
BAKHTIYOR ABDULLAEV

ON THE PROBLEM OF THE EILATAN CULTURE IN ANCIENT FERGANA

Abstract: *This article presents scientific developments and conclusions obtained as a result of studies conducted by previous researchers to unveil the problems of the early Iron Century of the Fergana Valley, as well as a comparative analysis of the archaeological artifacts of the region accumulated in the twentieth century and identified in the process of new field research (Koshtepa-2, Khanabad-1 and others) allow the following conclusions: from the era of the Late Bronze and the Early Iron Age in the valley in parallel there were nomadic (Kairakkum and Eilatan, 11th-3rd century BC) and sedentary (Chust and Shurabashat, 14th-1st centuries BC) cultures. The difference between them is traced not only in craft products associated with these cultures, but also in the traditions of urban planning. Also, to determine the discrepancies in the concept of the sequence of the ancient cultures of Fergana, there is an analysis of ceramic vessels of the Late Bronze and Early Iron Age, as well as some of the stone products. According to the results of the analysis, economic property and the tools of labor of nomadic and agricultural crops corresponded to their lifestyle. Despite the mutual cultural ties of these crops were observed from the Age of Late Bronze, the strengthening of the synthesis or assimilation processes between the nomadic and agricultural crops of the region occur only from the middle of the first thousand BC.*

Key words: *Eastern Fergana, Early Iron Age, nomads, sedentary, handicrafts, irrigation, urbanization.*

Citation: *Abdullaev, B. (2023). On the Problem of the Eilatan Culture in Ancient Fergana, Bulletin of the IICAS 35, 18-34.*

Article link:

THE EARLY Iron Age is one of the most problematic aspects for ancient history in the Fergana Valley. The main reason involves referring to the Eilatan culture as sedentary, as well as uncertainty as to its place and significance to the Shurabashat culture within the consistent developmental system of ancient cultures in this historical and cultural region. The latter problem was covered in a previous article (Abdullaev 2018a); therefore, the results of critical and comparative analysis from a wide range of literary sources and ceramic collections related Eilatan cultural formation and developmental stages will be discussed in this article.

This article's central focus is the definition of nomadic culture in Fergana, which greatly changed the historical, political, and socio-economic nature of events during the period under examination. The results of most studies conducted in the 20th century in the region clearly indicate the presence of culture bearers, both farmers and nomads, who were part of the overall process of evolutionary development for Fergana's ancient society. However, the scholarly literature covers only the early stage of ancient Fergana's history; specifically, the Late Bronze Age and the Ear-

ly Iron Age's initial stage. In the later period, only the agricultural culture is studied comprehensively, while nomadic cultures are presented as peripheral, fragmentary, and subordinate to the former. At the same time, historical processes both in the world and particularly in Fergana point to the decisive role nomadic cultures played in the formation and development of the ancient society's spheres such as agriculture, urban planning, and centralized statehood formation.

The article's objectives include an analysis of academic and theoretical conclusions by previous researchers in revealing the essence of ancient cultures during the early Iron Age; a comparative analysis of archaeological artifacts (handicrafts and architecture) identified at the archaeological sites from this period; specifics as to the role and place from representatives of early Iron Age cultures related to the formation and development of the early centralized state of Fergana; and an analysis the ancient Ferganian (Davan) state's goals and results from their internal policy aimed at the economic and socio-political development of the region.

I. Initially, the idea that the Eilatan site belonged to an agrarian culture was proposed in the 1930s

by B.A. Latynin. During that period, archaeological studies of the early handmade painted ceramics in the Fergana Valley were not yet at a sufficient level with the main reason for confusion being a similarity between the Eilatan finds and the handmade painted pottery of the Anau culture (Turkmenistan) which was more well-known at the time (*Latynin* 1956: 90-92). Later, from resulting archaeological excavations in the western part of the valley, patterns characteristic of the Chust culture were identified in the ornamentation of some pottery vessels belonging to the Eilatan culture. This allowed researchers not only to confirm Latynin's conclusions about the agricultural origin of the Eilatan culture, but also to conclude the existence of a genetic relationship between these cultures (*Hamburg, Gorbunova* 1957: 87; *Gorbunova* 1962: 42-43; *Gorbunova* 1961a: 190, Fig. 6, 10-11). To some extent, the discovery of a handmade painted bowl—characteristic of pottery from the Aktam burial ground attributed to the Eilatan culture—obtained from the upper layer of the Ashkaltepa site from the Chust culture in eastern Fergana also contributed to the consolidation of this idea (*Zadneprovsky* 1962: 44, Fig. 17). However, these studies' results over the next 40 years suggested the inconsistency or, more likely, the fallacy of B. A. Latynin's conclusion. In a similar regard were the results from Yu. A. Zadneprovsky's 1962 monograph that analyzed the scientific literature and revealed, at first glance, an almost imperceptible error. Zadneprovsky's article, published after almost three decades after Latynin's, maintained that the Eilatan vessel found at Ashkaltepa did not emerge from the Chust cultural layer, but from a poorly preserved undercut grave dated to the subsequent Eilatan culture (*Zadneprovsky* 1990: 88). Nevertheless, N. G. Gorbunova, even in the late 1990s, claimed that the Ashkaltepa burial belonged to "purely agricultural" settlers of the Eilatan culture (*Gorbunova* 1996: 140).

Research results conducted over the last 90 years show that the overwhelming majority of archaeological sites dated to the Eilatan culture are burial grounds, with the only exceptions being the Eilatan archaeological site in the lower layers at Symtepa in Fergana and Sarvantepa in the Andijan region. This is in addition to the individual pottery fragments from this culture obtained from the lower layers of 20 sites dated to various periods in the ancient history of Fergana (*Zadneprovsky* 1960: 29, 30, 33, 38, 40-44; *Zadneprovsky* 1962: 151, 153, 162; *Zadneprovsky* 1993: 20; *Gorbunova, Kozenkova* 1974: 98, 102-103; *Gorbunova* 1979: 23; *Matbabaev, Gritsina* 2000: 106; *Ivanov* 2006: 124; *Anarbayev, Maksudov, Kubaev* 2015: 33, 34-36; *Matbabaev, Khoshimov* 2021:119). Thus, it is probable that the arguments supporting the Eilatan culture's agricultural origins were rather tenuous and required more weighty confirmations from researchers since

the search for settlements and cities from this culture continued through the 1950s to 1970s. A number of field studies were undertaken to support the hypothesis "that the Eilatan culture is an agricultural one." In the valley's east, expeditions were headed by Yu.A. Zadneprovsky, and in the region's west and southwest by N.G. Gorbunova. However, only burial grounds from this culture and only settlements from the agricultural Shurabashat culture were discovered to the east (*Zadneprovsky* 1960: 169), while in the west and southwest only Eilatan burial mounds with no settlements were discovered (*Gorbunova* 1979: 23). For this reason, and supported by the results of this author's research (*Abdullaev* 2020a: 43-44; *Abdullaev* 2021: 3-11), it would be more accurate to classify the Eilatan culture as nomadic or that of nomads gradually transitioning to a sedentary lifestyle. Researchers also assert that similar socio-economic changes in nomadic societies occurred not only in Fergana, but also among nomadic cultures in Central Asia during the 4th-3rd centuries BCE (*Chernikov* 1975: 282; *Ivanov* 1996: 122).

Undoubtedly, the inclusion of this culture among the settling nomadic cultures is more likely, which is also supported by the results literary source analysis from several Eurasian nomadic archaeological sites. The latter demonstrates that demographic growth along with insufficiently stable grazing lands for all the nomadic cultures led to a gradual transition by a certain part of their population to a sedentary lifestyle. The peak of this process in the Fergana Valley occurred in the middle of the 1st millennium BCE.

Nevertheless, during the 1960s, some researchers did question the conclusion that the tribes of the Eilatan culture were sedentary and agrarian. Based on the results of a comparative study from most archaeological and written sources available at that time, the conclusion that the Eilatan sites belonged to the Saka nomadic tribes was substantiated (*Litvinsky* 1960: 92, 94; *Litvinsky* 1976: 53, 54). This is also reflected in a separate chart developed by B.A. Litvinsky who, unlike other contemporary archaeologists, dated the sequential development of these ancient Early Iron Age cultures in Fergana, including the Eilatan culture, "as representing yet another known *agricultural (?)* culture" (author's italics) (*Ivanov* 1999a: 168, 188, Fig. 1, 22). Research data on the Ancient East, as well as the Fergana Valley (Chust and Kairkum cultures) largely suggests the coexistence of nomadic and sedentary cultures (*Briant* 1982: 408). This allows one to assume that the place of the "unknown culture" in Litvinsky's periodic system must be occupied by the Shurabashat agrarian culture since no other similar agricultural cultures have been found in Fergana!

The results of the above study indicate the need to make some changes regarding the concept of the

consistent development of the ancient cultures in Fergana. Probably, for this reason N.G. Gorbunova in some articles expresses an opinion corresponding to the idea of B.A. Litvinsky (*Gorbunova 1976: 29*). Nevertheless, she did not exclude Eilatan from the sedentary agrarian cultures; moreover, she published another critical article denying the coexistence of the Shurabashat culture, for a certain time, with the Eilatan, which was supported by Yu.A. Zadneprovsky and P.P. Gavryushenko, a young researcher at that time (*Gorbunova 1977: 54-55*). In her opinion, the Shurabashat culture appeared in the last centuries of the 1st millennium BCE and existed until the first centuries of the 1st millennium AD, although the studies criticized by her show earlier periods of the existence of the Shurabashat culture.

