

PalArch's Journal of Archaeology of Egypt / Egyptology

FEATURES AND GENESIS OF NEOLITHIC CULTURES OF CENTRAL ASIA

Kholmatov Normahammad Urazovich¹, Kholmatov Azbiddin Nematillaevich²

Doctor of Historical Sciences, Head of the Department of Archeology, Samarkand State University, Samarkand, Uzbekistan. ¹
normahammad@bk.ru

Doctor of Philosophy (PhD), Senior Research Fellow, National Center of Archeology of the Academy of Sciences Republic of Uzbekistan, Samarkand, Uzbekistan. ²
xolmatov.azbiddin@mail.ru

Kholmatov Normahammad Urazovich¹, Kholmatov Azbiddin Nematillaevich²: Features And Genesis Of Neolithic Cultures Of Central Asia-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6). ISSN 1567-214x

Key words: Stone Age, Dzheitun, Gissar, Central-Fergana, Sazagan, Ustyurt, stone industry, "pebble", "flint", autochthonousness.

ABSTRACT

At present, a number of studies are being carried out to study the material culture of the Neolithic societies of Central Asia in the following topical directions: identifying new monuments of the Neolithic period and determining the boundaries of their distribution, as well as revealing such features as the originality of the stone industry, cultural relations and genesis, clarifying the periodization of the Neolithic cultures, defining issues of the formation of productive activities in the daily economic life of Neolithic societies. From this point of view, the proposed article in a short form, based on new archaeological data, sets out the specific features and genesis of the Neolithic cultures of Central Asia.

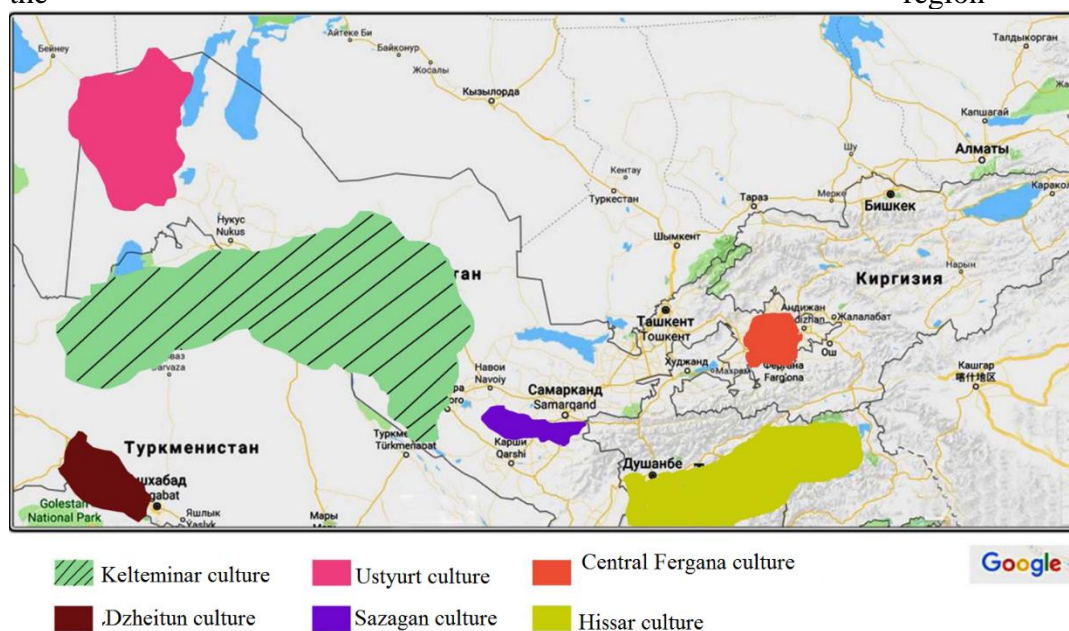
Introduction:

World historiography recognizes that when studying the early stages of human history, the Neolithic era (New Stone Age) is defined as a period of fundamental changes in the socio-economic and cultural life of society. In this regard, the processes of their formation and the foundations of the primitive economy, chronology, genesis of cultures, interrelationships, and ultimately their place in this historical period are especially relevant and priority directions in the study of Neolithic cultures.

