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ANCIENT ENCAMPMENT-WORKSHOP KYZYLTAU IN SOUTH KAZAKHSTAN – A UNIQUE PALEOLYTIC COMPLEX

The article contains a brief overview of the Paleolithic site of Kyzyltau, discovered by a joint Kazakh-Russian complex archaeological expedition in 1995 in the Zhambyl region of Kazakhstan. The uniqueness of the object lies in the fact that hundreds of thousands of stone products of the Paleolithic era are concentrated on a huge area of several tens of kilometers. On one square. m. there are up to 800 or more stone products.

Key words: *geomorphology, Paleolithic, nucleus, artifact, patina, side-scrapers, stone, raw materials, denudation*
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THE TERRITORY of Kazakhstan is an interesting archaeological area. In recent decades, a joint Kazakh-Russian complex archaeological expedition has discovered and investigated a great number of monuments dating back to various stages of the Ancient Stone Age. The predominance of arid conditions in most of southern Kazakhstan in the Pleistocene impeded the process of active sedimentation, as a result of which the overwhelming majority of Paleolithic monuments do not have a stratified cultural layer and artifacts at these sites lie on the surface. These sites include the Kyzyltau Paleolithic complexes in the Zhambyl region, located on the northeastern slope of the Maly Karatau Ridge. Here, on an area of tens of square kilometers, many stone artifacts are concentrated.

On the basis of a detailed technical and typological analysis of stone items, we have identified four cultural and chronological technocomplexes reflecting different epochs of the Ancient Stone Age, and the tendency of their development is readily traceable. A relationship has been established between the degree of preservation of the surface of artifacts and the time during which they had been on the surface, exposed to the destructive processes.

The paleolithic complexes of Kyzyltau are located on the denudation plain adjoining the Maly Karatau Ridge from the north, which is characterized by the development of low, but often quite long-standing small hills, ridges (cuesta-like scarps), due to the outcropping of separate more stable horizons of Lower Carboniferous deposits, including siliceous rocks. This zone is characterized by the strongest erosion of the surface of the plain, which led to the exposure of a large area of siliceous strata, which were later used by ancient people as a raw material source. It is here that the Akkol, Borykazgan, Tanirkazgan, Kainazar, Kyzylshoky, and other localities, discovered by Kh. A. Alpysbaev, are situated. (*Alpysbaev* 1979: 17). The most massive accumulations of artifacts are confined to lakes, salt marshes, takyrs and low relief areas. This is probably due to the presence of fresh water at certain periods and the exposure of siliceous rocks by some temporary water streams.

Archaeological material of Kyzyltau is represented by collections from Site 1 (25 m^2) (10536 specimens), Site 2 (18 m^2) (4709 specimens), collections made in the vicinity of Site 2 (42 specimens), as well as collections from archaeological Points 1–30 (824 specimens). (*Derevianko* et al. 2003: 44). The sites are relatively flat areas, on which one meter square grids were traced, oriented by the cardinal points, and where exhaustive collection of archaeological material was completed. When choosing a place for the sites, the following conditions were considered: a large concentration of items and the absence of overlapping loose deposits, as well as minimal linear displacement of the finds. The collection of

Ил. 1. Вид на расопложение артефактов Кызылтау. Фото: Ж. Таймагамбетов

the finds was carried out on each square meter (1×1 m) separately, while the precise location of the most demonstrative finds was recorded on the detailed plan drawings. The gathering in the surrounding area of Site 2 and gathering from archaeological Points 1-30 occurred selectively, with the preference given to the most expressive items.

Given the varying degrees of surface preservation, stone artifacts were divided into four main groups: strongly deflated, moderately deflated, slightly deflated and non-deflated (the latter are not considered in this article).

As a result of the study of the Kyzyltau complexes, a collection of 16,111 specimens was obtained. It should be noted that in the collections from the first site, there are practically no materials with a strong degree of deflation, but the group of non-deflated finds is well represented. The collections from the second site produced a different picture. There is a significant collection of strongly deflated artifacts, while non-deflated items are rare. The comparison of complexes with different degrees of deflation within each site suggests that there are significant differences between the complexes. At the same time, there is a significant similarity between complexes with the same degree of deflation identified at the sites and archaeological points.

