

*Asesorías y Tutorías para la Investigación Científica en la Educación Puig-Salabarría S.C.
José María Pino Suárez 400-2 esq a Lerdo de Tejada, Toluca, Estado de México. 7223898475*

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TÍTULO: Imágenes de carros en los petroglifos de Karakiyasay.

AUTORES:

1. Olesya A. Kashchey.
2. Leonard F. Nedashkovsky.

RESUMEN. El artículo está dedicado al estudio de imágenes de vehículos de ruedas sobre petroglifos de Karakiyasay. Este complejo con pinturas rupestres se encuentra en el territorio de Uzbekistán, en la zona fronteriza con Kazajistán, y es un monumento único, arraigado en la edad de bronce. En el curso de la investigación de campo, utilizando tecnologías digitales, identificamos 6 imágenes de carros y 1 imagen de un carrito. El análisis de imágenes de vehículos con ruedas, teniendo en cuenta las características de diseño, las imágenes de todos los participantes en las composiciones de múltiples figuras y la estilística de imágenes de animales, realizada en el artículo, nos permite caracterizar completamente las características de cada vehículo y el contexto de su imagen.

PALABRAS CLAVES: Petroglifos, edad de bronce, Karakiyasay, carretas, carros.

TITLE: Images of carts on the petroglyphs of Karakiyasay.

AUTHORS:

1. Olesya A. Kashchey.
2. Leonard F. Nedashkovsky.

ABSTRACT: The article is dedicated to the study of images of wheeled vehicles on petroglyphs of Karakiyasay. This complex with cave paintings is located in the territory of Uzbekistan, in the border area with Kazakhstan, and is a unique monument, rooted in the Bronze Age. In the course of field research, using digital technologies, we identified 6 images of cars and 1 image of a shopping cart. The analysis of images of vehicles with wheels, taking into account the design characteristics, the images of all the participants in the compositions of multiple figures and the stylistics of animal images, made in the article, allows us to completely characterize the characteristics of each vehicle and the context of its image.

KEY WORDS: petroglyphs, bronze age, Karakiyasay, carts, chariots.

INTRODUCTION.

More than 150 monuments with rock paintings are known on the territory of Uzbekistan. A special place among them is occupied by the rock carvings Karakiyasay, located on the southern slopes of the highest extremity of the Karzhantau ridge, 17 km from the city of Gazalkent in the Bostanlyk district. The toponym "Karakiyasay" in translation means "the river of the black steep slope, the slope", which really reflects the main features of the natural-geographical appearance of the monument, the rocks of which are often covered with dark green, almost black moss.

Petroglyphs are recorded on both banks of the Karakiyasay River: on the right bank ridge they are located at an altitude of 1700 to 1900 m above sea level and make up about 100 stones with images, on the left bank - individual stones with patterns are found in the area of the Kul pass at an altitude of 1900 m above sea level and in the pre-peak belt at altitudes up to 2600 m above sea level. The main cluster, the "core" of the monument, is located at an altitude of 2100 to 2300 m above sea level.

In addition to animal images, anthropomorphic images, multi-figure plot compositions, symbolic signs, inscriptions on the Arabic graphics, 7 unique images of wheeled vehicles have been fixed, which are of special interest.

This complex with rock paintings was opened in 1974, and in 1980-1983 was investigated by M.M. Khuzhanazarov, who recorded 90 stones with 1015 images [M.M. Khujanazarov, 2011] and attributed to the bronze epoch the images of chariots, bull-tour, and also mountain goats that are found next to these petroglyphs (similar in style, density of sunburn and plot), warriors (archers), scenes of hunting and ritual dances [M.M. Khuzhanazarov, 1995]. In the article "Chariots of Karakiyasay", published in 1990, M.M. Khuzhanazarov first presented information on the five chariots, indicating the impossibility of singling out any groups due to their small number, and dated images the second half of the 2-nd - the beginning of the 1-st millennium BC. [M.M. Khuzhanazarov, 1990].

DEVELOPMENT.

