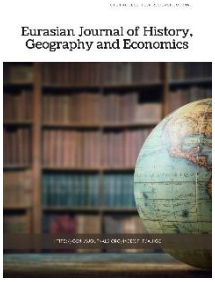

The History of Mudbrick Architecture of the Bronze Age in Central Asia

Tilovboyeva Mardona Aybekovna

Independent researcher in the field of History of Uzbekistan,
Urgench State University named after Abu Rayhan Beruni
Email: mardonatilovboyeva@icloud.com
Phone number: +998930750173
UDK: 9,902,902.3
https://orcid.org/0009 0009-7252-8342

ABSTRACT

The article analyzes the emergence and stages of development of mudbrick architecture in the construction of residential dwellings of the Bronze Age population in the territory of Central Asia.

Keywords: Masson V.M, Asqarov A, Abdullayev B, Childe V.G, Mirziyoyev V, Rasulov J, Ergashev V, Abdullayev M, Qodirov N, Islamov Sh, Boqiyev A, Mamedov M, Ustyurt, Lower Amu Darya, Zarafshan, Tashkent, Fergana, Surkhandarya, Djeitun, Namazga-Tepe, Altyn-Tepe, Gonur, Sopolli, Jarkutan

Kirish [Introduction]: The Earth's surface is composed of numerous distinct regions formed by recurring geological processes, with landscapes shaped by mountains and plains. One such region is Central Asia. The eastern, southeastern, and southwestern parts of the region consist of mountains and plains, while the northwestern and western areas are predominantly plains. This diversity in geographical landscapes is a result of historical geological processes. According to archaeological records, the knowledge applied in the construction of residential settlements can be categorized as follows:

Region 1: Ustyurt, Lower Amudarya, Zarafshon, and Tashkent areas – semi-subterranean pit dwellings supported by wooden pillars.

Region 2: Fergana, Surkhandarya, and Southern Turkmenistan areas – residential constructions utilizing clay-based architectural knowledge.

The aim of this study is to investigate the application of clay architecture knowledge in the construction of dwellings by sedentary populations who practiced irrigated agriculture in Central Asia.

Literature Review: Located in the heart of the Asian continent, Central Asia's geographical position has attracted human settlement since ancient times. Its inhabitants mastered the efficient and productive use of natural resources, developed various economic sectors, and, in parallel with their advancement, created a high material and spiritual culture. This reality has provided the basis for the organization of numerous archaeological expeditions and research groups by scientific centers under

various designations. Such expeditions include the Khorezm Expedition in the Lower Amu Darya region, the Mahon Darya expedition in the lower Zarafshan basin, the Sherabad expedition in the Surkhan oasis, the eponymous expedition in the Fergana Valley, and the Complex Archaeological Expedition of Southern Turkmenistan in Turkmenistan.

Given that this study focuses on analyzing clay architecture knowledge in Bronze Age settlements of Central Asia, it is essential to examine the architectural knowledge in the Kopetdag foothills and the Murghab River basin of Turkmenistan, which served as a foundation for developing early agriculture knowledge on loess soils, based on a sedentary lifestyle, using the example of the Jeitun settlement. V.M. Masson, based on excavation results at the Jeitun site, reports that 30 house rooms were constructed from *pakhsa* (rammed earth) and *guvala* (large mud bricks), belonging to a population engaged in agricultural culture [1, p. 156]. At the sites of Namazgah Tepe, Altyn Tepe in the Kopetdag foothills, and Kellegi, Gonur in the Murghab oasis of Turkmenistan, defensive walls, temples, palaces, and residential rooms were built using *pakhsa* and mud brick [2, pp. 78-79], [3, pp. 116-117].

A. Askarov conducted an archaeological study of the Sopolli Tepe site in the lower basin of the Ulanbulaksay, a tributary of the Sherabad River in the Muzrabad steppe of Sherabad District, Surkhandarya region, and the Jarqo‘ton defensive structure, built from *pakhsa* and rectangular mud bricks on a hill in the Bustansay oasis of the same river [4, p. 139], [5, p. 55].