For solving the problems of the history of settlement and development of the material culture of the Stone Age, the territory of Central Asia has a promising significance. At one time, on the basis of comprehensive research by A.V. Vinogradov and E.D. Mamedov suggested that in Central Asia in

the early and middle Holocene (VII-III millennium BC) there was a relatively mild (pluvial) climate (Vinogradov, Mamedov, 1975, p. 215). Therefore, at the end of the Mesolithic - the beginning of the Neolithic, primitive man almost completely mastered the territories of Central Asia suitable for habitation. Thus, the monuments of the Dzheytun culture occupy a small narrow strip of the foothill plain of the Kopetdag (Masson, 1971, p. 207), the Gissar - the central and eastern parts of the Pamirs (Vinogradova, Ranov, Filimonova, 2008, pp. 14-117), the Kelteminar historical and cultural community occupies the lower reaches of the Amu Darya, on the territory of the Kyzylkum and the old river Zarafshan (Vinogradov, 1981, p. 172), the Central Fergana culture is localized in the middle part of the Fergana depression (Islamov, Timofeev, 1986, p. 304), the Sazagan culture occupies the

region



middle Zarafshan in its mountainous setting (Dzhurakulov, Kholmatov, 1991, pp. 3-122), Ustyurt culture - plateau area Ustyurt (Bizhanov, 1996, pp. 3-42) (Fig. 1.)

1-figure. Schematic map of the distribution of the Neolithic cultures of Central Asia

Materials and methods:

In world historiography, the Neolithic of Central Asia occupies a special place due to the diversity and very complex nature of the economy of cultures in this geographical area. In particular, in the neighboring cultures of the region, such types of farming as agriculture, cattle breeding, hunting and fishing developed. "Most often it depended on the conditions of existence in a certain ecological niche, on its natural characteristics and contacts with other groups of the population" (Archeology, 1996, p. 9). However, with the exception of the Dzheytun and Kelteminar cultures, many problems of the Neolithic of Central Asia, such as economy, chronology, genesis of cultures, ethnocultural and ethnographic aspects, still remain the subject of heated discussions. The solution of this problem, in accordance with the world theory of archaeological research, as well as, along with the use of new approaches to the analysis of early artifacts, the conduct of new

archaeological research is one of the topical issues on the agenda of modern historical science.

In recent years, in the study of the Stone Age of Central Asia, in particular, the Neolithic era, interesting archaeological materials were obtained. The staff of the Uzbek-Polish and Uzbek-French international archaeological expeditions investigated the Ayakagytma monument of the Kelteminar culture (Brunet, Khuzhanazarov, Khoshimov, 2012, pp. 118-125). Through the efforts of the archaeological expedition of SamSU, studies of the Neolithic objects of Sazagan in the northern foothills of the Karatepa mountain system of the oasis of Middle Zarafshan (Sazagan 3, Dzhangal 1, Tepakul 3,4,5, Lolab, Korakamar, Ochilgor) continued (Kholmatov, 2019, p. 72). Also, studies of the Neolithic monuments of the Gissar culture in the middle reaches of the river were continued. Vakhsh and Kyzylsu, Yavan Valley, the vicinity of Kulyab, as a result of which new monuments were discovered (Chimbulak, Kangurtut, Lyulikotal, Charmgaron, Uchkun) (Vinogradova, Ranov, Filimonova, 2008. pp. 114-117). The obtained materials made it possible to solve such problems in the study of the material culture of the Neolithic societies of Central Asia, as clarification of the periodization of Neolithic cultures, the disclosure of such features as the originality of the stone industry, as well as cultural relationships and genesis. It is known that at the end of the Mesolithic - the beginning of the Neolithic, due to the complete development of almost the territory of Central Asia by primitive man, people found themselves in different natural, ecological and climatic conditions - mountainous, foothill, and plain. These features influenced the development of material culture, economy and life. As a result, a number of archaeological cultures emerged with their own specific features. These features were clearly traced in the process of studying the history of the Neolithic of Central Asia.