Thus, in 1962-1968, P.P. Gavryushenko fully studied the Kulunchak fortified settlement in the east of the valley with an area of 0.5 hectares, substantiating that it belonged to the Shurabashat agrarian culture. According to a comparative analysis of the finds, the settlement dated from the 5th to the 2nd centuries BCE. Also, based on the results of the comparative analysis, it was revealed that several items (ceramics, stone tools, etc.) from Kulunchak farms were somewhat like those in the Chust culture. At the same time, it is noted that pottery vessels belonging to the Eilatan culture were found at Kulunchaktepa and, according to their analysis, representatives of the Shurabashat and Eilatan cultures coexisted for a certain period (*Gavryushenko 1970: 16-17, 19*).

Ideas similar to the second question were indirectly supported by the results of extensive analyses of the pottery from the Shurabashat monument, where, almost from the first stages of the development of the site, a collection of handmade vessels characteristic of the Eilatan culture and the so-called "Eilatan wheel-thrown tableware" was revealed, in which this tableware was much more dominant (in a ratio of 60/2) than the red-slip wheel-thrown tableware (*Zadneprovsky 1962: 137-138; Gavryushenko 1970: 16-17*). The first of the above researchers, who introduced the term "Eilatan culture," specially conducted numerous archaeological excavations in the Osh region (Kyrgyzstan) at the Early Iron Age sites, hoping to identify any site or settlement associated with this culture. However, the conducted research resulted only in burial grounds belonging to the Eilatan culture, and all discovered settlements belonged to the Shurabashat culture, which was the basis for admission that these cultures had co-existed (*Zadneprovsky 1960a: 169; Zadneprovsky 1962: 154-162*). Also, according to Zadneprovsky, who worked on the monument for many years and gave the name to the second agricultural culture, N.G. Gorbunova's conclusions on "the dating of the Shurabashat complex

to a time almost 500 years later does not correspond to reality" (*Zadneprovsky 1993: 21*). Since, according to the results of his field research, the Shurabashat site was dated to the 5th (4th)-1st centuries BCE (*Zadneprovsky 1962: 169*). It should be noted that when summarizing the conclusions of most of the field studies conducted by Zadneprovsky in Fergana's east at Early Iron Age sites, he had no other option but to use the phrase with an axiomatic meaning *in the understanding of N.G. Gorbunova* (author's italics) as "Eilatan-shurabashat" (*Zadneprovsky 1960a: 50, 169*).

Nevertheless, the problem of dating Shurabashat culture to the Early Iron Age, as well as questions about the entire concept's revision concerning the continuity of ancient cultures in Fergana, remained closed until the late 1990s.

In 1999, G. P. Ivanov gave a theoretical conclusion to the dispute related to the Eilatan and Shurabashat cultures, which by then had lasted more than half a century. Specifically, new directions concerning the sequence of Fergana's ancient cultures were developed around a generalization of all field studies conducted during that time and through the results of comparative analyses of material finds. According to Ivanov, the Shurabashat culture succeeded the Chust culture, and the former existed simultaneously with the Eilatan culture (*Ivanov, 1999: 19*). This, in this author's opinion, suggests an earlier date for the formative stages of these cultures, which is the task of the latest research. Nevertheless, accounting for Eilatan's nomadic culture as formed during the final stages of the Chust agrarian culture; it is necessary to date it to at least to the 7th-3rd centuries BCE, which would be closer to reality. This last suggestion is also indirectly confirmed through comparative analyses of pottery fragments found at sites in the Fergana and Sogdiana historical and cultural regions dated to the Late Bronze and Early Iron Ages. Thus, this requires a revision when dating the Eilatan culture (*Barartov 2001: 175, 177, Table. 2; Isamiddinav 2002: 187, fig. 159, 195*). Secondly, the Eilatan culture actively maintained relations with representatives from the agricultural Shurabashat culture. As a result, the painted ornaments on ceramic dishes from these cultures were mutually influenced with each of them featuring combinations of elements and styles from both (*Zadneprovsky 1962: 137-138; Gavryushenko 1970: 16-17, 18; Ivanov 1999: 19; Abdullaev 2018a*).

Historically, active communication between nomads and highly developed agrarian cultures were initiated by the former. Of particular interest is the opinion of N.G. Gorbunova: "... it is the *livestock breeders* (author's italics) that launched permanent contacts with the tribes surrounding Fergana, similar to some extent in the type of economy they practiced" (*Gorbunova 1996: 138*). Additionally, as shown above,

research by her other contemporaries indicated that nomads initiated close relationships with sedentary cultures as well. For Central Asia, vivid examples are the migratory patterns of the Andronovo nomadic cultures in Eurasia during the 2nd millennium BCE to the southern borders of Central Asia and their assimilation with (or absorption by) the population of the Sapalli culture. The penetration of northern pastoral tribes into the territory of ancient Bactria (southern Uzbekistan, southwestern Tajikistan and northern Afghanistan) and their influence on indigenous sedentary tribes were noted based on the results from several studies (*Sarianidi* 1977; *Francfort* 1989; *Vinogradova* 2004; *Avanesova* 2010). The last of these abovementioned researchers summarized the conclusions of previous scholars, emphasizing that the influence of these settlers on the local cultures was multifunctional and extremely effective. According to her conclusion, the formed relational systems were based on the following: 1) direct interaction between cultures with a simultaneous transition to a sedentary lifestyle; 2) migration of individual groups from the west and north (Ural-Kazakhstan region) to the south as a consequence of trade and exchange relations dictated by available raw materials on different territories; and, 3) possible occupation as a result of desertification. Most of the intercultural relations included regular contacts for the exchange of goods (*Avanesova* 2013: 28).

It should be noted that similar processes took place in Fergana because of nomadic migrations in the Late Bronze Age and Early Iron Age (*Litvinsky* 1960: 287; *Baratov* 2001: 161). However, due to the lack of new approaches in classifying artifacts and updated research conclusions concerning the chronology of ancient cultures based on these approaches, these theoretical developments are not tenable for the Fergana region. Consequently, the old approaches to the region's study are still present and, as a result, a number of problems arise regarding the absolute dating of these ancient cultures.

In the last eight years, comparative results of handmade painted pottery from Koshtepa-2 (2014-2019), Khanabad-1, and Khanabad-2 (2020-2021) along with similar artifacts from other sites in Fergana, also show that the Eilatan and Shurabashat cultures began at least from the middle of the 1st millennium BCE and lived in close contact (*Abdullaev* 2016a: 11; *Abdullaev* 2016b: 5; *Abdullaev, Kambarov* 2021. B. 237, 247). In this regard, the common use of results from the natural sciences along with modern technological analyses practiced by world and Uzbek archaeology is of particular importance. This will strengthen the research results, since, along with pottery, samples of paleoanthropology, paleozoology, paleobotany, paleo-metallurgy etc., can be subject-

ed to modern technological analyses. Undoubtedly, these results will contribute to clarifying the absolute dating of ancient cultures as well as solve a number of problems pertaining to newly studied sites.

II. The main incentive for most researchers in referring to the Eilatan culture as agricultural, in this author's opinion, is the presence of "unusual" handmade painted pottery for everyday use. However, this can be explained by several indirect realities arising from their nomadic lifestyle. The latter is very clearly illustrated in the work of German art historian Karl Einstein, published in 1931.¹ He concludes that "[nomads] were too little taken into account by researchers... because they were outside the already developed, so-called, classical zone." According to Einstein, nomads had a high status among the creators of new art forms. The origin of eclecticism in nomadic art was not defined by K. Einstein as a type of aesthetic relativism. Rather, he associated it with the need for magical order of replacing the former "spirits" with new, "alien spirits" which they had assimilated during migrations, while "their own," former spirits lost their power and could no longer effectively perform their functions. Thus, K. Einstein placed the art of nomads into a double time dimension in which "the acrobat of temporary states acted as a carrier of future forms, which simultaneously rejected the already known and appealed to the well-forgotten past, extracted by them from the depths of memory. The nomad was the carrier of displacement, rupture, and separation; but at the same time restored the continuity of time. This indicated that the nomads were, thus, agents of transmission for other people's memories. The ability of reincarnation inherent in the nomadic art, as associated by K. Einstein, was with the proximity of the latter to the world of animals and nature. Such a close connection allowed one to transform constantly and endlessly into another and within it" (*Kalinowski* 2013: 196-199).

This information indicates that nomads, based on their lifestyle, were innovators for their time and always were on the path toward updating their worldview. Consequently, the art of nomads is a style that formed only in the process of migrations. The latter was directly reflected in the adoption and ornamentation of handmade painted pottery, where "old" and "new" symbols intertwined, dissolving into each other. These concepts were also revealed in this current author's research even before being acquainted with the work of K. Einstein (*Abdullaev* 2018a: 10-11).

