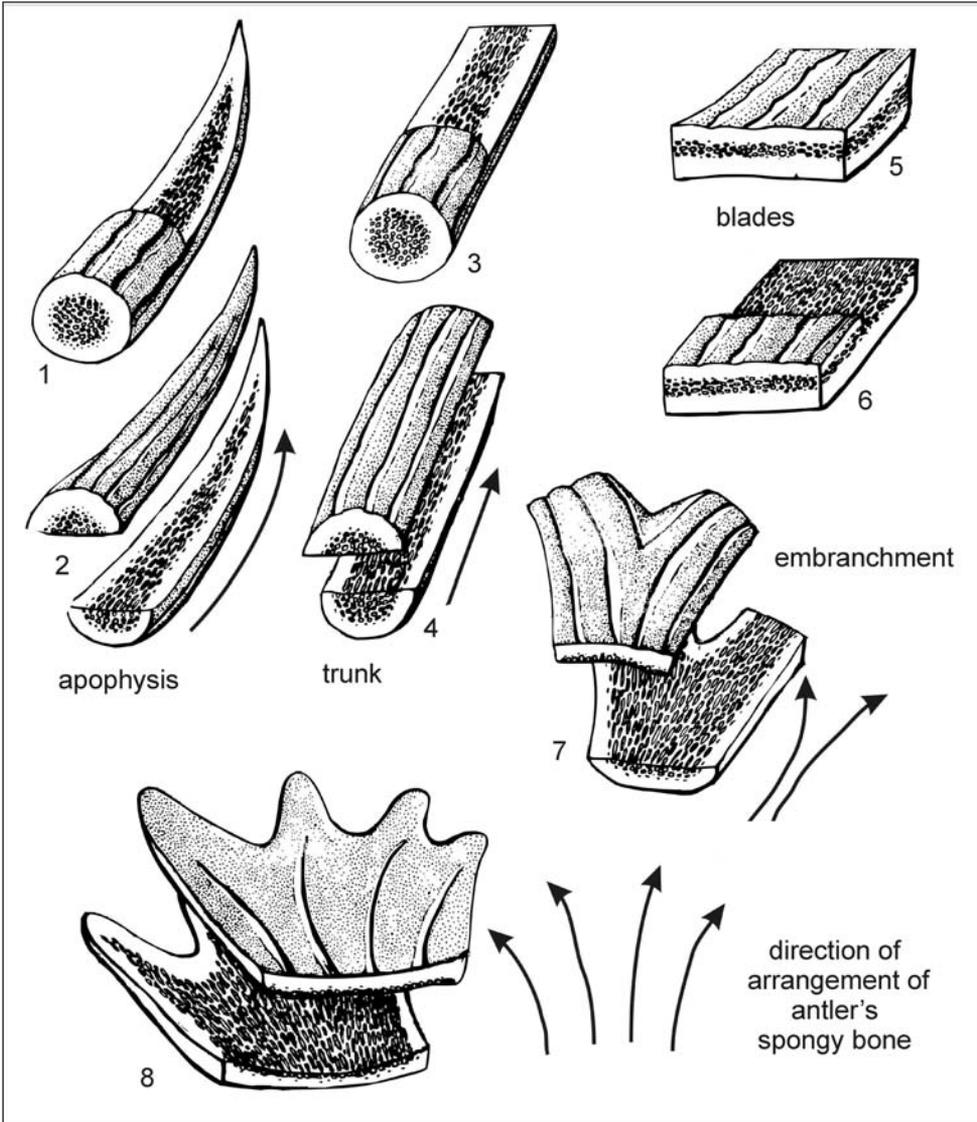
In the same centres, there are also noticeable differences in the influence of treating other materials upon carved bone. In some cases, we may speak about a peculiar "suppression" of local artistic production by bronzes. For example, it took place in the Minusa Depression, one of the most powerful mining and smelting centres of Southern Siberia. Yet the overlap of boundaries of the centres of artistic bone carving treatment and



