

THE METAL AGES AND MEDIEVAL PERIOD

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TATTOOED MUMMIES FROM THE LARGE PAZYRYK MOUNDS: NEW FINDINGS

Introduction

More than half a century has passed since Sergei Rudenko excavated the large mounds at Pazyryk. In mounds 2 and 5, well-preserved, mummified bodies of four persons were found. One male and one female were found in each mound. The body of the male from mound 2 was tattooed (Rudenko, 1953: 136 – 140). More tattooed mummies were found by Novosibirsk archaeologists in Pazyryk-type burials on the Ukok Plateau. In 1993, N.V. Polosmak (2000: fig. 3) discovered a mummy of a woman with tattooed arms in mound 1 at Ak-Alakha-3. In 1995, V.I. Molodin (2000: fig. 143) excavated mound 3 at Verkh-Kaldzhin-2, which contained a mummy of a male, whose shoulder was decorated by a tattooed representation of an ungulate.

The tattoos on all three mummies were discovered during the excavations, because the blue drawings stood out against the light skin (Polosmak, 2001: 228). Shortly after the Ukok mummies had been taken out of the graves, their skin became considerably darker, and the tattoos “disappeared”. Special techniques were needed to restore the original skin color (Kozeltsov, Romakov, 2000: 104).

The skin of the other mummies from the large Pazyryk mounds was dark-brown, and no tattoos were visible. Apparently the color was always the same, not only at the time when the mummies were acquired by the Hermitage, but also immediately after the excavations, since neither Rudenko nor other specialists mentioned a change in color. The skin may have changed when the graves were disturbed by ancient looters.

The mummies owned by the Hermitage were photographed more than once and subjected to radiographic examinations. Also, they were examined by experts from the biological control service twice a year. However, no traces of tattoos were discovered. It was only by a lucky chance that they were revealed.

Techniques of revealing the tattoos

The first unexpected discovery was that of a tattoo on a mummy from the Tashtyk burial ground Oglakhty VI. Having taken off the mummy’s clothes, the restorers noticed vague blue drawings on the skin. Forensic experts, who had been invited to do an examination, advised that the mummies be photographed in infrared light to make the barely distinguishable tattoo more distinct. Thanks to the photographs taken at the Hermitage Laboratory of Science-Based Methods, not only were already noticeable drawings more visible, but new ones were discovered that were invisible to the naked eye (Kyzlasov, Pankova, 2004). Shortly afterwards, it was decided to apply the same procedure to the Pazyryk mummies, on which the presence of tattoos was quite probable.

In October 2004, three mummies from Pazyryk mounds 2 and 5 were photographed in reflected infrared light. All of them turned out to be tattooed. Infrared photography is useful because the pigment used for tattooing contained soot. Tattooed areas of the skin absorb infrared light, whereas the clean skin reflects it intensely. As a result, the dark skin of the mummies appeared quite light on the photos, whereas the tattoos stand out very distinctly.

Copying the drawings is only possible on photographs, which must represent all details of the original. The drawings are situated on convex parts of the bodies, including the extremities, and for that reason an entire sequence of photographs must be taken in order to cover the drawings in full. However, this technique has certain limitations. First, the camera, fixed on a stationary support, can only move in two directions, horizontal and vertical. To photograph the entire surface, the mummies themselves must be moved under the objective, turned and fixed in various positions, which is not always safe for them and limits the number of photographs that can be taken. Second, the mummies are rigid, and their extremities cannot be easily moved. Tattoos on the inner surface of arms and legs can be photographed only in oblique projection, and sometimes even this is impossible. The small number of photographs, and the fact that some of them are oblique, prevents full reconstructions of the drawings. Details are not connected and some are absent. The only option in such cases is reconstruction. Reconstructing fragments of drawings is an arduous, creative task since joining the fragments mechanically does not yield reliable results. Also, the artist's work is hampered by numerous folds and seams on the skin, which warp the figures and prevent a complete reconstruction. Although the drawings are as close to the originals as possible (judging by the available photographs), their quality must be improved when new techniques are available*.

Description and characteristics of the tattoos

Tattoos were found on a female mummy from mound 2, and on male and female mummies from mound 5. Also, a new drawing was found in addition to those already known on the male mummy from mound 2. During the excavations, the body began to decompose and was dissected, but the tattooed skin was preserved, as were the head and the right hand which were cut off by looters. The new drawing was discovered on the hand.

Tattoo on the hand of a male from Pazyryk mound 2. On the thumb is a depiction of a bird facing the nail, its bushy tail spreading onto the palm (Fig. 1). The head is small with a crest and a wattle; the extended neck is covered with plumage rendered as an oblique hatching. The legs are spurred. All these features suggest that the depicted bird is a rooster.

