

HISTORICAL RETROSPECTIVE AND MODERNITY

DOI: 10.53658/RW2022-2-1(3)-124-139

Ancient Khorezm in the early iron age (Models of the formation of the socio- economic structure of ancient societies in the Southern Aral Sea region based on archaeological data)

Sergey B. Bolelov

State Museum of Oriental Art (Moscow, Russia)

Abstract: This article examines the early period of the formation of agricultural civilization on the territory of the ancient delta of the Amu Darya river in the southern Aral Sea region - Ancient Khorezm. Based on archaeological sources in the era of the early Iron Age of Khorezm – VII-V centuries BC, two stages are considered. At the early - Sako-Kuyusai stage, VII- early VI BC. - the beginning of the constant flooding of the Near-Kamysh delta on the territory of the Left Bank of the Amu Darya, as a result of the interaction of two groups of pastoralists, different in origin and in the way of farming, a fairly stable paleoeconomical system is being formed, the basis of which was mainly pasture cattle breeding and primitive hoe farming. Community handicraft production functioned in stationary settlements of settled cattle breeders (Kuyusai culture). The second stage is the archaic period of the history of Khorem (VI-V centuries. BC) is characterized by the introduction of advanced technologies (irrigation, construction, pottery) that appeared on the territory of the southern Aral Sea region as a result of a powerful cultural impulse from the southern ancient agricultural regions of Central Asia. During this period, the paleoeconomical system of the historical and cultural region is radically changing, where agriculture based on artificial irrigation becomes dominant. At the same time, it should be emphasized that these changes are not related to the change of population. The Khorezm agricultural culture in the period of the RSVC-II was born as a result of the interaction of the autochthonous, mainly pastoral, Sako-Kuyusai population of the Near-Kama region and groups of farmers and artisans, natives of the ancient agricultural regions of the south of Central Asia.

Keywords: Southern Aral Sea region, Ancient Khorezm, ancient settlement, burial mound, irrigation, archaeological complex, stucco ceramics.

About the author: Sergey B. Bolelov, CandSc (Hist.), Head of the Department of the History of Material Culture and Ancient Art of the State Museum of Oriental Arts. Moscow. Nikitsky Boulevard, 12a, Russia. ORCID: 0000-0003-1423-293X; BSB1958@yandex.ru

Introduction

The southern Aral Sea region (the territory south of the former southern and southeastern coast of the Aral Sea) is part of a vast region in northern Central Asia that stretches from the eastern coast of the Caspian Sea in the west to Central Kazakhstan in the east; the zone of the Ural steppes in the north, to the southern outskirts of the Karakum and Kyzylkum deserts in the south (Vainberg, 1999, p.18). On the territory of the Southern Aral Sea region, a special place is occupied by the lower reaches of the great Central Asian rivers Amu Darya and Syr Darya, which originate in the high-altitude regions of the Pamirs and Tien Shan, passing through the desert regions of the Kyzylkums and Karakums, flooded in wide deltas before flowing into the Aral Sea. The history of the functioning of the ancient hydrographic systems of these two rivers is inextricably linked with the history of human development of the Aral Sea region, which dates back almost seven millennia. In the conditions of arid climate, the vital activity of people completely depended on the regime of flooding of these areas, which periodically changed. A special feature of the ethno-cultural history of the Southern Aral Sea region, due to the peculiar natural conditions, where desert territories come into close contact with watered delta regions, is the close interaction of farmers and pastoralists. Often, in one relatively small territory (for example, the Pre-Karakumysh delta of the Amu Darya), various ethnic groups and economic and cultural types (hereinafter referred to as CCTS) coexisted. At certain periods of time, this interaction was transformed into a fairly stable socio-economic structure.

Khorezm (the region in the lower reaches of the Amu Darya) is one of the oldest historical and cultural regions of Central Asia. It is mentioned already in the Avesta, along with other areas “... where navigable rivers have broad streams rushing their course...” (Avesta, Yasht 10).¹ However, the development of culture in this area, due to its geographical location and natural conditions, was somewhat different from the progressive development of ancient agricultural cultures in the southern regions of Central Asia.

This article offers a reconstruction of the paleoeconomical and social structure of ancient society, which was formed on the territory of the region in the first half of the first millennium BC, that is, in the period preceding the formation of the first state formation in the lower reaches of the Amu Darya. The dynamics of these processes, as far as we can judge from the currently known and available materials, largely, if not mainly, depended on the natural and hydrographic situation developing in the delta region during certain periods of the above-mentioned chronological segment.

¹ [Avesta. Selected anthems from Videvdate. Translation from Avestinian by I. Steblin-Kamensky.] M., 1993.

Materials and methods

The main source for this article is archaeological materials obtained during the research of the Khorezm Archaeological and Ethnographic expedition of the Institute of Economic Sciences of the USSR, which were conducted on the territory of the Southern Aral Sea region for more than 50 years, on individual monuments with the direct participation of the author. For the interpretation of archaeological data, we used information from available written sources, primarily ancient authors (Ctesias, Herodotus, Ptolemy, Curtius Rufus) and epigraphic monuments that were found during archaeological excavations. First of all, these are Persian documents of the Achaemenid period from Persepolis, inscriptions of the III-II centuries BC in the Khorezmian language from the excavations of the religious centers of Koi-Krylgan-kala and Kalalygyr 2, and partly the archive of the II-III centuries AD found in the palace of the Toprak-kala settlement.

