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## Funeral Rite Ritual Ceremonies Of The Bronze And Early Iron Age In The Zarafshan Oasis

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| Article History   | Abstract   |
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| Received: 24 November 2023                              |  |
| Revised: 12 December 2023<br>Accepted: 27 December 2023 | The article for the first time brings into scientific circulation new archaeological materials of the Bronze Age, found during the exploration of the Zarafshan Valley. On the basis of modern radiocarbon analysis, the chronological date of the burials of the Andronovo culture has been clarified. It is noted that the pastoralists of the Afanesovo and Andronovo steppes and the bearers of the settled agricultural culture had long-standing cultural and economic ties in the funeral rite. |
| CC License  | <b>Keywords</b> : Zarafshan oasis, Bronze Age, Afaneseovo, Andronova,  |
| CC-BY-NC-SA 4.0   | burial, Central Asia, Bactria, Sapallian culture.  |

#### 1. Introduction

In Central Asia, the Early Bronze Age (IV–III millennium BC) is considered a period of great social growth, the formation of the first ethnic communities, production and invention of new technologies.

The pastoral communities of the Tazabagyab and Andronova cultures, which were part of the system of Eurasian cultural units, between the two rivers Amu Darya and Syr Darya, were strictly divided into two historical and cultural areas: steppe desert regions of the Tien Shan: in the southern regions of Central Asia, at the foot of the streams originating from the Kopetdag and Tajen mountains. Ancient agricultural cultures were formed in oases and in the territories of Southern Uzbekistan and Tajikistan.

Early finds of the Bronze Age of the Zarafshan oasis, Southern and Central Tajikistan were first examined by A.I. Terenozhkin. He identified the features and specific features of the oasis [35. pp. 127-135; 36. P. 90-100]. The discovery of the ancient settlement of Sarazm was a major step in the study of the Bronze Age throughout Central Asia [13. p. 248]. In fact, in Sarazm and its environs, burials of the Andronovo culture were discovered. And the characteristic features of the Zarafshan Valley were determined [16. pp. 117-130; 17. p. 146-158; 19. P. 150-167].

According to the geographical location and typological characteristics, the monuments of the Zarafshan oasis A.N. Avanesova identifies 7 types. In her opinion, the Sarazm burial and the sacred place of Zhukov are considered seasonal settlements of the Afanasyev culture, the first steppe cattle-breeding farms, monuments Siyob-2, Lyavlakan, Ayakagetma [3. With. 13-33; 27. p. 47-55; 5. p. 27-34].

In the study of the funeral rite or culture of the Bronze Age of the Zarafshan Valley, the archaeological works of the ancient Margian archaeological expedition, such as Togolok 21, Gonur, in the Murgob oasis, are of great importance in clarifying the issue [28. With. 319–329; 29. pp. 125–127; 30. p. 6-150].

The important place of economic farming in the oasis made it possible to develop cattle breeding in the mountain foothills and desert areas. The harmony of these two economic systems in the oases is a natural historical moment. Since ancient times, the Zarafshan oasis has been subject to the development of mineral resources, the systematic development of production and an increase in demand for minerals in neighboring

areas, which, in turn, led to the development of new regions. These migrations can only be explained by studying the mixing of cultures based on archaeological materials, especially as an ethnic feature based on their funeral rites.

In the Zarafshan oasis, information is collected about farming methods and religious prayers of the first communities. In 1985, excavations of the fourth Sarazm excavation were completed, and it was finally determined that the tombs belong to the Eneolithic and Early Bronze Ages. The preserved height of the stone wall is 0.70-0.75 m, the diameter is 15 m. In total, 5 graves were opened and studied in the stone fence. Periodic dating of Sarazm based on new radiocarbon dating; Period A - Middle Chalcolithic (3400-3200 BC), Period A1 - Late Chalcolithic, Period B - Early Bronze Age (3200-2900 BC), Period V - Late Bronze Age (2900-2900 BC). 2700 BC).

Two corpses were buried in the grave facing each other. Tomb 5 is also oval in shape and contains 3 collective corpses. Women were buried with their left shoulder, men with their right. The grave is oval in shape, 2 m in diameter. All corpses, regardless of gender, were buried with their heads facing south. A copper bracelet, a bone necklace, a figurine and an amulet, as well as 49 gold beads were found in the grave of only one woman [16. 117-130; 17. p. 85-99].

In rooms 2 and 3 of the excavation two layers of floor are observed. The grave of a 10-11 year old boy was excavated and studied after the destruction of the houses. The corpse was buried around the grave with its legs and arms stretched out on its back.