Tattoo on the female mummy from Pazyryk mound 2. The same sarcophagus in which the remains of the male were found contained the body of a female in her early forties. Her body was preserved better than that of the male. It also was beheaded by looters, who had also severed her right hand, shanks and feet. The mummy's skin was heavily damaged, and so were the tattoos. However, the preserved figures are easily recognizable due to their similarity with other known examples.

On the woman's left shoulder, a fantastic animal is represented. Its body is that of an ungulate, and its head

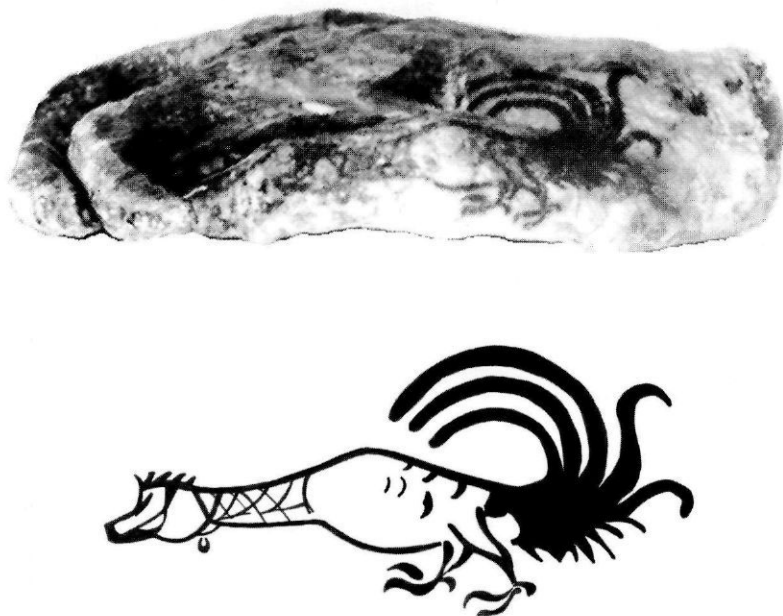


Fig. 1. Representation of a bird on the right hand of a man.
Pazyryk mound 2.

* Photographing was done by A.V. Sizov, S.V. Khavrin, and K.V. Chugunov at the Hermitage Laboratory of Science-Based Methods. Drawings were made by E.V. Stepanova, A.V. Silnov, and D.A. Kirillova. Our sincere thanks are due to all of them.