According to historical sources, the work “The Bronze Age” illuminates the general cultural and technological development of the Bronze Age. It analyzes key concepts related to Central Asian architecture, specifically the functions of urban planning and religious buildings, and social and economic connections through architecture [6, p. 284].

Researchers note that based on excavations and findings in Central Asia, the formation of Bronze Age architecture, construction materials, and technologies have been archaeologically studied at sites, leading to conclusions about the formation of ancient social structures and cultural connections in the region [7, p. 198]. Ergashev analyzed defensive systems, walls, and towers as examples of defensive architecture and military features in Bronze Age urban planning of Central Asia [8, p. 180]. According to Abdullayev’s conclusion, the ecological and economic aspects of Bronze Age architecture, ancient building materials and methods, and the rational use of natural resources are emphasized for studying contemporary ecological problems [9, p. 150].

A report prepared by the UNESCO World Heritage Centre highlights the global significance of Central Asia’s cultural heritage and international standards for the preservation of Bronze Age monuments. This document stresses the necessity of valuing Bronze Age architecture not only as a historical source but also as the cultural heritage of all humanity [10, p. 120].

Historical sources indicate that comprehensive analyses compare the distinctive features of Central Asia’s Bronze Age architecture with the cultures of neighboring regions’ populations [11, p. 220]. Islamov Sh. analyzed the history of ancient Central Asian architecture [12, p. 200]. International publications, including “International Archaeological Reports on Central Asia,” have noted the architectural features of Bronze Age monuments in Central Asia, their architectural traditions, development processes, and their connection to global historical processes [13, pp. 116-120].

The methodology of the research was defined as follows: Scientific objectivity, historical-chronological analysis, theoretical-comparative analysis, consistency, discussion, generalization, logical conclusion, and the utilization of achievements from archaeology and geography were employed.

Analysis and Results: Based on logical conclusions derived from a synthesis of historical information recorded in the literature of the last century and the works of researchers at the beginning of the 21st century, the history of clay architecture knowledge has been analyzed, tracing its development from the 6th millennium BCE among sedentary communities in the Kopetdag foothills and Murghab River

basin of Southern Turkmenistan. Based on this, numerous results have been achieved:

- The tribal communities of the Jeitun settlement, utilizing natural resources in the hot conditions of the Kopetdag foothills bordering the Karakum Desert in Southern Turkmenistan, inhabited square-shaped rooms built from *pakhsa* and *guvala*, applying clay architecture knowledge in their daily practical activities. In this respect, they served as a foundational point for its spread to neighboring regions.
- As the population of the early Jeitun farmers grew, they expanded into the areas around the Murghab River basin, broadening the geography of ethnic processes.
- The assimilation of the Kopetdag foothills resulted in the emergence of distinct cultural-economic types.
- By the middle of the 4th-3rd millennium BCE, the migration policy of the Jeitun people led them to the lower basins of the Tajan River.
- In the second half of the 3rd millennium BCE, the tribal communities settled in the Tajan River basin returned to the Kopetdag foothills due to water scarcity. A second group arrived and settled in the village of Sarazm on a tributary of the Zarafshan Valley. As the water supply in the Murghab River basin was sufficient, clay architecture knowledge continued in this adapted region.
- During the 3rd-2nd millennia BCE, populations in the Kopetdag foothills, the Murghab River basin, and in the territories of Uzbekistan—specifically the Chust culture in the Fergana Valley and the Sopolli and Jarqo'ton cultures in the Surkhan oasis—actively applied clay architecture knowledge in their activities

Conclusion and Recommendations: Based on the ideas and considerations outlined in the article, the following final conclusions can be drawn:

