

# Red-Slipped Pottery And Their Place In The Ancient Fergana Material Culture

Priniyazov Jetkerbay Adilbaevich

PhD student at the National Archaeology Center of the Academy of Sciences of the Republic of Uzbekistan

Received: 30 August 2025; Accepted: 25 September 2025; Published: 28 October 2025

**Abstract:** This article focuses on the pottery traditions of the ancient Fergana Valley, specifically the origin and quality of red-slipped pottery, and is based on archaeological sources. The study analyzes various scholarly approaches to the production of red-slipped pottery in the Fergana Valley, including the close relationship between external cultural influences and local pottery traditions. Their technical and artistic features, such as the use of high-quality clay raw materials, covering with a smooth slip, and decoration with geometric and plant-like patterns, indicate the high craftsmanship of the Fergana potters. The conclusion of the article assesses this phenomenon as an integral part of the material culture of the Fergana Valley and emphasizes the need for deeper study of the technological stages of these ceramic objects through future laboratory analyses.

**Keywords**: Fergana Valley, red-slipped pottery, pottery culture, local pottery traditions, iron oxide, pottery wheel technique.

Introduction: The Fergana Valley has historically been one of the major handicraft centers of Central Asia, and pottery, in particular, developed to a high degree in this region. The ceramic items created by local artisans not only met the daily needs of the population but also played an important role in the region's internal and external trade. In the economic life of the Fergana Valley, ceramic production has been established as an important branch of industry since ancient times. Every historical period in antiquity had its own specific forms labor organization and various types of craftsmanship. The progress of pottery production was linked to the overall economic and cultural development of society. Red-slipped manufactured in the Fergana Valley during the ancient and early medieval periods indicates a stage of development in pottery production. The work carried out during the construction of the Fergana Canal in 1939-1940 made it possible to clarify the periodization of the history of ancient Fergana culture. In particular, the wide and comprehensive distribution of redslipped artifacts confirmed ceramic was [Zadneprovskiy, 1960]. Various scholarly views exist regarding the origin and formation process of redslipped pottery in the Fergana Valley. Some researchers evaluate this process as a continuation of the

development of local pottery traditions, while others explain it through external cultural influences. In this study, we will primarily focus on the issue of external influences.

#### **METHODOLOGY**

The research is based on the analysis of archaeological sources and scientific literature. The article studies the origin and distribution process of red-slipped pottery in the Fergana Valley from a historical perspective. In the process of analysis, the scientific views of various scholars were compared, and an attempt was made to identify the interrelation of external and local influences. Comparative and historical analysis methods were used in the research.

**External Influences**. One of the researchers who examined the issue of external cultural influences is V.D. Zhukov, who formed his views in this direction based on the materials of the archaeological expedition carried out during the construction of the Great Fergana Canal. Among the finds collected during the research, he highlights samples that were wheel-thrown and covered with a thick red slip. Comparing the shape and technical treatment marks of these vessels with Hellenistic pottery, he specifically emphasizes their similarity [Zhukov, 1951]. Based on this comparison, he approaches the scholarly

conclusion that the red-slipped pottery in the Fergana Valley might have been formed not as a result of the internal development of local pottery traditions, but through Hellenistic cultural influence.

Another scholar who raised the issue of external influences in his research is A.N. Bernshtam, who offered his own approach to the issue based on archaeological observations conducted in the territory of Northern Kyrgyzstan, noting the similarity between the thin-walled red-slipped potteries found during his research and the samples from the Fergana Valley. He emphasizes that the roots of these vessels trace back to ancient traditions of polishing and coloring, and he suggests that their wide distribution cannot be explained by local development alone. The researcher links these ceramics technically and artistically to Roman pottery traditions [Bernshtam, 1943] and interprets them as the product of external cultural influence.

Among the scholars who examined cultural changes in the Fergana Valley within a broader regional context, Y. A. Zadneprovskiy mentions the possibility of Hellenistic traditions influencing the production of red-slipped pottery [Zadneprovskiy, 1954]. He suggests that the Hellenistic techniques and craft traditions may have, to a certain extent, influenced the development of the ability to produce high-quality slip, ensure uniform and intense firing in special kilns, and manufacture vessels of stable form.

