

---

## COMPARATIVE ANALYSIS OF PALEOBOTANICAL MATERIALS FROM ARCHEOLOGICAL MONUMENTS OF SARAZM CULTURE

Askarov Ollabergan

UzRes. A S National Archaeological Center, Base Doctoral Student

askarovallabergan @ gmail . com

### ANNOTATION

This article discusses Sarazm, an important archeological monument in the history of Central Asia, located in the Zarafshan Valley in northwestern Tajikistan. Archeological research in recent years in Sarazm will be scientifically evaluated. In addition, the issues of classification and systematization of paleobotanical finds from archeological finds in Sarazm are analyzed in detail. The distribution of paleobotanical data in Central Asia is analyzed in the example of Sarazm.

**Keywords:** Sarazm, East Asia and Southwest Asia, Kopet Mountain, East Asia and Southwest Asia, Tien Shan, Paleobotany, Paleoecology

### INTRODUCTION

Sarazm is an agricultural town located in the Zarafshan Valley in northwestern Tajikistan. Its periodic chronology dates back to the end of the 4th millennium BC. Sarazm is located at the crossroads of exchange and interaction, located on the northeastern edge of the agricultural settlements (Namagox IV) that stretch along the northern foothills of the Kopet Mountains. The name 'Sarazm' means 'the edge (or head) of the earth', as this place is located at the end of the Namazga culture series, so Kopet is one of the sedentary rural areas extending east to the foothills. Pamir mountains. It is also located south of the southern part (or head) of the northern regions of Central Asia. Early Bronze Age populations in northern Central Asia are poorly studied and little is known about their economy (Frachetti <sup>1</sup> and Maryashev 2007 <sup>2</sup>). There are material culture similarities between desert and mountain groups in the Middle Bronze Age, so archaeologists often combine them into a large, little-studied agglomerate (settlement) called the Andronovo Cultural Complex. It is often argued that the economies of these populations are mainly related to livestock (see Frachetti 2008 for discussion <sup>3</sup>). Therefore, Sarazm was indeed a coastal settlement, to the north of which was the "steppe" world. Sarazm is located on the eastern edge of a chain of sedentary villages and is a key place to understand the spread of agriculture to the mountains and steppes to the north. Looking at the location and size of the Sarazm area, the area is located on the alluvial terrace in the Samarkand plain, at the mouth of the Zarafshan River Valley in northwestern Tajikistan <sup>4</sup>. The valley crosses the Western Pamir Mountains (more precisely the Fann Mountains). The mountain peak is located 50 km from the site and reaches 5500 masl; However, in the

---

<sup>1</sup> Frachetti , MD 2012. Multi-regional emergence of mobile pastor- alism and non-uniform institutional complexity across Eurasia. *Current Anthropology* 53 (1), 2–38.

<sup>2</sup> Frachetti , MD and Mar'yashev , AN 2007. Long-term occu - pation and seasonal settlement of eastern Eurasian pastoralists at Begash , Kazakhstan. *Journal of Field Archeology* 32 (3), 221–42

<sup>3</sup> Frachetti , MD 2008. *Pastoralist Landscapes and Social Interaction in the Bronze Age Eurasia* . Berkley: University of California Press.

<sup>4</sup> Razzokov , A. 2008. *Sarazm. Dushanbe: Institute of History, Archeology, and Ethnography [in Russian]* . Dushanbe, Tajikistan: Academy of Sciences of Tajikistan A. Danish History, Archeology and Ethnographic Institute

east, the highest point of this range rises to 7495 masl (Ismail Somoni peak). Ulkon is located in the foothills at 900 masl. The mountains are covered with snow all year round, and mountain rains and melting glaciers saturate many rivers. It is located 15 km west of present-day Penjikent and 60 km east of Samarkand. Two small villages, Avazali and Sohibnazar, are located at opposite ends of the area and cover a large part of the area surface; The visible area of Sarazm is 35 hectares. However, Isakov (1980, 273) estimates that the area of the plot can be up to 90 hectares, while Besenval and Isakov (1989) estimate that it could be up to 100-150 hectares. The stratigraphic depth of Sarazm varies, but never exceeds 2 m. The shallow depths of sediments accumulated during the millennium occupation are interpreted as evidence for phases of abandonment and structural erosion.

Important both in terms of understanding the north-eastern direction of agriculture to Central Eurasia and in terms of showing the role of agriculture in the economy of the early Bronze Age of Sarazm (from other parts of Central Asia, especially Turkmenistan )<sup>5</sup>. Wild fruit remnants (especially Russian olives, spices, wild pistachios and dill) confirm the practice of foraging and indicate that the transport processes in the area were active. The exchange system expanded to the north without having stable or organized routes, and also flowed to the southeast and southwest of the Sarazm region.