**Fig. 2.** Carved antler of the Scythian Epoch Tuva: 1–7,10–13,15–19, 22 – Aimyrlyg; 21, 23 – Khemchik-Bom III. 8, 9, 14, 20 – antler semiproducts; 8 – burr; 9 – antler trunk; 14 – single blade made of antler trunk; 20 – single blade made of antler embranchment

those of production of bronzes hardly ever produced such results. In the Altai and Tuva, quite to the contrary, a striking originality of carved bone became apparent. It was stipulated to a great extent by the fact that such territories (the Altai) were at the periphery of the mining and smelting centres or they fell, at early stages, under a considerable influence (Tuva) of the adjacent production of bronzes (the Minusa Depression). The trite Sakian metal goods (Issyk) served, evidently, as prototype for carved bone of the Upper Cis-Ob' area (Ust'-Ishtovka-1, Rogozikha-1, Obyezdnoye-1). The influence of treating wood was no less significant for the majority of bone carving centres (the

Altai, Tuva and the Upper Ob'). Among the other materials, birch bark, leather and thick felt (the Altai) ought to be noted. The most considerable number of images embodied in carved bone was found in Tuva (10) and the Altai (8), as well as on the Upper Ob' (6). Art objects of such kind turned out to be less numerous in the Ob'-Irtysk Area (4) and the Minusa Depression (3). The same centres are characterized by analogous diversity of compositions imprinted in carved bone. Their number is the greatest in the Altai, where several variants of symmetrical evolvents of the animal head exist. However, the most ancient sample of the kind is derived from the Minusa Depression



**Fig. 3.** Basic antler semiproducts of the Scythian Epoch: 1, 2. – blades made of antler apophysis; 3, 4 – blades made of antler trunk; 5, 6 – blades made of elk's antler; 7, 8 – blades made of antler embranchments

(Kichik-Küzür-1). Tuva is notable for complex compositions of many figures. They are isolated finds on the Upper Ob' and in the Ob'-Irtys' area. However, in the carved bone of the Altai and the Minusa Depression such compositions are absent.

The greatest diversity of ornamental design of carved bone is typical of Tuva, the Altai and the Upper Ob'. On art objects from the Ob'-Irtys' Area and the Minusa Depression, ornament is considerably more meagre. As for the regional peculiarities of

decoration, vegetable ornament of the Altai ought to be noted. It is not met on the other examined territories. The eye-shaped ornament is spread chiefly in Tuva and the Minusa Depression. It is very seldom found westwards of these regions. The dotted ornament of carved articles of the Upper Ob' (Gon'ba-2 and Rogozikha-1) is analogous to samples from the Minusa Depression (Turan-2). This similarity, as a reflection of contacts and influences, is certainly not the only one. Toning of carved bone (brown) and coating it with paint (black and red) are met only in the Altai (Pazyryk, Berel').

In the above-mentioned centres, the diversity of carved articles is not uniform, either. Different carved specimens are the most numerous in Tuva and the Altai, as well as on the Upper Ob'. But their number is not great in the Ob'-Irtysh Area and the Minusa Depression. At the same time, similar varieties of articles are represented in quite a number of centres of artificial treatment of bone.

Horn, including antler, was the main raw material for this artistic creative work. The latter was widely used by nomadic people, and it could hardly be a coincidence. In the world culture, from the high antiquity, horns had a complex semantic meaning. They were symbols of might, manhood, fertility and supreme power. Horns were attributes of gods of primitive society – priests, shamans, rulers, heroes and fighting men. Horns personified fighting spirit and phallic strength, as well as symbolized fertility, prosperity and male fruitfulness.

Horns of ram were a special symbol of the Sun – an attribute of image of Amon (also Amen identified by the Egyptians with their principle deity, Amen-Ra). In the Hellenistic times, Alexander the Great (356–323 B.C., king of Macedonia, 336–323 B.C.), being elevated by Egyptian priests to the dignity of “the Son of Amon”, took just such bent horns as a symbol of his power.

In the Middle Asia of the Achaemenids' epoch, horns of ram and the head of ram as such were tokens of good luck for the reigning family. On the Upper Ob' and in the Altai Mountains, in the Scythian time, the most common images were those of mountain sheep – arkhar (wild ram). Among Indo-European peoples mountain goat – teke, as an embodiment of purity, was a sacrificial animal.

In the Near East and the Altai Mountains, a special system of representation of the surface of animals' horns was formed (Бородовский 2004). In the Scythian and Huno-Sarmatian time, the detailed elaboration in reproduction of all kind of horn as raw material, at the level of its structure and texture, was connected not only with the realist trend in art. Such working out in detail reflects a good knowledge of horny material, as well as sufficient experience of work with it, because any kind of technology represents a certain way and process of treatment based on general knowledge of particular natural properties of materials.