Now we will try to give data on the specific features of each of the above-named Neolithic cultures of Central Asia. So, as the Dzheitun culture, located in the southwest of Turkmenistan, is the oldest agricultural culture in Central Asia, it is the extreme northeastern periphery of a vast zone of ancient agricultural cultures of the Middle East. The main monuments here are the settlements of Dzheitun and Chopan-Depe. The following data can be cited about the specific features of the Dzheitun culture: It was the Dzheitun time, the 6th millennium BC. the tradition of construction with the use of adobe bricks, widespread in Central Asia, dates back to. The industry of Dzheytun culture monuments was lamellar with microlithic elements, where geometric microliths accounted for 4.3-11.4% of the total mass, and tools associated with agriculture - 36%. With such indicators, it can be argued that the Dzheytuns were sedentary communities with a productive economy (Masson, 1971. pp. 9-26). Pottery occupies an important place among the finds of the Dzheitun culture. The crockery is made by hand, using a ribbon method, about 11% of it is decorated with ornaments applied in red paint. The painting had two main motives: wavy or streaky lines or brackets. This is the oldest painted ceramics in Central Asia. Clay, less often stone figurines of animals and people testify, apparently, of the birth of a fertility cult associated with agriculture and cattle breeding.

The beginning of the study of the monuments of the Kelteminar culture belongs to the famous Russian archaeologist S.P. Tolstov at the end of the

30s of the last century. Later, a comprehensive survey of the Stone Age monuments was carried out by A.V. Vinogradov (Vinogradov, 1981, p. 59; Kholmatov, 2007, pp. 27-44). Kelteminar sites are known throughout the Kyzylkum region (including the old rivers of the Amu Darya and Zarafshan), in the middle and lower left banks of the Amu Darya, on Uzboy, and partly on Ustyurt. The following data can be cited as specific features of the Kelteminar culture. The industry of the Kelteminar culture monuments is blade-like and the share of tools made on the basis of flakes was insignificant. Naturally, in this vast territory, there is no complete cultural uniformity. The greatest similarity is demonstrated by products made of stone (both in the technology of its processing and in the typology of products), although certain local differences can be traced in this. They are most clearly traced in ceramics, in details of forms and ornamentation, as well as in decorations. A comparative analysis of the materials made it possible to identify several groups of monuments in this vast territory, the material culture of which, on the one hand, shows stable common signs, and on the other, a clearly traceable cultural specificity. These groups, local archaeological cultures, are, apparently, an archaeological expression of the areas of settlement of tribes (or groups of tribes), related or close in culture, economy, way of life. At present, the Kelteminar (or Akchadaryan), Lower Zarafshan, and Lavljakan regions are distinguished.

The beginning of the study of the monuments of the Hissar culture belongs to the famous Russian archaeologist A.P. Okladnikov at the end of the 50s of the last century. Later, a comprehensive survey of the monuments of the Hissar culture was carried out by V.A. Ranov and T.G. Filimonova. The main territory for the spread of the Gissar culture is the Tajik depression, especially in the basin of the Yakhsu, Surkhob, Vakhsh, Kafirnigan (in the upper reaches), and the Yavan Valley. The main excavated monuments of the Hissar culture are the Tutkaul, Sai-Sayyod sites and the Kangurtut settlement.

The following data can be noted as specific features of the Gissar culture. The main constructive structures of the cultural horizons of the site of the Hissar culture are stone structures of two types of hearths, stone "boxes", and the remains of dwellings. In the stone industry of the monuments of the Hissar culture, there are certainly two very different elements - "pebble" and "flint". The first includes 70% of all artifacts, the second - 30% (Vinogradova, Ranov, Filimonova, 2008, pp. 27-29). The uniqueness of any industry lies in the adherence to a particular material from which the tools were made. It should be noted that flint was the raw material base of the Dzheytuns and Kelteminarians. As for the Neolithic cultures known on the territory of the mountains and foothills of Central Asia (Gissar, Sazaganskaya, Central Fergana), they used a variety of materials in the manufacture of tools, primarily silicified limestones, shales, sandstones, less often chalcedony, jasper rocks.

The Central Fergana culture is localized in the middle part of the Fergana depression on the territory of Uzbekistan. The first sites of the Stone Age in Central Fergana were discovered in the 50s. last century. Later, a comprehensive survey of the Stone Age sites in Central Fergana was carried out by U. Islamov and V.I. Timofeev (Islamov, Timofeev, 1986, p. 304).