The complex of strongly deflated products. Archaeological materials with a strong degree of surface deflation numbered 2 283 specimens, which is 15 % of the total number of artifacts.

The primary splitting is characterized by a primitive technique of the preparation and use of the primary rock materials. The cores or nuclei are characterized by minimal preliminary working. Of particular interest are the nuclei, in which the large removal of the stone material affects almost the entire shear plane; these artifacts should, apparently, be considered as an early manifestation of the Levallois traditions of stone working.

The most numerous group is made up of debris and fragments. The plates are few here.

Secondary processing. A total of 43 items with a secondary finish were analyzed. The transformation of the original blanks into tool forms was carried out by ball-striking, retouching, and excised removal (denting). Among the methods of making tools, retouching or flaking predominates. In all cases, it is

characterized as steep, scaly, multi-faceted.

The toolkit is represented by a small collection. An idea of the toolkit can be obtained only from the materials collected near site 2 and from the points; a total of 40 items were collected. A significant part of the collection is represented by retouched flakes. The collection of side-scrapers looks predominant, among which single longitudinal, double angular, side-scrapers on the cleavage plane, single transverse straight, double longitudinal straight, toothed and notched tools, and tools with a "spike" stand out.

In general, characterizing the industry represented by strongly deflated material, it should be acknowledged that it is based on archaic technique of splitting the rock materials, aimed at obtaining blanks in the form of flakes. The typological basis of the toolkit is made up of side-scrapers. The location of the site at the outlets of raw materials from the rock, and a large number of nucleate forms and production waste, with a negligible set of tools, allows us to assert that these materials fix the stages of stone processing which are typical for a workshop. This technocomplex probably reflects the early technological traditions of the Stone Age and belongs to the Domustier era.

Until now, the technical-typological and chronological interpretation proposed by Kh. A. Alpysbaev for the archaeological material of the complexes located on the northeastern slope of the Ridge of Maly Karatau remains controversial. The most ancient localities, according to Kh. A. Alpysbaev, constitute a chronological group, "dated to the Shelley-Acheulean period of the Lower Paleolithic or ESA" (*Alpysbaev* 1979: 5). Their geological age is adopted as corresponding to the Early Pleistocene. This group includes such sites as Akkol, Borykazgan, Tanirkazgan, Kemer I - III. Almost all archaeological remains were collected on the surfaces of remnant hills. When describing the collections, the author did not use the system for dividing the obtained material according to the degree of deflation, although he notes that the finds were subjected to the wind and chemical erosion. The artifacts are classified into seven morphological groups: "Bilaterally processed chopping tools; tools-disks; hand choppers; unifaces; flake tools; flakes; nucleus (core) shaped pieces and production waste" (ibid). The archaism common for all products and the primitive processing by striking are noted. The above-mentioned monuments and complexes of Kyzyltau are confined to the same resource base associated with the outcrops of siliceous rocks, and are located in the same natural and climatic conditions, which allows us to draw direct analogies among them. Based on the characteristics of the Kyzyltau domoustier complex, as well as on the description of the artifacts by Kh. A. Alpysbaev and their drawings, it can be assumed that the finds of Borykazgan, Tanirkazgan, etc., are products of primary cleavage and correspond to pieces of raw material with traces of approbation, nucleus like fragments, preforms, nuclei and chips. The tools are represented by a small collection, the basis of which is scraper-shaped items. These complexes are most likely the workshops where the selection and testing of raw materials took place. Later, from the suitable pieces of stone, cores were formed here, from which several flakes were removed. The question of the chronological interpretation remains open, perhaps the collections of these sites are represented by material of different times.