In order to study the mounds of the Sarazm period, special groups were formed and search work was carried out. However, the observations did not give the expected result [18. pp. 155-171; 11. p.78-84].

There are two points of view among experts about the tradition of the funeral rite in ancient Sarazm. A.I. Isakov attributed the graves inside the stone ring to the Andronovo culture, N.A. Avanesova believes that the buried belong to the Afanasyevskaya culture. The main evidence that allows the scientist to come to this conclusion is the round stone rampart surrounding the tomb [33.p.34-42].

Sacred place of Zhukov. In 1987, students of the Department of Archeology of Samarkand State University under the leadership of N.A. Avanesova continued field research between the villages of Tugaili and Zhukova, Tailak district. The monument is located 16 km east of Samarkand on the left side of the Samarkand-Penjakent highway. The excavation work was carried out on an area of 18x2 m. During the first studies, at a depth of 5 m from the ground level, a round stone mound and cult elements were observed on its inner side. The stone fortress has a diameter of 5 m, a thickness of 30-35 cm and a height of two rows of stones. Inside the stone fortress, a red ocher platform, two altars with a recess in the middle, bones of sacrificed animals (goat, black cattle, deer, pendant), stone tools, small plates and fragments of pottery and bronze objects around them were discovered. The most remarkable thing is that in the middle of the embankment a special vertical stone was noticed, protruding 45 cm above ground level. N.A. Avanesov's geography of the distribution of stone pillars from the point of view of the "heavenly pillar", known in the Afanesyev culture, Southern Siberia [3. With. 13-33].

- 1. The main reason for the spread of the Afanesyev culture in the Zarafshan oasis is its wealth of natural resources.
- 2. Cultural proximity with the Eurasian region lays the foundation for the formation and development of production in the oasis;
- 3. The traditional origin of the round shrine discovered in the village of Zhukova, and the graves inside the round structure in the Sarazm 2 excavations are considered by the bearers of the Afanasyevskaya culture as preserved types of the Neolithic culture of Kaltaminora. The simultaneous observation of this process in the southern Siberian lands suggests that it was formed during a period of constant cultural contact, and not as a result of migration.

The introduction of the Afanasyev culture, the first pastoral culture, into the territory of Central Asia, serves as the primary source for the restoration of ethnocultural ties here, which can only be judged on the basis of news obtained from monuments that will be discovered and studied in the future [3. With. 13-33].

Tombs of the Andronovo period. In 1975, the Zarafshan group of the Institute of History and Archeology of the Academy of Sciences of Tajikistan opened and studied a burial characteristic of the Andronovo culture under a medieval monument located on the territory of the village of Charbag. Based on the preserved bones of the corpse, it was concluded that the burial part was located in a west-east direction. Two copper bracelets of the Muminabad type were held in one hand and three copper bracelets in the other hand. In addition, in the burial chamber of the graves there were copper beads and one silver amulet [33, pp. 167-178].

The grave of Dashti Kazi is located 50 km east of the city of Penjikent, in the village of the same name, on the second and third terraces of the left bank of the Zarafshan River. [12. pp. 165-167].

In total, 27 graves were opened and studied on the territory of the monument in 1983-86. Most of the graves were dug according to the steppe tradition. Lighting a fire, sprinkling with red ocher, and stone carving are an integral part of the funeral ceremony. The Dashi-Kazi burial ground is characterized by leaving animal bones for sacrifice in the grave. Although Andronovo and Mediterranean anthropological types of people are mixed in the cemetery, they are usually buried in the same way.

Most of the archaeological finds discovered at the burial ground are characterized by their proximity to the culture of the steppe herders. The presence of clay vessels in burials of agricultural culture is a characteristic phenomenon, but in the Dashti-Kazi cemetery the opposite is true. Mostly women's jewelry associated with the culture of agriculture was observed.

According to analyzes of soil samples taken from the Dashti-Kazi mound in the natural laboratory of the FAI of the USSR, in the middle of the 2nd millennium BC. The weather was cool and it was raining heavily. On pastures, as in Southern Siberia, feed and grass were high and nutritious [12. p. 165].

In the Tepai arched mound near the ancient settlement of Sarazm, five graves were excavated and studied. Two were buried singly, three in pairs. In many graves, despite the fractures, the limbs of the corpses are swollen, and the head is directed to the south, west or southwest. At that time, ceramic and metal products belong to the early and late Aluk period, XIII-XI centuries. BC e. [13. pp.117-130].