The following data can be cited as specific features of the Central Fergana culture. The industry of the monuments of the Neolithic culture of Central Fergana was lamellar-flake and is characterized by the predominance of micro-plates in the first part (in the complex of stone products, the share of plates and micro-plates was 50-60%, and inside this part of the complex, the proportion of micro-plates, 4-7 mm thick, reached 80- 90%). In this context, it should be noted that in the industry, processed stone products account for 70-85%, and not processed 15-30%. Apparently, there were a lot of insert tools, although there are very few geometric shapes.

Monuments of the Sazagan culture occupy a small narrow strip in the northern slopes of the Karatepa ridge of the Middle Zarafshan on the territory of the Republic of Uzbekistan. Research of the monuments of the Sazagan culture began in the second half of the 60s. of the last century by the archaeological detachment of the Samarkand State University, which continue to this day. The main excavated monuments of the Sazagan culture are the sites of Sazagan 1,2, Dzhangal 1, Tepakul 3,4, Lolab, Karakamar, Ochilgor (Dzhurakulov, Kholmatov, 1991, p. 128 ; Holmatov, 2014.S. 190-195).

Further, the following information about the originality of the Sazagan culture is given: the geographical location of the Sazagan culture on the territory of the foothills predetermined the inclusion of both elements of the mountain regions (Gissar, Central Fergana) of Central Asia and the lowland lowland (Kelteminar). But, at the same time, it is an independent Neolithic culture with its own special features. This conclusion is scientifically substantiated by the results of studies of the stone industry of the monuments of the Sazagan culture, a typological analysis of stone and bone tools, ceramic vessels, as well as the specifics of its economic economy, ritual and cult practice of its carriers and their ethnocultural appearance. A comparative analysis of the stone industry of the Sazagan culture shows that it consists of such elements as flake-blade (72.3% and 23.7%, respectively) and pebble (with a share of 4.8% of the total number of tools). In the lamellar part of the industry, the share of micro-plates is 38.9%, and small plates (0.7-1 cm) - 82%. A typological analysis of stone tools revealed two of their features: 1. cultural bearers adopted some traditions of earlier inhabitants in the person of the Late Paleolithic Samarkand site (Late Paleolithic and Mesolithic), some types of stone tools and the technique of their processing, with subsequent improvement. In particular, disc-shaped cores, micro-choppers, tall scrapers made from flakes, disc-shaped scrapers, "nose-scrapers", "nail-like" micro-scrapers, ribbed blades, archaic blade and chisel tools; 2. the carriers of this culture introduced a number of innovative ideas into the technique of making stone tools, which was reflected in the fact that new types of stone products appeared in their everyday life. Among them are blade tools with geometric shapes, plates with beveled ends, scrapers made of plates with an arcuate working platform, arrowheads made of flakes with two-sided processing, polished stone axes, grain grinders, and plate scrapers. The above facts show that in the nature of the stone industry of the Sazagan culture, there is the presence of elements of the Mesolithic and Neolithic communities of the mountainous regions of Central Asia.

In determining the features of the Sazagan culture, ceramic complexes also play an important role as a source. According to the French researcher F.

Brunet, the appearance of ceramic vessels in the Neolithic societies of Central Asia is based on samples of molded vessels from Dzheitun of the late 7th-6th millennia (Brunet, 1999, pp. 27–48). It should be noted that there is no information about the presence of ceramics in the research materials of the Neolithic societies of classical Gissar and Central Fergana. A similar nuance, according to V.A. Ranova and T.G. Filimonova is explained by the fact that cultural layers have not survived in Central Fergana, and the life of the Neolithic communities of Gissar was associated with nomadic cattle breeding. Therefore, they had no need for ceramic vessels (Vinogradova, Ranov, Filimonova, 2008. pp. 37-38). Thus, all of the above information determines not only the features of the Sazagan culture, but also its place, as an independent culture, in the Neolithic system of Central Asia.

Stone Age monuments of Ustyurt are known within the area of the Ustyurt plateau on the territory of the Republic of Uzbekistan. In the 50-60s of the last century, the sites of the Stone Age in Ustyurt were preliminary examined by A.V. Vinogradov and E. Bizhanov. Later, a comprehensive survey of the Stone Age monuments was carried out by E. Bizhanov. Large accumulations of Neolithic monuments have been found in the peripheral parts of the Churuk, Aydabol, Aktaylak, Isatay and a number of others. Among them are large, apparently long-term settlements with many thousands of stone products (Aktaylak 1, Aydabol 20, Aydabol 25, etc.) and temporary camps for small groups of hunters and gatherers (Bizhanov 1996, pp. 3-42). The industry of the monuments of the Ustyurt culture was also plate-like and the share of tools made on the basis of flakes was insignificant.