In recent years, the idea of a mountain border between East Asia and Southwest Asia has been transformed into the “Inner Asian Mountain Corridor”<sup>6</sup>. This new model has sparked debate over exchanges and cultural flows across Central Asia. Much of this research has focused on the movement of smelting and metallurgical technology to China<sup>7</sup>. Indeed, he sees animal husbandry and metallurgy as key innovations linking a common network of regional (across Central Asia) relations between political institutions in the second millennium BC. Sarazm, as a frontier settlement, was at the center or node of a network of exchanges and trade that facilitated (or encouraged) the spread of agricultural technology and innovation, as well as different types of material culture. Evidence for the exchange in Sarazm is exotic items, including carved stoneware, carved copper and carnelian, lapis lazuli, gold, turquoise, chalk, jasper, silver and beads made of various colored stones and minerals<sup>8</sup>. There is ample evidence to support the exchange network in the third and second millennia BC, for example, the findings of processed minerals and rocks that migrated between the Indian Valley and Central Asia confirm this<sup>9</sup>. Archaeologists have discussed the long-distance distribution of metals from the south and east of Central Asia to Xinjiang<sup>10</sup>. The existence of an intensive and complex international system

---

<sup>5</sup>Askarov O. The Role of Paleobotanical Data in the Study of the Central Asian Region (Southern Turkmenistan) \ International Journal of Academic and Applied Research (IJAAAR) India \ 2020, 2-3 pages.

<sup>6</sup>Frachetti , MD 2012. Multi-regional emergence of mobile pastoralism and non-uniform institutional complexity across Eurasia. *Current Anthropology* 53 (1), 2–38.

<sup>7</sup>Frachetti , MD 2008. *Pastoralist Landscapes and Social Interaction in the Bronze Age Eurasia* . Berkley: University of California Press.

<sup>8</sup>Razzokov , A. 2008. *Sarazm. Dushanbe: Institute of History, Archeology, and Ethnography [in Russian]* . Dushanbe, Tajikistan: Academy of Sciences of Tajikistan A. Danish History, Archeology and Ethnographic Institute

<sup>9</sup>Kenoyer , JM 2011. Preface in Law, RW (ed.) , *Inter -Regional Interaction and Urbanism in the Ancient Indus Valley: A Geologic Provenience Study of Harappa 's Rock and Mineral Assemblage* (Occasional Paper 11: Linguistics, Archeology and the Human Past). Kyoto: Indus Project, Research Institute for Humanity and Nature. Possehl , GL 2004. The Middle Asian interaction sphere: trade and contact in the 3rd Millennium BC. *Expedition* 49 ( 1), 40–2.

<sup>10</sup>Kenoyer , JM 2011. Preface in Law, RW (ed.) , *Inter -Regional Interaction and Urbanism in the Ancient Indus Valley: A Geologic Provenience Study of Harappa 's Rock and Mineral Assemblage* (Occasional Paper 11: Linguistics, Archeology and the Human Past). Kyoto: Indus Project, Research Institute for Humanity and Nature Mei, J. 2009. Early metallurgy and socio-cultural complexity: archaeological discoveries in Northwest China, pp. 215–34 in Hanks, BK and Linduff , KM (eds.) *Social Complexity in Prehistoric Eurasia: Monuments, Metals, and Mobility* . Cambridge: Cambridge University Press.

of long-distance exchange between the Iranian world (Gissar, Hinaman, Shahdad, Tepe Yahya) has been proven. Regions such as Central Asia (Southern Turkmenistan, Bactria and the Margiyana Mountains) and the Indian Valley have seen the gradual development of urbanization processes, which have led to a significant increase not only in metallurgy but also in food production.

The direct contact form of exchange has been put forward by several researchers, who argue that trade accounts (nodes in the network) have linked these three regions since the middle of the third millennium BC. We can see that the nomadic pastoralists in the mountains of Central Asia, a region rich in ore resources, usually provided the peoples of the east with metal and metalworking technologies. Sedentary agricultural villages such as Sarazm were centers of metalworking and distribution of metal products. In addition, various other commodities such as carnelian and lapis lazuli spread through this corridor in the 3rd and 2nd millennia BC. A stronger set of supporting data for the Central Asian corridor from archeobotanical data emerges from data on the early spread of agriculture east and west through this corridor. The great scientist Fuller calls this data "the path of Central Asian plant exchange and agricultural innovation." This exchange route may have indirectly brought agricultural products and technology, including local seeds, from southern Central Asia and the Indian Valley to China. Sarazm brings material and spiritual culture from agricultural villages, agricultural settlements along the corridor at the point of intersection of the three, along the northern foothills of the Kopet. It is inhabited by nomadic pastoralists along the eastern Iranian plateau and probably as far as the Indian Valley and in the Tien Shan Mountains (not well studied until 2500 BC). The materials obtained from Sarazm are directly parallel to the materials in the west (Turkmenistan), in the south (Balochistan and Iran) and in the north (steppes of Kazakhstan).