Thoughts on the manifestation of external influences in technological processes were also put forward by E.V. Sayko. In her research findings, she links the changes observed in the shape of ceramic vessels in the 3rd century BCE to the emergence of a new type of wheel-throwing technique. She also explains this technological innovation as an influence of Greek pottery traditions [Saiko, 1971].

In studying the regional character of external influences, the research of N.G. Gorbunova deserves special attention. Through a territorial and relative analysis of red-slipped pottery in the Fergana Valley, she explains the formation of this tradition as a result of cultural ties with the southwestern regions of Central Asia. The researcher notes that the technique of covering with red slip might have entered Fergana precisely through influences from this direction. She also does not exclude the possibility of linking this process with the migration of the Sogdian tribes to the Fergana territory after the campaigns of Alexander the Great [Gorbunova, 1984]. In another study, she associates the appearance of red-slipped pottery with the period of the spread of catacomb-type burials in Fergana and does not deny the probability of a cultural

influence arriving from the West [Gorbunova, 1975]. That is, she explains the direction of the red slip in the Fergana Valley as being from the West toward the eastern side of the valley.

In subsequent years, another researcher, B. Abdullaev, writes in their studies that, on the contrary, the spread was from East to West [Abdullaev, 2019]. The fact that the earliest examples of red-slipped pottery are encountered precisely in the area of the Chust culture indicates that this tradition originated in the East. Their subsequent spread to other regions is observed, which suggests that the direction of development proceeded from East to West.

In later research in this area, B. Abdulgazieva also reexamines the issue of red-slipped pottery based on new materials. She systematically classified the redslipped pottery found at over 40 archaeological sites in the Marhamat district chronologically [Abdulgaziyeva 1992]. According to her observations, the process of the appearance of red-slipped pottery in the Fergana Valley is also explained in connection with the historical changes that occurred during the invasion of Alexander the Great [Abdulgaziyeva 1993].

In his research, M.H. Isamiddinov discusses the introduction of red-slipped pottery into the Fergana Valley, offering a cautious approach where he considers the spread of this type of pottery to the Fergana Valley to be the result of a cultural influence originating from the territory of China, specifically through Eastern Turkestan [Isamiddinov, 2019]. In his more recent studies, he connects the appearance of red-slipped pottery in Fergana Valley ceramics with external cultural factors. He interprets the cooccurrence of hand-made vessels and wheel-thrown, red-slipped ceramics in the early stages of the Eilatan period as belonging not to local traditions but to broader cultural processes. In the researcher's opinion, the red-slip technique during the Eilatan period fundamentally differs from that of the Chust period: it was applied entirely only to wheel-thrown vessels, and its area of distribution reached Central Asia, the Near East, and the Caucasus. Therefore, this type of ceramic is considered genetically linked to the Hellenistic and Kushan-era cultures [Isamiddinov, 2021].

The analyzed scientific sources indicate that external cultural factors played an important role in the production of red-slipped pottery. According to researchers, Hellenistic and Greco-Roman pottery traditions, as well as technological experience introduced through Eastern Turkestan, had a certain degree of influence on the formation of the Fergana Valley pottery school. At the same time, the existing evidence also suggests that influences blended with

local production traditions, leading to the emergence of unique technological and artistic forms.

**Local Traditions**. In addition to external influences, local pottery traditions also played a significant role in the production of red-slipped pottery in the Fergana Valley. Archaeological observations and stratigraphic data indicate that this process was formed on the basis of the region's ancient ceramic production experience. Therefore, some researchers explain red-slipped pottery not as an external influence but in connection with the experience of local artisans, raw material sources, and production conditions. For instance, in Y.A. Zadneprovskiy's later research, he notes that the plant-like and geometric patterns found on red-slipped pottery are characteristic of local pottery traditions and the not found outside Fergana region [Zadneprovskiy, 1956].

One of the researchers who noted the continuous development of local pottery traditions is V.I. Kozenkova, who connects this process not with external influence but with the region's internal production experience. She evaluates red-slipped pottery as a logical result of the long-standing development of pottery in the Fergana region. She emphasizes that the forms and treatment methods of these objects embody the pottery traditions of the previous period. In the researcher's opinion, these vessels may have been slightly perfected based on the existing production experience at the end of the pre-Christian era [Kozenkova, 1964].