In the ritual sphere, horn as raw material was assigned a special place. It was used to make utensils (dishes, vessels and spoons) for sacral ceremonies (Бородовский 2000), as well as handles of looking-glasses and musical instruments (Бородовский 1995). However, this practical material was more frequently used to produce articles that were the most necessary for ancient nomads – details of horse harness and armament.

The finds of magnificent horn adornments of bridle and harness were discovered in the Pazyryk burial mounds, Berel' and Maima (the Altai Mountains), as well as in Krasnyy Yar, Novyy Sharap-2, Obyezdnoye-1 and Viatkino-1 (the Upper Ob').

The main image represented on the horny adornments of the carved bridle from the Berel' Necropolis is the gryphon (Самашев, Бородовский 2004). The syncretism of this

image is strengthened by substantial elements such as the antlers of elk, which are interpreted as the crests of ears directed forwards and hypertrophied (sticking up ears). The antlers of elk in the gryphons' images from Burial Mound-36 of Berel' (Fig. 4, 5) (excavations of Z. S. Samashev) are characterized by the conjunction of real and unreal features. Firstly, the general structure of the elk's antler – the spoke bone (radius), paddle and sprouts – is reproduced quite realistically. Secondly, the horns of the gryphon's image are turned in the opposite direction relative to their actual position. In the case of the gryphons, the horny paddle is directed forwards but in any elk – backwards. The unnatural turn of the elk's antler in the Berel' gryphons may also be explained by the aspiration of masters of the Scythian time to devise images of antlers in such a way so as to balance the contour of the whole figure.

The comb-shaped outlines of the Berel' gryphons' horns bear an obvious similarity to leather applications with cocks from the Pazyryk Burial Mounds. Moreover, the outlines of the horns are analogous to those manifest in metal plastic art objects from Issyk (the Tsar's Burial Mound in Kazakhstan). The number of elements represented in the complete set of horny adornments of the bridle and harness from the Berel' necropolis is quite comparable with composite horny chain-mail plates of the Scythian time. The latter are compound articles whose manufacture requires extensive labour expenditures.

Not only the bridle and harness, but also saddles belonging to representatives of the nomadic elite were beautified. Such objects are met more often on the territory of the Altai Mountains. However, similar prestigious saddles have been found recently in the forest-steppe zone, on the territory of the Cis-Ob' Plateau (Телегин, Бородавский 2005). The horse and grypho-elephant are the main

images on the adornments of saddles from Obyezdnoye-1 (Fig. 6, 7) (excavations of A. N. Telegin). Image of horse is very popular in the Scythian time. In carved unbroken horn, which was used to make adornments of saddles (Obyezdnoye-1), also the image of horse can be found, e.g. on the waist-belt with the set of plaques in Tuva (Sagly-Bazhy II) and in the Altai Mountains. The horse with an overwound croup is represented on the gold plaques of the Siberian collections of Peter I (Peter the Great, 1672–1725, tsar of Russia, 1682–1725). It is also present on the gold blade from the Novotroitskiy Burial Mound II, on the gold adornment of the sword from the Issyk Burial Mound, as well as on the tattoos of the right hand of the man from the Pazyryk Burial Mound V. Details of trimming of the saddle from this burial mound find their closest analogies in the horny adornments of the saddle from Obyezdnoye-1. In a similar pose (with an overwound croup), the elk is depicted on the right side of the saddle-cover from the Pazyryk Burial Mound V. On the upper joint of the left leg and the lower one of the right leg of the horse depicted on the horny saddle-plate from Obyezdnoye-1, bracelets or ornamented shoulder-belts, typical of the eastern harness, are, possibly, represented.

The image of the fantastic creature depicted on the horny saddle-pendants from Obyezdnoye-1 takes a special place in the art of the Scythian Epoch. Such an image may be described as a grypho-elephant. A similar image is present on the handle of the Kelermess pole-axe. The contour of the head of the monster has some likeness to the profile of a bird of prey. Such a trait, according to the definition by A. E. Brem, is distinctive of the African elephant. For this reason, the end of the trunk of the monster from Obyezdnoye-1 (which has the form of a bird's head) could hardly be an occasional decorative device. In comparison with

