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Mortuary Practices in Neolithic Central Asia: New Evidence from the Zardali Site, Uzbekistan

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Abstract: *The Neolithic period was accompanied by fundamental changes in the lifestyles, subsistence strategies, social structures, and belief systems of human societies. One of the most important reflections of these developments can be observed in burial rituals and behaviors related to death. Archaeological excavations at the Zardali Neolithic site in Uzbekistan have led to the identification of Neolithic cultural layers and a human burial, which has become the main subject of this research due to its importance in the study of the prehistory of Central Asia. The aim of this research is to introduce the Zardali site and examine the characteristics of mortuary practices and death-related rituals in the late Neolithic period of Central Asia. The excavations revealed a human burial in a simple pit grave lacking funerary architecture, in which the skeleton was buried in a flexed position on the left side. Comparing the Zardali burial with other Neolithic burials in Central Asia shows that this burial is more similar to the burial tradition of the Hissar culture in terms of body position, simplicity of the grave, and lack of grave goods. Direct dating of this burial helps refine the chronological framework of Neolithic burials in Central Asia and allows for a more detailed examination of the chronology and variability of burial traditions in the region. The results of this study also indicate that differences in burial rituals were likely related to differences in subsistence strategies, social organization, and environmental conditions of Neolithic societies in the region; such that the agricultural communities of Jeitun, the mountain and intermontane communities of the Hissar Culture, and the groups associated with the riverine and wetland environments of Kelteminar each developed different mortuary traditions.*

Keywords: Central Asia, Archaeology of Death, Neolithic, Burial, Zardali Site, Uzbekistan

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Introduction

Burial practices are one of the most important indirect evidence for understanding belief systems and human attitudes towards death in prehistory.¹ Since written texts are not available in these periods, burials and death-related behaviors are among the few sources that allow us to reconstruct the intellectual, ritual, and social dimensions of past humans. Although the exact time of the formation of funerary rituals is not precisely known, evidence obtained from Neanderthal burials at sites such as Teshik-Tash Cave² and Shanidar Cave³ indicates that some kind of ritual behavior related to death likely existed from the Middle Paleolithic period.

However, information on burials in the Upper Paleolithic and Mesolithic periods remains scarce. In contrast, the extensive Neolithic evidence in West Asia has allowed for a relatively clear understanding of burial patterns in this region. Data from the Levant,⁴ Turkey,⁵ and Iran⁶ indicate that burials were often carried out within settlements (intramural burials). In the Levant, the use of plastered skulls⁷ over the faces of the deceased and, in some Neolithic sites in Iran,⁸ the covering of bodies with red ochre is among the evidence that indicate the ritual and symbolic complexities of this period. In addition, architectural evidence from sites such as Göbekli Tepe,⁹ Çatalhöyük,¹⁰ Sheikh-e Abad,¹¹ and Tol-e Sangi¹² suggests the formation of ritual spaces or religious structures during this period, all reflecting emerging belief systems.

However, our knowledge of belief systems, ritual spaces, and especially burial practices in Central Asia is very limited. Although archaeological excavations in recent decades have helped to identify Neolithic cultures, lithic industries, pottery, and subsistence patterns in the region,¹³ clear evidence for specialized religious architecture remains limited. A limited number of Neolithic human burials have been excavated in Central Asia. These include the burials from Tutkaul and Sai-Sayyod associated with the Hissar cultural tradition in Tajikistan,¹⁴ Koken site in Kazakhstan,¹⁵ the burials

¹ Parker Pearson, 1999

² Okladnikov, 1949; Gunz & Bulygina, 2012.

³ Sommer, 1999; Pomeroy *et al.*, 2020a, 2020b.

⁴ Bocquentin *et al.*, 2020.

⁵ Haddow & Knüsel, 2017; Büyükkarakaya *et al.*, 2019.

⁶ Pullar, 1990; Cole, 2013; Mortensen, 2014.

⁷ Garfinkel, 2014.

⁸ Ghirshman, 1938; Hole, Flannery & Neely, 1969; Sołtysiak & Darabi, 2017.

⁹ Dietrich *et al.*, 2012; Notroff, Dietrich & Schmidt, 2015.

¹⁰ Mellaart, 1967; Hodder, 2010.

¹¹ Matthews, Matthews, & Mohammadifar, 2013.

¹² Khanipour, Zare Kordshooli & Karami, 2021.

