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Mesolithic Cultures of Ustyurt and Kyzylkum

Mezolityczne kultury w Ustyurcie i Kizilkum

Abstract: The article explores the history of archaeological research on the Mesolithic sites of Ustyurt and Kizilkum and the potential for revising existing archaeological materials, as well as advancing the study of the Mesolithic period in Uzbekistan to a contemporary level.

Keywords: Ustyurt, Kyzylkum, archaeological research, Mesolithic, E.B. Bizhanov, A.V. Vinogradov, N.U. Kholmatov, Machai, Kushilish, Sazagan 1, Aydabol, Churuk, Kartpaykum

In present-day Uzbekistan, 10,000 years ago, a new era in the history of primitive society emerged: the Mesolithic (Latin: Middle Stone Age).

During the Mesolithic era, the climate in the vast plains of Central Asia was more humid. Tugai forests grew along the rivers and in marshy lowlands. Microlithic items, small flint tools with geometric shapes characteristic of the Mesolithic era, were found in these areas.

Several sites have been discovered in Uzbekistan: Machai, Kushilish, Sazagan 1, Ustyurt, Kyzylkum, Obishir 1–5, Ashchi-kul, and points 2, 3, and 16 in Fergana.

To date, about 30 stratified sites and more than 200 sites of the Mesolithic era have been identified in Central Asia, most of which are located in the territory of Uzbekistan (Fig. 1–2). These sites can be divided into two groups: the first group consists of cave monuments Obishir 1–5, Machai, Kushilish, Karakamar, and Ochilgor, while the second group includes sites like Aydabol 25, Lavlakon 24, Charbakti, etc. In general, the Mesolithic period in Central Asia spans the 11th to the 7th millennia BCE (Romanova, Sementsov, Timofeev 1972: 58; Ranov 1975: 34; Islamov 1980: 23–24; Markov, Obraztsov 1981: 74–77; Vinogradov 1981: 28).

Mesolithic of Ustyurt. The Ustyurt region is of great importance in the study of the Mesolithic period in Uzbekistan. In the second half of the twentieth century,

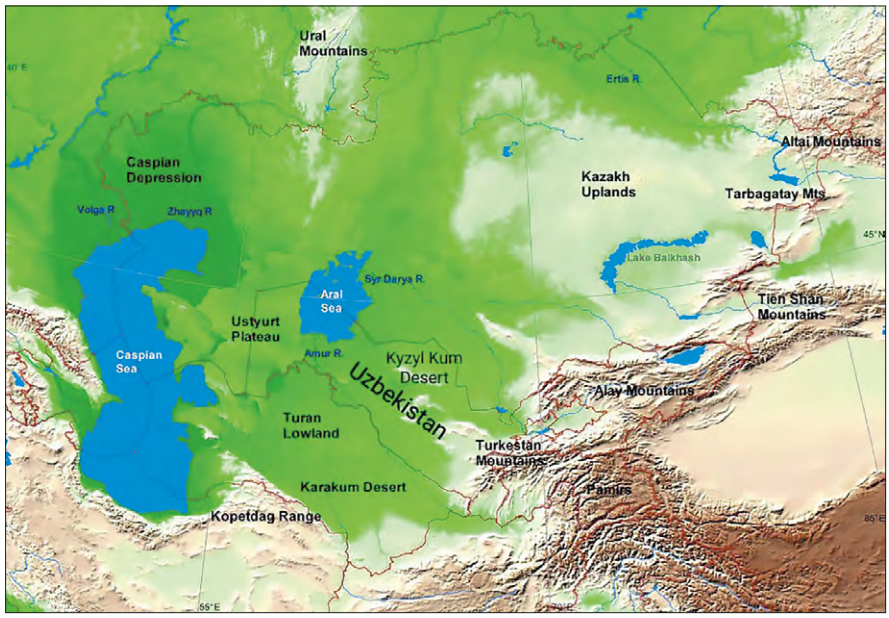
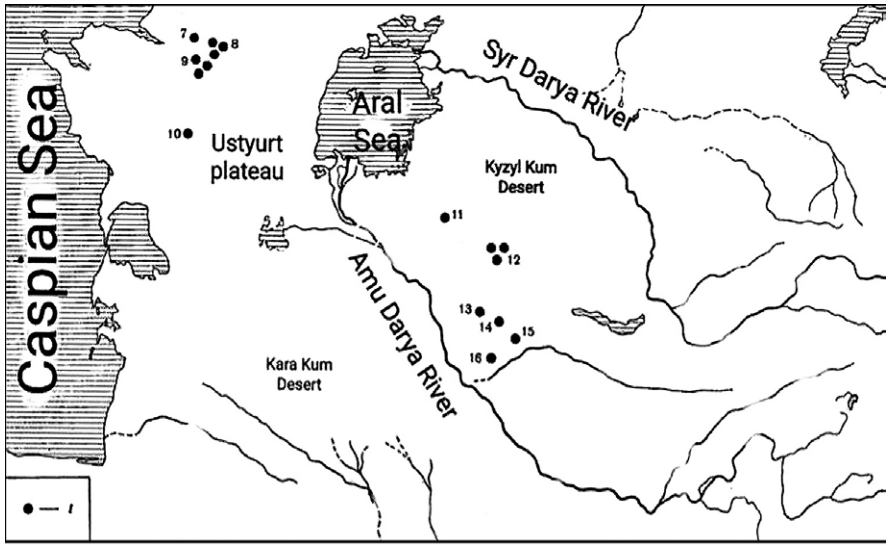


Fig. 1. Physico-geographical location of the Ustyurt plateau and Kyzylkum on the map.