In the 1960s, researchers, when discussing forms and ornamentation for cooking, dining, and ceremonial items, observed that—unlike large vessels from

¹ This article uses an annotated translation (*Kalinowski* 2013).

the Chust and Shurabashat cultures— pottery in the Eilatan culture was mainly represented by small, compact handmade bowls and jugs (*Zadneprovsky* 1960b: 40-41; *Gorbunova* 1961b: 43, Fig. 1; *Gavryushenko* 1970: 16-18). These observations also indirectly showed that the bearers of the Eilatan culture led a nomadic lifestyle. Ivanov, a scholar who came much later than the abovementioned researchers, engaged in a theoretical analysis of this problem and concluded that a distinct difference existed between the ornamentation of almost all the handmade painted ceramics in the Eilatan in contrast to the pre-existing Chust cultures, which completely negated their sequence and, more so, the continuity between them (*Ivanov* 1999: 14). Simultaneously, a comparative analysis of pottery examples from the nomadic culture of Kayrakkum (11th-7th centuries BCE) with other cultures in Fergana from the Late Bronze and Early Iron Ages, led Ivanov to the following conclusion:

“... in these *Eilatan* (author’s italics) ceramics are a significant number of elements that make it similar to the late Kayrakkum collection. In all four types of Eilatan pottery (using the classification by Yu.A. Zadneprovsky),² the forms characteristic of this collection are evident. Especially striking are the coincidences with pottery of the first and fourth types, which are the most numerous in the composition of Eilatan pottery. They provide massive coincidental similarities with groups III and V from our classification of Kayrakkum pottery. In many cases, the matter is not in vessel similarity, but rather identity of form, manufacturing technique, and ornamentation” (*Litvinsky* 1962: 256).

Therefore, considering such a conclusion, it is more appropriate to discuss the genetic connection of the Eilatan culture as not associated with the Chust agrarian culture, but rather with the nomadic Kayrakkum culture. In this regard, the opinion of Ivanov concerning the formation of the Eilatan culture is worth noting:

“By the 7th century BCE, new pastoral tribes that had previous experience with the people from northern Bactria penetrated into the valley. These tribes mixed with representatives of the local Kayrakkum culture, creating a new Eilatan-Aktam culture, in many respects the culture of the Saka circle. Apparently, representatives of the new culture controlled the whole of Fergana” (*Ivanov* 2017: 11).

² *Zadneprovsky* 1960b: 33-40, fig. 4-11.

The continuity between the Chust and Eilatan cultures also fails to correspond chronologically. Of note is the status of a so-called “sedentary people” as representatives of the Eilatan culture based on the discovery in some burials from Aktam and Kungai, previously mentioned, which contained individual examples of handmade painted pottery with designs that are not traditional for this culture. While the design color and background pottery items remained the same, the patterns corresponded to the painted motifs on the handmade vessels from Chust and Dalverzin. This latter example, in turn, allowed researchers to conclude that there is a genetic link between the Chust and Eilatan cultures. However, in this author’s opinion, the situation was associated with criteria other than these cultures’ genetic kinship, and this, most of all, corresponded to the special worldview of these nomadic cultures as presented above by K. Einstein.

First, it is more likely that nomads were more interested in establishing active relationships with the Chust culture farmers – initially the Kayrakkum people (*Litvinsky* 1962: 255, 256-257, 288-289; *Litvinsky* 1963: 127); and then, the people of the Eilatan culture since the second largest agrarian economic output was the sedentary and developed craft of livestock breeding which allowed the Chust and then Shurabashat cultures to always have a steady supply of food reserves in the event of bad harvest or extreme winter. Meanwhile, the main source of rapid economic development among nomads was free range livestock breeding which involves constant summer and winter migrations. However, such extensive farming was limited by the size of pastureland on the one hand and the inability to feed huge herds during harsh winters on the other. Thus, there were always special neighborly relations between agricultural and pastoral cultures which allowed mutually strengthened trade relations recorded in Fergana and Central Asia, as well as around the world. This idea is demonstrated by handicraft examples handicrafts from one culture to that of another. For Fergana, similar facts are known in the relationship between Kayrakkum and Chust cultures (*Litvinsky* 1962: 256-257; 289). Such relationships between the Eilatan and Chust cultures were only a continuation of the previous ones (the Kayrakkum-Chust people), which indicates that they partially coexisted for a specific time. In this case, it is surmised that this raises the necessity to push back the date of the formative period for the Eilatan culture. Considering that this process corresponds to the late stages in Chust culture, it would be more realistic to date the Eilatan culture strictly between the 7th-3rd centuries BCE, and not approximately to the 7th(6th)-3rd centuries BCE.

Second, the Eilatans actively maintained the con-



Fig. 1. Easel bowl

tinuation of these mutual cultural and economic relations with the Shurabashat culture, whose lifestyle had a direct connection to agriculture. Thus, along with other related economic spheres, these relations were especially manifested in pottery production in east Fergana where painted patterns on dishes from these cultures led to mutual influence and the transition of design elements from one to another, as well as the use of each other's pottery (Gavryushenko 1970: 16-17, 18; Ivanov 1999: 19; Abdullaev 2018a).

It should also be emphasized that during archaeological excavations on the sites from the Andijan region near the western foothills of the Tien Shan (Honobod-1 and Honobod-2) in 2020-2021, vessels were discovered with handmade painted pottery and hemispherical wheel-thrown bowls. Some of the latter examples had vertical and pointed rims on a flat base made of light-yellow clay containing variegated, fine sand. In the vessel's lower quarter, the yellow slip was preserved (fig. 1). The products' uniqueness is that these vessels were recorded in the Aktam burial ground for the first time and identified as pots by researchers (Ginzburg, Gorbunova 1957: 85-86, fig. 30, 23a-23b). A comparative analysis of these finds shows that vessels with a similar shape were also recorded on the Shurabashat site (Zadneprovsky 1960: 23, 24, Fig. 8, 2; Zadneprovsky 1962: 124, 129, Fig. 27). However, in this case, while having an external similarity in form, the vessels were painted with a red slip and handmade ones identified as bowls. One bowl from this collection had a cruciform *tamga* with rounded ends at the base. The historiography of Central Asia, records several studies on this engraved sign, defined as a *tamga*, to denote private property of nomads (Abdullaev 2019. 108-109). For Fergana, the earliest such signs on vessels come from the archaeological site of Eilatan (Oboldueva 1981: 188-189, Fig. 2, 8).

In terms of the mutual influence of cultures, comparative analysis provides results from pottery fragments of Shurabashat-type handmade painted ves-

sels. These are recorded in the lower cultural layers at Koshtepa-2 in Andijan's Kurgantepa district. The potsherds's designs consisted of a rhombus filled with an oblique checkered pattern. Such patterns, according to researchers, had a specific meaning and represented a schematic symbol for the "tree of life," developed during the initial emergence of polities from the ancient East. This pottery collection analysis is presented in the current author's earlier article (Abdullaev 2018a), in which potsherds from both Shurabashat and Eilatan cultures were discovered among the pottery collection from an excavated room's floor and an associated household storage pit. This example probably indicates much closer ties between these cultures than just cultural or trade relations.

Due to field research during 2020-2021, a large handmade painted pottery collection was gathered at the Khanabad-1, in which each traditional diamond design was decorated on the inside with specific elements (fig. 2) belonging to both the Shurabashat and Eilatan cultures. This site belongs to burial grounds categorized from the Eilatan culture whose cultural material consisted of bowls and basins with characteristic shapes and bright painting, mostly made on a "cloth stencil" with the subsequent discovery and removal of cloth traces. The first group of vessels measured 6-8 cm with a mouth diameter between 16-21 cm. The second group's height ranged from 9-11 cm with a rim diameter of 22-26 cm. Also, during field excavations at the Khanabad-1 cemetery in 2021, two handmade painted cups, including one with a vertical, flat handle with a through hole for hanging the vessel with a thread (made from horsehair) (fig. 3). Both had the aforementioned design motif. They also possessed a hemispherical shape and are 4.5-5 cm high, with the widest part of the body measuring 5-6 cm in diameter.

The pottery ornamentation from the Khanabad-1 is painted with dark brown or dark red slip on a light



Fig. 2. Hand-made painted bowl, ornamented with the symbol "tree of life"



Fig. 3. Hand-made painted cups: a – without a handle; b – with handle

or light red background. The pattern covers the entire body's surface except for the vessels' bases. The painted design's main motif consisted of horizontally joined rhombuses with occasional triangles (usually 3 or 4) located in the body's center and filled with various geometric and floral patterns. In Fergana, this tradition for such vessel ornamentation continued into Late Antiquity and appeared on the outer surface of red-slip wheel-thrown pottery with inscribed geometric patterns and enhanced by several technological developments and innovations which were especially popular in the last centuries of the 1st millennium BCE and in the first centuries AD (*Baruzdin* 1961: Table III, 1, 3, 5. Table VI, 3. Table XI, 1-3, 5-6, 8, 10. Table XI, 1-2, 4-10. Table XIV, 1, 4, 7; *Litvinsky* 1972: Table 12. 14; *Gorbunova* 1979b: 140, Fig. 7; *Gorbunova* 1990: 186-187, Fig. 4-5; *Abdulgazieva* 1997: 16, Fig. 3; *Abdullaev* 2018a: 7; *Abdullaev* 2020: 94, Fig. 2, 1-2).

As mentioned above, the diamond-shaped design was a schematic representation of fertility with historical roots in the Middle East and somewhat later spread among Chust culture. However, one researcher has discussed that the image of the "rhombus" was also a symbol for female embodiment of nature – the goddess of fertility – since the Palaeolithic (*Fettich* 1958: 122). Similar diamond-shaped images were

also found on petroglyphs in Uzbekistan, specifically, the Nurata mountain range in the Samarkand region (*Khizhanazarov, Kholmatorov* 2012: 53) as well as Siypantash in Kashkadarya. In the Chinese chronicles, women in the Davan state were depicted as having a privileged position. Thus, this data appears to substantiate one hypothesis that the region's ancient inhabitants worshipped a female image representing the fertility goddess (*Gorbunova* 1986: 181).