In the course of studying archaeological complexes, the method of comparative typological analysis was used whenever possible. In conclusion, where possible variants of reconstruction of the socio-economic structure are proposed, a wide range of analogies and parallels, as well as ethnographic data, were used.

Results

The history of Khorezm is inextricably linked with the history of flooding of the Amu Darya Delta, which periodically radically changed its shape. Depending on the direction of the main flow of the river, the anthropogenic landscape also changed; once blooming oases fell into desolation and were absorbed by the sands. After some time, when the water regime changed again, life in them was revived again.

In the second half of the second – beginning of the first millennium BC, only the eastern Akchadarya delta of the Amu Darya (Right-bank Khorezm) was flooded, where in the second half of the second millennium BC the Tazabagyab culture of the Bronze Age was formed, the economy of which can be described as a complex agricultural and cattle breeding (Itina, 1977, pp. 176-187). Later, at the beginning of the first millennium BC, settlements of the Amirabad archaeological culture of the Late Bronze Age appeared on the same territory, which can be considered as a direct successor of the Tazabagyab archaeological culture. The economy of the Amirabad people was also complex, but with a larger share of cattle breeding than before. In addition, it is definitely possible to say that during this period of time, a semi-nomadic type of cattle breeding occurs (Itina, 1977, p. 193).

At the turn of the VIII-VII centuries BC, the flow along the Akchadarya riverbeds sharply decreases (Lower reaches..., 1960, p. 66). This led to the migration of Amirabad people to the northern part of the delta and further to the lower reaches of the Syr Darya (Itina, 1998, p. 88). The crisis of the Late Bronze Age culture in the territory of Khorezm was profound and irreversible; with the change in the hydrographic and ecological

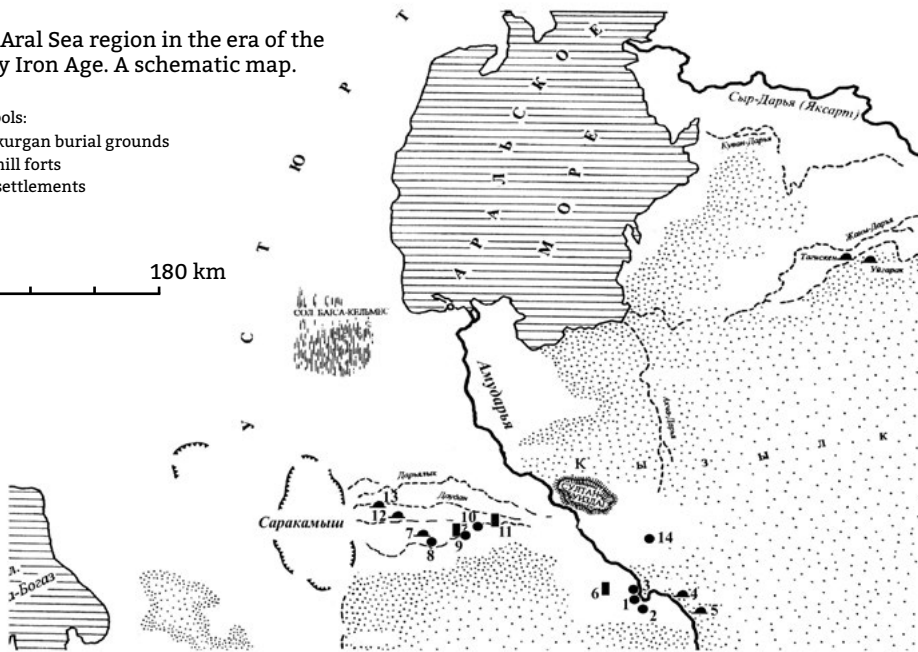
Figure 1. Map. Monuments of the early Iron Age of Khorezm.

The Aral Sea region in the era of the early Iron Age. A schematic map.

Symbols:

- ▲ kurgan burial grounds
- hill forts
- settlements

0 180 km



1. Khumbuztepe 2. Karatash 3. Tashsaka 4. Meshekli Burial ground 5. Us-Ochak Burial ground
6. Hazarasp 7. Sakar-Chaga Burial ground 8. Kuyusai settlement 9. Kyuzeli-Gyr 10. Yassy-Gyr
11. Kalaly-Gyr 12. Tumek Kichijik Burial ground 13. Tarym-Kaya Burial ground 14. Dingilje

situation, the paleoeconomical system that developed in this territory in the second half of the II- early I millennium BC was destroyed.

At the end of the eighth and beginning of the seventh centuries BC, flooding of the western Prisarakamysh Delta began (Vainberg, 1991, p. 126). At this time, on the deserted plains of the left bank of the Amu Darya, two groups of people with different origins and cultural traditions appear, who were migrants and were not connected in any way with the previous Amirabad cultural tradition. It is the turn of the VIII-VII centuries BC that should be considered the initial stage of the Early Iron Age in Khorezm (hereinafter referred to as the RZHVH), the initial stage of which is associated with the territory of the Pre-Karakamysh delta of the Amu Darya (Fig. 1).