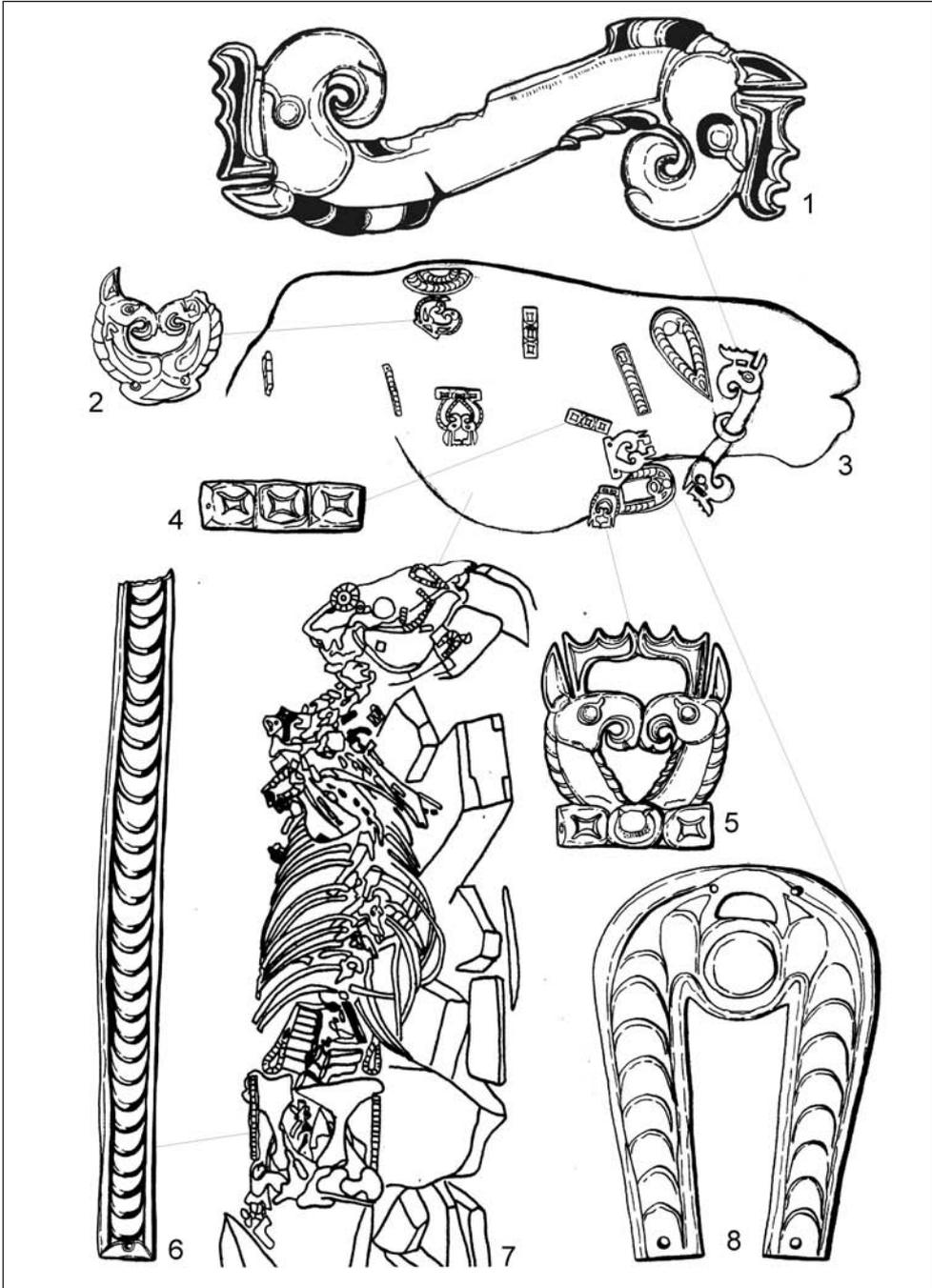


Fig. 4. Carved antlers details of horse bridle and harness from Berel'



**Fig. 5.** The antlers of elk at the gryphons' images from Burial Mound-36 of Berel' (excavations of Z. S. Samashev)

the Kelermess grypho-elephant, the image from Obyezdnoye-1 looks still more "monstrous". The mouth of this creature has large teeth and fangs of a beast of prey of the cat family. This indication allows us to find one more indirect analogy to the horny saddlependant from Obyezdnoye-1. It is the image of the head of the ounce showing its teeth, which was carved of horn and represented in the Maima Complex of the Northern Altai (Fig. 8).