Now, on the basis of new data, we will try to illuminate the historical roots of the formation and fate of the Neolithic cultures of Central Asia, to trace the possible genetic connection and the basis for subsequent historical eras. Based on the archaeological materials obtained in recent years, the main focus will be on the autochthonous origin of these cultures. As for the plain territory of Central Asia, on the plains of Uzbekistan only in the southeastern Ustyurt there are some not entirely reliable materials, presumably related to the Mesolithic and Late Paleolithic, which may have participated in the formation of the Late Mesolithic and Neolithic culture. It should be noted that after the discovery of Mesolithic sites such as Aydabal and Aktaylak, the question of the formation of the Ustyurt Neolithic on the basis of the local Mesolithic culture can be considered resolved. Comparison of the Mesolithic and Early Neolithic complexes of this region proves their undoubted genetic continuity (Bizhanov, 1996, p. 29).

On the problem of the historical roots of the origin of the cultures of the Neolithic societies of Kelteminar, there are different opinions. V.M. Masson connects the formation of this culture with the movement of the tribes of the Caspian coast through Uzboy. Also, the possibility of the formation of the Kelteminar culture on the basis of still undetermined material remains in local sites of the Late Paleolithic and Mesolithic is not excluded (Masson, 1966, p. 144). Origin of Neolithic Societies of Cultures of Akchadarya A.V. Vinogradov connects with Dzheitunskaya, as well as with the inhabitants of the Middle East. However, later, based on the fact of different roots of the material culture of the communities of the inner territories of the Kyzyl Kum and Lower Zarafshan on the one hand and the Neolithic communities of Akchadarya, on the other, he began to lean towards the opinion that the roots

of the latter should be associated with the local cultures of the eastern territories. The results of studies of sites of the Mesolithic and Paleolithic epochs in the inner territories of the Kyzylkum desert, in the basin of the Lower Zarafshan, carried out in recent years (Vinogradov, 1981, pp. 46-63; Kholmatov, 2007, p. 189), confirm the assumptions of V.M. Masson, G.F. Korobkova and A.V. Vinogradov. Based on the consideration of the features of the stone industry of the monuments of the Neolithic societies of the Lower Zarafshan and Kyzylkum, we believe that the formation and development of these cultures should be directly related to the materials of the Late Paleolithic site Samarkand (Sayfullaev, 2002, pp. 3-24) and the Mesolithic sites of Chorbakty (Kholmatov, 2015. B. 37-47). According to U.I. Islamov and V.I. Timofeev, the culture of the Neolithic societies of Central Fergana was formed on the basis of the local obishir culture (Islamov, Timofeev, 1986, p. 109). The Gissar Neolithic is immediately preceded by such Mesolithic industries as Tutkaul 2a, Sayyod 3, Daraishur. Therefore, the idea of the local origin of the Hissar culture can be considered logical. Excavations in Tutkaul and Daranshur show that the Mesolithic stone industry found in the middle reaches of the Vakhsh, namely its pebble element, later makes itself felt in the Hissar culture of this region. The formation of the Hissar culture is based on the territorially and technically preceding Vakhsh Mesolithic culture, which was widespread in the middle reaches of the river. Vakhsh. The remnants of the Neolithic methods of stone splitting, as well as the existence of typical tools of the Hissar in the Bronze Age, are analyzed in the works of T.G. Filimonova. The Gissar culture in the Bronze Age was transformed into a culture like the Kangurtut monument. Most of the works concerning the Sazagan culture on the territory of Middle Zarafshan consider the problem of its origin. Researchers usually associate the genesis of the Sazagan complexes with the Samarkand Upper Paleolithic site (Lev, 1965, p. 106; Kholyushkina, Kholyushkin, 1979, pp. 18-19). The latter is considered as one of the components of the composition of the mountainous and foothill Mesolithic of Central Asia as a whole (Islamov, 1980, p. 140). In view of the large chronological gap between Sazagan and the Samarkand site, some researchers considered the connections between them to be poorly substantiated (Dzhurakulov, Kholmatov, 1991, p. 113). There was no Mesolithic cultural layer. This made it difficult to resolve the issue of continuity and, as a result, this problem in the evolution of the Stone Age cultures of the region remained unresolved. But, the results of recent studies on the development of the Zarafshan basin by man made it possible to solve this problem, since new archaeological materials were obtained on the origin of the Sazagan culture and its links with local cultures. As a result of studies of the Mesolithic and Neolithic monuments on the territory of the Charbaktinskaya valley in the Lower Zarafshan, new decisions have appeared regarding the genesis of the Sazagan culture. The newly discovered sites Charbakty, Karakamar and the lower layer (Mesolithic) Achilgar brought some clarity to the question of the cultural genesis of the stone era of the Zarafshan Valley from prehistory to prehistory (Kholmatov, 2014, pp. 36-42). In particular, based on the results of typological analysis of stone tools from the lower cultural horizons (Mesolithic) of the Achilgar site, it was established that they turned out to be identical to similar tools from such Mesolithic sites (disc-shaped cores, micro-choppers, high scrapers made of