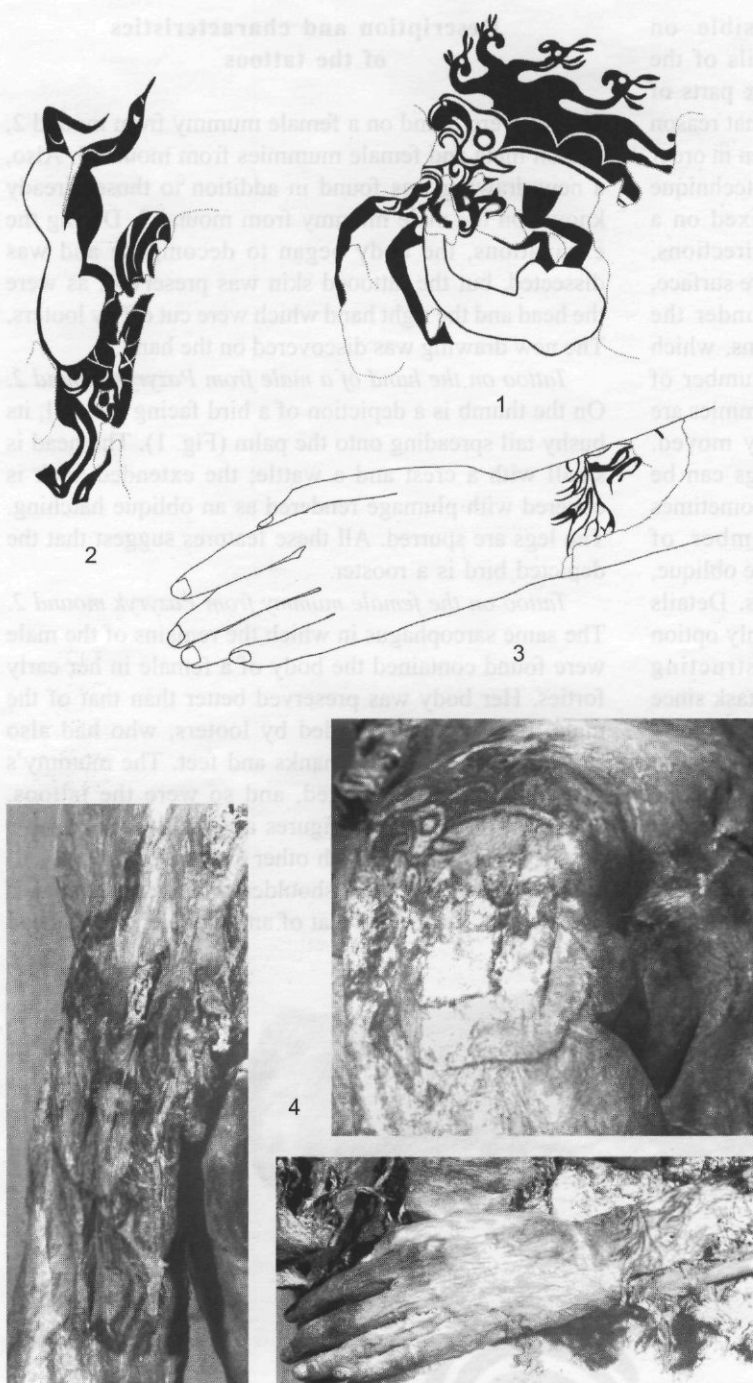


Fig. 2. Tattoos on the body of a woman. Pazyryk mound 2.
1 – on the left shoulder; 2 – on the right hand (proximal part); 3 – on the wrist;
4 – infrared photographs of the same regions.

that of a bird of prey (Fig. 2, 1). There is a large round eye, a leaf-shaped ear, and an opened, hooked bill with a knob. The animal has large, black antlers; one of which has prongs shaped like the heads of birds. On the stem of the antler they are directed forward, and on two fore prongs backward. The posterior of the

animal's body is twisted, and its entire figure is shaped as a circle. The body is rendered as an outline, and the legs are blackened. On the chest there are vague curvilinear figures similar to those tattooed on other Pazyryk mummies. However, it proved impossible to reconstruct the figures.

On the woman's right upper arm, an argali with a twisted rump is tattooed (Fig. 2, 2). It has a sharply twisted horn with annual rings, and thick fur on the chest. The body and the fore legs are rendered as outlines, the hind legs are blackened and covered by curvilinear designs.

On the outer part of the left arm, slightly above the wrist, there is a realistic drawing of a deer's antler with numerous prongs (Fig. 2, 3). When the arm was lowered, the horn became upturned. It is hard to say if this was an independent representation or part of a deer's figure. The forearm was also apparently tattooed; however, the skin was not preserved in this region.

In terms of artistic manner, the tattoo on the female mummy from Pazyryk mound 2 resembles that on the male mummy from the same mound. On both mummies, the figures of the fantastic animal and of the argali are situated likewise. The figures on the female mummy are somewhat smaller, and are situated independently. The upturned horn drawn on the left wrist is similar to that drawn together with the deer's head on the female mummy from Ak-Alakha-3. The tattoo on the female mummy from Pazyryk mound 2 is quite similar to previously known tattoos on mummies from the same burial ground and from Ukok.

Tattoo on the male mummy from Pazyryk mound 5. The mummies in mound 5 are considerably better preserved compared to those from mound 2. They are dry and light, and their skin is dark and wrinkled (Fig. 3).

The man, about age 55, and the woman, about age 50, were buried in a single sarcophagus (Barkova, Gokhman, 2001).

Drawings on the male's body are situated on the shoulders, back, arms, and shanks. Especially impressive is the figure of a feline carnivore, evidently a tiger, drawn



Fig. 3. Mummy of a man. Pazyryk mound 5.

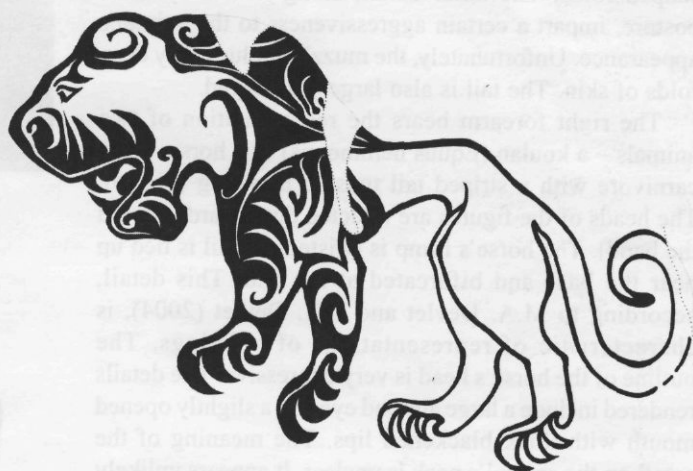


Fig. 4. Tattoo on the left shoulder of a man. Pazyryk mound 5.

on the left shoulder. A large head, shown in profile, covers the entire front of the shoulder, the fore paws descend onto the arm, and the posterior of the body, the paws, and the tail spread to the back, reaching the spine (Fig. 4).