In the early 70s of the XX century, on the bank of the southern Daudan (channel channel of the Prisarakamysh delta), excavations were carried out at the settlement of Kuyusai 2. Large ground houses of frame construction and dugouts up to 3 m deep were excavated here. At the same time, Tumek-Kichijik and Tarym-Kaya I burial mounds were investigated. Burial was performed according to the rite of placing a corpse in small ground pits (Weinberg, 1979, pp. 27-42). During the excavations, a characteristic archaeological complex was obtained. All local ceramics, made by hand from clay with

abundant admixtures of wood, sometimes organic matter and crushed shells, were burned in the fire. These were small mugs and pots with one loop-shaped handle, cylindrical flat-bottomed vessels – “glasses”, pitcher-shaped vessels with one handle, pots of various sizes with a low neck and a spherical body, vessels with a tubular spout-drain. The complex includes a group of pots with a rounded bottom on a flat disc-shaped or low ring-shaped tray (Weinberg 1979, p. 13). A similar method of forming the lower part of the vessel is known on the monuments of the Fedorovsky type (late Bronze). Such ceramics are represented in mixed log-Fyodorov complexes in Bashkiria and the Volga region (Kuzmina 1986, pp. 157-158). The complex also contains pottery of the mid-7th-6th centuries BC (Yaz – II type complex) originating from the southern agricultural regions of Central Asia (Weinberg, 1977, p. 35). Tools and products made of iron have been found in the settlement (Weinberg 1979, p. 16; Table X). However, there is no need to speak about iron metallurgy in the Kuyusai settlement, since there are no iron ore occurrences in the lower reaches of the Amu Darya and in the entire southern Aral region. We can assume that there was a blacksmithing industry that used imported semi-finished products (imported iron) (Weinberg 1979, p. 24). The cultural layer contains castings of copper and products made of copper alloys. The discovery of a part of a defective bit testifies to the bronze casting industry (Weinberg 1975, p. 45). On the monument there are traces of jewelry production-turquoise processing; there are semi-finished products and defective products, mainly diamond-shaped beads and pendants (Weinberg 1977, p. 44).

The basis of the economy of the inhabitants of the settlement Kuyusay 2 was semi-nomadic cattle breeding with a predominance of cattle, horses and camels in the herd, in general – 55%. Grain grinders and chimes were found on the settlement, indicating the occupation of agriculture. There are no traces of artificial irrigation (Vainberg 1979, pp. 23-24). The settlement of Kuyusai 2 is dated on the basis of various categories of finds, primarily arrowheads, within the VII-VI centuries BC (Weinberg 1979, pp. 42-43).

B. I. Vainberg singled out the original archaeological complex as a separate Kuyusai culture and formulated a hypothesis about the mono-ethnicity of the population of the Prisarakamysh delta in the era of PLWH. Initially, the Kuyusai culture, which was not related to the previous Amirabad culture, was classified as a Saka culture (in the broad sense of the word) (Weinberg 1975, p. 48). It was later concluded that “the General appearance of the culture settlement Kousai 2 clearly different from Saka monuments” (Weinberg 1977, p. 45), and the media Kuusisto culture is a group of Iranians pastoralists, identified with the ancient chorasmian to the VII century BC advanced to the Northern borders of Iran, and then, at the beginning of the VII century BC, who migrated in the flooded Priargunsk Delta (Weinberg, 1979 p. 45-52; 1992, p. 117). M. A. Itina expressed a different point of view. Kuyusai culture, in her opinion, was formed as a result of the interaction of two components. At an early stage, it shows features that bring it closer to the agricultural cultures of the south-western regions of Central Asia, and we can also talk about the possible infiltration of some ethnic groups from these regions, but it was based on the local Saka component (Itina 1979, pp. 5-6).

Later, on the territory of the Pre-Karakamysh delta on the Sakar-chaga hill, at the foot of which the settlement of Kuyusay 2 is located, burial mounds were discovered, which changed the ideas about the formation of culture and the course of ethnogenetic processes at the early stage of the Early Iron Age of Khorezm (hereinafter referred to as RZHVH). Burials according to the rite of cremation and according to the rite of cadaverous laying were performed both in pits and at the level of the ancient horizon. According to the characteristics of the funeral rite, they show direct parallels with the monuments of the Early Iron Age in the Asian part of the steppes (Yablonsky 1998, pp. 38-39). Among the funerary equipment of the Sakar-chaga burial grounds, stucco ceramics are presented, in many respects similar to Kuyusai: pots with a tubular spout, small flat-bottomed vessels-bowls, cylindrical or low truncated-conical circles, pot-shaped vessels with a relatively high neck and a swollen spherical body. Here, as well as at the Kuyusai settlement, pottery of the Yaz II type and ceramics of archaic Dahistan were found.