In later research, D.F. Vinnik and G.A. Brykina provided an explanation for the issue of red-slipped pottery based on a local approach, showing that this phenomenon is the product of a long historical process. In their research, they put forward the local origin of red-slipped pottery in the Fergana Valley. They explain this with the long duration of this type of vessel, starting from the second half of the 1st millennium BCE, its wide distribution in various sites of the valley, and its emergence already in the Early Iron Age. The scholars emphasize that these signs indicate that the ceramic items were not imported but were manufactured within the region itself. On this basis, they conclude that red-slipped pottery is a product of the local development of the Fergana Valley [Vinnik, Brykina, 1968].

P.P. Gavryushenko analyzes the chronological development process of ceramic artifacts in the Fergana Valley in his research. He notes the complex and long stages of formation of red-slipped pottery, emphasizing that its roots date back to the Late Bronze Age [Gavryushenko, 1968]. These views further strengthen the theoretical approach indicating the

local formation of red-slipped pottery in the Fergana Valley.

Among the researchers who shed light on the issue of local development at a new stage, A. Anarbayev, who has deeply studied the pottery traditions of the Fergana Valley, holds a special place. In recent years, he has conducted extensive archaeological research at various sites in the valley, analyzing large ceramic complexes stratigraphically, typologically, and technologically. The results of the scientifically substantiate that red-slipped pottery in the Fergana region gradually formed and developed in direct connection with the improvement of production techniques. The origin of the red-slipped pottery that lasted for a thousand years in the Fergana Valley has been proven with specific materials to be directly related to the Eilatan culture. Archaeological research conducted under the leadership of A. Anarbayev in 2015 at the Qirqxujra (Chilxudjra) archaeological site confirmed this idea once again [Anarbaev et al., 2016].

Technological Features of red-slipped pottery. In the ancient period, the Fergana Valley stood out as one of the major pottery centers of Central Asia. In ancient and early medieval times, wheel-thrown red-slipped pottery held an important place in Fergana ceramics. Overall, the issue of the origin of red-slipped pottery in the Fergana Valley shows that there is no single opinion. Some researchers attribute this phenomenon to external cultural influences, while others explain it as a result of local pottery traditions. Archaeological research, stratigraphic, and typological analyses are providing new evidence to further clarify the issue of red-slipped pottery. Therefore, we conclude that it is necessary to continue new research to fully illuminate this issue. In the Fergana Valley, the increase in the urban population led to a proportional rise in the number of people engaged in crafts and trade. For example, during the Early Middle Ages, the main social groups forming the city were wealthy landowners and merchants [Anarbaev, 2013]. The thin-walled ceramic vessels produced in ancient Fergana had distinctive characteristics. There was a significant difference between the fine pottery produced in urban centers and the traditional vessels made in rural areas.

The last quarter of the 4th century BCE marked the beginning of a new stage of development for Fergana. It is precisely from this period that an intensification of Fergana's contacts with the southwestern regions is observed. This process, in turn, led to the formation of new forms and technologies specific to Fergana in the production of ceramic artifacts [Anarbaev, 2017]. Changes were observed in the making and shapes of ceramic vessels in the pottery of the Fergana Valley, resulting in the appearance of a new type of red-

slipped pottery.

During this period, high-quality, wheel-thrown vessels co-existed with hand-made ceramics that continued ancient traditions. Several methods were used in making the vessels: shaping by successively adding coils of clay, forming with the help of a cloth mold, and also bringing a piece of clay into the shape of a vessel by pressing. Sometimes these methods were used together [Tsetlin, 2012].

In the first centuries CE, local variations were observed in the pottery cultures of different regions of the Fergana Valley. In particular, hand-made decorated ceramics persisted for a long time in the eastern part of this region. In other areas, wheel-thrown vessels covered with red slip were widespread. Conversely, in the preceding period, the pottery culture of the eastern, central, and north-western regions had similarities and differed from the south-western part [Gorbunova, 1970].

In urban pottery, the traditional patterns of the Chust culture and red-slipped vessels continued until the 1st–4th centuries CE [Saidov et al., 2012]. The pottery of the Chust culture in Fergana consisted of various handmade vessels, which were decorated with black and light red geometric patterns [Asqarov, 2015].