The front part of the figure is covered with blackened designs (spirals and curvilinear triangles), and the back part is rendered as a blank outline. The tiger's hind paws appear to be foreshortened; the proportion of the fore

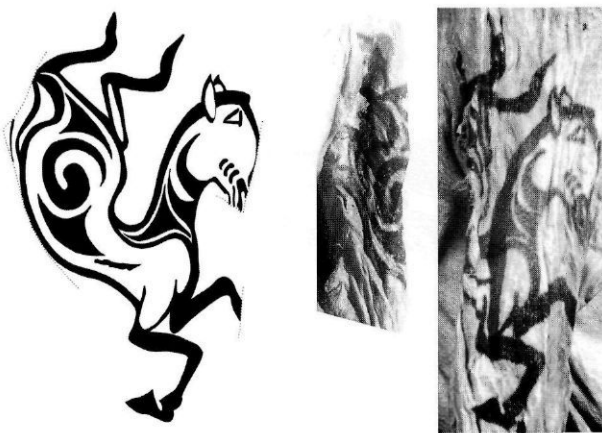


Fig. 5. Tattoo on the right hand of a man (shoulder part).
Pazyryk mound 5.

paws is unclear due to the skin-fold separating them. The peculiar feature of the drawing is that the eye is shown in profile, which is uncommon in Pazyryk art. The closest parallels to the tiger's depiction are figures of carnivores carved on the sarcophagus from Bashadar mound 2 (Rudenko, 1960: fig. 21).

On the right upper arm, a horse is tattooed. Its rump is twisted, and its hind legs are thrown upward (Fig. 5). Its upper legs and neck are filled with blackened, curvilinear figures. The lower legs and the mane are also blackened. The large leaf-shaped ears stand out, and the eye, shown in profile, is large with a high upper lid. The mouth is half opened, and the teeth are rendered as sickle-shaped folds. The latter detail, along with a dynamic posture, impart a certain aggressiveness to the animal's appearance. Unfortunately, the muzzle is blurred by deep folds of skin. The tail is also largely damaged.

The right forearm bears the representation of two animals – a koulan (*Equus hemionus*) or a horse, and a carnivore with a striped tail twisted in a ring (Fig. 6). The heads of the figures are directed downward (toward the hand). The horse's rump is twisted. Its tail is tied up near the base and bifurcated at the end. This detail, according to M.A. Devlet and E.G. Devlet (2004), is characteristic of representations of offerings. The outline of the horse's head is very expressive. The details rendered include a large almond eye and a slightly opened mouth with thick blackened lips. The meaning of the scroll on the animal's neck is unclear. It appears unlikely that it represents a strand of a mane.

Reconstructing the composition in full proved impossible, since the carnivore's figure is disturbed by a seam and only its parts are visible in the photographs. The interpretation of the scene is facilitated by its resemblance to the representation of the koulan with a twisted rump and the carnivore with a striped tail on the right forearm of the male from Pazyryk mound 2 (Rudenko, 1953: fig. 82).

Two figures are tattooed on the mummy's back and buttocks (Fig. 7). One of them, on the right side above the waist, is largely distorted by a deep fold which blurs the upper half of the representation. The remaining fragment suggests that the represented animal had four legs and a tail. Another representation, on the left buttock, is blurred by a seam and appears to have been a swastika-shaped figure, either consisting of an animal's legs and head or a composition with a griffin's head. In the photographs, this representation is less distinct compared to other figures.

Both hands of the man are also tattooed. On the bases of both thumbs, there are symmetrical figures of walking birds, the heads of which are directed toward the nails. On the right hand (Fig. 8, 2), there is a bird with a long, extended neck, small head, and thick hooked beak. The bird is shown in outline. The crest and wattle are clearly visible. The bird's body is round, the upper legs are richly feathered, the tail is large and bushy, and the rectrices are bent like horns. This bird appears to be either a heath cock or a woodgrouse (Brehm, 1937: 267 – 268).



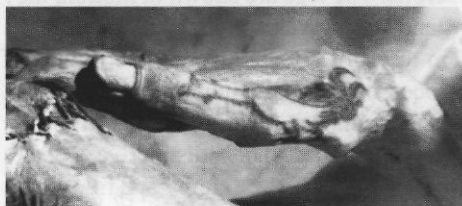
Fig. 6. Composition on the right arm of a man.
Pazyryk mound 5.



Fig. 7. Tattoos on the back of a man. Pazyryk mound 5.



1



2

Fig. 8. Tattoos on the left hand (1) and right hand (2) of a man. Pazyryk mound 5.