In the burials of the Saka mounds, beads, earrings, pendants with turquoise inserts, completely similar to the pendants from the settlement of Kuyusay 2 (Yablonsky 2017, p.113), iron and bronze knives, stone grain grinders and touchstones were found. Stone altars were found in women's graves (Yablonsky, 1986, pp. 31-34). The Sakar-Chaga complex presents weapons, horse harness parts, and items made in the classical traditions of the "Scythian-Siberian animal style". This is a rosette and seven spring-loaded buckles. In the center of the rosette is an image of a cat predator curled up in a ring. Two buckles also depict a coiled predator; five buckles are made in the form of a griffin's head. The belonging of these objects to the early forms of Scythian-Siberian images, which date quite widely – within the VIII-VII centuries BC, is beyond doubt (Yablonsky, 1996, p. 48). According to arrowheads, the Sakarchaginsky early complexes are dated to the end of the VIII-VII centuries BC (Yablonsky 1996, p. 52).

There are no specific data on the economy of the population burying their dead on the Sakar-Chaga hill. Probably, they were engaged in breeding cattle and horses, not the last place in their economy was occupied by hunting and fishing, which gave reason to characterize this group of the population as semi-sedentary pastoralists (Yablonsky 1996, pp. 58,59,65).

The totality of all the archaeological data presented above does not support the hypothesis that the population of the Prisarakamysh delta was monocultured at the early stage of HW development. At this time, in the Left-bank Khorezm, there was an interaction of different groups of the population in terms of origin and cultural traditions (Yablonsky 1998, p.38; Vainberg 1999, p. 155), which is also confirmed by the data of paleoanthropology. As a result of an intergroup craniological analysis, it was established that the territory of the southern Aral Sea region was settled by different groups of pastoralists from different, and very remote from each other areas. The population that left the burial grounds of the Saka cultural type, according to anthropology, is associated with the eastern, "Saka" area of the steppe, and a complex of craniological features is recorded here, indicating a Mongoloid admixture, which is especially clearly manifested on female skulls. The ancestral homeland of the population that left the monuments of

the second group (Kuyusai) was located in the Volga-Ural steppes (Yablonsky 1991, 3-11; 1996, p. 45-46; 1996a, p.45-46; 2005; p. 781; 2015, p. 94-99).

In the process of interaction of these two population groups in the left-bank Khorezm, an interconnected paleoeconomical system is formed, based on the natural and water resources of the region of residence. The settled population, in this case the inhabitants of the Kuyusai settlement, provided cattle breeders with handicrafts and agricultural products (Bolelov, 2010: 414; 2016: 25). Apparently, it is necessary to speak about the archaeological culture of RZHVH as an epochal phenomenon, and the end of the VIII-VII centuries BC should be considered the early period of this culture of RZHVH – I (Sako-Kuyusai), when as a result of the consolidation of two components, an ethno-cultural community is formed, which became the foundation on which the ancient Khorezmian civilization arose.

At the very end of the VII - beginning of the VI century BC, radical changes in the social and economic system took place in the southern part of the Baltic Sea region, which led to a sudden transformation in the material and spiritual culture of the region (Itina and Yablonsky, 1997, p. 81; Rapoport, 1998, p. 30).

The turn of the VII-VI centuries BC can be considered the beginning of the second period of the Russian Industrial Complex. In the archaeological literature, it is called the “archaic period” and is divided into two stages: early-the turn of the VII-VI-beginning of the V centuries BC and late – the second half of the V-first half of the IV century BC.

During this period, a new period begins in the economic development of the lower reaches of the Amu Darya region: the first irrigation facilities appear, buildings made of large-format mud bricks are erected. Ceramics are made on a potter's wheel, a two-tiered roasting ceramic forge appears. This is due to a cultural impulse from the southern ancient agricultural regions of Central Asia, primarily Margiana (the southeastern regions of the Kara-Kums). There is no reason to believe that large groups of people from the southern regions moved or were resettled to the territory of Khorezm (Vorobyova, 1979, p. 38-41; Rapoport, 1998, p. 30). Apparently, we may be talking about the infiltration of some groups of the population, primarily artisans, who left the already insufficiently watered channels of the Murghab Delta.

The earliest archaeological complex of the period of RZHVH - II was obtained at the settlement of Khumbuztepa, located in the south-western part of the oasis on the left bank of the Amu Darya. Several housing and industrial complexes associated with ceramic production, one roasting furnace and several heating engineering structures of a clearly industrial nature have been opened in the settlement (Baratov and Matrasulov, 2003, pp. 41-42).

The earliest period, HT-I, includes a housing and industrial complex, which combines semi-earth-type premises and light frame buildings. A production complex was also excavated here, which included a two-tiered roasting furnace, similar to the Margian roasting furnaces of the second quarter-the middle of the first millennium BC.e. and a production room-workshop next to it.

In the second period-HT-II, a new building is being built on the remains of the walls of the housing and industrial complex of the 1st period, and a two-chamber single-tier production furnace is being built nearby. The roasting furnace is being overhauled. The monumental building (temple) excavated in the northern part of the settlement belongs to the same period, or at least to its final stage (Baratov, Rakhmanov et al., 2013, pp. 33-42; Baratov, 2017, pp. 6-7).