In the early centuries of our era, pottery in the Fergana Valley developed to a high degree, distinguished particularly by the quality of wheel-thrown ceramic vessels. Their walls were thin, the raw material was well-sifted, and the firing quality was robust and uniform. These vessels were primarily covered with a red slip, though sometimes a black slip was also used. Their shapes were diverse, including bowls, pitchers, cups, and other types [Gorbunova, 1979].

In the late 1st millennium BCE — the first half of the 1st millennium CE, high-quality, red-slipped, and incised-decorated pottery was widespread in Fergana [Brykina, 1982]. Archaeological excavations conducted under the leadership of A. Anarbayev at the Tepaqorgon and Moʻyi Muborak sites in Kokand yielded important information about the technology and quality of red-slipped ceramics. We can see that these red-slipped vessels were often wheel-thrown, made from high-quality clay, covered with a smooth slip, and sometimes decorated with incised geometric patterns [Anarbaev, 2014].

During the excavations in the Fergana Valley, the redslipped vessels clearly demonstrated the existence of ancient Fergana craftsmanship traditions in this region, as well as not only local production but also extensive cultural contacts and technological exchange [Anarbaev, 2012]. The decorations on such red-slipped pottery made by the potters were unique, with their surfaces polished and certain areas incised with geometric and plant-like patterns. These decorations feature images of the sun, clouds, rain, mountains, and rivers, interpreted as symbols of the life-giving power of natural elements and fertility [Anarbaev, 2023]. The use of sun and sky symbols indicates a strong belief in the sky and Tangri (God of the Sky) among the ancient population of Fergana.

Regarding incised-decorated pottery in Fergana, F. Maksudov studied red-slipped and incised-decorated pottery found at Kizlartepa and dated them to the 2nd—4th centuries CE. His research suggests the possibility of the incising technique being linked to the movements of the Huns [Maksudov, 1997].

After the 6th century CE, significant changes occurred in the pottery sector in Fergana, and red-slipped pottery gradually disappeared. By the 7th century, the style of ceramic production had changed considerably [Gorbunova, 1975]. In Fergana ceramics dating to the 7th–8th centuries, the quality of the red slip declined, and the clarity of the patterns and the level of finishing of the vessels were simplified compared to earlier stages [Gorbunova, 1984].

Only certain parts of the vessels were covered with slip, and full coverage decreased. Such changes were seen as a result of the Fergana region's increasing contacts with other cultures [Gorbunova, 1984]. Local Fergana pottery traditions gradually developed under the influence of close ties with Chach and the southwestern regions of Central Asia. During this period, some traditional ceramic forms disappeared, and new technological styles took their place. For example, the walls of wheel-thrown vessels became thicker, the red slip completely disappeared, and the share of hand-made pottery increased [Maksudov, 2020].

By this period, the red slip used for surface treatment of ceramic vessels became diluted, and its color faded. Consequently, the slip on many vessels was not clear. The surfaces of some vessels were polished, but no slip was applied to the outer part [Matbabaev, 2009]. During this time, some traditional ceramic vessel shapes completely disappeared, and they were replaced by other types of vessels with a new technological composition. Concurrently, the wheel-thrown vessels became somewhat coarser, and their walls became relatively thicker [Anarbaev, 2017].

In the ancient period, the Fergana Valley stood out as one of the major pottery centers of Central Asia. In ancient and early medieval times, wheel-thrown redslipped pottery held an important place in Fergana

ceramics. These vessels were made from high-quality clay raw materials, shaped on fast-spinning wheels, and fired at high temperatures. Archaeological research shows that while the number of red-slipped pottery types increased in the ancient period, the quantity of hand-made decorated ceramics decreased. This situation indicates a development and shift in the aesthetic directions of Fergana pottery.

The origin of the earliest slipped vessels is tentatively linked to the Near Eastern regions as early as the Neolithic period, where it is hypothesized that the first slipped vessels were formed [Yao et al., 2024]. The emergence of slips may primarily be connected to the desire to make ceramic vessels impermeable to liquid, as well as to give the pottery a decorative appearance. Later, the method of applying slip developed in conjunction with the technological process of pottery production. Potters needed to know the physical and technical properties of the clay to cover the vessels with slip. For example, they needed to know the clay used for the main vessel, or the clay or other special mixture used for the slip [Tsetlin, 2012]. Subsequently, perhaps, decoration with slip merged, first and foremost, with the application of patterns to ceramic vessels. Therefore, the slip was used as a means to create complex patterns on the vessel surface, or as a means to prepare the field for decoration.