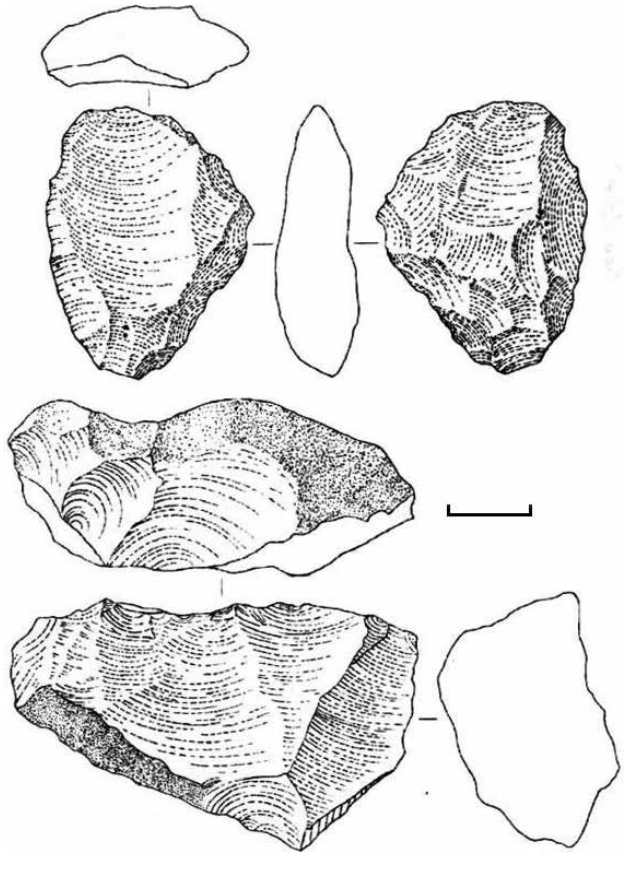
In contrast to the highly deflated Kyzyltau complex, a completely different Early Paleolithic industry is represented by the materials from the monuments in the Koshkurgan-1 and Shoktas-1 travertines located on the southwestern slope of the temple of Karatau. Based on the technical-typological analysis of the rock material, and a series of dates obtained by ESR dating, the researchers of these sites distinguish the Koshkurgan-Shoktassky microindustrial complex of the Early Paleolithic, dated in the chronological range of 500-300 thousand years ago. (*Taimagambetov, Mamirov* 2012: 165).

There are some differences between the early technological complex of Kyzyltau and the complexes of heavily deflated products of Semizbugu at archaeological Points 2 and 4 (Northern Balkhash region). These differences are associated with the significant presence of Levallois elements in these complexes, both in the technique of primary cleavage and in the tool kit (*Derevianko* et al. 2000: 73; *Derevianko* and others. 1993: 69).

Of particular interest are the Paleolithic complexes of the Mugalzhar mountains (North-Western Kazakhstan), whose archaeological materials illustrate the late Acheulean line of development (*Artyukhova* et al. 2001: 27). Comparing the Kyzyltau complex with the Mugalzhary complexes 4 - 6, one can find features characteristic of both the sites. The complexes are workshops at the outlets of the raw material or feedstock, where a full cycle of the feedstock processing took place. In the primary cleavage in both cases, a significant role is played by single-platform monofrontal cores, from which flakes were obtained. Plates are represented by an immaterial quantity. The typological basis of the tools is made up of side-scrapers and toothed-notched tools. The difference between the Kyzyltau industry and the Mugalzhar complexes lies in the absence of bifaces in Kyzyltau, as well as in the less developed Levallois technology of stone splitting / cleavage.

The most difficult issue is the dating of the Kyzyltau complex, represented by highly deflated artifacts. Comparison with the Early Paleolithic industries of the Central Asian-Kazakhstan region does not allow us to speak with precision about the

Ил. 2. Сильнодефлированные изделия Кызылтау. Фото: Ж. Таймагамбетов



Ил. 3. Сильнодефлированные изделия Кызылтау

chronological position of the complex of the highly deflated artifacts of Kyzyltau within the frames of the Lower Paleolithic. At this stage of the extent of research, this question remains open.

Complex of moderately deflated products. There are a total of 5,559 artifacts with an moderate degree of deflation. (36.5 %).