Another variation in Khanabad-1 pottery design is a form similar to sites in the western and southwestern parts of the valley. The design on top of horizontal rhombuses or triangles located in the vessel's center which are filled with variously applied geometric patterns and interconnected lines which curve downward (fig. 3, a; fig. 5). However, the interpretation of such lines remains unclear.

The design study of handmade painted pottery from the Khanabad collection shows that another consistent feature involved the pattern on the vessel's rim which is depicted predominately on the outside and partially on the inside. This pattern, like other elements of ceramic painting, tended to increase over time, but currently is divided into five types:

The first type consisted of interconnected triangles placed in a horizontal row with the triangles' base along the vessel's base (fig. 3, b; fig. 5; fig. 9) and



Fig. 4. Hand-made painted bowl with a crown-shaped decoration

is characteristic on Eilatan-type pottery (*Hamburg, Gorbunova 1959: 12, 14; Gorbunova 1961a: 178, Fig. 6, 1-3, 5-7, 9; Gorbunova 1961b: 43, fig. 8-10; Gorbunova 1962: 99, fig. 2, 13*). However, this smaller pattern is also found on Chust culture handmade painted pottery (*Zadneprovsky 1962: 264, Table. XVII, 10-15, 48; p. 265, table XVIII, 2-3, 20*) since it symbolized the earth's surface both for nomadic and agricultural cultures (*Ambrose 1965: 14*).

The second decorative type is represented by a horizontal row of triangles connected by a crown-shaped decor 5 cm wide (fig. 4). A comparison of this painting style shows this specific pattern is not found in the pottery collections uncovered at Aktam, Kungai and Sufan in west and southwest Fergana, indicating that it originated in the eastern region. The first and second design groups as a whole favor the appearance of a crown, but in the second case the crown comprised a combination of crowns, which perhaps indicated a dividing line between eastern and western tribes of the Eilatan culture, or the result of the synthesis between nomadic and sedentary cultures in the valley's east.

The third type of rim ornamentation as inscribed by the ancient designer involved placing two parallel lines connected by vertical dashes (fig. 2; fig. 6). A comparison of this design also shows it belonged directly to Fergana's eastern regions, since design variations were discovered on pottery collections from both the Shurabashat and Eilatan cultures (*Zadneprovsky 1962: Table LVIII, 15; Table LXXVIII, 2*).

The fourth type is represented by a ribbon formed by two parallel lines, 2-7 cm apart from each other infilled with an oblique grid (Fig. 7). This design element has its roots in the Late Bronze Age, in which a similar "ribbon" extended from the rim to the vessel's base (*Zadneprovsky 1962: Table XII, 13; Table XVII, 7-8; Matbabaev 1999: 43-46, Table I-IV, G13-17*).

The fifth type is represented by patterns which form horizontal lines in three rows along the vessel's edge (fig. 3, a; fig. 8). This was identified on a

cup found within a special stone structure which had been lowered to a grave-chamber's level, one meter east of the interred body's head (grave M-2) at the Khanabad-1 mound.

Another distinctive pattern from Khanabad is the appearance of an eight-pointed "star" (fig. 9), which has comparisons with pottery from the Shurabashat culture. This is specifically in the form of depicted twigs (*Zadneprovsky 1962: Table XLVII, 7, 16, 28; Table LVIII, 14, 17; Table LXI, 8, 12; Table LXXVIII, 1*). There is no specific literature concerning the interpretation of this symbolic motif, therefore, this author suggests a working theory which can make a unique and rather indirect clarifying contribution. In the 18th century, German scholar G. K. Lichtenberg noted an effect of an electrical discharge on solid objects resulted in star-shaped and branched images appearing on their surface (*Koltovoy 2017: 10, Fig. 1*). The research into the so-called "Lichtenberg figure," named after this scholar, has endured to the present. Of course, an electrical charge with the highest voltage in nature exists in lightning, which for ancient people was considered a manifestation of divine power. When observing people struck by lightning, similar figures appeared on their bodies (*Troitsyna 2021*).

From the beginning of human history until recently, people have deified natural phenomena which were often repeated in nature (i.e. floods, storms, fires, thunderstorms, etc.). The most frequent phenomenon is the lightning strike with its resulting fires. Undoubtedly, people who observed this phenomenon considered them the gods' supernatural weapons, both in Central Asia and throughout the world. Perhaps because of this, the region's ancient cultures depicted these star and branch symbols on the pottery's surface.

One rare example of ceremonial pottery from Khanabad is a design element forming a circle at



Fig. 5. Hand-made painted bowl. A pattern of downwardly curved interlocking lines over horizontal diamonds or triangles



Fig. 6. Hand-made painted bowl. Pattern under the rim in the form of two parallel lines connected by vertical lines

the base of a bowl (fig. 10). Comparisons reveal that this design, like the abovementioned main section, is unique only to the local Eilatan culture variant and is absent from Chust and Shurabashat sites. Although the Shurabashat agricultural culture at these sites did have a design element with a horizontal row of interconnected rings decorating the vessels' rims (*Zadneprovsky* 1962: 304, Table LVII, 8), they had no identified ring motif, logically completing the vessel's entire ornamental composition. The element's design interpretation has not been studied in the literature, yet, it can be indirectly explained also as a "Lichtenberg figure." Research reveals that when an electric charge strikes a solid object, lines appear on its front and back sides, forming different shapes. It can be assumed that ancient people would observe similar patterns on objects or the human body and subsequently introduced them as a pottery ornamental feature.

No doubt artifacts used by ancient people in everyday life also directly or indirectly indicate the way of life found in various cultures. Characteristics from pottery typical of nomadic and sedentary cultures have been provided. Yet, a distinctive feature of handmade painted ceramics from ancient Khanabad combines design elements from Chust, Eilatan and Shurabashat cultures. Thus, it is possible to suggest that active contacts occurred among them with such a relationship creating a synthesis between the latter two. Such socio-cultural processes were also cited in conclusions by previous researchers (*Abdullaev* 2017: 114), though probably not emphasized.

Other household implements include stone heels characteristic of the agricultural Chust and Shurabashat cultures but not found in either in the Eilatan site or the lower layers of the sites in Symtepa and Sarvantepa, or in the burial mounds (Aktepa, Kungai, Sufan) belonging to the Eilatan culture. The same is true concerning stone sickles whose origin, in most

cases, date to cultural material from the late Bronze Age (Chust culture) and was extensively used by the Shurabashat culture (*Zadneprovsky* 1962: Table. XXV-XXVI. *Gavryushenko* 1970: 9). However, such tools are not mentioned in any of the examined Eilatan sites. One exception is the first discovery recorded at the Khanabad-1 burial mound, with the probable reason being the nomadic Eilatan people's direct and close contact with farmers of the Shurabashat.

III. Urbanization and urban planning involves a significant difference between agricultural and nomadic cultures (fig. 11). The Eilatan site provides a good example with no settlement layout identified, which, according to many researchers, appeared during the middle of the 1st millennium BCE. This city of nomads differed significantly from both the previous large and medium-sized cities of the Chust agrarian culture (Dalverzin 24 ha, Ashkaltepa 13 ha, Chust 4.5 ha) and the subsequent Shurabashat (Shurabashat 70 ha, Ooz-depe, Toton-depe 20 ha, Karadarya 10 ha, etc.). In this regard, the cities of nomads and farmers are distinct via another detail – the presence of many farm pits in the latter and their absence in the former (*Ivanov* 2013: 3).

According to studies completed since the 1960s up to the present, one remarkable fact related to the valley's Bronze Age history occurred during the later (and possibly the middle) stages of the Chust culture's transition from constructing large cities into mostly small (~ 0.5 ha) and even very small (~ 0.005-0.25 ha) settlements. (*Zadneprovsky* 1962: 84; *Zadneprovsky* 1981: 25). This conclusion, in the author's opinion, is based upon the period's economic and political context and characterized as follows: 1). Since Chust culture farmers did not perfect groundwater removal methods, this led to salinization of agricultural fields. Therefore, it is probable that this culture was forced to relocate every 50-100 years. Consequently, the large urban construction did not justify itself economical-



Fig. 7. Hand-made painted bowl. Pattern in the form of a strip filled with oblique mesh under the rim of the bowl



Fig. 8. Hand-made painted bowl with a pattern under the rim in the form of three parallel lines

ly; 2). In most cases, the Chust culture did not need products from nomads, because they, along with their agriculture and handicrafts, developed stable livestock breeding – the second most important factor in “food security.” All this clearly indicates that Fergana’s first farmers had sufficient experience in far-sighted, “multi-vectored,” and planned agriculture.³

This state of affairs suggests that the nomads needed to be proactive themselves in establishing socio-economic, and at times, political relations with farmers. First, they were aimed at developing mutually beneficial trade based on an equal exchange of goods. Second, the nomads—relying on the presence of their fast and mobile cavalry—initially sought to establish relative suzerainty (within the framework of tributary status) in relation to Chust culture farmers. However, later, Shurabashat culture, as successors of the Chust culture, probably fell into complete political subordination to the Eilatan people. Thus, the farmers’ status from the last stages of the Chust culture—Early Iron Age (8th-7th centuries BCE) up to the early stages of Antiquity (4th-3rd centuries BCE) during the Shurabashat culture—forced them to build small settlements.