On the left hand, another bird is tattooed (Fig. 8, 1). The outlines of its head and neck are poorly preserved. The folded wings are marked by blackened stripes; the large tail is spread and raised. The manner in which the wings are rendered (by longitudinal stripes) is similar to that in which swimming birds are represented in Pazyryk art, apart from the fact that bushy tails are not typical of these birds.

Both shanks of the male are tattooed. On the inner part of the left one there is a composition consisting of five animals (Fig. 9). Near the knee is a protome of a

roe deer with a fore leg and an accentuated scapula. It is oriented horizontally, in contrast to the string of ungulates walking upwards, from the foot to the knee. Three figures are those of female roe deer or argali. They are similar in size and proportion, their heads are uplifted, their muzzles are rendered by distinct outlines, and their lips and horns are blackened. The four delicate legs of each animal are shown in motion. An argali is shown walking close behind.

On the front part of the man's right ankle, two ungulates, possibly goats, walking upward, are tattooed

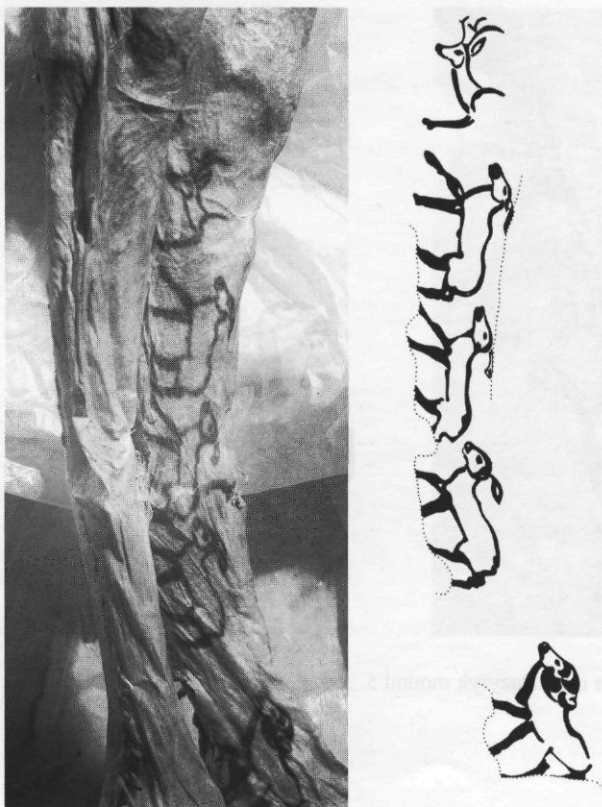


Fig. 9. Tattoos on the left shank of a man.
Pazyryk mound 5.

(Fig. 10). Their heads, horns, and necks are blackened, their legs are slightly bent, and their scapulas and thighs are shaped as scrolls. The legs are shown in motion, they are wide apart, and the hooves are distinct.

Generally, in terms of artistic manner, the figures of the animals tattooed on the male mummy from Pazyryk mound 5 are close to those on the mummies from the Ukok and Pazyryk mound 2. Their distinctive features are that the anterior parts of the figures are filled with curvilinear designs (in the tiger), and the representations are decorated with spirals and triangles. The themes, too, reveal certain parallels. The closest similarity is observed in drawings on the male mummy from Pazyryk mound 2. Parallels include figures of birds on the thumbs, figures of a koulan (?) and a carnivore on the right forearm, and strings of ungulates on the shank. The arrangement of representations is also similar, although the figures are less densely placed and do not form a "carpet design".

However, among the figures tattooed on the male mummy from Pazyryk mound 5 there are no fantastic animals such as those present in Pazyryk mound 2, Ak-Alakha, or Verkh-Kaldzhin. Possibly their role is played by the tiger.

Tattoos on the male mummy from Pazyryk mound 5 differ in style. For instance, the figures of the tiger and

the horse on the shoulders are stylized in a peculiar manner, whereas those of the ungulates on the left shank are schematic. Possibly different figures were tattooed by different artists and at different times.

Tattoos on the female mummy from Pazyryk mound 5. The arrangement differs from that in other known Pazyryk tattoos. In this specimen, the shoulders are not tattooed, despite being "the most conspicuous and convenient places for tattooing" (Polosmak, 2001: 235). The forearms, in contrast, are covered by entire compositions (Fig. 11).

On the left arm, the clawing scene is represented: a large bird of prey claws the nape of a deer or an elk (Fig. 12). The animal is collapsing, its fore legs are bent, its hind ones are helplessly stretched, and the posterior is twisted. The head, depicted on the inside of the arm, is invisible except for the ear and spade-shaped antlers. One of them has prongs, but, unfortunately, it is unclear whether these have regular outlines or are represented by birds' heads.