Modern computer technologies have made great progress in recent years, therefore, with the help of digital photography and high-quality optics, we were able to identify two previously unknown carts among the petroglyphs of Karakiyasay, to document in more detail the technological features of images of the already known chariots / carriages, their context, to reveal presence of drivers and more clearly identify animals harnessed or not harnessed to wheeled vehicles, and their stylistic features. As a result, we obtained primary data, which have a discrepancy with the investigations of M.M. Khuzhanazarov. The chariots of the first explorer were "torn out" from the context (anthropomorphic images and animal figures were not taken into account alongside).

In the course of computer processing of photographs, we identified a chariot-two-wheeled car, depicted in profile, although on the drawings and in the description of M.M. Khuzhanazarov all the carriages are represented "in the plan" [M.M. Khuzhanazarov, 1990]. The structural features of the

chariots / carriages, their arrangement on rock canvases were corrected. We also took into account the typology of wheeled transport in Eurasia, proposed by V.A. Novozhenov [V.A. Novozhenov, 2012]. In his monograph on the map of the distribution of monuments with images of carts Karakiyasay is indicated, but typologically the monument is not defined and its materials were not considered. This circumstance was the second important point in the study proposed by us. Thanks to the accumulated experience in the study of Asian carriage s, today we have the opportunity to classify, albeit a few, but significant chariots / carriages of Karakiyasay.

Methods.

The complete cycle of studying petroglyphs as archaeological objects consists of five successive stages: searching for petroglyphs, fixing images, describing the complex, analyzing and interpreting. Adhering to the method of non-contact photographic fixation of petroglyphs and further processing of images with the help of graphic editors, using the capabilities of modern digital photography, as well as gps navigation, we managed not only to reveal previously unknown rock paintings, but also to correct the already published petroglyphs of Karakiyasay. As practice has shown, this method of work is the most reliable when documenting petroglyphs, and, importantly, safe for a monument.

In this paper, a comprehensive approach is used, including analysis of plot images of images [A.A. Formozov, 1987] and their stylistic features [Cher, 1980]. In this regard, for the most complete representation of the content information of petroglyphs with the image of wheeled vehicles, we used the following description algorithm:

- Design features of the vehicle.
- Presence of the driver, his description.
- Availability, description of draft animals
- Context, the definition of the figures of all participants in the plot composition.

- Features of stylistics.

Using a comparative typological method, analyzing and synthesizing the obtained results, it was possible to determine the types of wheeled transport of the Karakiyasay petroglyphs and to compare the obtained data with the rock carvings of Middle and Central Asia, as well as some other regions known for publications [H.-P. Francfort, 1998; E. Jacobson-Tepfer, 2012; M.A. Littauer, 1977; V.A. Novozhenov, 2012].

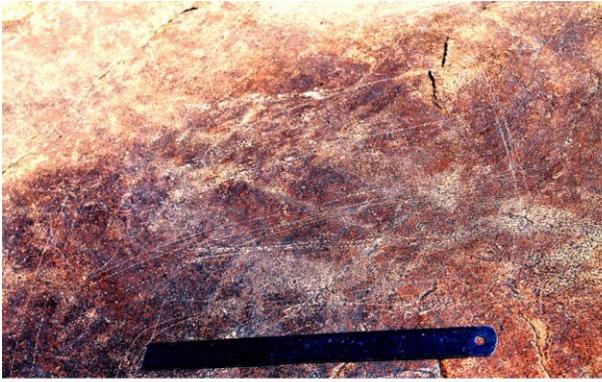
Results.

Images of carts and chariots - a popular story that is spread throughout Eurasia from Scandinavia to India and northwest China. It is found not only on petroglyphs, but also on ceramics, seals and other objects. This is one of the few plots that can be dated in a chronological framework narrow enough for primitive archaeology [Ya. A. Cher, 2006].

Macrotopography of Karakiyasay indicates that on the left bank of the river five stones with the image of six carriages are located territorially in only one of the clusters of rock outcrops, a few meters apart, and in other numerous groups of stones are not found. On the right bank of the Karakiyasay we found only one image of wheeled vehicles. At the microtopographic level, these petroglyphs are part of the plot compositions and are often combined with the images of a mountain goat, a man with arms up or armed with a bow. An important element of the compositions is the solar signs in the form of a wheel with a different number of spokes, which are also fixed on the stones with images of wheeled vehicles. Let's consider in more detail all seven carts of Karakiyasay, taking into account the available data on the five chariots in the study of M.M. Khuzhanazarov (Figure 1.5). According to the researcher, all the chariots of Karakiyasay are depicted "in terms of", like the animals harnessed in them, the driver is shown in one case.