Mesolithic monuments of the Ustyurt plateau and Kyzyl Kum

7 - Karakuduk; 8 - Aidabol group of monuments; 9 - Churuk group of monuments; 10 - Aktailak; 11 - Kok-patassai 1; 12 - Lyavlyakan group of monuments; 13 - Uchashiy; 14 - Ayakagitma; 15 - Echkiliksai; 16 - Charbaktv 1

Fig. 2. Mesolithic sites of the Ustyurt plateau and Kizilkum on the map.

E.B. Bizhanov and A.V. Vinogradov discovered about 20 Mesolithic sites in this area, predominantly open-type sites lacking stratigraphy (Vinogradov 1981: 48).

According to researchers, these sites are located in takyrs, salt marshes, sandy massifs, and along the banks of the dry riverbed of ancient water sources. Sites such as Aydabol, Churuk, Kartpaykum, Alan massif, and Tailak have such a topography. Long-term sites include Aydabol 25, with more than 2000 finds, Aktaylak, with 14,000 finds, and Kiyikshingrav 2, with 12,000 finds. Short-term sites include Aydobol 15, with 83 finds; Churuk 2, with 84 finds, and Sumbetimer 1, with 263 finds (Vinogradov 1981: 29). In addition, there are hundreds of medium-sized sites, such as Aydabol 10, with approximately 400 finds; Aydabol 16, with aapproximately 5,000 finds; and Aktyube 2, with more than 5,000 finds (Bizhanov 1982: 33).

According to A.V. Vinogradov, sites with 200 to 1,000 artifacts are one-time or seasonal sites (Vinogradov 1981: 28). Using the classification system of K. Flannery and F. Hole, the Mesolithic monuments of Ustyurt are divided into three types (Hole, Flannery 1968: 162–163):

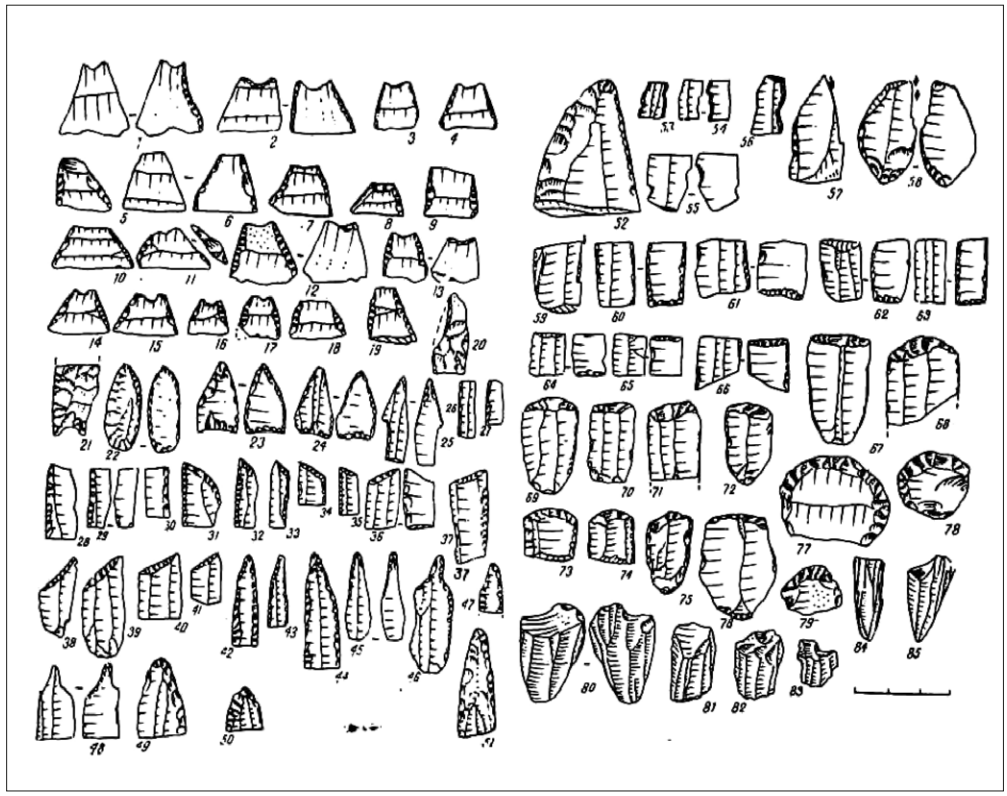


Fig. 3. Aktaylak site 1 (Ustyur plateau), flint artifacts.

Fig. 4. The Churuk massif. Flint artifacts. Churuk 7 (1–24). Churuk 8 (25–62).

1. Seasonal main camps;
2. Shelters for processing hunted prey;
3. Short-term intermediate camps.

Numerous and multifunctional stone tools have been found at the sites of the first group. The second group includes sites intended for processing hides and carcasses of hunted animals, which is why they are limited to a set of special stone tools. The tools of the third group, although similar to the first group, are distinguished by a small number of stone items.