The representation of a bird is transected by a seam and warped by skin-folds. Large ears stand out, the beak is vulturine, and the plumage on the neck is rendered by oblique hatching. The clawed foot is distinct. The tip of the bird's tail or wing is shaped like a bird's head.

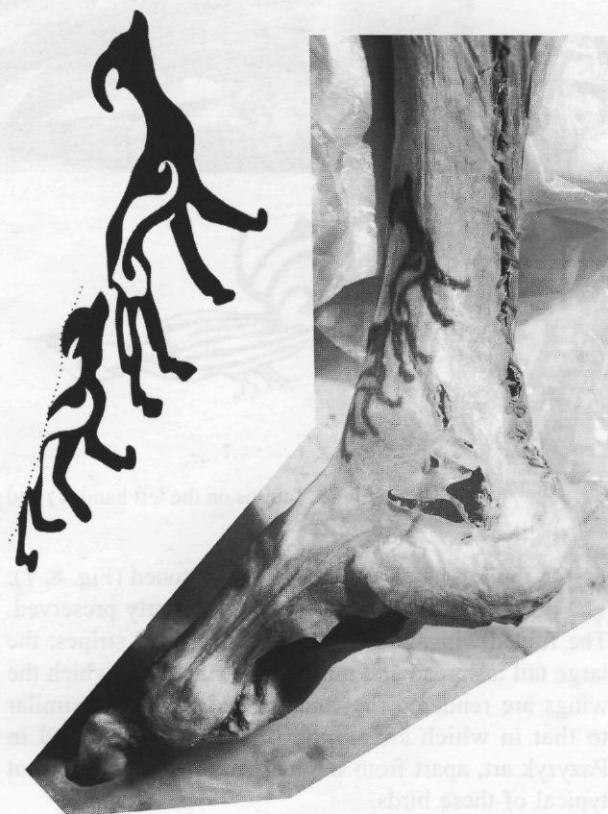


Fig. 10. Tattoos on the right leg of a man.
Pazyryk mound 5.



Fig. 11. Tattoos on the arms of a woman.
Pazyryk mound 5.

Some tattooed figures are present on the woman's hands (Fig. 13). The left thumb carries the representation of a bird with a bushy tail spreading onto the palm. The bird's head is directed toward the nail (Fig. 12; 13, 2). Judging by a crest and a small blackened wattle, the bird is a rooster. On the left ring finger, a circle with a vegetable composition (a lotus bud with two sepals) attached to it is tattooed. In the photograph of the adjacent phalanx of the same finger, a cross is visible, but it is paler than the other tattoos (Fig. 13, 2).

On the right ring finger, a figure composed of opposing trefoils is drawn (Fig. 13, 1). While such trefoils are common in the designs of the Pazyryk felts and wooden and leather artifacts, the vegetable motifs have never before been observed in tattoos.

On the woman's right forearm, from the elbow to the wrist, a complex composition consisting of several figures is tattooed. It depicts two tigers and a leopard attacking a deer and an elk (Fig. 14).

Above, there is a deer with enormous antlers, and a tiger who has grasped it by the antlers and fore leg, and is ready to reach at its throat. The deer is shown in profile; all its legs are well visible, and the hooves are distinct. Its head is crowned with a huge bent antler with several

