

ABOUT THE OLDEST STONE-WORKING WORKSHOP OF KARAKUDUK-USTYURT PALEOLITH

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Abstract

The article uses modern technical and typological materials from the Karakuduk site in Ustyurt and the “deflation level” method used by archaeologist Derevianko and his colleagues to study the industry of the Argalant-1 site in Mongolia. As a result, the artifacts of the monument, first of all, were divided into three complexes according to the degree of preservation, and then, their technical and typological study was carried out and cultural and chronological divisions were identified. The first complex is attributed to the early Paleolithic. Artifacts of this complex suffered a strong deflation of surfaces. The complex, which we attributed to the Middle Paleolithic, has a desert tan of artifact surfaces and is culturally included in the bifacial facies. The materials of the third complex have only an external patina and look more recent, and we attributed them to the Late Paleolithic.

Keywords: Ustyurt, workshop, chipped, Karakuduk, biface, desert tan, deflation, patina, Barsa-Kelmes, Levallois, flake, heavy stone hammer.

The Borsa-Kelmes basin in Ustyurt is an area rich in stone-working workshops of the Paleolithic period. Interesting monuments such as Esen-2 and Karakuduk have been identified from depressions. The Karakuduk well site is located on the northern slopes of the Barsa-Kelmes depression, 1.5-2 km north of the well of the same name (fig. 1). Workshop it was discovered by E.B. Bijanov in 1978 [2, 71]. Findings 200x100 sq. scattered on the square. There are more than 900 items in the collection. Half of them are composed of strongly silicified limestone slabs with some negatives, and the other half are formed of igneous rocks. It is believed that the industry of Karakuduk consisted of two types - tiles with bifacial edges and uchirindi, broken from them and with small retouches [2, 71].

Karakuduk is undoubtedly a workshop. Opinions that the raw material was brought here from Esen-2 [2, 68] are erroneous [4, 78]. Although the level of preservation of the surface of the stone objects found in the monument is different, E. Bijanov dated all of them to the Acheulean period [2, 71]. Also E. Bijanov combined the sites of Karakuduk, Esen-1 and 2 into a single culture. According to V.L. Vishnyatsky, it seems that Karakuduk contains materials from various non-ancient periods, from the Middle Paleolithic period [4, 78].

Thus, Ustyurt's most interesting and, undoubtedly, the oldest find of the region - the materials of the Karakuduk workshop - have not been studied enough, despite the fact that 45 years have passed since the discovery of the materials. Based on this, dividing the materials of the Karakuduk workshop into cultural-periodic complexes according to the degree of preservation and processing techniques, as well as determining the place of the industrial technocomplexes here in the Paleolithic of Uzbekistan are the main goals and tasks of this research.

Technical and typological research was carried out on the stone objects collected from the Karakuduk site, which was found in the same cave as the Esen-2 workshop (distance is 60 km). Stone objects are small in size, in rare cases their height exceeds 10 cm (mostly 5-10 cm), and they are made of highly silicified tiles with an average thickness of 1.5-2 sm. In addition, materials were divided into complexes according to the level of preservation, and in this The method of "deflation rate" developed by A.P. Derevyanko and his staff was used. As a result, first of all, according to the level of preservation of materials, it was divided into cultural-periodic complexes for the first time. It was found that there are three such complexes.

The first complex of the Karakuduk workshop included artifacts with strongly deflated surfaces, but typologically legible (86 artifacts). The stonework of this complex is as smooth as the natural broken tiles of highly silicified limestone scattered in the workshop. The second complex (703 artefacts) of the Karakuduk workshop included stone objects with a sunburned exterior (pustynnyy zagar). Among the nuclei of the 2nd complex of the Karakuduk workshop, there are also those that have been turned into weapons.

Since the Karakuduk stone workshop is divided into three chronological complexes, it can be said that primitive people visited this place at least three

times in different phases of the Old Stone Age. As a result, they reworked the stone objects left by their ancestors, in particular nuclei. It is interesting that the objects that previously served as nuclei were also reshaped and used as cores. As a result, flint negatives with two types of patination were created on the working surfaces of the nuclei. Of the macro weapons, 59 bifaces and only 3 cleavers were identified in the monument. Some of the cleavers are close to classic examples. The bifaces are machined with a heavy hammer and have asymmetrical almond-shaped and ovoid shapes. Most of the bifaces of the collection are partially processed.