According to E.B. Bizhanov, the sites of Aydabol 6, 9, 11, 16, 21, 22, and 25 can be confidently attributed to the Mesolithic period, while the memorial site of Zharinuduk is conventionally considered Mesolithic. Bizhanov classified sites such as Aktaylak 1 (complex 1) (Fig. 3), Aktobe 2, Churuk 2 (complexes 1 and 2), Churuk 7, Sulama, and Churuk 8 (complex 2) (Fig. 4) as belonging to the Late Mesolithic (Bizhanov 1978: 74–75) or the Early Neolithic.

The Mesolithic sites of Ustyurt are characterised by a large percentage of microlithic technology of cleavage. In the secondary processing, blunt retouching was predominantly used. Additionally, shell ornaments are part of the set of these industries.

The origin of the Ustyurt Mesolithic remains unknown. According to E.B. Bizhanov, a mixed and peculiar local culture emerged in Ustyurt under the influence of the Mesolithic cultures of the Caspian and Southern Urals (Bizhanov 1982: 33; 1996: 23).

He cites the presence and similarity of the Mesolithic trapeziums of the Caspian and Ustyurt regions as evidence. At the same time, E.B. Bizhanov also notes differences between them, and speaking about the peculiarities of the Ustyurt Mesolithic, he notes that the Ustyurt Mesolithic developed from local Middle Paleolithic sites, such as Esen 2 and Churuk 12 (Bizhanov 1979: 522; 1980: 76).

In the Surkhandarya region, isolated Mesolithic sites have been discovered (Okladnikov 1945: 243; Islamov 1975: 10–11). These include finds around the ancient settlement of Ayrtam and near Old Termez. Artifacts from these sites consist of wedge-shaped and prismatic cores for microblades, side-scrapers, retouched flakes and blades, incisors, and large points. A.P. Okladnikov and U.I. Islamov genetically link them with the Samarkand and the Obishir 1–5 sites (Okladnikov 1945: 12; Islamov 1972: 9–11).

Kyzylkum Mesolithic. In recent years, the Khorezm archaeological and ethnographic expedition, led by A.V. Vinogradov, has identified numerous Mesolithic sites without cultural strata in the Kyzylkum region, including Lalyakan, Daryasai, Echkiliksay, Ayakagitma, and Charbakti (proto-Zarafshan) in Central Kyzylkum.

The industry of the Lalyakan sites (such as Lyavakan 13, 24, 41, 54, 87, 107, 212/11, 222/1, 348, 418, and in some cases Lalyakan 120 and 121) is characterised by the technique of splitting prismatic micro-blades. Secondary processing predominantly features blunt retouching and retouching from the ventral side of blanks. Stone tools include microliths, scrapers, notched microblades, penny points, short trapezoids and parallelograms, elongated segments, asymmetric triangular tools, and leaf-shaped points with a special insert (Fig. 5–6).

In contrast, the industry of the Mesolithic sites of Daryayosai and Echkiliksai looks different (Uchashi 84, 85, 159, etc.) (Fig. 7). These sites feature numerous scrapers made from flakes of blades, blunt blades resembling Chatelperron knives, blades with notched retouch, incisors, asymmetric triangular tools, yangel-type trapeziums, and asymmetric trapezoids.

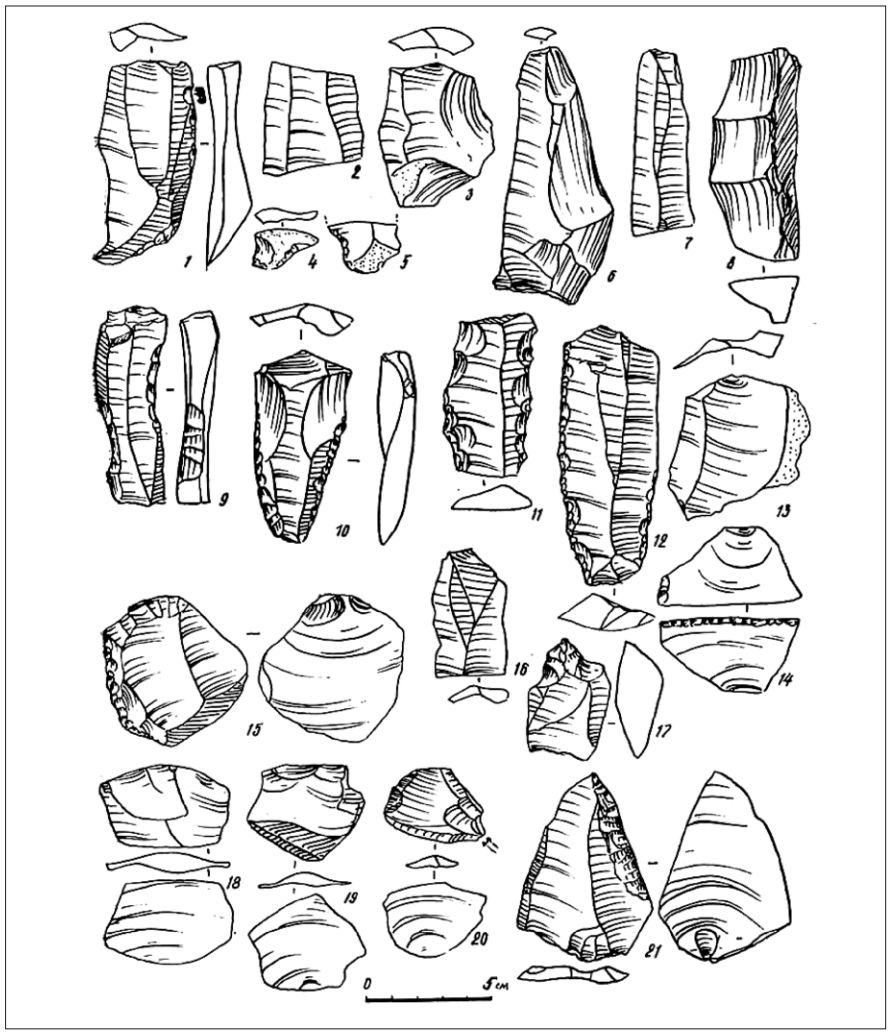


Fig. 5. "Mousteroid" items from the Lyavlyakan sites.