Primary cleavage. Core-shaped items are represented by 442 specimens. Among them, single-platform monofrontal longitudinal ones dominate. The cores are aimed at obtaining a series of large and medium-sized short flakes. The technique of primary cleavage of the moderately deflated group is represented by orthogonal, parallel, subparallel and Levallois cleavage principles.

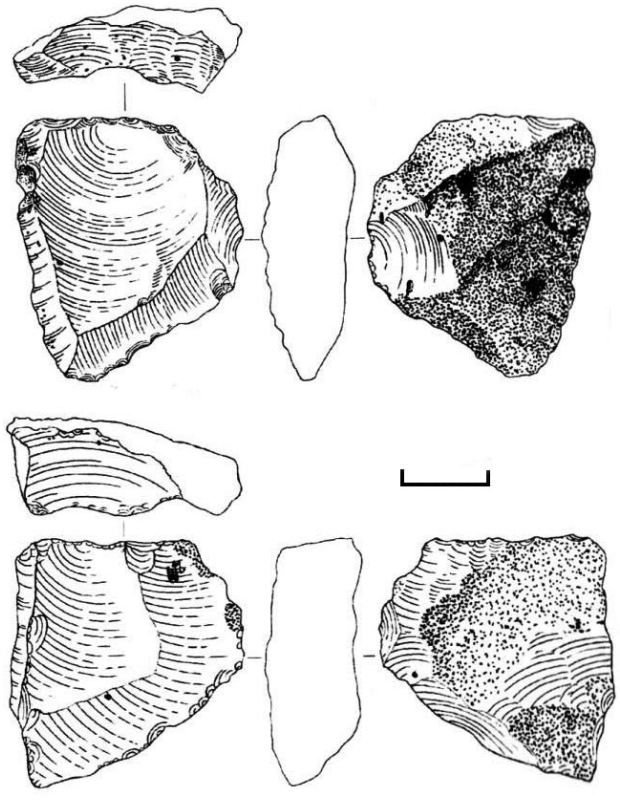
Secondary processing. A total of 110 recycled products were analyzed. The transformation of the original blanks into tool molds was carried out by retouching, striking, excised removal (denting); in isolated cases, methods of deliberate thinning of the blank were used by applying stone dressing, as well as singling out of the "spike" with a chisel chip.

The toolkit contains 58 specimens. Almost all tools were made on large and medium-sized chips. The most numerous group is made up of retouched stone flakes. The side-scraper tools occupy a prominent place among the tools, among which single longitudinal straight lines dominate. A group of tools with a working element in the form of a notch or a "spike" looks quite representative. Combined tools are few in number. Noteworthy is the presence of cleaves with Levallois morphology.

Thus, considering the industry of moderately deflated products, it should be noted that, in comparison with the earlier complex, there is a significant change in the primary cleavage system towards a qualitatively higher technological level. This is due to both a more thorough preparation of the nucleate molds and the use of the Levallois technology. The change in stone cleavage strategy is supported by the results of the analysis of the chipping industry. This is primarily expressed by a significant increase in the proportion of faceted striking pads. It is most likely, that this industry should be attributed to the Middle Paleolithic. Given the location of the complex directly at the outlets of raw materials, the predominance of waste from primary cleavage, the small and inexpressive toolkit, the material should be considered in the context of workshops at the outlets of raw material.

Kh. A. Alpysbaev attributed the sites of Tokaly I - III, Degerez, Darbaza III, Suleimensay I and IV, Daurenbek, to the "Acheulean-Mousterian period" of the Paleolithic, also located on the northeastern slope of the Ridge of Maly Karatau. Typologically, the archaeological material obtained from the above-mentioned complexes was divided into two-sided processed coarse chopping tools, hand choppers, disc-shaped forms, tools such as jibs, cores, tools on flakes, flakes without processing, etc. (*Alpysbaev* 1979: 69). Comparing these materials with the complex of medium-deflated products from Kyzyltau, it can be presumed that the artifacts interpreted by A. Kh. Alpysbaev as two side processed items, hand

Ил. 4. Среднедефлированные изделия Кызылтау. Фото: Ж. Таймагамбетов



Ил. 5. Сильнодефлированные изделия Кызылтау

axes, disc-shaped forms are core-shaped products (preforms, cores, core-like fragments). The question of the chronological position of the materials published by A. Kh. Alpysbaev remains open.