¹³ Masson, 1957; Ranov, 1982; 1984; Brunet, 1998, 2005; Harris, 2010; Pollock, Bernbeck & Ogüt, 2019; Nishiaki *et al.*, 2022; Taylor *et al.*, 2021.

¹⁴ Ranov & Korobkova, 1971; Shnaider *et al.*, 2023.

¹⁵ Doumani Dupuy *et al.*, 2023.

from Kaylu Grotto and the cemetery of Tumek-Kichijik related to the Kelteminar cultural sphere,¹⁶ and several burials attributed to the Jeitun culture in southern Turkmenistan.¹⁷ This evidence suggests that there was considerable variation in burial practices across the region, but the limited number of excavated graves and the paucity of laboratory studies have prevented the development of a comprehensive understanding of Neolithic burial traditions in Central Asia.

In such a context, the discovery of a human burial at the Neolithic site of Zardali is of particular importance. Although this evidence is limited to a single burial, even one sample can provide valuable information about burial patterns and death-related behaviors in this region. Indeed, in areas where we face a lack of data, these single findings play a key role in filling knowledge gaps. Accordingly, the main goal of this research is to investigate the burial method and reconstruct aspects of burial customs at Zardali Site based on this finding. The research questions are: To what time period do the cultural deposits and burial found at the site belong? What are the characteristics of its burial method? And what information does it provide about ritual and social behaviors? To answer these questions, a relative dating of the layers was obtained by studying the stone tools and paying attention to their making techniques. Bioarcheological studies were conducted to determine the age, sex, and health status of the individual, and radiocarbon (C14) dating analysis was used to determine the exact date of the burial. In addition, the study seeks to evaluate the place of the Zardali burial within the broader spectrum of Neolithic mortuary traditions in Central Asia.

Zardali Site

Over the past few decades, numerous archaeologists have been studying Neolithization and the Neolithic societies in Central Asia. In Uzbekistan, as part of Central Asia, increasing attention has been paid to this process, and numerous sites have been identified and excavated. One of these important sites is the Zardali site, which is located in central Uzbekistan, on the slopes of the Nurata Mountains within the Samarkand cultural area [Fig. 1]. Although Samarkand is mainly known for its historical and Islamic periods, archaeological evidence shows that the landscape of this region was also exploited and settled by human societies in prehistoric times.

¹⁶ Vinogradov, Itina & Yablonskiy, 1986; Shnaider *et al.*, 2023.

¹⁷ Masson, 1971.