Mesolithic artifacts have also been found in Ayakagitma (Ayakagitma 5, 86, 367, etc.). These include single elongated trapezoids, "horned" tools, rectangular tools, and large asymmetric and elongated triangular tools (Fig. 8).

The industries of the Karakir 1 and Charbakti 1 sites in the Charbakti valley display distinct characteristics. These include blunt-edged micro-blades, blades with dentate-notched retouch, points with retouched edges, scrapers made from truncated flakes and blades, trihedrally processed symmetric and asymmetric short trapezoids, as well as elongated and short triangular tools.

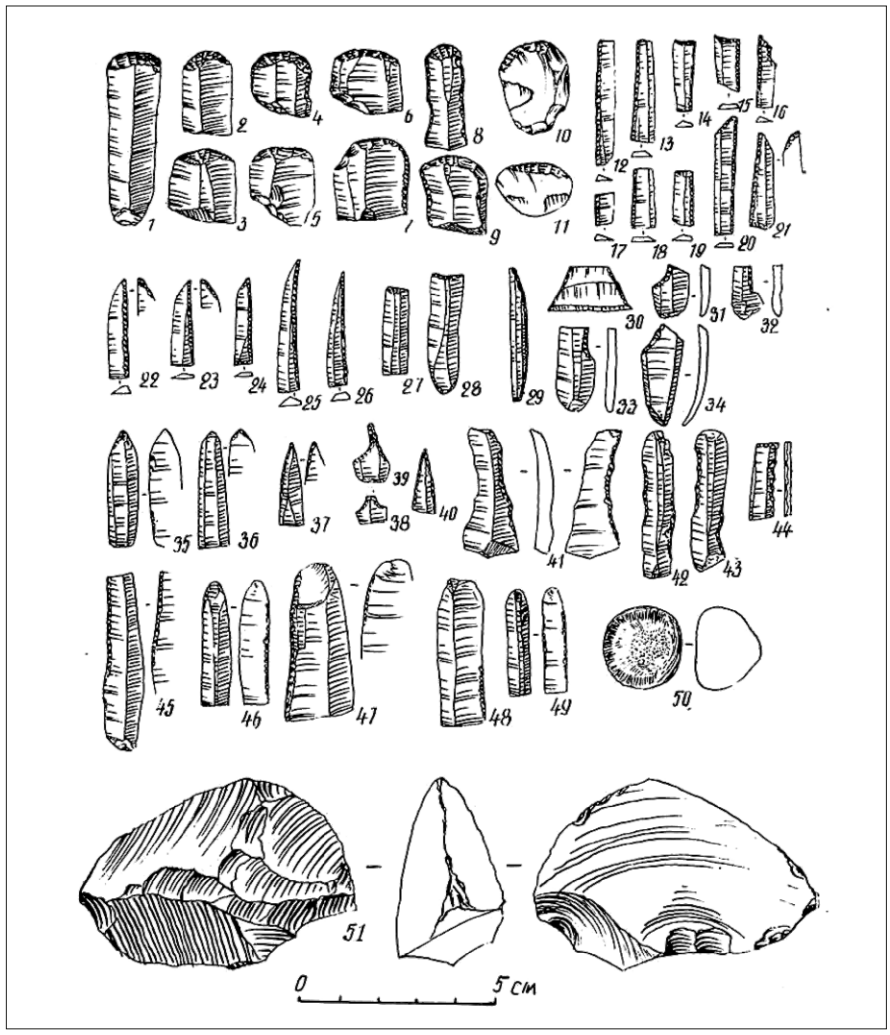


Fig. 6. Lyavlyakan 120 site. Flint artifacts.

In the territories of Central Kyzyl Kum, only the Kokpatassoy 1 locality is known. Its industry is characterised by microlitoid cutting techniques, with conical cores predominating. The industry set also includes knife-like blades, end-scrapers, large blades with notched retouching, incisors, and micro-blades with blunt edge retouching, but no geometric microliths. A.V. Vinogradov suggests that the diverse appearances of the Mesolithic sites of Lalyakan, Daryasai, Echkiliksai, Ayakagitma, Charbakti, and Central Kyzylkum may indicate that they belong to different chronological periods and that they possibly represent