No buildings of the third period (HT –III) were found within the excavations; this period of the settlement's existence includes thick layers of ceramic dumps with a large number of fragments of defective vessels and ceramic slag.

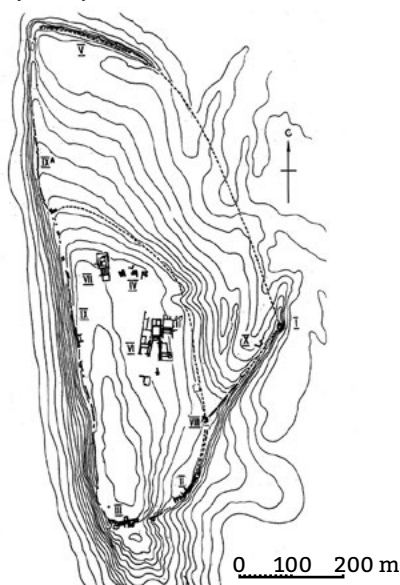
The main dating material on Khumbuztepa is ceramics. The HT-I complex (the early stage of RZHVH – II) can be summarily dated within the second half of the VII – first half of the VI centuries BC. In fact, this is by far the earliest archaeological complex of the RZHVH II period identified in the territory of Khorezm.

Khumbuztepa can be qualified as a craft production center, where, in addition to pottery, metalworking production also functioned. The settlement was founded at an early stage of the development of urban culture in the lower reaches of the Amu Darya River by artisan professionals from the southern regions of Central Asia near the large urban center of the Khazarasp settlement (Bolelov, 2019, pp. 59-64). The lower cultural layers of these two monuments can be assumed to be synchronous (Baratov, 2004, p. 46). Three kilometers from Combustive, downstream of the river, opened another production ceramic center – Tash-Sak, which functioned in the same period of time that Combustive. Another settlement period RIWH-II, discovered South of Combustive, elevated position Karatas (Fig. 1). All these data give reason to believe South Khorezm, in any left part of it to be considered the “base” where you originally settled populations from South drevnesmolenskikh regions of Central Asia. From here, advanced technologies have spread to the entire territory of Khorezm, first of all, the Pre-Karakamysh delta of the Amu Darya.

In the late 30s of the last century, excavations were started on the ancient settlement of Kyuzeli-gyr, a fortified settlement with an area of over 25 hectares, on the bank of the southern Daudan, a channel of the Prisarakamysh delta. (Tolstov 1948, p. 77-83; 1962, p. 96-101). The ancient settlement was surrounded by fortress walls with a shooting corridor and rectangular loopholes. The defensive wall, which had three gates, is flanked by rounded towers. The monument is divided into two parts: the elevated south-western part – the original core of the ancient settlement, and the lowered part – the northern part (Figure 2). In the south-western part (“upper town”), a monumental architectural complex with an area of about 1 ha stands out, the center of which was a square hall with an area of 270 square meters. m and the trapezoidal courtyard that adjoined it from the south. Along the walls of the courtyard were raised sufas. The northern one, the highest one, can be considered as a throne place (Fig. 2). Outside the courtyard, opposite it, the base of a massive rectangular structure (4 x 5 m) with a height of at least 3 m is open. On the north side there was a staircase leading to the upper platform of the structure (Vishnevskaya and Rapoport, 1997, pp.

Figure 2. Kyuzeli-Gyr hill fort.

Kyuzeli-Gyr hill fort.



A monumental building on the Kyuzeli-Gyr hill fort



155-157; Rapoport, 1998, pp. 26-29.) On the territory of the “upper city”, several more monumental buildings were identified – three massive towers with insignificant internal rooms in the northern part and a rectangular building next to them. It is believed that these buildings were iconic and formed a single ensemble (Vishnevskaya and Rapoport, 1997, p. 158-159; Rapoport, 2000, p. 27-29). The rest of the Kyuzeli-gyr square was not built up. The cultural layer with the remains of frame buildings is recorded near the fortress walls in the southern part of the “upper city”, traces of iron production are also noted here. The presence of fortifications, a monumental palace complex, religious buildings, as well as traces of handicraft production, would seem to give reason to consider Kyuzeli-gyr a city. However, the irregularity of development, large empty areas in the lower part of the settlement, which probably served as cattle pens, do not allow, with good reason, to consider it as such. Rather, it was a proto-city-the center of a vast agricultural area inhabited by a tribe or union of tribes (Vishnevskaya and Rapoport, 1997, p. 159), which can be compared with the unit of social structure of the dahyu – the area mentioned in Yashtakh, and Kyuzeli-gyr could have been the residence of the ruler of the region – dakhypati (Diakonov, 1961, p. 61)

A complex of bronze arrowheads, and the whole archaeological complex of Kysely given, dated within the VI – perhaps the first half of the V century BC, there is also a rejuvenation dates to the turn of the VII–VI centuries BC (Vishnevskaya, Rapoport, 1997, p. 163; Rapoport, 1998, p.30). Taking into account the dating of the early HT-I complex and

the differences in the ceramic complexes of the two monuments, it should be recognized that the construction of Kyuzeli-Gyr began after the southern part of the left bank of the Amu Darya in the Khazarasp region was developed. In any case, the construction of Kyuzeli-gyr, as well as the beginning of the ZHVH-II period, preceded the conquest of Khorezm by the Persian King Cyrus II An Achaemenid event that occurred between 545 and 539 BC (Dandamaev and Lukonin, 1980, p.104).