Thus, at first glance, the stone objects of the Karakuduk-2 complex seem to be distinguished from other complexes only by the degree of preservation, i.e. by being burnt in the sun (*pustynnyy zagar*). But the industry of this complex is also technically and typologically different. First of all, it was determined that the technique of bifacial processing of stones is unique to the industry of the 2nd complex of Karakuduk. Among the ordinary weapons of the complex, as in the first complex, scrapers and toothed elements predominate, but in most cases these weapons were bifacially processed. Also, it was found that all existing bifaces in the workshop belong to the 2nd complex.

44 artifacts were included in the 3rd complex of the Karakuduk stone-working workshop industry. Although this complex is small in number, its level of preservation is relatively new and less corroded, consisting only of bright patinated stoneware. Scrapers occupy a large place among the stone tools of the 3rd complex of the Karakuduk site. They are mainly formed using semi-vertical courses on the long sides of silicified limestone slabs.

The following characteristic features of the Karakuduk industry were identified:

1. The Karakuduk stone processing workshop was divided into three chronological complexes according to the level of preservation of materials and processing techniques: complexes of the early - middle - late Paleolithic period. The artifacts of the Early Paleolithic complex are distinguished by their surface lustration, the objects of the Middle Paleolithic complex are sunburned, and the stone industry of the Third Complex is characterized by a fresh and bright appearance.
2. It was determined that the collection was a workshop specializing in the production of bifaces, since bifaces formed the basis of the Middle Paleolithic complex of the Karakuduk workshop. It was also proved that bifacial

technologies were widely used in the production of other ordinary stone weapons in this complex of Karakuduk. 3. Despite its small number, the third complex of the Karakuduk workshop was found to belong to the Late Paleolithic according to the level of preservation. 4. In all three complexes of Karakuduk, a shortage of raw materials was found in stone processing according to the dimensions, and this was observed when the masters of the second and third complexes picked up and reprocessed stone objects that were earlier or older than themselves. This situation led to the appearance of double and triple patinized stone artifacts.

An important factor in ranking the industries in question is their appearance. Geomorphological condition of the materials and paleogeographic data The upper part of the Karakuduk workshop was never covered with deposits of later periods. Such findings are very characteristic for the desert zones of Central Asia and Kazakhstan. In this case, the exceptional smoothing and patinization of the surface of the materials belonging to the Muste and earlier periods is considered one of their distinguishing features. Strong polishing and deep patinization are also characteristic of the Acheulean and Musta collections of Central Kazakhstan, but the Late Paleolithic materials are distinguished by the relatively newer surface preservation [7, 204]. The smoothness of the surfaces of stone objects is also characteristic of the Karatov Early Paleolithic materials [1, 39]. The first complex of the Karakuduk site was dated to the Early Paleolithic period, primarily according to the level of preservation, that is, due to the strong deflation of the materials. However, the small number of materials does not allow us to think broadly about the cultural-periodic interpretation of the complex.

Bifaces of the second Middle Paleolithic complex of the Karakuduk workshop Krasnovodsk [5, 134; 6, 21; 3, 47] has similarities to such materials of the peninsula.

Complex 3 at the Karakuduk workshop can be dated to the Late Paleolithic period and may be chronologically close to the materials from the Esen-2 workshop. But the small number of materials related to this complex does not allow us to think as widely as above. Complex 1 of the Karakuduk workshop can be dated to the Early Paleolithic, Complex 2 to the Middle Paleolithic, and

Complex 3 to the Late Paleolithic. So, the Karakuduk stone workshop is chronologically a monument of different stages of the Paleolithic period.

According to the available materials, it can be said that the site of Karakuduk was first occupied by early Paleolithic hominids. During this period, the strongly silicified limestone rocks on the shores of Karakuduk were completely disintegrated and broken into small pieces. But by this time, the limestone fragments of the cave had broken into such small pieces that, in most cases, they were limited in their ability to be polished and retouched in the usual way. However, due to the lack of other deposits of better quality raw materials in the vicinity, it becomes a vital necessity to use the processing methods based on the parameters of the raw materials in Karakuduk, and not the technical traditions of the primitive craftsmen who visited the site. In the early Paleolithic period, Karakuduk was literally a workshop. The working edges of stone tools were processed using unifacial and later bifacial directions. But the early Paleolithic people who first visited the workshop did not know how to make bifaces and bifacial processing. Therefore, in the ancient complex of Karakuduk, stone tools were made using unifacial directions. Scrapers, serrated weapons, ankosh, choppi, etc., were made from strongly silicified limestone tiles in the workshop. they made weapons and took them to their places. However, it can be said that the hominins wandering around the workshop area were constantly searching for the largest and thickest among the thousands of small tiles for lightning. Thousands of years later, Karakuduk is visited by a completely different physical type of primitive man (probably Neanderthals).