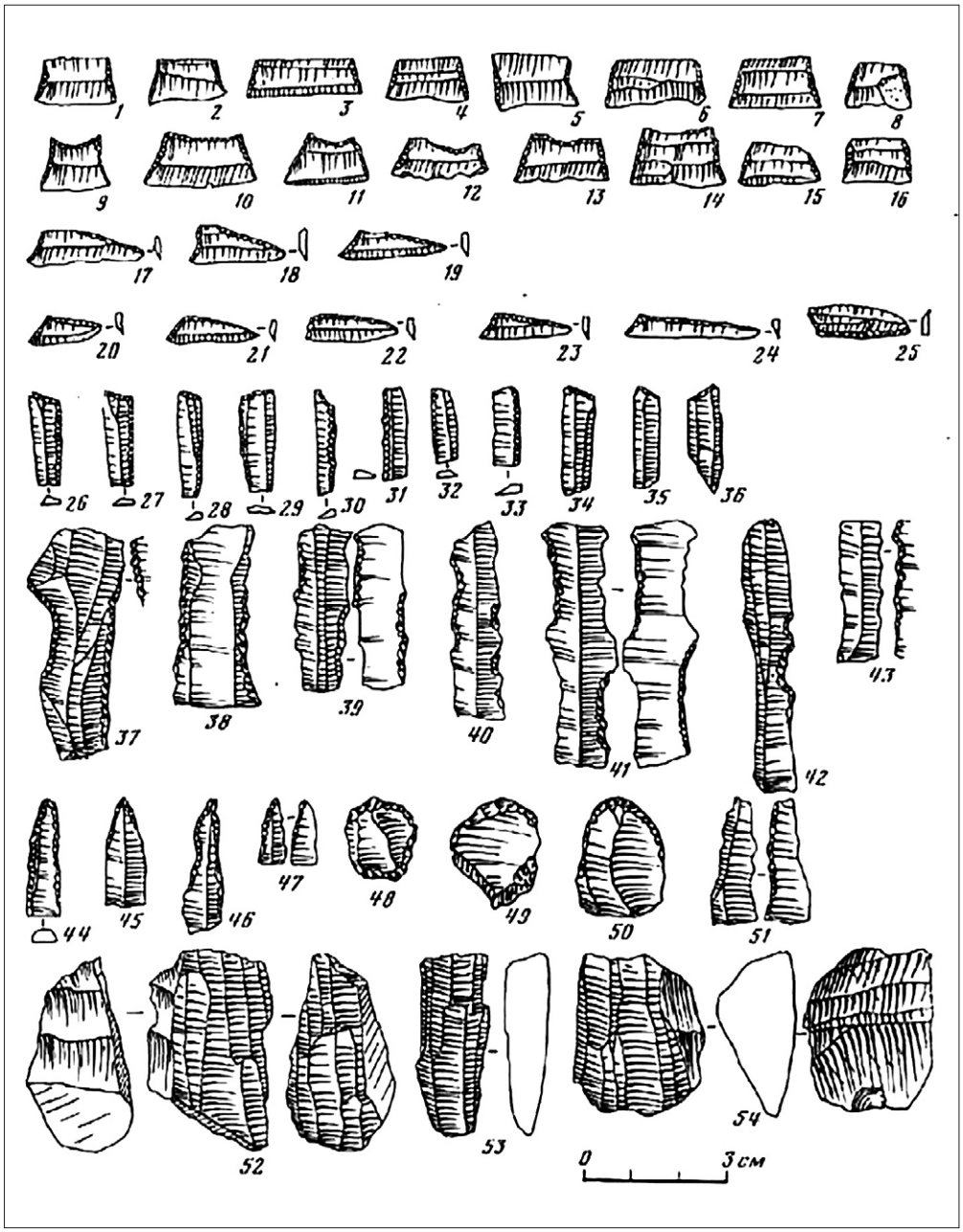


Fig. 7. Uchashi Makoni stoneware; 1–25 – microlite weapons; 17–25 – races; 26–43 – retouched plates; 44–46 – retouched patches; 48–50 – nail scrapers; 52–54 – cores (Vinogradov 1981).