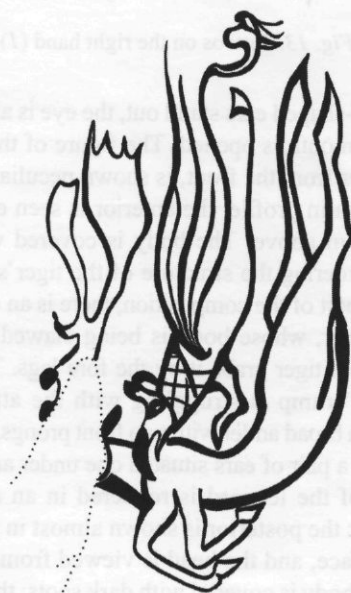
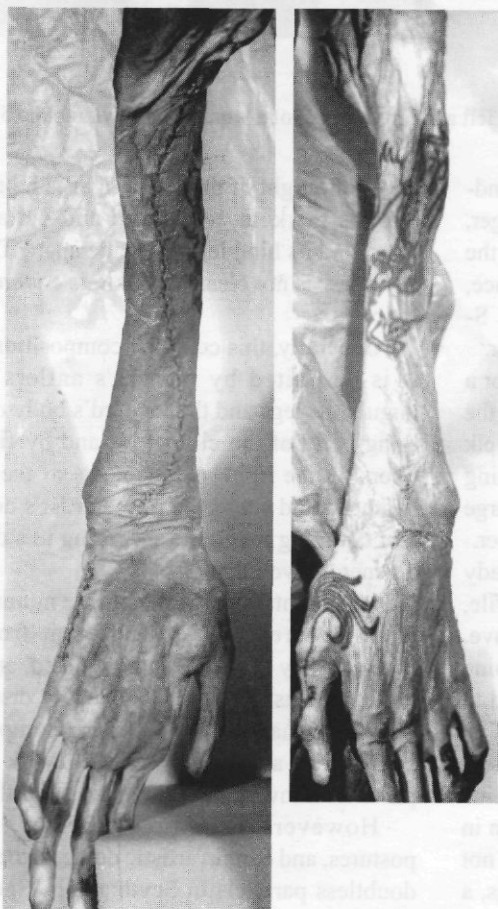
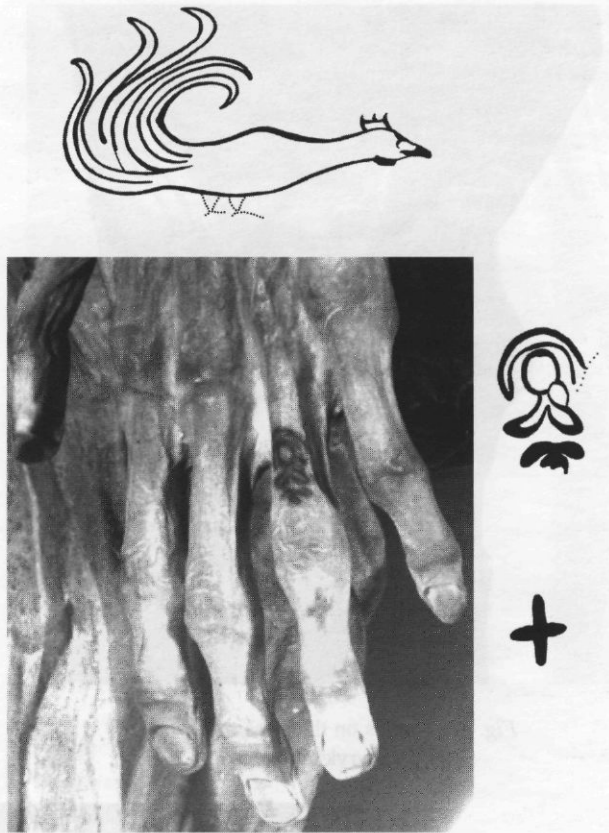


Fig. 12. Tattoos on the left arm of a woman. Pazyryk mound 5.



1



2

Fig. 13. Tattoos on the right hand (1) and left and left hand (2) of a woman. Pazyryk mound 5.

prongs. Two leaf-shaped ears stand out, the eye is almond-shaped, and the mouth is opened. The figure of the tiger, attacking the deer from the front, is shown peculiarly: the posterior is drawn in profile, the anterior is seen en face, and the head from above. The body is covered with S-shaped lines, rendering the structure of the tiger's hair.

In the lower part of the composition, there is an elk or a spotted fallow-deer, whose body is being clawed by the leopard, whereas a tiger grabs it by the fore legs. The elk with a "twisted" rump is struggling with the attacking carnivore. It has a broad antler with two front prongs, a large almond eye, and a pair of ears situated one under another.

The figure of the leopard is rendered in an already familiar manner: the posterior is shown almost in profile, the anterior en face, and the head is viewed from above. The carnivore's body is covered with dark spots; the spine is accentuated by double spots running from the head to the scapulae. The elk's curved back and the outline of its antler are rendered by a single line. It is not quite clear how the carnivore's left paw was represented: its outline corresponds to that of the elk's neck, but is not shown in full. Generally, the drawing around the elk's neck is not quite clear. Between the ungulate's head and fore legs, a paw-shaped figure is seen on the photograph, and above it, an area covered with dots.

To the right of the elk, a tiger is represented. Its lithe body is markedly elongated and delimited by smooth lines, and its hind legs are wide apart. The position of its right paw is not clear. The skin is covered with S-shaped stripes.

Generally, this complex composition appears closed. It is delimited by the elk's antlers on top, by the ungulates' legs and the leopard's body on the left, by the lying body of the elk below, and by figures of the two tigers on the right. All elements of the composition are balanced and subjected to the artist's design, suggesting that tattooing was done according to a draft or at least to a general layout.

Representations on the female mummy from Pazyryk mound 5 are markedly different from other known tattoos. They are differently stylized, and do not include typical fantastic figures. Especially distinct is the tattoo on the woman's right forearm: compositions of such complexity are unknown in Pazyryk art, nor are any parallels known in the Scythian animal style at large.