From the middle of the 1st millennium BCE, at least in the eastern part of the region, methods to fight against arable land salinity were apparently already invented. Examine sites located along the ancient agricultural man-made “waterways,” specifically, the Shahrikhansai and Andijansai canals, provide exam-

ples of material culture (handicrafts and architectural remains) from various periods which indicate regular, consistent, and evolutionary development of the agricultural settlements (with occasional stages of decline) for more than a millennia. Consequently, during this period, the ancient settled population across a very long chronological period intensively developed agriculture without fear of forced relocation in search of fertile lands. Although the Shurabashat culture also featured some relatively large cities—Shurabashat (70 hectares), Ooz-depe, Totondepe (20 hectares respectively) Karadarya (10 hectares) and others—they could not change the general appearance of the settled populations’ ancient urban planning. Such a situation may signal the restoration of the former exalted status among representatives of the “aristocratic” class from the Shurabashat culture.

While all this is a working hypothesis, substantiating it would involve conducting new, comprehensive archaeological excavations with comparatively analysing materials from previous field and theoretical studies. Nevertheless, since the second quarter of the 1st millennium BCE, most agricultural settlement areas did not exceed 0.5-1 ha. This, in turn, shows the problematic and groundless claim that “Eilatan is the successor of the Chust culture.”

Yet, due to the main construction criteria (i.e. shape and area) and socio-economic reasons (i.e. demographic development, as well as partial dependence on agricultural products and crafts from the settled communities); Eilatan culture corresponded more to the cities built by the nomadic cultures of Eurasia from ancient times up to the medieval period. Due to demographic growth, the Eurasian nomadic pastoralist population was regularly replenished within



Fig. 9. Hand-made painted bowl. Pattern in the form of an eight-pointed star above the junction of horizontal diamonds

³ Certainly, several artifacts have been discovered in the Fergana Valley from the Eneolithic and Early Bronze Age (i.e. “Khak” and “Aflatun” treasures of precious metals, stone weights or amulets), but not a single agricultural site has been found from those eras. Therefore, the Chust culture is conventionally considered the first agricultural one.



Fig. 10. Hand-made painted bowl. Pattern in the form of a circle at the bottom of the vessel

the category of their impoverished compatriots, who were consistently placed in special settlements created within the framework of nomadic society, on lands suitable for agriculture or, at least gardening (Pletneva 1967: 181-182; Perle 1974: 271-274; Davydova 1978: 55-59; Hayashi 1984: 51-92; Kradin 2007: 126-127). Most of the population from such cities engaged in agriculture, stable livestock breeding, fishing, as well as hunting, as confirmed by archaeological evidence (Davydova 1985: 68-80). Of note is the small number of residential buildings that remained only in the inner city of Eilatán within a 20-hectare area, while the outer city with a 200 hectare area was a wasteland. Thus, it is likely that this city was built along the traditional nomadic migration routes with the accompanying conditions for producing additional agricultural and handicraft products by the “settled” population. This fulfilled the function of organizing a stopover for large livestock herds for specific periods and protecting them from theft.

In contrast to Eilatán culture forced urban planning, more than 50 cities and settlements in the Shurabashat culture were identified archaeologically as far back as the 1980s (Zadneprovsky 1994: 42). However, according to current data, that number is much larger. Yet, most of the Shurabashat sites as well as those attributed to the agricultural Chust culture incorporated an area of up to 0.5-1 ha, with a higher number of large and medium-sized cities. This situation, as previously noted, arose when the polity of the nomadic aristocracy from its possible original central city of Eilatán consistently penetrated into the cities directly located on Shurabashat culture’s fertile lands for optimal leadership, pursuing an internal policy aimed at developing new irrigated arable lands via the construction of irrigation channels. This policy’s

consequence led to strengthening comprehensive ties between these cultures, enriching their economic traditions as well as creating common urban planning methods. This process probably resulted in large-scale as opposed to partial relocation of the nomadic nobility and workers to the large and central cities of the settled tribes. This, as a consequence, led to a rather rapid desolation of the Eilatán settlement, unlike several of the historically close central nomadic cities in Central Asia such as Kanka and Kalai Zohaki Maron, which had a longer history (Suleymanov 2000: 26-28).

Due to research results conducted in the valley, the mutual influence and synthesis of the Eilatán and Shurabashat cultures was also reflected in the region’s architecture from Early Antiquity. In particular, the Mingtepa site, 100 km southeast of Eilatán, also had a double defensive wall framing the inner and outer cities. However, until the late 20th century, Mingtepa, unlike Eilatán, was thought to be rectangular in shape (Bernstam 1952: 25-28, Fig. 89); the result of a bad-quality topographic survey of the settlement. The corrected result was due to new topographic measurements taken in 2012 by an Uzbek-Chinese joint expedition revealing that the city was shaped as a parallelogram, similar in plan to Eilatán (Matboboev et al. 2013: 94, Fig. 1; Abdullaev 2020: 94). At the same time, unlike Eilatán, a citadel was discovered in the center of Mingtepa’s inner city, which served as an administrative center and a religious structure which included a temple, as well as the remains of 14 large buildings, which, in this author’s opinion, were the residences for representatives of the “Council of the Elders” (Abdullaev 2018b: 68; Abdullaev 2020: 89).

All these facts indicate that changes to the architecture from the Early Iron Age and Early Antiquity in the region brought together the socio-economic

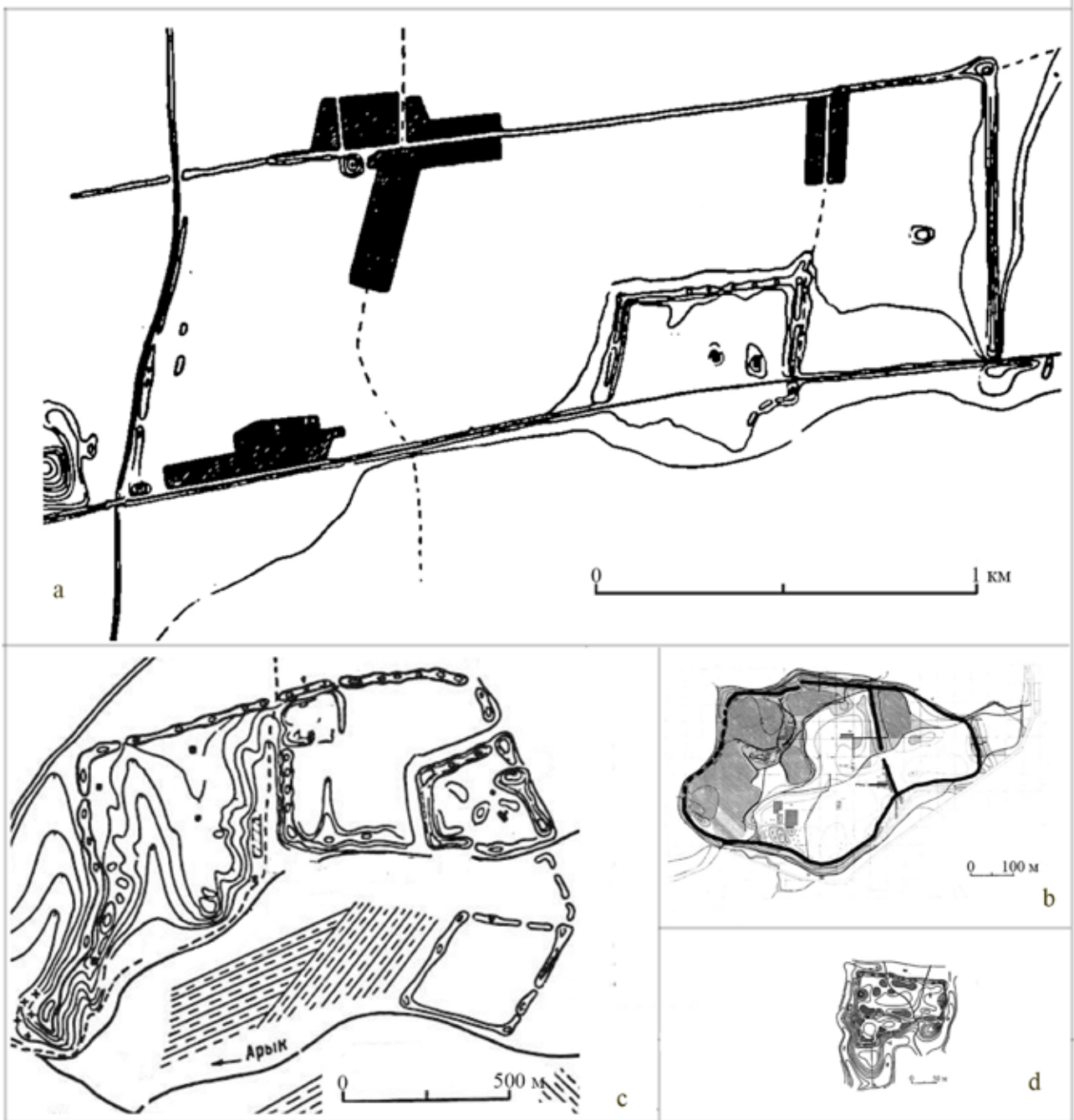


Fig. 11. Settlements of the Late Bronze Age and Early Iron Age (compiled according to Yu. A. Zadneprovsky):
 a – Eilatan site; b – site of ancient settlement Dalverzin; c – Shorabashat settlement; d – settlement of Karadarya

and cultural relations of the Eilatan and Shurabashat cultures under the leadership of the nomadic aristocracy, while strengthening the latter’s role in the state.