New archaeological finds show. In recent years, during exploration work in the Zarafshan Valley, we have identified new archaeological materials from the Bronze Age. Unfortunately, all archaeological finds were found by local residents during economic activities.

The geographical topography of the village of Sazagan is a foothill zone with large pastures; therefore, cattle breeding still remain the main traditional occupation [4. With. 334-363].

Two ancient graves were noticed during the clearing of land by local residents in the territory of the village of Sazagan. The graves are rectangular in shape; one of the corpses is buried on the right side, the other on the left side. The legs of the first skeleton were bent at the knees, and the arms were extended forward from the elbows. Most of the finds in the tomb are close to pottery from the Sapallin culture, and around the bronze mirror there are decorations characteristic of the Andronovo culture [4. With. 334-363].

In 2014, in the southern part of the village of Zinak, Urgut region, during economic work, a burial ground was destroyed, from which a Muminabad type bracelet was found [6.56-62]. Based on the preserved bones, the girl's age is determined to be 7-10 years. The found bracelet is round; convex in the middle, the ends are semicircular, diameter 6.8 cm, width 2.7 cm, thickness 0.1 cm, weight 4.72 g (Fig. 1.1).

In the village of Bakhmalsoy, Jizzakh region, local residents came across human bones when they were digging 60-80 cm at the site of the foundation of a house. 7 bronze bracelets similar to those found at the Muminabad cemetery were found here. The diameter of the earrings is 7.1 cm, width 4.6 cm, copper thickness 0.4 cm (1 - Fig. 2). Copper bracelets found in the Muminabad tomb of N.A. Avanesova believes that it is characteristic of the culture of the Abashov and Bolsherechensky reindeer herders of Southern Siberia [1. With. 113]. The earrings are of the type found in the Muminabad and Dashti-Kozi burial mounds. A handmade, goblet-shaped clay vessel with a long neck, flat bottom, and ground quartz added to the clay.

There are three rows of horizontal lines on the shoulder. The diameter of the container is 12.5 cm, the bottom and height are 16 cm (1 - photo, 3). A similar ceramic vessel was discovered in the Dashti-Kazi mound [12. rice. 5.11] indicates their periodic proximity.

Among the Bakhmalsay finds, a fragment of a copper mirror was found. There is a loop on the back convex side. The diameter of the mirror is 5.6 cm, the depth of the convexity in the middle is 0.4 cm (1 - Fig. 4).

Based on the nature of the finds, a woman was buried in the grave; there is no information about the shape of the grave and the condition in which the corpse was buried. The general appearance of the finds, especially the bracelets, is the same as in the Muminabad burial ground. According to the typology of N.A. Avanesova bronze items from Southern Siberia and Kazakhstan found from a burial in the village of Bakhmalsoy belong to the Fedorov group of the Andronovo culture [1.p. 118]. A mirror of a similar shape was also found at the Dashti Kozi monument [10. Rice. 5.1]. There are no scratches around the front side of the mirror. A similar type of bronze mirror was found in Yapagi, the village of Vodil, Fergana region, characteristic of the Andronovo culture [11. P. 13-30].

In 1964, in the village of Muminabad, Urgut district, Samarkand region, during the expansion of the vineyard, local residents obtained some archaeological finds [17. With. 101-104].

Extensive archaeological work carried out, 5 graves were opened. The graves are in oval shape, the skeleton is buried on the left side. The head of the corpse was found on the western side of the burial chamber and indicates the direction of the corpse. Two copper sticks and small copper beads (beads) were found in the head part of the skull. The finds of the remaining graves also belong to the Fedorovsky stage of the Andronovo culture of Kazakhstan. Although most experts believe that such finds date back to the middle of

the second millennium BC, the Muminabad burial ground dates back to the 12th-11th centuries. BC e. [6. P. 56-62].

Avanesova approached the study of mounds discovered in the villages of Galasherik and Jam using a modern method [2. With. 12-33]. The total area of the Galasherik settlement is 3 hectares and the height is 18 m. A total of 5 graves were discovered at a depth of 180-200 cm from the surface of the earth. One of the notable finds is a stone ax and a double-edged bronze bow found in the village of Beshbulok, and another stone ax from the village of Karazov. One of the main features of Microasis Jam is the discovery of an ancient turquoise mine from the Bronze Age. Beshbulak is located 2.5 km east of the village of Karatepa. During the study, it was possible to find small pieces of turquoise and fragments of ceramics characteristic of the Andronovo culture [4. With. 334-363].