The industry represented by moderately deflated materials from the Semizbugu localities, points 2, 4 was attributed to the Middle Paleolithic. When comparing these materials with the Kyzyltau Middle Paleolithic complex, significant differences can be identified by a number of features. First, the Semizbugu industry exemplifies the more advanced Levallois stone-cleavage technology. The Kyzyltau collection contains Levallois cores, but the Levallois technology itself occupies a subordinate position there. Second, in the Semizbugu industry, along with cores of Levallois morphology, cores of the prismatic principle of cleavage are widely represented, which are missing in the collection of the moderately deflated artifacts from Kyzyltau. Thirdly, attention is drawn to a more representative tool kit compared to the Kyzyltau complex, wherein a large collection is made up of tools of the Upper Paleolithic appearance. Fourth, the collection of Semizbugu contains bifaces (*Derevianko* et al. 2000: 112; *Derevianko* and others. 1993: 83).

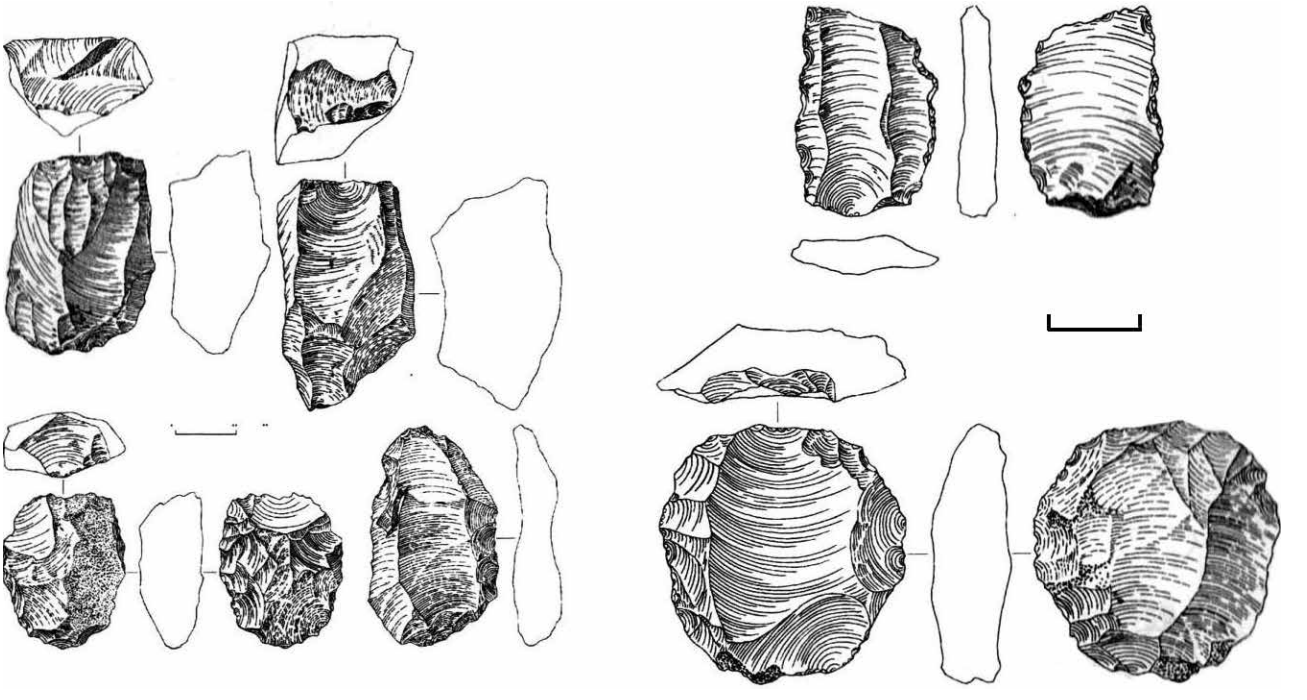
Complex of slightly deflated products. The collection of slightly deflated items encompasses 3,164 specimens (20.8 %), including core-shaped items: 102 specimens (3.2 %), chips - 3,062 specimens (96.8 %).