IV. The conclusions presented above concerning the Early Iron Age in Fergana are directly related to historical reality in Central Asia. According to historians, the second half of the 1st millennium BCE—during the emergence of class society and the state — a kind of “unified political and economic organism” was created throughout Central Asia which

united the world of nomadic and sedentary cultures. Researchers identified this as a fierce struggle by the settled and nomadic peoples in the region against the Achaemenid and later Greek-Macedonian invaders. (Suleymanov 2000: 52). Another scholar suggests this was the period symbiosis which occurred between the settled agricultural and semi-nomadic (pastoral) communities. However, it is impossible to discuss a single culture and give it a binomial name (Zadneprovsky 1993: 22). Yet, textual and archaeological

sources indicate that the Davan state was first in alliance with the semi-nomadic Kangju state followed by the Kushans. (*Litvinsky* 1976: 55; *Koshelenko* 1979: 184). Also, according to several researchers' theoretical conclusions, the relationship between such settled and nomadic tribes formed during the Bronze Age and developed until the Late Middle Ages (*Litvinsky* 1962: 231; *Kuzmina* 1966: 93, 94; *Saltovskaya* 1978: 96; *Gorbunova* 1984: 101; *Askarov, Albaum* 1979: 72-74, Fig. 1, 5-6, 8-9; *Askarov* 2015: 185-189).

The results of this author's research indicate that not only cultural, but also kinship ties were formed between the agricultural and nomadic cultures in Early Iron Age Fergana. Such processes, despite their apparent mutual benefits, were initiated, as mentioned above, by the Eilatan culture's aristocratic elite. Both previous and modern researchers on Fergana agree, united by the idea that "the nomads retained control over the formation and development of the first centralized statehood in the valley" (*Gorbunova* 1984: 102; *Ivanov* 2013: 3-4).

Undoubtedly, such conclusions are based on the knowledge that nomads, by virtue of their lifestyle, were quite mobile and travelled long distances in a short time. Due to constant migrations through mountains, steppes, and lowlands, they were well aware of almost all short cuts and fords in rivers. Their natural strategic thinking concerning the terrain, as well as mobile cavalry, gave the nomad rulers great military power. In this regard, the capabilities of the ancient agrarian populations were much lower. Farmers made several discoveries aimed at the intensive improvement of labor and productivity in agriculture, but these processes were introduced only in various settlements and, at most, at a micro-oasis level.

All these factors had a direct impact on the region's socio-political and economic processes during the Early Iron Age through Early Antiquity. These presented realities from Fergana's past allow for the following conclusion: The ruling elite from the agricultural tribes were in a "vassal" position in relation to the nomadic aristocracy, who were in the position of "suzerain." However, more details are yet to be discovered for this question which awaits subsequent studies.

V. The first elements of statehood in the region formed during the Chust culture period. Some researchers desired to see a mature structure of statehood during the Chust culture, with its "central capital" (*Dalverzin*). However, in this matter, nothing more acceptable has been revealed so far than the statement of the scholar who introduced this culture into research when he identified factors such as "social stratification" and "emerging urban centers." (*Zadneprovsky* 1973: 18). There is no doubt that these

processes in the Late Bronze Age were among the integral parts for the foundation on which the Ancient Fergana (Davan) state was formed, first mentioned in Chinese chronicles in the late 2nd century BCE. However, according to some modern studies, this statehood developed during the middle of the first century BCE, which has also been confirmed by new field studies (*Abdullaev* 2017: 116). The main lines of urban planning in the region, developing from east-to-west in the valley, are archaeologically recorded dating to that time. This situation, first, related to the progressive internal policy of the Ancient Fergana centralized state, aimed at large-scale artificial facility irrigation construction. These political and economic processes were based on developing new arable land for forming and expanding acreage for agricultural purposes, which led to the emergence of new settlements around state fortresses built along canals such as Andijansai and Shakhrikhansai. This process strengthened the handcraft production and, consequently, domestic and foreign trade.

According to geologists specializing in the Quaternary period, canal construction in the valley's upper reaches began 3,000 years ago (*Zadneprovsky* 1962: 74), but most of these huge artificial irrigation structures were introduced gradually. The first stage (5th-1st centuries BCE) include Andijansai and part of Shakhrikhansai. The second stage (1st-4th centuries AD) incorporated the second half of Shakhrikhansai. It is known that the early irrigation structures in the Late Bronze Age (Chust culture) took the form of small ditches (canals) extending up to several hundred meters long, which were created by connecting several ancient springs and small seasonal streams in the foothills. Only when the centralized state in Fergana developed did canals dozens of kilometers long begin to be built. Most of the ancient canals were built first in the eastern part of the valley on the territory where most Shurabashat culture sites were located and only by the second half of Antiquity was the western part developed. (*Berenaliev* 1975: 150-154; *Abdullaev* 2017: 116-117).

Such sites as Koshtepa-2 and Khanabad-2 appeared at least by the middle of the 1st millennium BCE, most likely, while constructing large artificial irrigation systems, such as Andijansai, Shakhrikhansai, Savayaryk, Uzgenaryk, Karasuv among others. According O.B. Berenaliev's research, mass construction of irrigation canals occurred in the valley's eastern regions where Shurabashat settlements were mainly documented and it was during the development of the Ancient Fergana state under the nomadic aristocratic leadership from the Eilatan culture. The construction of various canals and ditches by means of interconnected springs coming from deep rivers (the Karadarya) to irrigated lands was an invention

by ancient farmers. However, large artificial hydraulic structures on a massive scale were only possible by a centralized state. All this data leads to the conclusion that, the working, human, and material resources of nomadic and agricultural cultures were purposefully mobilized according to a specific state plan and controlled by state officials for whom fortresses were erected along the newly constructed canals.

Thus, based on this data, the Eilatan culture had a genetic relationship with the nomadic Kayrakkum culture rather than with the previous farmers. They first established economic and cultural ties with the Chust culture, and then with its successors, or the Shurabashat culture, and these relations were much closer with this second one, resulting in the foundation of the Ancient Fergana state (Davan). This mixture of the Eilatan and Shurabashat cultures was encouraged and managed by the former. Yet, the Eilatan nobility ruled the state not from their central (?) city of Eilatan, but rather built their headquarters in the eastern part of the valley on the immediate territory of the farmers, specifically Mingtepa (Andijan region). This allowed the Eilatan leadership to be at the center of socio-economic and political events to conduct the necessary work developing the new state's economic power through large irrigation canal

construction. All the above, according to this hypothesis, led to the introduction of a collegiality-based nomadic system integrated into the state administration which was governed by the supremacy of decisions by the "Council of Elders" and limited the ruler's absolute power.

Although the Shurabashat culture had many innovations in the handicraft sphere, artificial hydraulic structures for agricultural development, as well as the settlement and urban construction, their broad application came under nomadic leadership. The main motivating reason was that if farmers had a sufficient supply to meet their needs, then the aristocracy of the Ancient Fergana (Davan) state used the excess resources to make more profit, possibly through tax increases. However, this policy led to further progress through the radical development of agriculture via the creation of large canals such as Shahrikhansai and Andijansai. This development led not only to the cultivation of new virgin lands, but also to rapid urbanization, domestic and foreign trade development, and various socio-economic production infrastructures. Thus, the synthesis of nomadic and agricultural cultures is indicative of human development in the Fergana Valley.