Many paleometallic finds were obtained from the village of Jam and its environs. In particular, it is based on the fact that the cone-shaped ceramic culture of Khumchi corresponds to the Dzharkutan stage, or the copper mirror is close to the ancient agricultural one, and its smoked decor belongs to the Andronovo culture.

When observing the burial tradition of the Zarafshan oasis step by step, it can be seen that during the Middle and Late Eneolithic periods, corpses were buried in a grave, without a specific direction of the head. The most remarkable thing is that three or four graves were buried in one stone mound. Even the Zhukovo shrine has two altars and chapels inside the stone fortress. Some religious rituals that were formed during the Middle Chalcolithic period of Sarazm are also observed in the Late Bronze Age. For example, stone-lined prayer areas indicate that rituals such as fire worship were performed.

According to the observations of N.A. Avanesova, the second stage of development of funeral rituals is observed in the mounds of Sazagon, Jom, Dashti-Kazi and Zardcha-Khalifa. In her opinion, the Zarafshan oasis will remain in the sphere of influence of the BMAC for a short time. This period corresponds to the Dzharkutan stage of the Sapally culture of the Bronze Age of Southern Uzbekistan [7; 8].

The characteristic features of the next stage of the funeral rite of the Zarafshan oasis are clearly visible in the Muminabad mound. When we look at this period from an archaeological point of view, we see the development of economic and cultural ties between farmers and the steppe people of Southern Siberia and Kazakhstan. In addition to metal deposits, the Zarafshan oasis is rich in valuable minerals that attracted steppe metallurgists. Turquoise, lapis lazuli and copper are exported to the Eurasian market. During this period, the deceased is buried in a funeral rite with his arms outstretched. Meat from small ruminants and other items were placed next to the corpse. The body was buried with its head more to the west. In the later stages of the Sapallin culture, cultural ties between the steppe people or with different variants of the Andronovo culture intensified. The graves of this period include Siyabcha, Muminabad, Chak-Chak, Charbog [33. pp. 167-178] and the bronze bracelets we found in the villages of Khojayduk-Zinak and Bakhmalsay confirm this. Funeral rites during the Final Bronze Age in the Southern regions, such as the Beshkent culture or the Bostan VI complex in the Zarafshan oasis or the Fergana Valley, are not traced or have not yet been excavated. The diversity of funeral rites on the territory of Central Asia has been a characteristic phenomenon since the Bronze Age and can be traced back to the early Middle Ages.

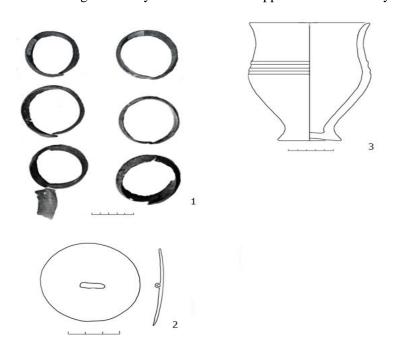
As an inseparable part of religious events, platforms lined with gravels or pits at the bottom with stones are traditionally traced from the Middle Neolithic periods of Sarazm and the Zhukovo sanctuary in the Zarafshan Valley [13. Rice. 55; 15. Fig. 3; 4. P. 334-363].

With the formation of public sanctuaries of the Bronze Age, altars in the middle with pits can be traced, according to the observation of N.N. Negmatov they have been known since the Chalcolithic and Bronze Ages in Geoksyur [23. p.80]. They have traditionally continued since later periods. For example, at the early stage of the Sapallin culture at the Dzharkutan temple [20. With. 209-213; 33], at the entrance portal of the ancient settlements of Koktepa, Kyzyltepa and public temples of the early Iron Age [29; 30] and in the family sanctuary of the ancient settlement of Dabusia [9. rice. 1]. The second important artifact that develops synchronously with the altars in the middle with a pit is cult platforms lined with gravel or stones. An early site was identified at the sacred site of Tugainaya. According to our observations, stone platforms, or pits with stone linings, which is an integral part of the cult ceremony in Central Asia from the Middle Eneolithic settlement of Sarazm [13. rice. 55; 15. fig. 3] and in the Zhukovo sanctuary [4. 334-p. 363]. In the "house with a sanctuary" in room 30, an altar with a diameter of 70 cm in the middle with a central recess was uncovered. The tradition of this form of altars can be traced back to the Chalcolithic layers of Altyn-Dep [22. With. 47]. Geography of distribution of altars with a hollow in the middle N.N. Negmatov traces the Geoksyur valley from the Chalcolithic and Bronze Ages [22. With. 80]. Altars in the middle with a hole further develop at the Bostan VI necropolis and at the Early Iron Age burial ground of Dzharkutan [19; 20. 209-213; 21. 195-201], at the public temple of Koktepa, Sangirtepa and Kyzyl-tepa [28; 29; 31; 32] and in ancient times in the Dabusiya family temple [9. Rice. 1]. Ritual ceremonies near the altars were held on a stone-lined platform.