- As a result of geological processes, the Central Asian region is comprised of mountainous and flat areas, whose geographical composition is formed by the territories of Southern Kazakhstan, Kyrgyzstan, Southern Tajikistan, Southern Turkmenistan, and Uzbekistan.
- The historical-geographical regions are located across various geographical coordinates, their landscapes are diverse, and consequently, human settlement patterns were not uniform. In terms of natural conditions, the region can be divided into two zones. Southern Turkmenistan and Uzbekistan's Surkhan Oasis are considered warm regions, but significant human settlement did not occur in this area during the specified early chronological period.
- In the central and partially western regions of Central Asia, residential dwellings remained semi-subterranean structures supported by wooden pillars until the Early Iron Age.
- The population of the Kopetdag foothills and the Murghab River basin in Southern Turkmenistan pioneered the knowledge of clay architecture and applied it in their settlements.
- By the end of the 5th millennium BCE, Jeitun tribal communities undertook a migration towards the basins of the Murghab and Tajan rivers, continuing the traditions of clay architecture knowledge (e.g., Geoksyur...).
- During the 3rd–2nd millennia BCE, cultural-economic centers emerged in the Kopetdag foothills and the lower basin of the Murghab River in Southern Turkmenistan (Altyn Depe, Namazga Depe).
- In the middle and final stages of the 2nd millennium BCE, cultural-economic centers were formed within the historical-geographical territory of modern Uzbekistan, specifically in the Fergana and Surkhandarya regions (Chust, Sopolli, Jarqo'ton).

The following recommendations are proposed:

1. To study the diverse geographical nature and natural-economic conditions of Central Asia from both practical and scientific perspectives.

2. To clarify how the knowledge of clay construction in ancient settlements forms the foundation for modern residential architecture.
3. To advance proposals, such as conducting theoretical-comparative analyses between modern architecture and the historical roots of clay architecture knowledge based on research findings.

References

1. Masson, V.M. *Poselenie Džejtun* [The Jeitun Settlement] // Materialy i issledovanija po arheologii. – Moscow: Nauka, 1975-N180.
2. Boqiyev A., Shaydullayev A., Yo‘ldosheva Z. *Oks sivilizatsiyasi* [The Oxus Civilization]. – Tashkent: “Yanginashr”, 2015.
3. Mamedov, M. *Drevnjaja arhitektura Baktrii i Margiany* [Ancient Architecture of Bactria and Margiana]. – Ashgabat, 2003.
4. Askarov, A. *Sapallitepa*. – Tashkent: Fan, 1973.
5. Askarov, A., Abdullaev, B. *Džarkutan* [Jarqutan]. – Tashkent: Fan, 1983.
6. Childe, V.G. *The Bronze Age*. — London: Routledge, 1930. — 284 p.
7. Mirzoyev B., Rashidov J. *O‘rta Osiyo bronza davri arkeologiyasi* [Archaeology of the Central Asian Bronze Age]. — Tashkent: Academy of Sciences of Uzbekistan, 2002. — 198 p.
8. Ergashev, R. *Bronza davrida O‘rta Osiyo shaharsozligi* [Urban Planning in Central Asia during the Bronze Age]. — Tashkent: Fan, 2011. — 180 p.
9. Abdullayev, M. *Bronza davri me’morchiligi va uning rivojlanish xususiyatlari* [Bronze Age Architecture and its Development Features]. — Samarkand: Samarkand University Press, 2015. — 150 p.
10. UNESCO World Heritage Centre. *The Cultural Heritage of Central Asia*. — Paris, 2018. — 120 p.
11. Qodirov, N. *O‘zbekiston arxeologiyasi: tarix va zamonaviy tadqiqotlar* [Archaeology of Uzbekistan: History and Modern Research]. — Tashkent: Akademnashr, 2010. — 220 p.
12. Islomov, Sh. *O‘rta Osiyo qadimiy madaniyati va arxitekturasi* [Ancient Culture and Architecture of Central Asia]. — Tashkent: National University of Uzbekistan, 2013. — 200 p.
13. *International Archaeological Reports on Central Asia*. — Berlin: Springer, 2017.