REFERENCES

- Abdullaev, B. M. (2010). Ob èlementah kočevoy kul'tury v fortifikatsionnyh sooruzheniâh Fergany (On the elements of nomadic culture in the fortifications of Fergana), in: *Civilizacii i kul'tury Central'noj Azii v edinstve i mnogoobrazii*. Samarkand, 2010. S. 61-68 (in Russian).
- Abdullaev, B. M. (2014). Andijon vilòati arheologik ëdgorliklari (Archaeological sites of Andijan region), in: *Farzona vodijsi tarihi àngi tadqïqotlarda*. Respublika (III) ilmiy anžumani materiallari. Farrona, 2014. B. 47-49 (in Uzbek).
- Abdullaev, B. M. (2016a) Nekotorye itogi raskopok 2014-2015 gg. na pamàtnike Koštepa-2 (Some results of excavations in 2014-2015 on the Koshtepa-2), in: *Arheologiyà Uzbekistana*. 2016a. № 1. P. 45-48 (in Russian).
- Abdullaev, B. M. (2016b). Nekotorye itogi issledovaniy na poselenii Koštepa-2 (Some results of research on the Koshtepa-2), in: *Aspekty Sogdijskoj kul'tury*. St.Peterburg. P. 4-12 (in Russian).
- Abdullaev, B. M. (2017). Urabanizatsionnye processy antičnoy Fergany (Urbanization processes of ancient Fergana), in: *Istorià i arheologiyà Turana*. № 3. Samarkand. P. 113-120 (in Russian).
- Abdullaev, B. M. (2018a). Examining Consecutive or Parallel Existences of the Cultures of Fergana in the Early Iron Age and Antiquity, in: *Bulletin of the IICAS*, 27. S. 5-18.
- Abdullaev, B. M. (2018b). Dovon davlati va uning pojtahiti muammosiga doir (Regarding the problem of the Davan state and its pojtahiti), in: *Ïzbek davlatçiligi tarixida Ahsikent šaxrining ýrni*. Namangan. B. 63-73 (in Uzbek).
- Abdullaev, B. M. (2019). Bir ëdgorlikda Farrona tarihi (History of Ferghana in one edition), in: *Istorià i arheologiyà Turana*. № 4. B. 91-116 (in Uzbek).
- Abdullaev, B. M. (2020). Some Remarks on the Issue of the Ancient Ferghana State and its Capital, in: *Bulletin of the IICAS*, 30. P. 89-98.
- Abdullaev, B. M. (2021). Eylaton madaniyati (Eylaton culture), in: *The History of the Fergana Valley in New Researches*, in: www.research-support-center.com, 2021. B. 3-11 (in Uzbek).
- Abdullaev, B. M., Kambarov N. Sh. (2021). Xonobod yodgorliklari tadqiqotlarining dastlabki natijalari (Preliminary results of the study of the Khanabad site), in: *The History of the Fergana Valley in New Researches*. www.research-support-center.com, 2021. B. 233-249 (in Uzbek).
- Akul'shina, E. P. (1985). *Glinistoe vešestvo i osadočnyj rudogenez (Clay matter and sedimentary ore genesis)*. Novosibirsk: Nauka Publ. (In Russian).
- Ambroz, A. K. (1965). Rannezemledel'českij kul'tovyy simbol (Early agricultural cult symbol), in: *SA*. No 3. P. 14-27 (in Russian).
- Anarbaev, A., F. Maksudov and S. Kubaev (2015). Čil'hudžra (Kyrkhudžra): ruiny drevnego goroda

- severo-zapadnoj Fergany (Chilhujra (Kyrkhujra): the ruins of the ancient city of northwestern Ferghana), in: *IMKU*, 39. Samarkand. P. 89–112 (in Russian).
- Askarov, A. A. (2015). *Ÿzbek halkining kelib čikiš tarihi (The history of the origin of the Uzbek people)*. Toškent (in Uzbek).
- Askarov, A. A. and L. I. Al'baum (1979). *Poselenie Kučuk-tepa (Kučuk-tepa site)*. Taškent: Fan Publ. (In Russian).
- Avanesova, N. A. (2010). Proâvlenie stepnyh tradicij v sapallinskoj kul'ture (Manifestation of steppe traditions in Sapalli culture), in: *Civilizacii i kul'tury Central'noj Azii v edinstve i mnogoobrazie*. Samarkand – Taškent: IICAS Publ. P. 27-34 (in Russian).
- Avanesova, N. A. (2013). Pogrebal'nyj obrâd nekropolâ Buston VI, kak otraženie mežkul'turnyh vzaimodejstvij (The funeral rite of the Necropolis Buston VI as a reflection of intercultural interactions), in: *Kul'turnyj transfer na perekrestke Central'noj Azii: do, vo vremâ i posle Ŗelkovogo puti. Mat-ly nauč. konf. MICAI*. Samarkand – Taškent: IICAS Publ. P. 107-133 (in Russian).
- Baratov, S. R. (2001). Fergana und das Syr-Dar'ja-Gebiet im spaten 2. und fruhen 1. Jahrtausent v. Chir, in: *Migration und Kulturtransfer. Akten das Internationalen Kolloquiums*. Berlin, 23. bis 26. November 1999. Bonn. S. 161-180.
- Bernštam, A. N. (1952). *Istoriko-arheologičeskie očerki Central'nogo Tân'-Šanâ i Pamiro-Alaâ (Historical and archaeological essays of the Central Tien Shan and Pamir-Alay)*. Moscow: AN USSR Publ. (In Russian).
- Briant, P. (1982). *État et pasteurs au Moyen-Orient ancien (Production pastorale et société)* [iv]. Paris: Éditions de la Maison des Sciences et de l'Homme; Cambridge: Cambridge University Press.
- Černikov, S. S. (1975). Nekotorye zakonomernostiistoričeskogo razvitiâ rannih kočevnikov po arheologičeskim materialam Zapadnogo Altaâ (Some Regularities in the Historical Development of the Early Nomads Based on the Archaeological Materials of the Western Altai), in: *Central'naâ Aziâ v kušanskuû èpo-hu*. Vol. II. Moscow: Nauka Publ. P. 282-287 (in Russian).
- Davydova, A. V. (1978). K voprosu o roli osedlyh poselenij v kočevom obšestve sūnnu (On the issue of the role of settled settlements in the nomadic society of the Xiongnu), in: *KSIA*. No 154. P. 55-59. (in Russian).
- Davydova, A. V. (1985). *Ivolginskij kompleks (gorodiše i mogil'nik) – pamâtnik hunnu v Zabajkal'e (Ivolginsky complex (fortified settlement and burial ground) - a monument of the Xiongnu in Transbaikalia)*. Leningrad: Nauka Publ. (in Russian).
- Fettich, N. (1958). Über den sinn der prâhistorischen ornamente, in: *Acta Archaeologica*, IX. Budapest. S. 115-124.
- Francfort, H. P. (1989). *Fouilles de Shortugai*. Recherches sur l'Asie Centrale protohistorique. Vol. I, II. Paris: Diffusion de Boccard.
- Gavrûšenko, P. P. (1970). *Kulunčakskoe ukreplennoe poselenie (Kulunchak fortified settlement)*. PhD dissertation abstract. Taškent (in Russian).
- Gamburg, B. Z. and N. G. Gorbunova (1957). Ak-tamskij mogil'nik (Ak-tam burial ground), in: *KSIIIMK*, 69. P. 78-90 (in Russian).
- Gorbunova, N. G. (1961a). Kungajskij mogil'nik (Kungai burial ground), in: *Archaeological Collection of the State Hermitage*, 3. Leningrad, 1961a. P. 171-194 (in Russian).
- Gorbunova, N. G. (1961b). K voprosu o raspispisnoj keramike v Ferganskoj doline (On the issue of painted ceramics in the Ferghana Valley), in: *Messages from the State Hermitage*, 21. Leningrad, 1961b. P. 41-44 (in Russian).
- Gorbunova, N. G. (1962). Arheologičeskie raboty v Fergane (Archaeological work in Fergana), in: *Messages from the State Hermitage*, 22. Leningrad, 1962. P. 54-60 (in Russian).
- Gorbunova, N. G. (1969). Sufanskij mogil'nik (Sufan burial ground), in: *Archaeological Collection of the State Hermitage*. Vyp. 11. Leningrad, 1969. P. 72-91 (in Russian).
- Gorbunova, N. G. (1976). Fergana po svedeniâm antičnyh avtorov (Fergana according to ancient authors), in: *Istoriâ i kul'tura narodov Srednej Azii: Drevnost' i srednie veka*. Moscow: Nauka Publ. P. 26-30 (in Russian).
- Gorbunova, N. G. (1977). K voprosu o datirovke kompleksov s Ŗurabašatskoj keramikoj v Vostočnoj Fergane (On the issue of dating complexes with Shurabashat ceramics in Eastern Fergana), in: *Archaeological Collection of the State Hermitage*, 17. Leningrad, 1977. S. 52-56 (in Russian).
- Gorbunova, N. G. (1979). Itogi issledovaniâ arheologičeskijh pamâtnikov Ferganskoj oblasti (Results of the study of archaeological sites of the Fergana region), in: *SA*. No 3. P. 16-46 (in Russian).
- Gorbunova, N. G. (1983). Kugaj-karabulakskâ kul'tura Fergany (Kugay-Karabulak culture of Fergana), in: *SA*. No 3. P. 23-46 (in Russian).
- Gorbunova, N. G. (1984). Nekotorye osobennosti formirovaniâ drevnih kul'tur Fergany (Some features of the formation of ancient cultures of Fergana), in: *Archaeological collection of the State Hermitage*, 25. Leningrad. P. 99-107 (in Russian).
- Gorbunova, N. G. (1996). Drevnie svâzi skotovodov Fergany i sosednih territorij (Ancient connections between pastoralists of Fergana and neighboring territories), in: *Sbornik k 100-letnemu Ÿbileû Ferganskogo kraevedčeskogo muzeâ*. Fergana. P. 138-150 (in Russian).
- Gorbunova, N. G. and V. I. Kozenkova (1974). Sym-Tepe – poselenie v Fergane (Sym-Tepe – a settlement in Fergana), in: *Archaeological collection of the State Hermitage*, 16. Leningrad. P. 95-104 (in Russian).
- Hayashi, T. (1984). Agriculture and Settlements in the Hsiung-nu, in: *Bulletin of the Ancient Orient Museum*. Vol. VI. Tokyo. P. 51-92.
- Isamidinov, M. H. (2002). *Istoki gorodskoj kul'tury Samarkandskogo Sogda* (). Taškent: A. Kadyri Publ. (In Russian).
- Ivanov, G. P. (1996). Problemnye voprosy periodizacii kul'tur drevnej Fergany (The origins of the urban culture of Samarkand Sogd), in: *Sbornik k 100-letnemu Ÿbileû Ferganskogo kraevedčeskogo muzeâ*. Fergana. P. 115-137 (in Russian).
- Ivanov, G. P. (1999). *Arheologičeskie kul'tury Fergany: pe-*