Thus, the new interpretation of the Esen-2 and Karakuduk finds, located in the Borsa-Kelmes basin, opened new pages in the history of Uzbekistan. The Karakuduk (Complex 2) and Esen-2 sites enriched the history of Central Asia with completely new specialized workshops. Esen-2 and Karakuduk (Complex 2) workshops, specializing in the production of bifaces, were added to the Stone Age stone-working workshops of Central Asia. But this specialization is limited to the needs of the manufacturing community, not for the exchange of goods, as in the Neolithic period.

According to the available materials, it can be said that the blackcurrant was originally appropriated by early Paleolithic hominids. During this period, the heavily silicified limestone cliffs of the blackcurrant coast were completely

broken up and cut into small pieces. By this time, however, the oxactox fragments of the bat had disintegrated into such small pieces that in most cases the possibilities of lightning and retouching them as usual were limited. However, due to the absence of other deposits of higher quality raw materials nearby, the use of processing methods arising from the gabarites of raw materials in Karakuduk, and not the technical traditions of the primitive masters who visited the Find, becomes a vital necessity. In the early Paleolithic period, Karakuduk was a literal workshop. The hominids who visited here were not nucleuses from the workshop, but those who visited to pick up fuel for making stone weapons and ready-made weapons made from them. As in other literal workshops, there was no way to take the nuclei or their bodies from here. It was only possible to break a couple of fuel from the gabarite of raw materials available in the area. It was also impossible to retouch the edges of the tiles, the thickness of which comes from an average of 2-3 cm. In a situation where it is impossible to break and retouch thin tiles on Spruce, Homo erectus who visited here were able to find a solution to the issue. It was they who began to sharpen the edges of the silicified limestone tiles using small grooves. Therefore, the working edges of stone weapons present in complexes were processed using unifacial and later bifacial orientations. But people of the early Paleolithic period who initially visited the workshop did not know how to make bifas and process bifacial. That is why stone weapons in the ancient complex of Karakuduk were made using unifacial orientations. From strongly silicified limestone tiles in the workshop, scrapers, toothpicks, anchors, chopsticks, etc. Those who made weapons and took them to their places. However, it can be said that hominins, wandering on the territory of the workshop, were in constant search of larger in size and thicker among thousands of small tiles for lightning.

After thousands of years have passed, blackberries are visited by a completely different physical type of primitive man (possibly Neanderthal people).

By this time, the silicified limestone tiles on the workshop area had become more crumbly due to natural influences, and work was more difficult to find a piece suitable for processing. Even so, the workshop will be occupied for the second time by primitive people, and stone work will continue here. Despite the refinement of technological experiments, the discovery of a gabaritic stone suitable for processing in the workshop toboro continued to struggle. As a result,

the reanimation or reworking of hollow stones and weapons abandoned by the ancient Homo erectus is widespread. The shortage of raw materials (according to gabariti) forced the discovery and processing of abandoned items by the early ancestors. But people of the second period who visited the workshop had technological advantages over the first. The man of this period was aware of bifacial technologies. Turning tiles with an average thickness of 2-3 cm into stone weapons through bifacial orifice brings great opportunities.

Thus, a new interpretation of the Find of Karakuduk, located in the Borsa-kelmes swamp, opened new pages in the history of Uzbekistan. Karakuduk (1-3 complex) the find enriched the history of Central Asia with completely new specialized workshops. Among the Stone Age stone processing workshops of Central Asia, blackcurrant (Complex 2) workshops were added, specializing in the production of bifaces.

Research has proven that the site of Karakuduk in the Borsa-Kelmes swamp has unique materials. According to the dimensions of the raw materials in the monument, the shortage conditions were determined and this material found its proof. It was proved on the basis of materials that the primitive communities who visited Karakuduk found stone objects of their predecessors and reworked them, and this was called the "Karakuduk phenomenon". In fact, the reworking of worked stones abandoned during the Early Paleolithic in the Middle and Late Paleolithic is a rare phenomenon in paleolithic studies.

According to the modern study of the Borsa-Kelmes basin finds, these finds have enriched the history not only of Uzbekistan and Karakalpakstan, but also of Central Asia with new monuments related to different stages of the Paleolithic era.

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Figure 1. Location map of Karakuduk stone processing workshop.