Fig.1. Photographs and drawings of images of carts 1-4 (1-4), drawings of carts (5) by M.M.

Khuzhanazarov [M.M. Khuzhanazarov, 1995].



1



2



3



4



1



3



2



4



5

5

Carriage 1 (Figure 1.1). Chariot with a rounded platform, without a charioteer (it is possible that he was not identified because of poor preservation of the image). The entire composition is presented in a planned projection. The wheels have four spokes, a method of harnessing animals with a straight drawbar and a cross yoke attached to the neck of animals. Probably these are two horses or a bull and a horse - it is difficult to accurately identify the harnessed animals in this case because of the poor preservation of the petroglyph. The draft animals are depicted in a realistic manner, with their backs to each other. The style of the image is silhouette. Such chariots were found in the Altai, Tuva and Western Tien Shan [V.A. Novozhenov, 2012].

Carriage 2 (Figure 1.2). The cart is depicted in a planned projection, with a D-shaped platform, a straight drawbar, which is fixed on the nubs of two draft animals (horses) with the help of a crossbeam. The wheels are transmitted by a continuous knockout. The charioteer is depicted in a planned projection, standing on the platform, arms stretched out to the sides, rays are seen in the region of the head. The image of the anthropomorphic image was not previously revealed in the study of M.M. Khuzhanazarov [M.M. Khuzhanazarov, 1990] does not exist (Figure 1.5.2).

Stylistics of the image of animal silhouettes. Similar images were found in Mongolia, Kazakhstan and Gorny Altai.

The first two carriages are carved on one stone surface. Together with them, images of a mountain goat, a man with upturned hands, a solar sign and several obscure figures were recorded.

Carriage 3 (Figure 1.3). The chariot is presented in a planned projection. A feature of this design is a rigid fixation of the crossbar-yoke and drawbar at a right angle using special spacers. Such reinforcing parts were used in the design of the fastest and most manoeuvrable chariots for added strength in sharp turns and for greater driving safety. The vehicle has a wide wheelbase, four spokes in wheels and a D-shaped platform. The image is realistic. The charioteer is shown as if hovering behind a chariot, also depicted "in plan". The draft animals are shown with their backs to each

other, externally identified as images of horses. Near the plot composition of the cart depicts a mountain goat, and on the adjacent plane of the stone - two anthropomorphic images and three figures of animals (two of them are mountain goats). Such chariots are geographically located in Mongolia, Tuva (without a charioteer) and in the Pamirs.

Carriage 4 (Figure 1.4). The image of a gigolo in the profile projection (in MM Khuzhanazarov it is described as depicted in the plan). The driver is shown in a dynamic pose with his hands up. The draft animal is one, depicted in a profile projection. In the figure of the vehicle 4, belts (or bands) for the harness of two animals are clearly distinguished, as if painted to a previously created image of a horse, which is externally confirmed by the varying degrees of tanning of the images and the imposition of the details of the horse harness on the figure of the animal. A later creation of the chariot probably explains the presence of one animal (there simply was not room for a second one on the stone canvas). The stylistics of the image of the animal is silhouette, the ears, the mouth are worked. This type of carriage is well known in China, beginning with the Han dynasty [V.A. Novozhenov, 2012].

Carriage 5 (Figure 2.1). An unearthed chariot with a crossbar of a drawbar and possibly harness belts, with a D-shaped platform and four spokes in wheels. The cart is depicted "in plan", the charioteer is absent. Next to the depiction of the carriage is a schematically depicted horse in the profile projection, a sign of the cross, and more to the left, a mountain goat. Similar images of chariots are widespread in Eurasia, found on petroglyphs of Italy, Scandinavia, Transcaucasia, Western Tien Shan and other regions.

Fig. 2. Photographs and depictions of images of carts 5-7 (1-3), as well as scenes of pursuit by an archer of a mountain goat with the image of a wheel (4).