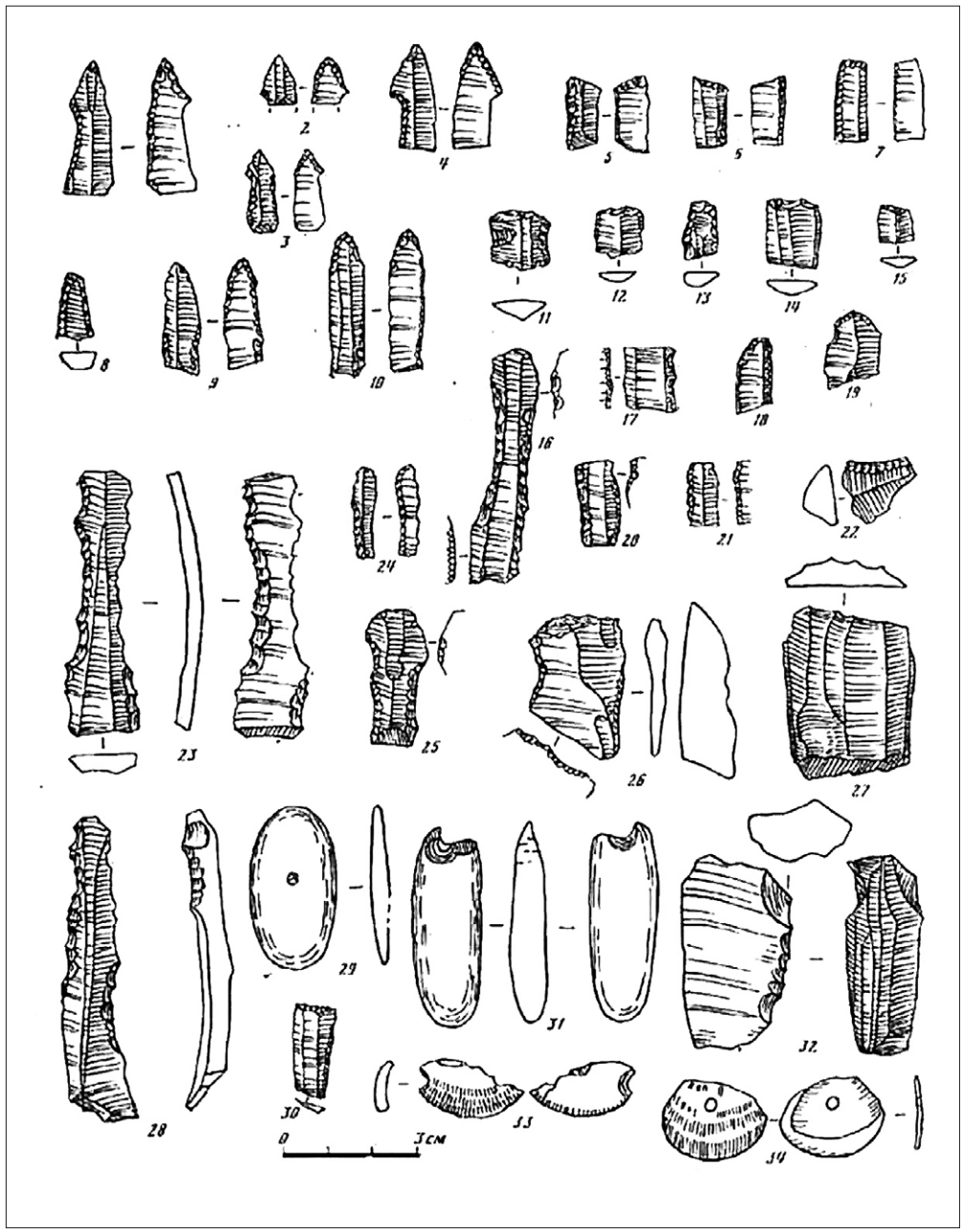


Fig. 8. Stone artifacts and jewellery from Ayakogitma 90; 1–4 – paykons; 5–10 – retouched plates; 11–18, 20–21, 23–25, 28 – knives; 26 – cutting tools; 27, 30, 32 – cores; 29, 31 – stone jewellery; 33–34 – seashells (Vinogradov 1981).