Excavations at Sarazm (in stages) have been carried out since 1977 through various waves of international cooperation. The results of a 1990 macrobotanical study, including a wood analysis, by George Wilcox are presented. Given the importance of Sarazm in recent discussions on exchange and the spread of agriculture, excavations in Central Asia over the past two decades have further highlighted the importance of Sarazm and allowed the site to become a wider archaeological landscape of exchange, material and intellectual culture.

Remains of cereal plants found in the area serve as the basis for our detailed analysis of paleobotonic data. Depending on the plant remains, it is a bit difficult to find answers to questions such as their origin, distribution problems, diversity of varieties. However, with the help of modern paleobotonic analyzes, we can obtain information about the daily consumption products of the exact population. The Sarazm region, in general, had a great influence on the paleobotonic system of Central Asian paleoecology. The enormous ecological and climatic changes of the third and second millennia BC were completely different from today. The reason for this opinion can be confirmed by the feedback from the plant seed remains that have been preserved so far. Cultural and wild plant remains found in the area are evidence that the population is well versed in nature-related skills.

Shows that we need to carry out more in-depth and large-scale work not only in the Sarazm zone, but also in other parts of Central Asia. In conclusion, it should be noted that among the archeological finds found in the Sarazm area, there is a need for a more in-depth analysis of data from the field of paleobotonics, which has become an integral part of modern archeology. We can see that the Sarazm

---

Mei, J. and Shell, C. 1999. The existence of Andronovo cultural influence in Xinjiang during the 2nd Millennium BC. *Antiquity* 73 (281), 570–8

Thornton, C. and Schurr, TG 2004. Genes, language, and culture: an example from the Tarim Basin. *Oxford Journal of Archeology* 23 (1), 83–106

monument, which is one of the important components of the paleobotanics of the Central Asian region, is distinguished by the abundance and consistency of its archeobotonic data.

## REFERENCES

1. Frachetti , MD 2012. Multi-regional emergence of mobile pastoralism and non-uniform institutional complexity across Eurasia. *Current Anthropology* 53 (1), 2–38.
2. Frachetti , MD and Mar'yashev , AN 2007. Long-term occupation and seasonal settlement of eastern Eurasian pastoralists at Begash , Kazakhstan. *Journal of Field Archeology* 32 (3), 221–42
3. Frachetti , MD 2008. *Pastoralist Landscapes and Social Interaction in the Bronze Age Eurasia* . Berkley: University of California Press.
4. Razzokov , A. 2008. *Sarazm*. Dushanbe: Institute of History, Archeology, and Ethnography [in Russian] . Dushanbe, Tajikistan: Academy of Sciences of Tajikistan A. Danish History, Archeology and Ethnographic Institute
5. Askarov O. The Role of Paleobotanical Data in the Study of the Central Asian Region (Southern Turkmenistan) \\ *International Journal of Academic and Applied Research (IJAAR) India* \\ 2020, 2-3 pages.
6. Razzokov , A. 2008. *Sarazm*. Dushanbe: Institute of History, Archeology, and Ethnography [in Russian] . Dushanbe, Tajikistan: Academy of Sciences of Tajikistan A. Danish History, Archeology and Ethnographic Institute
7. Kenoyer , JM 2011. Preface in Law, RW (ed.) , *Inter -Regional Interaction and Urbanism in the Ancient Indus Valley: A Geologic Provenience Study of Harappa 's Rock and Mineral Assemblage (Occasional Paper 11: Linguistics, Archeology and the Human) Past*). Kyoto: Indus Project, Research Institute for Humanity and Nature. Possehl , GL 2004. The Middle Asian interaction sphere: trade and contact in the 3rd Millennium BC. *Expedition* 49 ( 1), 40–2.
8. Mei, J. and Shell, C. 1999. The existence of Andronovo cultural influence in Xinjiang during the 2nd Millennium BC. *Antiquity* 73 (281), 570–8
9. Thornton, C. and Schurr , TG 2004. Genes, language, and culture: an example from the Tarim Basin. *Oxford Journal of Archeology* 23 (1), 83–106