In the production of red-slipped pottery, the clay and the substance rich in iron oxides played an important role. Depending on the amount of iron oxide in the clay, various shades of dark red were formed on the surface of the vessel [Yao et al., 2024]. The red slip was prepared from finely sieved, fine clay rich in iron oxide, which, after firing, created a smooth and thin layer that slightly differed from the body of the vessel. Thus, the slipped surface usually stood out with a red layer compared to the vessel body. The main purpose of this was to strengthen the vessel, change its natural color, or give it a more refined appearance. The potter used a specially prepared slip, and after the ceramic vessel was fired, the slip had a color different from the main color of the vessel body.

Thus, the technology of completely covering the surfaces of ceramic vessels with slip became a technological and decorative method, performed with the aim of giving the vessel a new exterior appearance. In later periods, covering only certain parts with slip was used to create decorative patterns [Tsetlin, 2012]. The consistent application of the wheel-throwing method and slip treatment in making the ceramic vessels indicates that they were crafted by urban potters. Among the ceramics, vessels covered with double red slip, polished, and even those with traces of repair have been identified, which signifies their high

technological level.

The slipped surface typically stands out from the whitish or orange-colored vessel body due to its reddish tint, thinner layer, and finer texture [Yao et al., 2024]. All of these changes primarily occurred due to the artisans' pursuit of innovation and their demanding standards. Furthermore, in some cases, significant changes were observed in the assemblage of ceramic vessels, which were directly linked to major technical and technological innovations or ethno-cultural shifts [Anarbayev, 2017].

#### **CONCLUSION**

The issue of red-slipped pottery in the Fergana Valley should be viewed as the result of long historical processes. There is no single opinion among researchers regarding the origin of this phenomenon: one group of scholars links it to the influence of Hellenistic, Greco-Roman, and generally southwestern regions, while other researchers emphasize that the foundation of this process lies in the valley's ancient pottery traditions, raw material sources, and pottery expertise.

The ceramics produced by Fergana potters were of high quality, fired at high temperatures, and covered with a smooth slip. The presence of iron oxide in the red slip, along with the firing method and surface treatment of the ceramics, resulted in vessels acquiring various shades, indicating the potters' deep knowledge of ceramic production.

Thus, red-slipped pottery is an integral part of the material culture of the Fergana Valley, representing the region's achievements in pottery culture and its economic development. Future complex archaeological and laboratory studies will provide more precise scientific information about the formation of these ceramic traditions, the composition of the raw materials, and the production processes.

## **REFERENCES**

- 1. Abdulgazieva, B. (1992). Arkheologicheskie pamyatniki Markhamatskogo rayona Andizhanskoy oblasti (Archaeological monuments of the Markhamat district of the Andijan region). Izvestiya Muzeya istorii kultury Uzbekistana, 26, 122–133. (In Russian)
- 2. Abdulgazieva, B. (1993). Ellinisticheskaya keramika Fergany (Hellenistic ceramics of Fergana). In Antichnaya tsivilizatsiya i varvarskiy mir: Materialy III arkheologicheskogo seminara (Part II, pp. 20–27). Novocherkassk. (In Russian)
- **3.** Abdullaev, B. (2019). Bir yodgorlikda aks etgan Farg'ona tarixi (The history of Fergana reflected in one monument). Istoriya i arkheologiya Turana, 4,