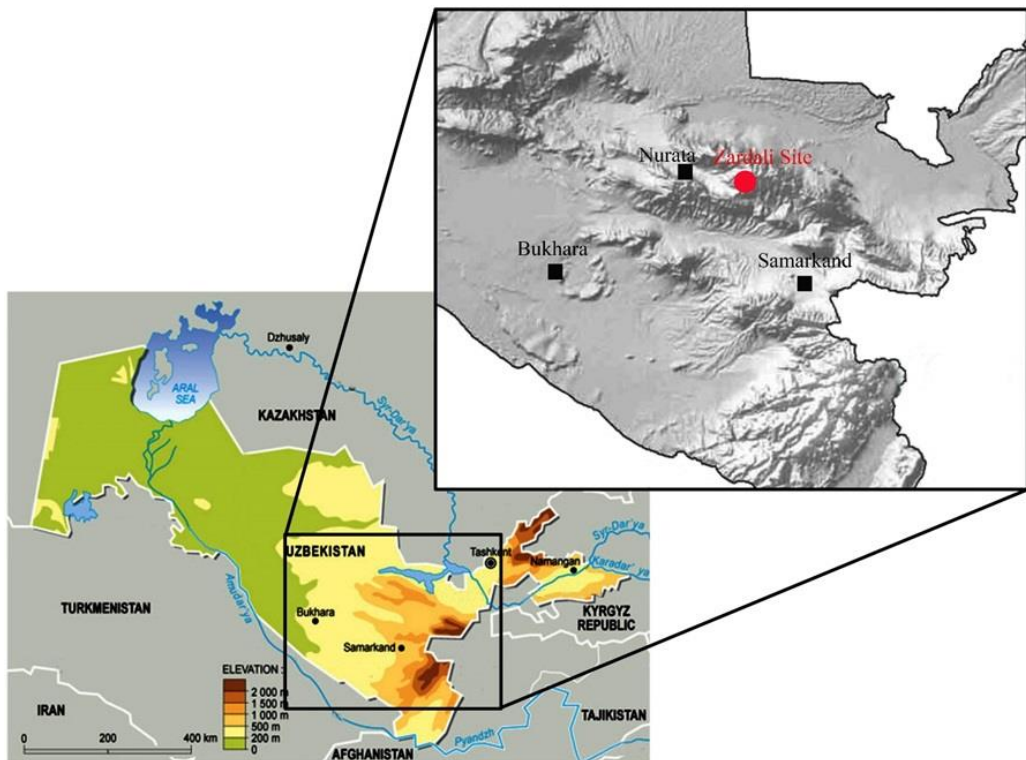


Fig. 1. Geographical location of the Zardali site (by Morteza Khanipour).

The Zardali site is located about 3 kilometers northeast of the village of Minishkur and approximately 86 kilometers northwest of Samarkand. It covers an area of about 4,000 square meters [Fig. 2]. The site has been excavated by Samarkand State University during three excavation seasons from 2023 to 2025, with the aim of better understanding the cultural sequences of the Neolithic period and also for field training of students. During these activities, two main trenches and several test trenches were excavated.

Stratigraphic excavations revealed no architectural remains, such as walls or built structures, at the site, which could indicate a temporary or seasonal settlement pattern. However, a human burial was identified in Trench 1 [Fig. 3], as well as a large patch of burnt soil, possibly belonging to a hearth or occupation surface. This evidence, together with the sequence of cultural layers, indicates repeated human activity at the site. Based on the available archaeological evidence, Zardali is interpreted as a small Neolithic seasonal camp rather than a permanent settlement or a cemetery.

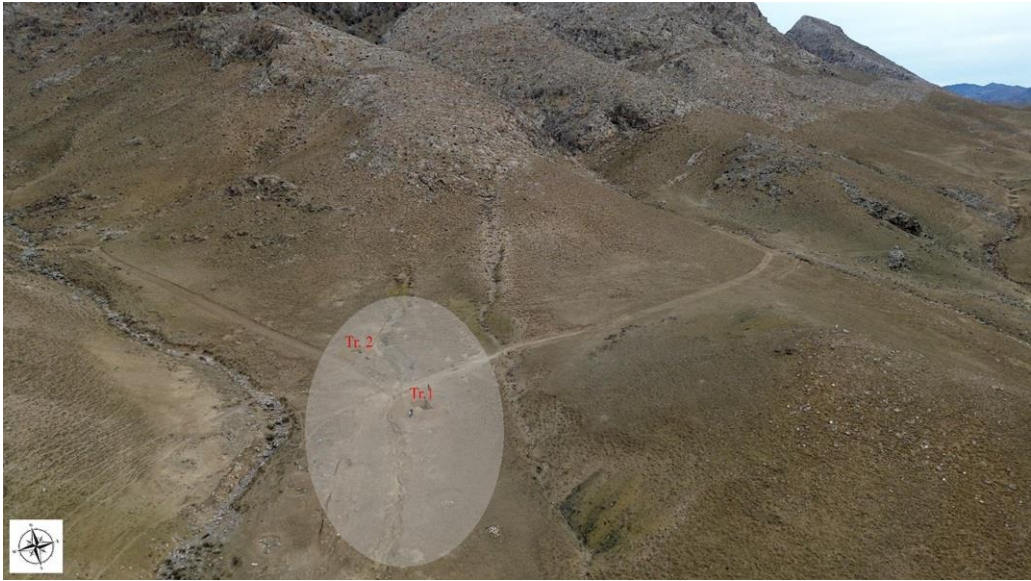


Fig. 2. Aerial photograph of the Zardali site showing the site boundaries and the location of the excavation trenches (by Lazizbek Ungalov).



Fig. 3. General view of Trench 1 and the location of the burial within the trench (by Lazizbek Ungalov).

The absence of substantial architectural remains, together with the relatively limited extent of cultural deposits, suggests short-term or recurrent occupations. The recovery of a large lithic assemblage, evidence of burning activities, and a human burial indicates that the site was repeatedly used by Neolithic groups for a range of activities. At present, there is no evidence that Zardali functioned as a specialized burial ground or production site.