В период РЖБХ-II Three groups of archaeological sites are known on the territory of the Pre-Sarakamysh region during the period of RZHVH-II: (a) settlements and burial grounds of the Kuyusai culture; (b) burial grounds of the Saka cultural type; and (c) fortified and non-fortified settlements of the Kyuzeligyr type (Yablonsky, 2008, p.309) (Fig.1). These data contradict the view that chorasmia (Khorezm), previously lived in areas of South-Eastern Turkmenistan, and northwestern Afghanistan, under the pressure of the Persian troops under the leadership of Cyrus II, migrated to the area of the lower reaches of the Amu Darya in the second half of VI century BC This hypothesis is based solely on the information written sources: hecataeus of Miletus in the later authors: Herodotus, Afinia (II–III centuries) and Stephen Byzantine VI, (V. Pyankov 1972, pp. 4-21). Presumably, it, and even then, only partially, refers to the territory of southern Khorezm in its left-bank part, where in the second half of the VII century BC, traces of development of empty lands by groups of newcomers (Humbuztepa) were reliably recorded. At that time, the Prisarakamysh delta was already inhabited by groups of pastoralists (Saks and Kuyusaytsy), who should be considered an autochthonous population of this region (Vainberg 1979, p. 44-45; Rapoport, 1998, p. 30).. Apparently, already at the very end of the VII–VI centuries BC, as a result of direct contacts with artisans from the southern regions, the Sako-Kuyusai population of the Prisarakamysh region mastered advanced technologies both in construction and pottery production, as well as in the field of agricultural technology. At the same time, the construction of Kyuzeli-gyr begins.

In the Kyuzeligyr archaeological complex (early stage of ZHWH-II), pottery of the Yaz-III type is widely represented III. Archaeological materials indicate that there was a well-developed bronze-casting and blacksmithing industry at the site. In the eastern part of the settlement, accumulations of iron slags, fragments of iron ore and, possibly, the ruins of blacksmith forges, in the form of accumulations of furnaces, ceramic nozzles were found, which, most likely, were used to inject air into the forges. Attention is drawn to the large number of iron products (45 items) found on the site. Kyuzeli-gyr. Eto edva whether not bol l, than on vse x from vestny in ustoth the current time of synchronous memorials kis Wededays of Asia. V komplekse predstavleny vestv e orudiya truda: nozhi, serpy, i gly, prokolki, etc ..d. There is every reason to assume the existence of a large metalworking center on Kyuzeli-gyr, where all these items were made. Numerous finds of copper slags and castings attest to the bronze foundry at the monument. In the Kyuzeli-gyr ceramic complex, a group of small thick-walled stucco vessels of cylindrical or hemispherical shape – crucibles for smelting copper crits-semi -finished products (for more information, see Bolelov 2013, pp. 82-83).

All these data, along with the use of raw bricks in construction and the high level of development of construction equipment for its time, indicate a powerful cultural influence of agricultural cultures in the south of Central Asia. At the same time, the archaeological complex presents categories of objects that find close parallels, and sometimes direct analogies in the complexes of the Sako-Kuyusai culture. The most significant category is stucco ceramics. In terms of the number and, most importantly, the composition of forms, the Kyuzeli-gyr complex of stucco ware differs from the same group of ceramics in the HT-I-II complexes, where only kitchen boilers and roasters are presented. Kyuzeli-gyr also has them. However, these forms of cookware are only a small part of the complex. Basically, it contains blood vessels, similar to earlier ceramics of the period RIWH-I - mugs hemispherical or cylindrical shape with side vertical C-shaped handle; a small flat bottom or round bottom bowl, hemispherical or ellipsoidal; Kuvshinova stucco vessels with a relatively high neckline, the body is spherical or ellipsoidal, small pots with tubular spout sink under the rim of the vessel. The same vessels are widely represented in the archaeological complexes of PLW on the territory of the lower Syrdarya (Vishnevskaya 1973, p. 154: Tab.XXII; Itina and Yablonsky 1997, pp. 162-163: figures 66-67).