- riodizaciâ i sinhronizaciâ (Archaeological cultures of Fergana: periodization and synchronization)*. PhD dissertation abstract. Samarkand (in Russian).
- Ivanov, G. P. (2006). Novye dannye po istorii g. Kuva (New data on Kuva history), in: *Arheologičeskie issledovaniâ v Uzbekistane v 2004-2005 gody*. Samarkand. P. 124-126. (in Russian).
- Ivanov, G. P. (2013). Gosudarstvennost' na territorii Uzbekistana v svete istorii Fergany (Statehood on the territory of Uzbekistan in the light of the history of Ferghana), in: <https://uz.denemetr.com/docs/768/index-280993-1.html> (in Russian).
- Kalinovski, Izabel' (2013). "Iskusstvo kočevnikov Central'noj Azii" (1931 g.): Karl Ėjnštejn i koncepciâ iskusstva kočevnikov ("Art of the nomads of Central Asia" (1931): Carl Einstein and the concept of nomadic art), in: *Kul'turnyj transfer na perekrestkah Central'noj Azii: do, vo vremâ i posle Velikogo Šelkovogo puti*. Paris – Samarkand. IICAS Publ. P. 195-201 (in Russian).
- Karamatov, H. S. (2017). *Drevnie kul'ty Central'noj Azii (Ancient cults of Central Asia)*. Samarkand – Taškent (in Russian).
- Koltovoj, N. A. (2017). Metod Kirlian. Figury Lihtenberga (Kirlian method. Lichtenberg figures), in: *Matematičeskaâ morfologiâ. Čast' 5*. Moscow – Smolensk (in Russian).
- Komoroci, G. (1981). K simbolike dereva v iskusstve drevnego Dvureč'â (About the Symbolism of the tree in the Art of Ancient Mesopotamia), in: *Drevnij Vostok i mirovaâ kul'tura*. Moscow: Nauka Publ. P. 142-154 (in Russian).
- Košelenko, G. A. (1979). *Grečeskij polis na èllinističeskom Vostoke (Greek polis in the Hellenistic East)*. Moscow: Nauka Publ. (In Russian).
- Kozenkova, V. I. (1959). Arheologičeskie raboty v Andižanskoj oblasti v 1956 godu (Archaeological work in the Andijan region in 1956), in: *KSIIMK*, 76. P. 56-62 (in Russian).
- Kradin, N. N. (2007). *Kočevniki Evrazii (Nomads of Eurasia)*. Moscow: Nauka Publ. (in Russian).
- Kuzmina, E. E. (1966). *Metalličeskie izdeliâ èneolita i bronzovogo veka v Srednej Azii (Metal products of the Eneolithic and Bronze Age in Central Asia)*. Moscow: Nauka Publ. (In Russian).
- Latynin, B. A. (1956). Ėjlatanskaâ raspisnaâ čaša (Eilatan painted bowl), in: *KSIIMK*, 80. P. 90-92 (in Russian).
- Latynin, B. A. (1961). Nekotorye itogi raboty Ferganskoj èkspedicii 1934 g. (Some results of the work of the Fergana expedition in 1934), in: *Archaeological collection of the State Hermitage*, 3. Leningrad. P. 126-150 (in Russian).
- Litvinskij, B. A. (1960a). Saki, kotorye za Sogdom (Saks who are beyond Sogd), in: *Trudy AN Tadžikskoj SSR*. Vol. CXX. Dušanbe. P. 91-96 (in Russian).
- Litvinskij, B. A. (1960b). Pamâtniki èpohi bronzy i ranne-go železa Kajrak-Kumov (Sites of the Bronze and Early Iron Age of Kayrak-Kum), in: *Drevnosti Kajrak-Kumov / Trudy AN Tadžikskoj SSR*. Tom. HHIII. Dušanbe, 1960b. S. 90-403 (in Russian).
- Litvinskij, B. A. (1973). *Keramika iz mogil'nikov Zapadnoj Fergany (Pottery from the burial grounds of Western Fergana)*. Moscow: Nauka Publ. (In Russian).
- Litvinskij, B. A. (1976). Problemy ètničeskoj istorii drevnej i rannesrednevekovoj Fergany (Problems of the ethnic history of ancient and early medieval Ferghana), in: *Istoriâ i kul'tura narodov Srednej Azii*. Moscow: Nauka Publ. P. 49-65 (in Russian).
- Maltaev, K. Ž., etc. (2000). Raskopki gorodiša Ooz-debe v 2000 godu (Excavations of the Ooz-debe in 2000), in: *Oš i drevnosti Ūžnogo Kyrgyzstana*. No 5. Biškek. P. 33-49 (in Russian).
- Matbabaev, B. H. (1999). Nekotorye itogi sravnitel'nogo izučeniâ čustskoj keramiki (Some results of a comparative study of Chust ceramics), in: *IMKU*, 30. P. 41-54 (in Russian).
- Matbabaev, B. H., etc. (2013). Arheologičeskie raboty na gorodiše Mingtepa (Archaeological work at the site of Mingtepa), in: *Arheologičeskie issledovaniâ v Uzbekistane - 2012 god*. Samarkand, 2013. S. 93-100 (in Russian).
- Matbabaev, B. H. and A. A. Gricina (2000). Arheologičeskie issledovaniâ v ũgo-zapadnoj časti šahristana Kuvy/Kuby (Archaeological research in the southwestern part of Shahristan Kuva/Cuba), in: *IMKU*. 31. Taškent, 2000. S. 91-110 (in Russian).
- Matbabaev, B. H. and H. B. Hošimov (2021). Ėjlatanskaâ kul'tura i voprosy izučeniâ ranneželeznogo veka Fergany (Eilatan culture and issues of studying the Early Iron Age of Fergana), in: *Kul'tury aziatskoj časti Evrazii v drevnosti i srednevekov'e*. Samarkand. P. 119-122 (in Russian).
- Oboldueva, T. G. (1962). Raskopki 1960 goda na gorodiše Ėjlatan (Excavations in 1960 at the site of Eilatan), in: *KSIA*, 91. P. 38-47 (in Russian).
- Oboldueva, T. G. (1981). O datirovke sten Ėjlatana (On the dating of the walls of Eilatan), in: *SA*. No 4. P. 186-195 (in Russian).
- Pèrlèè, H. (1974). K voprosu o drevnej osedlosti v Mongol'skoj Narodnoj Respublike (On the question of ancient settlement in the Mongolian People's Republic), in: *Bronzovyy i rannij železnij vek Sibiri*. Novosibirsk. P. 271-274 (in Russian).
- Saltovskaâ, E. D. (1978). O pogrebeniâh skotovodov v severo-zapadnoj Fergane (On the burials of pastoralists in northwestern Fergana), in: *KSIA*. No 154. P. 91-99 (in Russian).
- Sarianidi, V. I. (1977). *Drevnie zemledel'cy Afganistana (Ancient farmers of Afghanistan)*. Moscow: Nauka Publ. (In Russian).
- Sulejmanov, R. H. (2000). *Drevnij Nahšab (Ancient Nahšab)*. Taškent: Fan Publ. (In Russian).
- Troicyna, M. (2021). Molniâ risuet uzory na tele (Lightning draws patterns on the body), in: <https://www.yoki.ru/anomalous/unreal/17-03-2012/400229-keranograf-0/> (in Russian).
- Vinogradova, N. M. (2004). *Ūgo-zapadnyj Tadžikistan v èpohu pozdnej bronzy (Southwestern Tajikistan in the Late Bronze Age)*. Moscow: Institut vostokovedeniâ RAN Publ. (In Russian).
- Zadneprovskij, Ū. A. (1954). *Drevnââ Fergana (Ancient Fergana)*. PhD dissertation abstract Leningrad (in Russian).

- Zadneprovskij, Ū. A. (1960a). *Arheologičeskie pamâtniki ũžnyh rajonov Ošskoj oblasti (Archaeological monuments of the southern regions of Osh region)*. Frunze: AN Kirgizskoy SSR Publ. (in Russian).
- Zadneprovskij, Ū. A. (1960b). Gorodiše Èjlatan (Èjlatan site), in: *SA*, No 3. P. 29-45. (in Russian).
- Zadneprovskij, Ū. A. (1962). *Drevnezemel'del'českaâ kul'tura Fergany (Ancient agricultural culture of Ferghana)*. Moscow – Leningrad: AN USSR Publ. (in Russian).
- Zadneprovskij, Ū. A. (1981). K istorii oazisnogo rasseleniâ v pervobytnoj Srednej Azii (On the history of oasis settlement in primitive Central Asia), in: *KSIA*, 167. P. 23-27 (in Russian).
- Zadneprovskij, Ū. A. (1990). Pogrebal'nye pamâtniki èjlatanskoj kul'tury Fergany (Funeral monuments of the Eilatian culture of Fergana), in: *KSIA*, 209. P. 87-95 (in Russian).
- Zadneprovskij Ū. A. (1993). Spornye voprosy istorii kul'tury drevnej Fergany (Controversial issues of cultural history of ancient Fergana), in: *KSIA*, 199. P. 17-23 (in Russian).
- Zadneprovskij, Ū. A. (1997). *Ošskoe poselenie. K istorii Fergany v èpohu pozdnej bronzy (Osh settlement. On the history of Fergana in the Late Bronze Age)*. Biškek. (in Russian).