The most important archaeological find at the site is the flaked stone assemblage, which was recovered from all the settlement layers. Techno-typological analysis of this assemblage indicates that the Zardali lithic industry was based on a mixed production system, including blade/bladelets, and flakes. Meanwhile, blades and bladelets were mainly produced using the pressure technique [Fig. 4] and from siliceous raw materials such as flint, chalcedony and quartz and were typically used unretouched or with minimal modification. In contrast, chipped stone tools including scrapers, denticulates and pointed tools, were mostly made from local limestone and by direct percussion. Based on these technological and typological features, the main settlement of the Zardali site can be attributed to the Neolithic period. Although potsherds from later periods were also identified in surface surveys, no in situ context associated with this pottery was found during stratigraphic excavations. Therefore, these materials seem to be the result of seasonal settlements in later periods.¹⁸ The Zardali site is of particular importance in the study of the Neolithic of Central Asia. The valuable data obtained from this site can help to understand the stone tool production technologies and subsistence strategies of Neolithic societies. In addition, its geographical location helps to better understand cultural connections and regional developments during this period.

Burial at Zardali

During the first season of excavations at the Zardali site, a human burial was discovered in Trench 1 at a depth of approximately 80 cm below the surface. To accurately record the data and prevent damage to the skeleton, it was not fully excavated, and the excavated parts were covered again for detailed examination during the next season. Finally, this burial was fully excavated in 2024 and transferred to the university for further study.

¹⁸ Khanipour *et al.*, 2026.



Fig. 4. Lithics from the Zardali site. a. Scrapers, b. Denticulated tool, c. Pointed tool, d-g. Blades/Bladelets, h-i. Trapeze (by Lazizbek Ungalov).



Fig. 5. Human burial recovered from the Zardali site (by Lazizbek Ungalov).

No architecture indicating the structure of the grave was identified during the excavation of Trench 1, suggesting that this burial represents a simple pit grave. The burial was located in the southern part of Trench 1, which lies approximately in the central area of the site, indicating that the burial consisted of a simple pit grave cut into earlier cultural deposits and subsequently filled with soil. The skeleton was placed in a tightly flexed position on its left side, with the head oriented toward the east and the body aligned along an east–west axis. The face was turned toward the south and both hands were placed on the chest [Fig. 5]. The legs were tightly flexed toward the abdomen. A similar tightly flexed body position has been reported from the Neolithic burial at Koken in Kazakhstan, where it was suggested that the deceased may have been wrapped or bound prior to burial.¹⁹ The Zardali burial exhibits a comparable body position; however, no direct evidence for binding, such as preserved cords, wrapping materials, or skeletal indicators that would unequivocally support this interpretation, was identified. Therefore, while the possibility that the body was wrapped or bound cannot be excluded, the available evidence remains insufficient to confirm such a practice. No grave goods, ochre, or other materials directly associated with the burial were identified. The burial represents a simple funerary practice with limited archaeological visibility beyond the position and orientation of the deceased.

Skeletal Preservation

Given the period of the burial and the specific conditions of the discovery site, the state of preservation of the skeleton at the Zardali site is suboptimal. Environmental factors including soil composition, moisture, and landscape context have caused some bones to deteriorate completely. The epiphyses of the large bones of the hands and feet have been destroyed, but the diaphysis remains largely intact. The cranium is largely compressed and the facial bones are highly fragmented, with only parts of the mandible preserved in a few fragments. The vertebrae, ribs, and phalanges are mostly fragmentary and, in most cases, largely lost. Some pelvis element remains, but due to their morphological condition, accurate sex estimation is not possible [Figs. 6-7].

¹⁹ Doumani Dupuy *et al.*, 2023.



Fig. 6. Preservation condition of the skeleton after cleaning in the laboratory (by Niyoz Rashidov).