flakes, disc-shaped scrapers, scrapers with a "Nail-like" micro-scrapers, ribbed plates, chisel tools), like Charbaks in the lower reaches of the Zarafshan, Samarkand site, as well as from the sites of Ashkhan, Shugnov (1-cultural horizon), Tutkaul (3-cultural horizon) in Tajikistan. Based on the above information, it can be concluded that the formation and development of the material culture of the lower layer (Mesolithic) of the Achilgar site is associated with the culture of the Late Paleolithic Samarkand site. It should be noted that N.Kh. Tashkenbaev and R.Kh. Suleimanov in their research came to the conclusion about genetic relations during the formation and development of the material culture of the Neolithic societies of Gissar (Tutkaul) on the territory of Tajikistan with the inhabitants of the camp in Samarkand (Toshkenbaev, Sulaimanov, 1980, pp. 92-93; Ranov, 1975, pp. 145). In turn, these society on the basis of the successive settlement of neighboring territories became the basis for the formation of the material culture of societies in such Mesolithic sites as Charbakty, Sazagan 1, Zamichatash, Karakamar and the lower Mesolithic layer of Achilgar. At one time, these Mesolithic communities became the basis for the formation and development of the Sazagan culture of the Middle Zarafshan and a number of sites of the Neolithic culture of the Lower Zarafshan: Echkiliksay, Ayakagytma and Daryasai on the northern channel, Mahandarya, Khujayli, Bolshoi and Small Tuzkan on the southern channel. It can be assumed that in the cultural genesis of the Sazagan Neolithic culture, the Samarkand Upper Paleolithic site was the main site, the carriers of the Mesolithic cultures from sites such as Charbakty, Sazagan 1, Zamichatash, Karakamar, as well as the early inhabitants of the lower layer of Achilgar, took a direct part in its independent formation. culture (Fig. 2).

2-figure. Schematic map of the origins of the formation of the Sazagan Neolithic culture

Conclusions:

1. Analysis of archaeological materials obtained as a result of complex multidisciplinary studies of the monuments of the Stone Age, allows us to identify their confinement to separate natural - territorial complexes - geofacies. Consequently, the material culture of the Mesolithic and Neolithic eras of Central Asia has its own specific features, due, to a certain extent, to the diversity of the natural environment.
2. All the information given indicates the peculiar specificity of each of the Neolithic cultures of Central Asia. It should be noted here: 1. The industry of the Dzheyhun culture monuments was lamellar with microlithic elements; the industry of the Kelteminar and Ustyurt culture monuments is blade-like, and the share of tools made on the basis of flakes was insignificant. All of them belong to the circle of Neolithic cultures of the plain part of the territory of Central Asia; 2. In the stone industry of the monuments of the Hissar culture, there are certainly two polar elements - "pebble" and "flint". The stone industry of the monuments of Central Fergana was blade-flake and is characterized by the predominance of micro-blades in the first part. The stone industry of the monuments of the Sazagan culture was flake-blade, with pebble elements and is characterized by the predominance of micro-blades in the blade part. The cultures under consideration with the noted features

constitute the range of Neolithic cultures in the mountainous part of the territory of Central Asia.