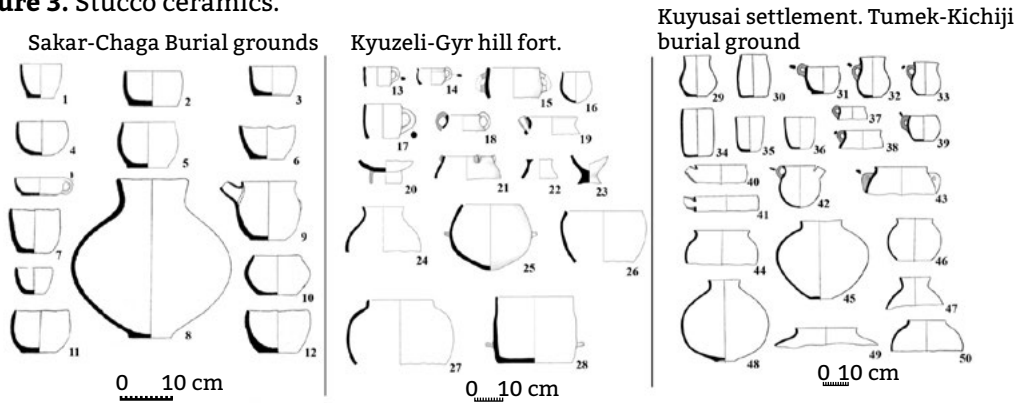
Most of the above-mentioned forms and types of Kyuzeli-gyr stucco vessels are primarily associated with the ceramic tradition of the Sako-Kuyusai period of the history of Khorezm (RZHVH-I).

This conclusion is also confirmed on the basis of chemical and technological analysis of Khorezm ceramics of the VII-IV centuries BC.² This suggests that not only forms, but also in the technology of preparation of the starting material stucco ceramics of Kysely-Gyr, Kozickogo Scarcastic settlements and burial grounds should be considered as a single complex (Fig. 3). The ceramic tradition of moulded stucco ceramics in the period RIWH-I, of course, is associated with steppe area in the Eastern part of Eurasia of the early iron age (the Eastern area of the Scythian-Sak world), and continues in a later period RIWH-II.

Other categories of objects also show strong cultural ties between the inhabitants of Kyuzeli-gyr and the Saka world surrounding Khorezm. In addition to weapons (arrowheads), it is necessary to note stone rectangular or oval "altars" - altars on four legs, which find direct analogies in the burial complexes of burial mounds in the southern Urals and the Volga-Ural interfluvium (Smirnov and Petrenko 1963: Tab. XXX.20-21, 23-24).

² Analyses of the element composition was carried out at the the spectrometer of the consecutive action PW-2400 at the laboratory of X-ray fluorescence analyses at the Institute of geology of ore deposits petrography, mineralogy, and geochemistry of the Russian Academy of sciences headed by senior researcher M.A.Bronnikova.

Figure 3. Stucco ceramics.



Conclusions

In the period of Russian Agricultural Development-II, a fundamentally new paleoeconomical management system based on irrigation agriculture is being formed on the territory of the Left-bank Khorezm, compared to the previous period. Archaeological data obtained as a result of excavations of monuments of the era of RZHVH-II in the territory of the Prisarakamysh delta indicate that at the initial stage of the formation of the ancient Khorezmian agricultural culture, the ethnic composition of the population of the Left-bank Khorezm does not change fundamentally. Kuusysi and Saki, who inhabited the vast Prekrasnyy Delta of the Amu Darya, at least since the end of the VIII century BC, at the end of VII – beginning of VI century BC, as a result of changing environmental and hydrographic situation, and thanks to the powerful cultural pulse of the southern agricultural regions of Central Asia, the transition to a settled agricultural and pastoral mode of management with a dominant role of irrigation agriculture.

Khwarezmian agricultural culture in the period RIWH-II is caused by the interaction of indigenous, mostly cattle, Mainie-kozickogo population Pasarannya and groups of farmers and artisans, immigrants from drevnesmolenskikh areas of South Central Asia, originally settled in the area South of Khwarezm on the left Bank of the Amu Darya river, which at this period of time, can be considered a repeater advanced irrigation, craft and construction technology from the southern regions of Central Asia on Wednesday pastoralists who inhabited the region Prekrasnyy Delta.