### 2. References

- 1. Аванесова Н.А. Культура пастушеских племен эпохи бронзы Азиатской части СССР. Ташкент: Фан. 1991
- 2. Аванесова Н.А., Шайдуллаев Ш.Б., Еркулов А. К вопросу о культурной принадлежности Джамских древностей эпохи палеометалла // Цивилизации скотоводов и земледельцев Центральной Азии. Самарканд Бишкек. 2005
- 3. Аванесова Н.А., Джуракулова Д.М. Древнейшие номады Зеравшана // Культура номадов Центральной Азии. Материалы Международной конференции. Самарканд, 22-24 ноября 2007 г. Самарканд. 2008
- 4. Аванесова Н.А. Зерафшанская культурная провинция Бактрийско-Маргианской цивилизации // На пути открытия цивилизации. Труды Маргианской археологической экспедиции. Санкт-Петербург. АЛЕТЕЙЯ 2010
- 5. Аванесова Н. Погребальный обряд некрополя Бустон VI как отражения межкультурных взаимодействий // Культурный трансфер на перекрестках Центральной Азии: до, вовремя и после Шелкового пути. Париж-Самарканд. МИЦАИ. 2013
- 6. Аскаров А.А., Аванесова Н.А. Сапаллинская культура в системе евразийских древностей: контакты и культурные взаимодействия / Международной научно-практической конференции «Культурное наследие народов Евразии: Современные исследования, проблемы и методы изучения». Часть 1. Джизак, Узбекистан 20 октябрь 2022
- 7. Аскаров А.А. Раскопки могильника эпохи бронзы в Муминабаде // ИМКУ, вып. 8. Ташкент. 1969
- 8. Аскаров А.А. Сапаллитепа. Ташкент. 1973
- 9. Аскаров А.А., Абдуллаев Б.Н. Джаркутан. Ташкент. 1983
- 10.Бердимурадов А.Э., Уно Такао, Богомолов Г.И., Рахимов К.А. Археологические исследования городища Дабусия // АИ., вып. 9. Самарканд. 2013
- 11. Бобомулоев С., Виноградова Н.М., Бобомуллоев Б., Худжагелдиева Т. У. Исследования курганов на массиве Саразм-2 в долине р. Зарафшан (раскопки 2020 года) // Культуры Азиатской части Евроазии в древности и средневековье / Под ред. Н.А. Аванесовой. Самарканд. 2021
- 12. Виноградова Н.М., Кутимов Ю. Г. Погребальные памятники эпохи бронзы в Южном Таджикистане (могильники Гелота и Дарнайчи) / Ответ. ред. Е. В. Антонова. М., 2018
- 13. Горбунова Н.Г. О культуре степной бронзы Ферганы // АСГЭ. вып. 32. / Под общ. ред. Б.Б. Пиотровского. Санкт-Петербург. 1995
- 14. Исаков А.И. Некрополь Соразма и развитие раннеземледельческой культуры на верхнем Зеравшане / Технологический и культурный прогресс в раннеземледельческую эпоху. Тезисы докладов Республиканского совещания. с. 55-56. Ашхабад-1987
- 15.Исаков А.И., Потемкина Т.М. Могильник племен эпохи бронзы в Таджикистане // СА № 1. М., 1989
- 16. Исаков А. Саразм (К вопросу становления раннеземледельческой культуры Зерафшанской долины (раскопки 1977-1983 гг.). / Отв. Ред. Массон В.М., Негматов Н.Н. Душанбе. 1991
- 17. Исаков А.И. Исследования Саразмского отряда в 1984 г. // АРТ вып. XIV. Душанбе. 1993
- 18. Исаков А.И. О работе международной археологической экспедиции на поселений Саразм в 1985 г. // АРТ, вып., XXV. Душанбе 1994
- 19. Исаков А.И., Бобомуллоев С.Г., Виноградова Н., Отчет о работе Даштикозинского отряда в 1998 году // АРТ., вып., XXVII. Душанбе 2000
- 20.Исаков А.И., Безенваль Р.М., Раззоков А.Р., Бобомуллоев С.Г. Работы Советско-Французской экспедиции в 1990 году //АРТ., вып., XXVIII. Душанбе. 2003
- 21. Лев Д.Н. Погребение бронзовой эпохи близ г. Самарканда // КСИА АН СССР, вып. 108. 1966
- 22. Массон В.М. Алтын депе // Труды ЮТАКЭ вып., 18. /Отв. ред. Окладников А.П. Л. 1981
- 23. Мустафакулов С., Бендезу–Сарменьто, Рахмонов У., Хасанов М., Люилье Ж., Люне Э. Полевые работы Узбекско-Французской (MAFOUZ) экспедиции на Джаркутане в 2009–2011 гг. // АИ, вып. 8. Самарканд 2012
- 24. Мустафакулов С., Рахманов У., Хасанов М. Жилища эпохи раннего железа на Джаркутане (Бактрийско-ферганские параллели) // Фарғона водийси тарихи янги тадқиқотларда мавзусидаги иккинчи республика илмий анжумани Фарғона 2012