3. On the territory of Central Asia, almost all areas of mass distribution of Neolithic monuments are characterized by two features. First, almost everywhere the beginning of the process of active development of the territory belongs to the Late Mesolithic; secondly, the late Mesolithic and Neolithic materials appear here in a difficult-to-dissect unity, testifying to the continuity of cultural development, to their genetic connection. This applies equally to the areas of distribution of the monuments of the Dzheyton, Hissar, Kelteminar, Ustyurt, Central Fergana and Sazagan cultures.

4. Analysis of new archaeological materials obtained as a result of research on the monuments of the Neolithic cultures of Central Asia made it possible to say that their historical roots were formed autochthonously on the basis of a local substrate.

References.

- Bizhanov E.B. Stone Age of Ustyurt // Avt.ref. for the degree of Doctor of History Nukus, 1996.
- Brunet F, Khuzhanazarov M. Khoshimov Kh. New data on the chronology of the Kelteminar culture in Uzbekistan (VII-IV thousand years BC) // IMKU. Issue 38. Samarkand, 2012.
- Vinogradov A.V. Ancient hunters and fishermen of the Central Asian interfluve. M., 1981.
- Vinogradov A.V., Mamedov E.D. Primitive Ljavakan. Stages of the most ancient population and development of the Inner Kyzylkum // Materials of the Khorezm expedition, issue 10. M., 1975.
- Vinogradova N.M., Ranov V.A., Filimonova T.G. Monuments of Kangartut in Southwestern Tajikistan (Neolithic and Bronze Age). M., 2008.
- Dzhurakulov M.D., Holmatov N.U. Mesolithic and Neolithic of Middle Zarafshan. Tashkent, 1991.
- Islamov U.I. Obishir culture. Tashkent, 1980.
- Islamov U. I., Timofeev V. I. Stone Age culture of Central Fergana. Tashkent, 1986.
- Lev D.N. Samarkand Paleolithic Site // IMKU. Issue 6. Tashkent, 1965.
- Masson V.M. Agricultural Neolithic in the southwest of Central Asia. // Central Asia in the Stone and Bronze Age. L., 1966.
- Masson V.M. Settlement Dzheitun (problems of the formation of a manufacturing economy) // Materials and research in archeology, No. 180. L., 1971.
- Ranov V.A. The work of the detachment for the study of the Stone Age in 1971 // Archaeological work in Tajikistan. Issue XI. Dushanbe, 1975.
- Sayfullaev B.K. Paleolithic valley of the Zarafshon River and North-Eastern Kyzylkum // Author's abstract. for a job. academic degree, candidate of historical sciences Samarkand, 2002.
- Toshkenbaev N.Kh, Sulaimanov R.Kh. The culture of the ancient stone age of the Zarafshan valley. Tashkent, 1980.
- Holmatov N.U. Mesolithic and Neolithic of Lower Zarafshan. Tashkent, 2007.

- Holmatov N.U. Zarafshon voʻxasi mesolithic va neolithic davri tarixi: tadqiqot muammolari, istiqbollari // SamDU Akhboratnomasi. Ilmiy magazines, no. 4. Samaraand, 2014.
- Holmatov N.U. Sazagan culture (Neolithic of Middle Zarafshan) // Samara Scientific Bulletin, no. 3 (8). Samara (Russia), 2014.
- Holmatov N.ʻ. Zarafshon voʻxasi tosh asri zhamoalari moddiy madaniyati shakllanishi tarixiy idizlariga doir baazi muloxazalar (yangi manbalar asosida) // IMKU. No. 39. Samarkand, 2015.
- Holmatov N.U. Sazagan culture and its place in the Neolithic era of Uzbekistan // Abstract of the dissertation for the degree of Doctor of Historical Sciences. Samarkand, 2019.
- Kholyushkina V.A., Kholyushkin Yu.P. On the nature of the development of the Mesolithic industry Sazagan // Siberia in antiquity. Novosibirsk, 1979.
- Brunet F. La neolithisation en Asie Centrale: un etat de la question // Paleorient. Vol. 24/2. Paris. 1999.
- Archeology. Neolithic of North Asia. M., 1996.