References

- Baratov S.R. (2017) On the problem of the origins of the urbanized culture of Ancient Khorezm // Archeology of Uzbekistan. 2017 No.2 (15). (In Russian)
- Baratov S., Matrasulov S. (2003) Archaeological work in southern Khorezm // Archaeological research in Uzbekistan – 2002. Tashkent (In Russian)
- Baratov S.R., Rakhmanov U.V. Marasulov Sh., Sadulaev B., Rakhimov Sh. (2013) Archaeological studies of the settlement of Khumbuztepa in 2011-2012. // Archaeological research in Uzbekistan. 2012. Samarkand. (In Russian)
- Bolelov S.B. (2002) Ceramic roasting furnaces on the territory of the southern and southeastern Aral Sea region (the second half of the I millennium BC – the first centuries AD) // IMKU, issue 33. Tashkent. (In Russian)
- Bolelov S.B. (2004) On the question of the periodization of the early stage of the history of Ancient Khorezm // TRANSOXIANA. History and culture. M. (In Russian)
- Bolelov S.B. (2006) Pottery production in Central Asia in the second half of the I millennium BC – the first half of the I millennium AD (structure and placement system) // RA, 2006, No. 3. Pp. 116-127. (In Russian)
- Bolelov S. B. (2010) Ancient Khorezm and the nomads (paleoeconomic system interactions in the second half of I Millennium BC) // Archaeology and anthropology of the Eurasian steppes and adjoining territories. M. (In Russian)
- Bolelov S. B. (2013) the Craft of Ancient Khorezm archaeological data. Stages of formation // RA. 2013. No. 2. Pp. 77-86. (In Russian)
- Bolelov S.B. (2014) Ancient Khorezm on the threshold of statehood. Socio-economic aspect // Ancient civilizations of Central Asia. M. (In Russian)
- Bolelov S.B. (2016) On the formation of early agricultural culture in the lower reaches of the Amu Darya // SCRIPTA ANTIQUA. Questions of ancient history, philology, art and material culture. Volume V. M. (In Russian)
- Bolelov S.B. (2019) Khumbuztepa. The production center of the Early Iron Age in Southern Khorezm (archaeological research 1996-1997) // The Age of Empires. Eastern Iran from Achaemenids to Sassanids: History, Archeology, Culture, Moscow, 2019. (In Russian)
- Weinberg B.I. (1975) Kuyusai culture of the Early Iron Age in the Prisarykamysch delta of the Amu Darya // USA, vol. 3. M. (In Russian)
- Weinberg B.I. (1977) Monument of the Early Iron Age in Northern Turkmenistan // CD, issue V. Ashgabat. (In Russian)
- Weinberg B.I. (1979) Monuments of Kuyusai culture // Nomads on the borders of Khorezm. Proceedings of HAEE, volume XI. M. (In Russian)
- Weinberg, B. I. (1991) Ancient history watering Prekrasnyimi Delta of the Amu Darya in the light of archaeological works of the last decades // the Aral Sea crisis. M. (In Russian)
- Weinberg, B. I. (1992) Monuments pastoral tribes on the left Bank Khorezm // Steppe strip of the Asian part of the USSR in the Scythian-Sarmatian time. Archaeology of the USSR. M. (In Russian)
- Weinberg B.I. (1999) Ethnogeography of Turan in antiquity. M. (In Russian)
- Vishnevskaya O.A. (1973) Culture of the Saka tribes of the lower reaches of the Syr Darya in the VII-V centuries BC. // Proceedings of the KHAE, vol. VIII, M. (In Russian)
- Vishnevskaya O.A., Rapoport Yu.A. (1997) Kyuzeli-gyr settlement. On the question of the early stage of the history of Khorezm // VDI, 1997, No.2. (In Russian)
- Vorobyova M.G. (1979) The problem of “Greater Khorezm” and archeology // Ethnography and archeology of Central Asia. M. (In Russian)
- Dandamaev M.A., V. Lukonin.G. (1980) Culture and Economy of Ancient M. (In Russian)
- Diakonov M.M. Essay on the history of ancient Iran. M. (In Russian)
- Itina M.A. (1977) History of steppe tribes of the Southern Aral Sea region The works of HAEE, volume X, M. (In Russian)
- Itina M.A. (1979) From the editor // Nomads on the borders of Khorezm. Proceedings of HAEE, vol. XI. M. (In Russian)
- Itina M.A. (1998) On the History of the Study of the Bronze Age of the Southern Aral Sea Region // The Aral Sea region in antiquity and the Middle Ages. M. (In Russian)
- Itina M.A., Yablonsky L.T. (1997) Saki of the lower Syr Darya M. (In Russian)
- Kuzmina E.E. (1986) Pottery production among the tribes of the Andronovo cultural community (about one archaeological aspect of the problem of the origin of the Indo-Iranians) // East Turkestan and Central Asia in the system of cultures of the ancient and medieval East. M., 1986. The lower reaches of the Amu Darya, Sarykamysch, Uzboy. ((1960) Materials of KHAI, issue 3 M., 1960. (In Russian)

- Pyankov I.V. (1972) Chorasnia of Hecateus of Miletus // VDI, 1972, No. 2. (In Russian)
- Rapoport Yu.A. (1998) A brief sketch of the history of Khorezm in antiquity // The Aral Sea region in antiquity and the Middle Ages. M. (In Russian)
- Rapoport Yu.A. (2000) Khorezm in antiquity // In the lower reaches of the Oxus and Jaxartes. Images of the ancient Aral Sea region. M. (In Russian)
- Smirnov K.F., Petrenko V.G. (1963) Savromats of the Volga region and the Southern Urals. SAI, D 1-9. M. (In Russian)
- Tolstov S.P. (1948) Ancient Khorezm M. (In Russian)
- Tolstov S.P. (1962) Along the ancient deltas of the Oxus and Jaxartes. M. (In Russian)
- Yablonsky L.T. (1996) Saki of the Southern Aral Sea region [Saki of the Southern Aral Sea region] M. (In Russian)
- Yablonsky L. T (1998) a Model of the early ethnogenesis in the Scythian-Saka contact zone // RA, 1998, No4. (In Russian)
- Yablonsky L. T. (2005) Archaeological and anthropological hypothesis to the problem of forming cultures Saka // Central Asia. Sources. History. Culture. M. (In Russian)
- Yablonsky L.T. (2010) S.P. Tolstov and the study of monuments of early pastoralists of the Aral Sea region (the Saka problem) // Echoes of the Great Khorezm. M. (In Russian)
- Yablonsky L.T. (2015) Saki in the Oxus Delta. Theory and practice of ethnogenetic research M. Yablonsky L.T. (2017) In the east of the Scythian Ecumene M. (In Russian)