The primary cleavage of a group of weakly deflated artifacts is represented by parallel and sub-parallel cleavage methods. The presence of orthogonal and Levallois cores, and the manifestation of early methods of face and prismatic cleavage is notable.

Secondary processing. A total of 63 items with secondary processing were analyzed. The transformation of the original blanks into tool forms was carried out by retouching, chipping, excised removal (denting) and trimming. The predominant type of the secondary processing used here is retouching.

The tool kit is represented by a small collection of a total of 22 specimens. Most of the tools were made on large and medium-sized spalls. It should be noted that when choosing blanks, sometimes preference was given to chips that had been realized much earlier than the secondary processing. The most abundant are flakes with the traces of retouch. Among the side-scrapers, the emergence of tools with a "nose" should be noted. Analyzing the industry of the complex of the slightly deflated products, we shall note that, according to technical and typological indicators, it can be attributed to the turn between the Middle and Upper Paleolithic. The presence of both Mousterian and Upper Paleolithic archaeological material in the industry probably indicates a gradual transition from the Mousterian to the Upper Paleolithic. A similar transition can be traced at the technological complexes of the Semizbugu locations, archaeological points 2 and 4, whose characteristics are given above. Probably, the Early Upper Paleolithic also covers the finds from the lower layers of the encampment named after Ch. Valikhanov.

The Upper Paleolithic era remains the least studied period on the territory of Kazakhstan. The Upper Paleolithic sites of Kazakhstan are mainly represented



Ил. 6. Слабодефлированные изделия Кызылтау

by complexes with surface occurrence of artifacts. Among the stratified objects, the Upper Paleolithic era is illustrated by the finds of the encampment named after Ch. Valikhanov, Ashisay, Maybulak and Ushbulak (*Taimagambetov* 1990: 37; *Taimagambetov, Ozherelyev* 2008: 18; *Shunkov* and others 2016].

Significant differences from the Upper Paleolithic complex of Kyzyltau are observed in the industry of the weakly deflated items at point 2 Semizbugu. This is mainly manifested by the presence of the Levallois morphology cores among the other cores, and by the rather widespread use of the prismatic and face principle of cleavage. It should also be noted that there are no bifaces in Kyzyltau, which, in turn, are well represented in the Semizbugu collection.

All epochs of the Ancient Stone Age are represented on the territory of South Kazakhstan, from the early stone age to the late stone age. The occupation of this territory by ancient people was facilitated by favorable paleogeographic and paleoclimatic conditions during certain periods of the Pleistocene epoch. Probably, the most favorable conditions for the ancient man to live in this area were during the periods of humidification of the climate. The availability of fresh water in combination with the source of readily available high-quality raw materials for the production of artifacts created ideal conditions for human habitation in the foothill plains of the ridge of Karatau.

Based on the analysis of the archaeological material of the Kyzyltau complexes, it is possible to suggest a hypothesis about the presence of four complexes of different times, differing from each other by the various technological traditions of preparation and use of the rock feedstock. The difference in time between the technocomplexes is also evidenced by the different degree of preservation of the artifacts. Since all the artifacts were in the same natural and climatic conditions and were made of material originating from the same raw material source, we can speak with a certain degree of confidence about the relationship between the degree of preservation of the surface of the artifacts and their relative age.

The direct location of the site at the outlets of raw material, the great quantity of core molds and production waste, with a negligible set of tools in the industries, leads to the conclusion that the stages of the rock processing which are characteristic of a workshop can be identified in the materials of the mentioned complexes. This conclusion allows us to consider the Paleolithic complexes of Kyzyltau as workshop sites at the outcrops of the raw materials. Technological and typological analysis provides the ground to assert that the same line of development of the rock industry can be traced here over a long chronological period of time - from the Early to Late Paleolithic.

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