Most probably, such an article was also used as a part of adornment of the bridle or harness. The image of the grypho-elephant from Obyezdnoye-1 was based on the Early Iron Age image of the bird with its wings spread out wide and its head turned backwards. The neck of the bird is simultaneously the trunk of the monster. The end of the lower jaw of the monster from Obyezdnoye

is shaped as a ram's head. That is, possibly, connected with the ideas that were common among the nomadic population of Eurasia, concerning hvarnah (this ancient Iranian word is interpreted as the sunny shining source, the divine fire and its material emanation – the Sun itself, sunny light and radiance).

The horny adornments of the soft saddle from Obyezdnoye-1 are analogous to the zoomorphic ones of the saddles belonging to the Pazyrykian and Sakian nomads. They are made in the best traditions of the Scytho-Siberian animal style in which western and eastern peculiarities of such kind of art are combined. As to the Cis-Ob' Plateau, that is far from being occasional, because this region is a transit territory between the steppe spaces of Kazakhstan and the Altai Mountains. The group of burial mounds in Obyezdnoye-1, quite probably, belongs to the Sakians of Kazakhstan, who appeared in the Upper Cis-Ob' area in the middle of the 1st millennium B.C. Just that stipulated the originality of the main categories of material – ceramics, ritual articles, adornments, armament and harness. That is why the analogies connected with the image of horse on the saddle cover from Obyezdnoye-1, and with the gold zoomorphic adornment of the armament from the Issyk Burial Mound could hardly be incidental.

In decorating the horny details of the harness and bridle of the Scythian time of Southern Siberia, two stages (Fig. 9) are evidently traced: at first the image had been carved and only afterwards were holes pierced in it for fastening objects. Thus, part of the relief ornament executed beforehand was simply cut away. Obviously, at the final stage of fastening adornments to finished articles, images depicted on them were of lesser importance than the intended function. As a whole, in Southern Siberia of the Scythian Epoch, the system of placing artistic articles