- 94-118. (In Uzbek)
- **4.** Anarbaev, A. (2013). Akhsiket stolitsa drevney Fergany (Ahsikent the capital of ancient Fergana). Tashkent: Tafakkur. (In Russian)
- 5. Anarbaev, A. (2017). Gorodskaya kul'tura Fergany v epokhu antichnosti i srednevekov'ya: avtoref. dokt. diss. v vide nauchnogo doklada (Urban culture of Fergana in the antiquity and medieval period: of doctoral dissertation). Tashkent: Izd-vo In-ta arkheologii AN R Uz, 154. (In Russian)
- **6.** Anarbaev, A.A., Sayfullaev, B.K., Saidov, M.M. (2014). Arkheologicheskie issledovaniya v g. Kokande i ego okrestnostyakh (Archaeological research in Kokand and its surroundings). Samarkand, 90. (In Russian)
- 7. Anarbaev, A.A., Saidov, M.M., Nasriddinov, Sh.N., Kubaev, S. (2012). Eski Akhsi yodgorligida 2011 yilda olib borilgan arxeologik tadqiqotlar (Archaeological excavations at Eski Akhsi in 2011). Oʻzbekistonda arxeologik tadqiqotlar 2010–2011-yillar. Samarkand, No. 8, 48–60. (In Uzbek)
- 8. Anarbaev, A., Maksudov, F., Kubaev, S. (2016). Chil'khudzhra (Kyrkhkhudzhra) drevnego goroda severo-zapadnoj Fergany (Chilkhudjra (Kyrkhkhudjra) ruins of the ancient city in northwestern Fergana). In IMKU, Issue 39. Tashkent, 89–113. (In Russian)
- **9.** Askarov, A. (2015). Uzbek xalqining kelib chiqish tarixi (The origin of the Uzbek people). Toshkent: Fan, 680. (In Uzbek)
- 10. Bernstam, A.N. (1943). Istoriko-kul'turnoe proshloe Severnoj Kirgizii po materialam Bol'shogo Chuyskogo kanala (Historical and cultural past of Northern Kyrgyzstan based on the materials of the Great Chu Canal). Frunze: Izd-vo AN Kirgizskoy SSR, 254. (In Russian)
- **11.** Brykina, G.A. (1982). Yugo-Zapadnaya Fergana v pervoj polovine I tysyacheletiya nashej ery (Southwestern Fergana in the first half of the 1st millennium AD). Moscow: Nauka, 144. (In Russian)
- **12.** Vinnik, D.F., Brykina, G.A. (1968). O raskopkakh v rajone Andizhanskogo vodokhranilishcha (On excavations in the area of the Andijan reservoir). In Arkheologicheskie otkrytiya 1967 g. Moscow: Izdvo AN SSSR, 361–363. (In Russian)
- **13.** Gavryushenko, P.P. (1969). O khronologicheskoj klassifikatsii Kulunchakskogo poseleniya (On the chronological classification of the Kulunchak settlement). In Izvestiya AN KirgSSR, No. 2. Frunze: Izd-vo AN Kirgizskoj SSR, 70–103. (In Russian)
- 14. Gorbunova, N.G. (1975). Fergana v kushanskoe

- vremya (Fergana in the Kushan period). In Tsentral'naya Aziya v kushanskuyu epokhu, Vol. II. Moscow, 50–55. (In Russian)
- **15.** Gorbunova, N.G. (1975). Raskopki kurganov v Ferganskoj oblasti (Excavations of barrows in the Fergana region). In Uspekhi sredneaziatskoj arkheologii, Issue 3. Leningrad, 29–32. (In Russian)
- **16.** Gorbunova, N.G. (1979). O rannesrednevekovoj keramike Fergany (On the early medieval pottery of Fergana). In Uspekhi sredneaziatskoj arkheologii, Issue 4. Leningrad, 71. (In Russian)
- 17. Gorbunova, N.G. (1979). Keramika poselenij Fergany pervykh vekov nashej ery (Pottery of Fergana settlements in the first centuries AD). In Trudy Gosudarstvennogo Ermitazha. Leningrad, 114–146. (In Russian)
- **18.** Gorbunova, N.G. (1970). O lokal'nykh osobennostyakh v kul'ture Drevnej Fergany (On local features in the culture of Ancient Fergana). In Sovetskaya arkheologiya, No. 1. Moscow, 77–86. (In Russian)
- **19.** Gorbunova, N.G. (1984). Nekotorye osobennosti formirovaniya drevnikh kul'tur Fergany (Some features of the formation of ancient cultures of Fergana). In Arkheologicheskij sbornik, Issue 25. Leningrad, 99–107. (In Russian)
- 20. Isamidinov, M.Kh. (2019). Razlichiya i skhodstva material'noy kul'tury istoriko-kul'turnykh oblastey Sredney Azii v epokhu rannego zheleznogo veka (Differences and similarities of material culture in the historical-cultural regions of Central Asia during the Early Iron Age). In Drevnosti Vostochnoy Evropy, Tsentral'noy Azii i Yuzhnoy Sibiri v kontekste svyazey i vzaimodeystviy v evraziyskom kul'turnom prostranstve: Materialy Mezhdunarodnoy konferentsii. Saint Petersburg. (In Russian)
- **21.** Isamiddinov, M.H. (2021). On some issues of chronology of ancient Fergana and Sugd cultures. In Central Asian Journal of Social Sciences and History, Vol. 2, No. 7, 7–11. (In English)
- **22.** Kozenkova, V. I. (1964). Gayrat-tepe (k istorii poseleniy Fergany pervoy poloviny I tysyacheletiya n. e.) (Gairat-tepe: On the history of Ferghana settlements in the first half of the 1st millennium AD). Sovetskaya arkheologiya, No. 3. Moskva, 218–238. (In Russian)
- 23. Maksudov, F. A. (1997). Nekotorye voprosy semantiki protsarapannogo ornamenta na keramike Margilana (po materialam Kyzlartepa) (Some issues of the semantics of incised ornamentation on Margilan ceramics [based on