- 25. Мустафакулов С., Бендезу-Сармьенто Х., Рахмонов У., Люилье Ж., Искандерова А., Рахимов К., Кервен М., Сармьенто Д. Результаты работ на памятнике Джаркутан в 2012 году // АИ, вып. 9. Самарканд 2013
- 26.Негматов Н.Н. Таджикистан на пути к урбанизации // Культура первобытной эпохи Таджикистана (от мезолита до бронзы). Душанбе 1982
- 27. Обельченко О.В. Культура античного Согда (по археологическим данным VII в. до н.э.-VII в. н.э.) М., 1992
- 28. Рахманов У. Зооморфные изображения на керамике памятника эпохи бронзы Бустан 4 // ИМКУ, вып., 16. Ташкент 1981
- 29. Рахманов У. Керамическое производство эпохи бронзы Южного Узбекистана // Автореф. канд. дисс. Самарканд 1987
- 30. Сарианиди В.И. Происхождение иранских храмов огня // La Persia e LAsia Centrale da Alessandro al X secolo (Romo, 9-12 novembre 1994).
- 31. Сарианиди В.И. Культурные ценности. Международный ежегодник. Санкт-Петербург-2004
- 32. Сарианиди В.И. Гонурдепе. Город царей и богов / Под ред. Н. Бубновой Ашгабат. 2005
- 33. Сверчков Л. М., У Син, Бороффка Н. Городище Кызылтепа (VI–IV вв. до н.э.): новые данные // Scripta Antiqua. Вопросы древней истории и материальной культуры. Альманах. Том третий. М., 2013
- 34. Сверчков Л. М., У Син. Храм огня V–IV вв. до н. э. // Scripta Antiqua/ вып. 8. М., 2019
- 35. Тереножкин А.И. Археологическая рекогносцировка в западной части Узбекистана // ВДИ, №2, 1947
- 36. Тереножкин А.И. Согд и Чач. КСИИМК, вып. 33. М-Л. 1950
- 37. Заднепровский Ю. А., Матбабаев Б. Х. Основные итоги изучения Чустского поселения в Фергане (1950–1982) // ИМКУ, вып. 19. Ташкент, 1984
- 38.Bendezu-Sarmiento J., Lhuillier J. Funerary Practices of the Iron Age in Southern Central Asia: Recent Work, old Data, and new Hypotheses // Sine Sepulchro cultural complex of Transoxiana (between 1500 and the middle of the 1st Millennium BCE).
- 39. Henri-Paul Francfort. In Zeravshan And Oxus Valleys: When Civilizations Met In protohistory // Культуры Азиатской части Евразии в древности и средневековье / Ответ. ред. Н.А. Аванесова Самарканд. 2021
- 40. Vikas Kumar, E. Andrew Bennett, Dongyue Zhao, Yun Liang, Yunpeng Tang, Meng Ren,3 Qinyan Dai, Xiaotian Feng, Peng Cao, Ruowei Yang, Feng Liu, Wanjing Ping, Ming Zhang, Manyu Ding, Melinda A. Yang, Berdimurodov Amridin, Hasanov Muttalib, Jianxin Wang, and Qiaomei Fu // Genetic Continuity of Bronze Age Ancestry with Increased Steppe-Related Ancestry in Late Iron Age Uzbekistan. 2021.



Puc. 1. Новые археологические находки эпохи бронзы Заравшанской долины Fig. 1.New archaeological finds of the Bronze Age of the Zarafshan Valley