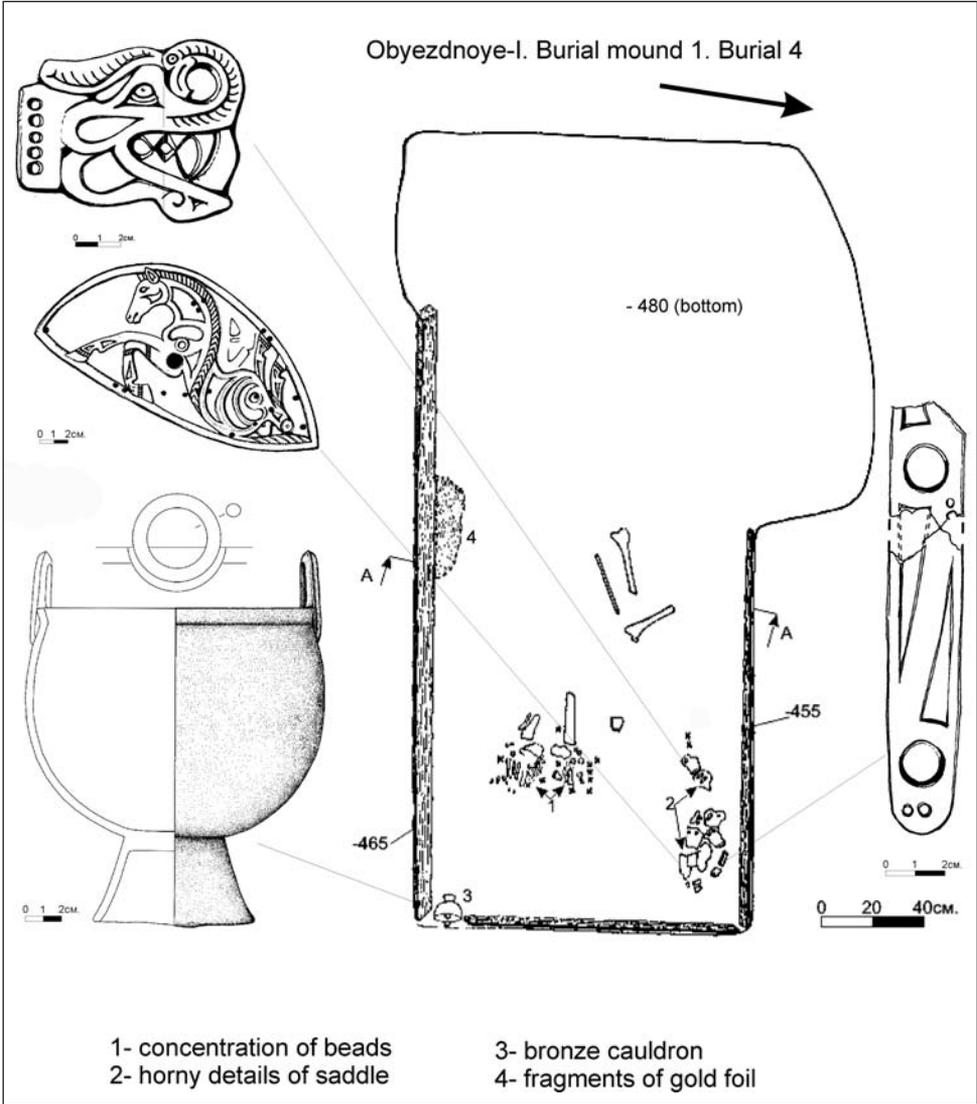


Fig. 6. The horse and grypho-elephant on the adornments of saddles from Obyezdnoye-I (excavations of A. N. Telegin)

of the horny bridle and harness represents, in itself, an original figurative text, a zoomorphic code that was, probably, understood and easily recognizable amidst the nomadic elite. In a mythopoetic consciousness of ancient people, the essence of the horse accompanying a very important person into

another world was transformed into a particularly respected image of a mythological creature. Evidently, with such mythopoetic ideas the colour symbolism is closely interwoven. This speculation is supported by the presence of a combination of red, white and goldish hues in almost all articles of arts and

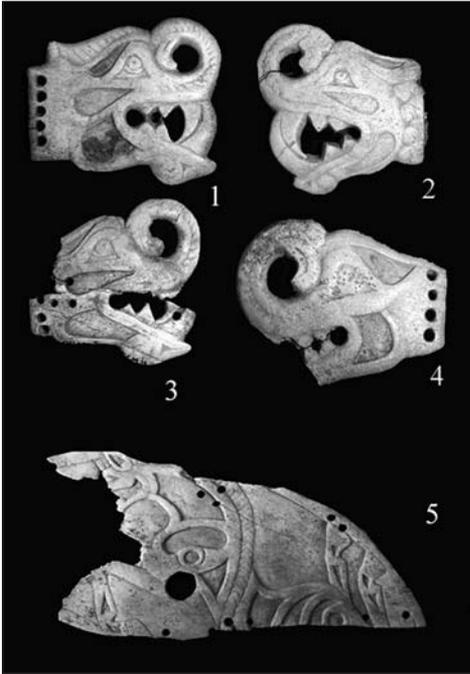


Fig. 7. Carved horny saddle-plates from Obyezdnoe-1

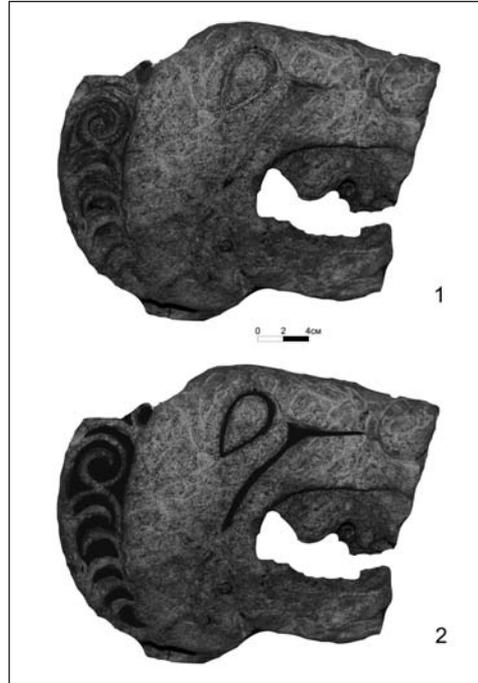


Fig. 8. Carved horny representation of head of the ounce from Maima XIX

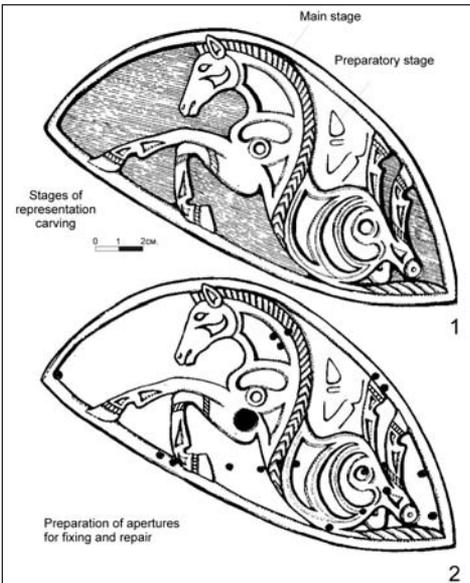


Fig. 9. Stages of forming the representation and making apertures for fixing and repair on the saddle-plates from Obyezdnoye-1