1



2



3



4



Carriage 6 (Figure 2.2). Refers to the type of cart. The vehicle-platform frame structure with disk wheels (contour knockout) of small diameter on long axes, is depicted in the planned projection. The driver is missing. Animals are depicted schematically, in a profile projection, in the form of a chain following one another. Perhaps the first depicts a mountain goat, followed by an image of a horse. Stylistics of the story composition is linear. The carts of this subtype are depicted in the Kazakh hilly area, Tarbagatai, Inner Tien Shan and Altai, are widely represented on the petroglyphs of Armenia [V.A. Novozhenov, 2012].

Carriage 7 (Figure 2.3). Refers to a group of chariots. The image of an unloaded cart, without a yoke with a rounded platform, four spokes in wheels. On the stone canvas, simultaneously with the image of wheeled vehicles, there are two scenes of hunting with the participation of people armed with bows, pursuing mountain goats; it is indicative that one of these scenes depicts a wheel (Figure 2.4). Similar images of chariots are found in the Dzungarian Alatau, the Chu-Ili Mountains, Tuva, the Altai and Mongolia.

In the monograph, V.A. Novozhenov data on the wheeled Karakiyasay transport were not given [10]. In this regard, based on the classification proposed by the author of the rock carvings of the carts [V.A. Novozhenov, 2012], we determined the types of all the images of the Karakiyasay described by us, based on external similarity to the ancient crews known in history (Table 1).

Table 1. Types of Karakiyasay carts.

Sequence number of the picture of the cart	Type of the Carriage	Subtype, variant of the Carriage
Carriage 1	Chariot	Subtype 4
Carriage 2	Two-wheeled chariot	Subtype 5, variant 5.1
Carriage 3	Chariot	Subtype 5, variant 5.4
Carriage 4	Bicolor in profile projection	Subtype 4
Carriage 5	Chariot	Subtype 2, with oxbow
Carriage 6	The cart (the cart-platform)	Subtype 2
Carriage 7	Chariot	Subtype 2, without oxbow

Discussion.

The cart, and especially the chariot, as the totality of the most advanced achievements of ancient societies, was evidently perceived by groups of people unfamiliar with this invention as a "miracle" and seemed to be a manifestation of divine and supernatural forces [V.A. Novozhenov, 2012]. Perhaps, therefore, the chariot was a necessary attribute of the supreme deities in the ancient world, providing a link between the world of mere mortals and the world of the celestials.

These representations are also reflected in petroglyphs in the form of sun-headed anthropomorphic chariots, one of which is represented in the image of chariot No. 2 of Karakiyasay (Figure 1.2) and has analogues among the petroglyphs of Saymaly-Tash, Tamgaly, Eshkiolmes and other monuments of Central Asia. This combination of the two oldest images - the chariot and the sun-headed anthropomorphic creature - cannot be accidental, and probably testifies to their mythological intimacy [V.A. Novozhenov, 2012]. Given this observation and the stylistic feature of the images, we believe that the chariots No. 1 and No. 2 (Figures 1.1-2) are the oldest images of wheeled vehicles on petroglyphs of Karakiyasay. The remaining 5 carriages (Figures 1, 3-4, 2, 1-3) of later performance, both in the style of images and context, and in terms of design features.

Summarizing, images of carts of the rock carvings of Karakiyasay have different technical characteristics and details, which allows us to speak about the chronological range during which these vehicles were modernized and found their reflection on stone canvases. We assume that images of Karakiyasay carts can be dated in advance by the second half of the 2nd millennium BC. - the beginning of the 1st millennium AD.

CONCLUSIONS.

Images of wheeled vehicles, concentrated as a rule, in the most sacred corners of high-altitude temples under the open sky, probably had a great cult significance, so they are so laconically "coexist" with their surrounding animal figures, anthropomorphic images and solar symbols. The

recorded changes in the combination of images, details and context of multi-figured compositions depicting carriages show not only chronological differences, but also differences in knowledge and representations of ancient collectives.

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DATA OF THE AUTHORS.

1. **Olesya A. Kashchey.** Kazan Federal University. Email: global@prescopus.com

2. **Leonard F. Nedashkovsky.** Kazan Federal University. Email: leonnedashkovsky@mail.ru

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