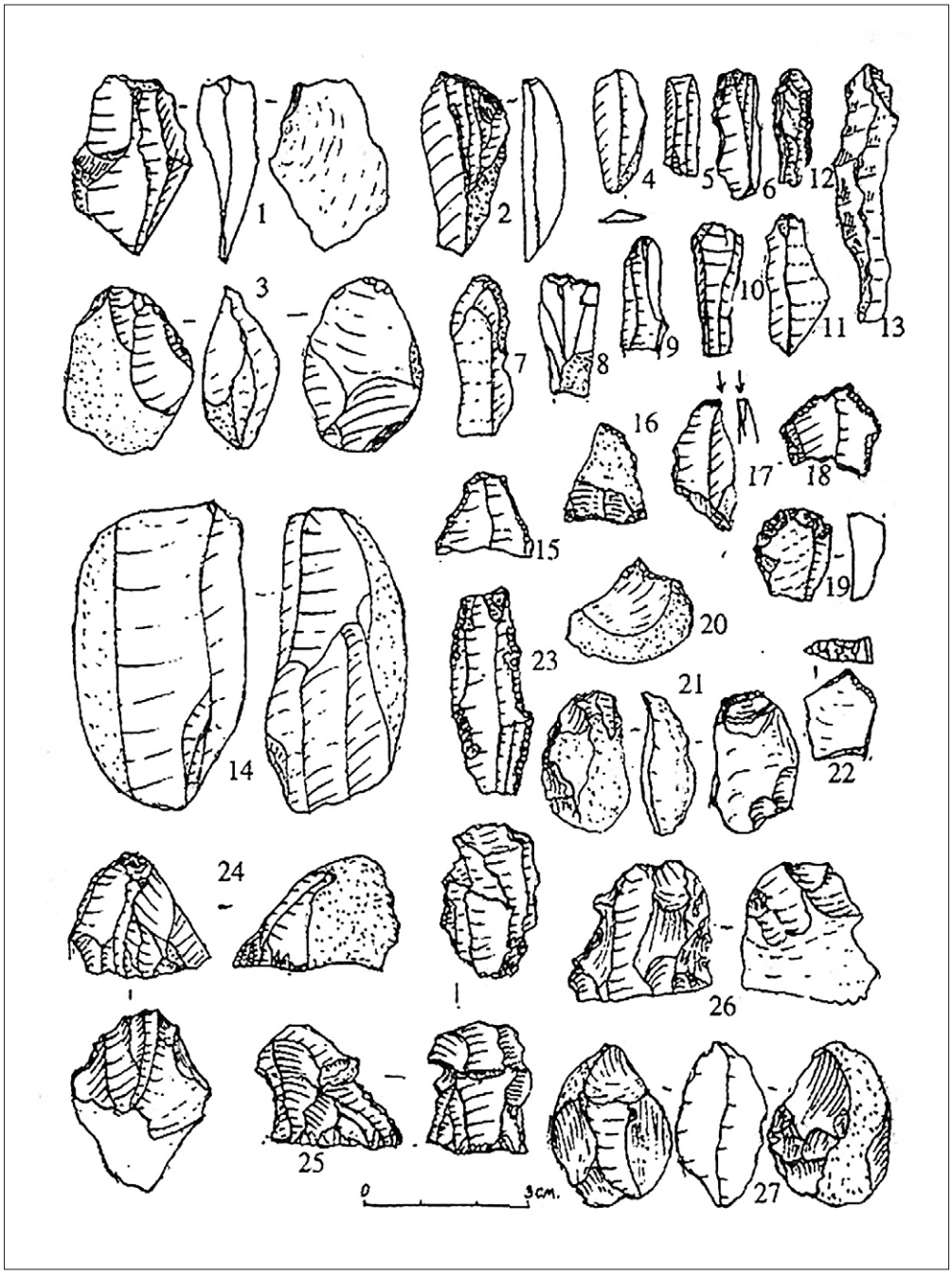


Fig. 9. Sites of the Chorbakty group. Stone artifacts.

different variants of a single culture. However, their exact origin and cultural identity remain unclear.

Distinct Mesolithic sites were also discovered in the Zarafshan River valley, in its middle and lower reaches. Archaeological research carried out in the Charbakti valley of the ancient lower Zarafshan revealed more than 60 sites dating to the Mesolithic and Neolithic periods (Kholmatov 1973: 12–13; Kholmatov 2005: 25–34; Dzhurakulov, Kholmatov 2007: 27–43).

Among them, the industries of the Charbakti monuments 11, 12, 23, 27, and 41 exhibit distinct differences from the neighbouring Keltaminar complexes (Fig. 9). These industries feature cores, high-shaped end-scrapers, chisel and pebble tools, retouched flakes, and triangular points typical of the mountainous Late Paleolithic and Mesolithic cultures of Central Asia. Therefore, researchers suggest they date back to the early Mesolithic period. The emergence of Mesolithic complexes in Charbakti helps bridge the gap between the Late Paleolithic site in Samarkand and the Neolithic Sazagan culture.

In recent years, Mesolithic sites have also been discovered in the Karatepa mountain range in the middle reaches of the Zarafshan River. These include cave sites Karakamar and Ochilgor. N.U. Kholmatov's excavations at these sites have uncovered chisel tools, high-form scrapers made from flakes, cores, and rough tools fashioned from blades.

The Mesolithic sites in the middle reaches of the Zarafshan River include Sazagan 1 and the lower layers of Sazagan 2, located in the Karatepa mountains. The Sazagan 1 site is located on the second terrace of the left bank adyrs of the valley of the same name. The site was studied between 1966 and 1977. During the initial phase, materials were collected and stratigraphic studies conducted. Subsequent excavations in 1971–1972, led first by D.N. Lev and then by M.Dzh. Dzhurakulov, revealed that the cultural layers of Sazan 1 had been destroyed by historical agricultural activities. Nevertheless, two distinct cultural horizons were identified, yielding a collection of 2,300 stone artifacts. The materials include prismatic, cone-shaped, butt cores, blades, micro-blades, chippers, retouchers, devices for squeezing equipment, scrapers, cutters, and retracted flakes and blades. Lifting materials are very similar to those uneaerthed from the cultural horizons of the Sazagan 1 site, with the exception of a single leaf-shaped biface from the excavation. The industry of the site involves both flake and blade (74% flakes and 20.1% blades). The share of micro-blades is large, constituting 36.3% of all blades and 22.2% of all processed stones at the site. In this respect, the industry of Sazagan 1 differs from the "mountainous Neolithic" and aligns more closely with the Neolithic industry of Central Fergana.

The industry of Sazagan 1 is not characterised by geometric tools, but by thick scrapers, chisel tools, and incisor-shaped products. While these tools do not constitute the majority among the items with secondary processing (where retouched

Tab. 1. Periodic cultural table of Mesolithic sites of Uzbekistan

	Sites	Dates	Cultures
1	Toshkumir	11 (9?) millennia	The first stage of Obishir culture
2	Obishir I–V (2 points, Madyor, Ashi-Kul, Yangi-Qadam 21, Zambar 2, and others)	9 (8?)–7 millennia	Middle stage of Obishir culture
3	Central Ferghana Mesolithic (3, 5, 16 points, Sariq-Suv, Baxrobad, and others)	7 millennium	The last stage of Obishir culture
4	Kushilish	10–9 millennia	Tashkent variant of Obishir culture
5	Ayritom, Termez materials	9–7 millennia	Surkhandarya culture
6	Machai	7550±110 years	Surkhandarya culture
7	Sazagan 1 space	8?–7 millennia	Sazaghon culture
8	Ochilgor space	9–7	
9	Ustyurt. Advanced Mesolithic (Aydabola 16 and 25)	8–7 millennia	?
10	Ustyurt. Late Mesolithic and Early Neolithic: Aidabol 2, 4, 7, 9, 10, 11, 20, 21, 22, 23, Aktobe 1, Churuk 3, and Aktobe 2.	7–6 millennia	?

otzepas and blades predominate), they are distinctive elements defining the nature of this industry (Dzhurakulov, Holmatov 1991: 41).