- Kyzlartepa materials]). Izvestiya Muzeya istorii kultury Uzbekistana, Vyp. 28. Samarkand, 53–59. (In Russian)
- **24.** Maksudov, F. (2020). Ferghana During the Early Medieval Period //Studies on the History and Culture Along the Continental Silk Road. Singapore: Springer, 67–87. (In English)
- 25. Matbabaev, B. Kh. (2009). Qadimgi Farg'onaning ilk o'rta asrlar davri madaniyati (V–VIII asrlar arxeologik manbalarining tarixiy tahlili asosida) (The culture of ancient Ferghana in the early medieval period [based on the historical analysis of archaeological sources, 5th–8th centuries]). Toshkent, 407. (In Uzbek)
- 26. Saiko, E. V. (1971). K istorii goncharnogo kruga i razvitiya form keramiki: po arkheologicheskim materialam Sredney Azii (On the history of the potter's wheel and the development of ceramic forms: based on archaeological materials from Central Asia). Dushanbe: Izd-vo AN Tadzhikskoy SSR, 212. (In Russian)
- 27. Saidov, A., Anarbaev, A., & Goriyacheva, V. (2011). The Ferghana Valley: The Pre-Colonial Legacy (The Ferghana Valley: The Pre-Colonial Legacy). Ferghana Valley: The Heart of Central Asia. London: M.E. Sharpe, 445. (In English)
- **28.** Tsetlin, Y. B. (2012). Drevnyaya keramika: Teoriya i metody istoriko-kulturnogo podkhoda (Ancient ceramics: Theory and methods of the historical-cultural approach). Moskva: Institut arkheologii RAN, 430. (In Russian)
- 29. Zhukov, V.D. (1951). Otchët o rabote pervogo otryada arkheologicheskoj ekspeditsii na stroitel'stve Bol'shogo Ferganskogo kanala imeni I.V. Stalina (Report on the work of the first detachment of the archaeological expedition during the construction of the Great Fergana Canal named after I.V. Stalin). In Trudy Instituta istorii i arkheologii AN UzSSR, Vol. IV. Tashkent, 41–84. (In Russian)
- **30.** Zadneprovskiy, Y.A. (1954). Drevnyaya Fergana. Avtoreferat dissertatsii na soiskanie uchenoy stepeni kandidata istoricheskikh nauk (Ancient Fergana. of dissertation for the degree of Candidate of Historical Sciences). Leningrad, 20. (In Russian)
- **31.** Zadneprovskiy, Y.A. (1956). Ob ehtnicheskom sostave naseleniya drevney Fergany (On the ethnic composition of the population of ancient Fergana). In KSIA AN SSSR, Issue 61. Moscow: Izd-vo AN SSSR, 43. (In Russian)
- **32.** Zadneprovskiy, Y.A. (1960). Arkheologicheskie

- pamyatniki yuzhnykh rayonov Oshskoy oblasti (seredina I tysyacheletiya do n.e. seredina I tysyacheletiya n.e.) (Archaeological monuments of the southern districts of the Osh region (mid-1st millennium BC mid-1st millennium AD)). Frunze: Izd-vo AN Kirgizskoy SSR, 173. (In Russian)
- **33.** Yao, X., Ma, X., Yang, C., Wang, Y., Wu, X., et al. (2024). Red slipped and painted wares (RSW and RPW) from the Neolithic Middle Yangtze River valley (China): multi-analytical study on production and use. Heritage Science, 12(1), 1–25. (In English)