However, in terms of themes, the carnivores' postures, and certain artistic devices, these drawings have doubtless parallels in Scythian art. Specifically, figures of carnivores in which the front part of the body is shown en face, and the back part in profile, are seen in

representations from the mound group of Sem Bratiev (Artamonov, 1966: 120, 122). Feline carnivores, depicted in the same postures as in tattoos, are present among the zoomorphous images on the saddlecloths from Pazyryk mounds 1 and 2 (Rudenko, 1948: pl. V; Griaznov, 1950: fig. 35, 37). The tiger's fur is rendered by separate S-shaped stripes in certain works of art from the same mounds of Pazyryk and from Ak-Alakha-3 mound 1 (Griaznov, 1950: fig. 35, 36; pl. XIII; Rudenko, 1948: pl. VI; Polosmak, 2001: fig. 141). The artist was undoubtedly familiar with the Pazyryk artistic style. However, it appears as though this tattoo was made in a different manner.

Other available parallels seem to point in the same direction. The style in which the tiger's fur is rendered is the most similar to that seen on double golden plaques representing struggling animals from burial 2 at Xigoupan, Ordos (Bunker et al., 1997: fig. A 60). Golden plates shaped as fantastic animals, similar to the famous "horse-griffins" tattooed on Pazyryk mummies, were found in the same place (the similarity extends to S-shaped stripes rendering fur) (Kovalev, 1999: fig. 2, 3). The same manner of representing fur is seen on a bronze figurine of a tiger with hieroglyphs, inlaid with golden S-shaped stripes (Scarpari, 2003: 2 – 3). These artifacts were made in China and date from the late 4th or 3rd centuries BC, and the Western Han period, respectively. The posture of the lower tiger from the tattooed composition resembles that of a carnivore represented on the mirror from Ilmovaya Pad (Rudenko, 1962: fig. 65 b), suggestive of Han iconography (Scarpari, 2003: fig. 54 – 55; James, 1979: fig. 6; Hartman-Goldsmith, 1979: fig. 4). The representation of the leopard is characterized by a combination of two features: the front part of the body is shown en face, and the spine is accentuated. No other representations in this manner are known in Pazyryk art. The same combination is present in a ceramic plaquette – a fragment of a 3rd century BC relief composition from Northern China (a random find) (Mongolie..., 2003: 207).



Fig. 14. Tattoo on the right arm of a woman. Pazyryk mound 5.

Overall, the tattooed composition resembles representations on bronze plaques of the "horsemen group" of Dien Culture of Upper Yangtze (Deopik, 1979). These artifacts, representing one of the varieties of the animal style, are characterized by complex clawing scenes involving many animals, by a realistic manner, and by the presence of cartouches delimiting the compositions. All these features are present in the scene tattooed on the female mummy from Pazyryk mound 5.

Thus, the tattooed composition in question differs from "classical" Pazyryk counterparts and is possibly related to Chinese art. Their parallels with Gorny Altai are later than the large Pazyryk mounds are traditionally believed to be, but appear to be contemporaneous with Chinese artifacts from Pazyryk mounds 3, 5, and 6 (3rd century BC) (Bunker, 1991; Chugunov, 1993).

Conclusion

The addition of newly discovered representations has doubled the number of known tattooed Pazyryk mummies. Importantly, all preserved mummies from the large Pazyryk mounds are tattooed. Their faces, however, are not.

The newly discovered representations suggest that the Pazyryk tattoos were more diverse than was previously believed. Specifically, fantastic animals, which were earlier viewed as the principal characters of Pazyryk mythology, are absent on certain mummies. Representations on the mummies from Pazyryk mound 2, Ak-Alakha, and Verkh-Kaldzhin share stylistic peculiarities, are based on the same characters, and can be viewed as a homogeneous group. The group's distinctive feature is the presence of fantastic "horse-griffins".

Tattoos from Pazyryk mound 5 are markedly different from others. While those on the male mummy display continuity with the tradition represented in Pazyryk mound 2, those on the female mummy fall outside traditional Pazyryk art. Parallels are found in various regions of China and support the view that the chronology of the large Pazyryk mounds must be revised.

According to dendrochronological data, the earliest among the four mounds with tattooed mummies is mound 2. About two decades later, Ukok mounds were constructed, and 26 – 28 years after them, Pazyryk mound 5 (Sljusarenko, 2000: 128; Vasiliev, Sljusarenko, Chugunov, 2003: 25; Marsadolov, 2003: 94). Consequently, the four tattoos of the "fantastic" series are associated with relatively early mounds.

The specificity of tattoos in the mummies from Pazyryk mound 5 may be due to its late date. More importantly, it contains Chinese artifacts, providing evidence for a relation between the cultures.

The materials discussed are a rich source of information, and their interpretation has only begun. While the present authors have focussed on the description, they ventured to put forward certain hypothesis. Additional time and effort are needed for more reliable conclusions.

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