As evidenced by the examples of material culture of Mesolithic sites, this period spans the 11th–7th millennia BCE in Uzbekistan. Globally, however, the Middle Stone Age is conventionally dated to begin around 12,000 years BCE. Below is a cultural periodic table of Mesolithic sites in Uzbekistan (Table 1). According to this classification, it can be said that the territories of Uzbekistan were inhabited by primitive tribes since the early Mesolithic period. Initially, the northeastern regions such as Fergana (Obishir culture) and Tashkent oases (Koshlish) were settled. Later, starting in the middle of the Mesolithic period, areas such as the Zarafshan River valley (Charboqti regions like Sazaghon 1), Surkhandarya (Ayrtom, Old Termiz, and Machay), as well as Ustyurt and Kyzylkum regions were inhabited.

Comprehensive paleogeographic and archaeological studies across the territories of Uzboy, Amu Darya, Zarafshan, Kyzylkum, and Central Asian Mesopotamia indicate that these regions were densely populated during the late Pleistocene and

early Holocene periods. The sites discovered in various ecological contexts attest to favourable natural conditions for human habitation. Mesolithic tribes inhabiting these areas lived in varying natural environments, fostering cultural development and laying the groundwork for subsequent evolution in Stone Age cultures.

Economy of the Mesolithic tribes. Of course, the study of Mesolithic monuments in Uzbekistan is crucial as it provides insights into the types of economy and life of the Mesolithic tribes of Uzbekistan for the first time.

Man made great strides in tool development. Already in the Paleolithic era, throwing spears – darts were invented. Then man acquired the bow and arrow, which was a huge achievement in the history of mankind as it enabled to hunt birds and agile small animals that rarely fell prey to humans in the Paleolithic era.

The bow was essentially the first mechanism invented by man. During the Mesolithic era, the microlitisation of tools reached its peak, with various geometric shapes emerging. This era, spanning from approximately the 10th to the 5th millennium BCE, marked the transition from the introduction of the bow to the advent of ceramics and is known as the Mesolithic period.

The animal world also changed. Previously, hunting in mountainous areas targeted roe deer, mountain goats, and rams, while lowland areas saw the pursuit of bison, gazelle, horses, and hares. However, the unpredictability of hunting as a reliable food source necessitated the exploration of new economic strategies and new means of subsistence. Following the change in the landscape and fauna, the way of life of the Stone Age people also changed.

Based on faunal remains, paleogeographic data, and functional analysis of the materials from the Obishir 1–5 site, it is evident that representatives of this culture were hunters and gatherers. Animals such as Siberian deer, argali, gazelle, and deer were hunted mostly using the bow and arrow; individual arrows were found at the sites of Obishir and Central Fergana. Stone tools further indicate that hunting was the main element of the economy. Additionally, hide processing played a significant role. The existence of collecting is evidenced by stone sickles and grain grinders found at the Mader site (Korobkova 1969: 127–142; 1977: 112).

In general, representatives of the Obishir culture were engaged in nomadic hunting across foothills and desert zones (Korobkova 1982: 163).

Based on the quantitative analysis of labour tools, it can be said that there were main long-term camps such as Obishir 5 and Sarik-Suv, alongside short-term shelters like point 3 and Ittak-Kala 1, and locations for butchering hunted prey including Ashi-Cool, Mader 11, 2, point 16, and Taipak 3.

To study the economic activities of the Mesolithic tribes in Central Asia, we draw upon various sources. These include information about the natural environment of the study area, the observable and quantitative composition of fauna, the nature of their distribution within the layers, and the functional roles of tools.

Cattle breeding did not yet exist or hold a significant role in the economy during this era. The bones of small ruminants from domestic animals were found in the upper layer of Obishir 5 Cave and Machai Cave. Notably, cattle bones were found in both layers of Machai Cave, suggesting that the cave inhabitants raised sheep, goats, and possibly cattle. At least there is reason to talk about the initial stage of the taming of large horned animals. Currently, it is difficult to definitively determine whether the territory of Uzbekistan functioned as an independent centre for the development of cattle breeding or if it was integrated into the broader Central Asian cattle breeding network.

In the economy of the Mesolithic populations of Ustyurt, traceological data are mainly of an appropriating nature. The main occupation of the population in this era was hunting and gathering. In the household, the main activities were the processing of bones, wood, and hides. The Mesolithic population of Ustyurt maintained cultural interactions with the cultures of neighbouring territories, which played a significant role in shaping subsequent Neolithic developments.

The achievements of the Mesolithic tribes in the south paved way for their transition from gathering to the cultivation of plants (agriculture) and the domestication of animals. Equally naturally, in the course of time, the inhabitants of the steppes and mountain regions transitioned from hunting wild animals to cattle breeding, probably with the assistance of their settled neighbours. The first farmers and pastoralists owe all this to their predecessors, the Mesolithic people, who initiated the shift away from consumption-based economies that had dominated for millions of years. The Mesolithic era marked the beginning of exploring new sources of livelihood along with new forms of living and culture. These first timid steps of the Mesolithic people laid the groundwork for a profound shift towards a productive economy, triggering numerous progressive changes across all aspects of human life and culture.

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Streszczenie

W artykule podjęto analizę historii badań archeologicznych zabytków z okresu mezolitu w Ustyurcie i Kizilkum oraz możliwości nowych interpretacji istniejących materiałów archeologicznych, a także podniesienia poziomu badań okresu mezolitu w Uzbekistanie.

Słowa kluczowe: Ustyurt, Kyzylkum, badania archeologiczne, mezolit, E.B. Biżanow, A.V. Vinogradov, N.U. Kholmatov, Machai, Kushilish, Sazagan 1, Aydabol, Churuk, Kartpaykum

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