crafts, as well as by their cult and magical purpose. So, for example, all horny articles are covered with a bright red colour – cinnabar, at some places with tinplates and gold foil. In the course of determining the consequences of putting colours on such articles, a certain principle was revealed: at first red paint was applied, then white paint. And, as a rule, the goldish colour, with its sacral significance, completes the cycle of the application of colours. The whole range of colours was used in order to impress social surrounding and to convey the divine essence of the earthly lord – the owner of the horse.

It must be emphasized that in each of the historical epochs (the Stone, Bronze and Early Iron Ages), the treatment and skilful utilization of horn reflected the main changes and priorities in the culture and

economy of a particular population. This phenomenon was fully manifested in the manufacture of articles connected with the most important activities in a given period. The well-developed cattle-breeding, as well as the increase of mobility of the population of the 1st millennium B.C. made it possible for nomads to masterfully use horn, as corroborated by elements of the harness, arms and waist-belts.

The diversity of artistic means (relief images, putting colours on the horny articles, coating them with metal), as well as production methods (carving, coating with paint, making metallic foil and covering horny articles with it) demonstrates a considerable integration of the art of bone carving with the technological potential of other crafts of the ancient nomads of Eurasia.

### Rzeźbiarstwo w kości na terenie południowej Syberii w okresie scytyjskim

Obróbka „kości” (w szerszym znaczeniu, obejmującym także przedmioty z rogu i kłów) jest jednym z najbardziej zadziwiających i oryginalnych aspektów kultury prahistorycznej Syberii. Okres jej rozwoju przypada na czasy antycznych koczowników (I tys. przed Chr.).

W okresie scytyjskim na terenie południowej Syberii wykształciło się kilka ośrodków rzeźbiarstwa w kości: Tuwa, Kotlina Minusińska, Ałtaj, tereny nad górnym Obem, między Obem i Irtyszem oraz obszar dzisiejszego Kazachstanu. Ośrodki te różniły się doborem użytkowanych surowców, sposobem wycinania nieobrobionego surowca, formą półsurowca, techniką wykonywania rzeźbień, ornamentacją, tematyką przedstawień i sposobem kompozycji, a także stosowaniem malowania i inkrustacji. Spośród wymienionych centrów, największą liczbą i różnorodnością przedstawień wyróżniają się Tuwa, Ałtaj i tereny położone nad górnym Obem.

W niektórych ośrodkach można obserwować wyraźny wpływ technologii obróbki innych surowców na sposób rzeźbienia w kości i rogu. W Kotlinie Minusińskiej zaznacza się wpływ metalurgii brązowej na przemysł kościany. Na Ałtaju i w Tuwie widoczna jest oryginalność w technikach rogowniczych. Na produkcję przedmiotów z kości i rogu wpływ wywierała także technika obróbki drewna (Ałtaj, Tuwa, Górny Ob). Jako surowiec wykorzystywano przede wszystkim poroża marala i łosia, a także kły dzików i kości barana. Nad górnym Obem zaznacza się wpływ sztuki Saków (kurhany w Issyk).

W każdej epoce sposób produkcji przedmiotów z kości i rogu był odzwierciedleniem kultury i ekonomii danej populacji. Ludy koczownicze południowej Syberii, które w I tys. przed Chr. zajmowały się przede wszystkim pasterstwem, pozostawiły po sobie wykonane z rogu części rzędu końskiego, broń oraz pasy. Do najwspanialszych zabytków rogownictwa południowosyberyjskiego zaliczają się części rzędu końskiego z kurhanów: Pazyryk, Berel' i Majma (Ałtaj), a także ze stanowisk Krasnyj Jar, Nowyj Szarap-2, Objezdnoje-1, Wiatkino (Górny Ob). Prócz elementów uprzęży oraz uzd, były to także aplikacje naszywane na siodło.

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