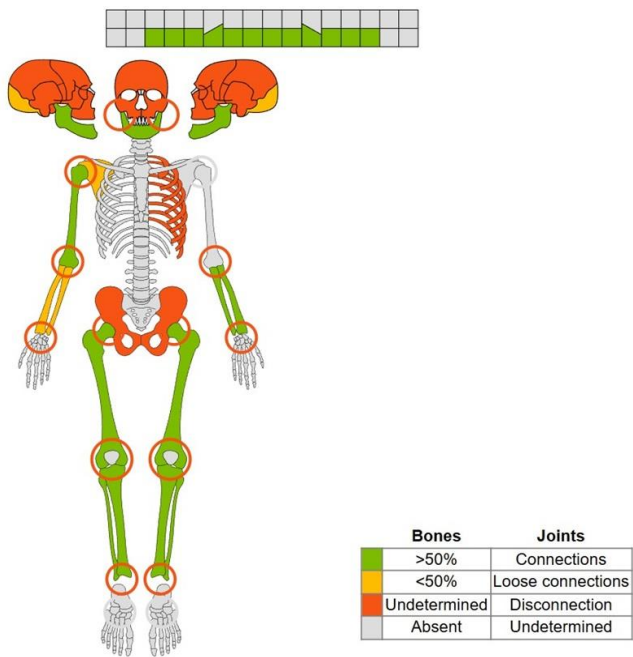


Fig. 7. Preservation condition of the skeleton analyzed using HumanOS software (Colleter, Romain & Barreau, 2020).

Sex and Age Estimation

In the analysis of the bones, sex and age were identified as the primary objectives. However, extensive destruction of the pelvis and skull reduces the accuracy of these estimates. Sex and age estimation was primarily based on long bone lengths and dental analysis.²⁰ Although some preserved skeletal characteristics, including mandibular morphology, may tentatively suggest a female individual, the absence of the principal diagnostic elements commonly used for sex determination prevents a secure

²⁰ Ferembach, Schwidetzky & Stloukal, 1980; White & Folkens, 2005.

assessment. Therefore, this attribution should be regarded as provisional and requires confirmation through future genetic analyses. The age of the individual was also estimated using the condition of the remaining epiphyses and intact teeth of the lower jaw [Fig. 8], and it was determined that the individual was an adult with an approximate age between 20 and 35 years.²¹

Paleopathology and Taphonomy

Despite the poor preservation of the skeleton, some valuable evidence is available. Most of the remaining teeth are preserved in the lower jaw. The left side of the jaw retained LM1, LP1, LC, LI1, and LI2, while the right side preserved RM1, RP2, RC, RI1, and RI2 [Fig. 8]. Apart from minor dental wear, no signs of caries, periodontitis, periapical abscess, or enamel hypoplasia were observed. The absence of these pathological conditions may be related to the individual's adult age and overall oral health. Scratches were observed on the diaphyses of the long bones, especially in the tibia and femur [Fig. 9]. These marks likely result from post-mortem taphonomic processes, possibly caused by rodent activity affecting the bones after burial.²²



Fig. 8. Condition of the mandible and teeth of the skeleton (by Niyoz Rashidov).

²¹ Ubelaker, 1978; AlQahtani, Hector & Liversidge, 2010.

²² Klippel & Synstelien, 2007.



Fig. 9. Rodent gnawing marks on bones: distal part of the left femur and distal part of the right tibia (by Niyoz Rashidov).

Radiocarbon Dating

Although the deposits could be dated to the Neolithic Period based on the lithic tools found in various cultural layers of Trench 1, this dating was not reliable for the burial found at the site. Since the grave pit was dug in the Neolithic layers, this indicated that the burial postdates these layers. This later deposition could range from the upper Neolithic layers of the site to the Pre-Islamic Period. On the other hand, in this area, the 7th to 4th millennium is dated as the Neolithic period, so it was necessary to make an accurate dating of this burial based on laboratory studies. Therefore, a bone sample was selected for radiocarbon dating and tested in China.

Measurements were performed in the laboratory using the MICADAS (Mini Carbon Dating) system, which uses compact AMS (Accelerator Mass Spectrometry) technology and ensures accurate analysis of small carbon samples. Radiocarbon dates were calibrated using OxCal v4.4 software and the IntCal20 calibration curve,²³ and age ranges were reported with a 95.4% (2σ) confidence interval. Based on this analysis, the skeleton dates to approximately 3766–3638 BC [Tab. 1, Fig. 10]. It can therefore be dated to the first half of the 4th millennium BCE.

Tab. 1. Radiocarbon dates for the Zardali site, the calibration is based on OxCal v4.4.4

Trench	Period	Lab code	Radiocarbon age (BP)	Calibrate BCE OxCal v4.4.4	material
1	Neolithic	R_Date Zardolisoy_001	4910 ± 30	95.4% probability 3766 (11.8%) 3725calBC 3715 (83.6%) 3638calBC	Human remain

²³ Reimer *et al.*, 2020.

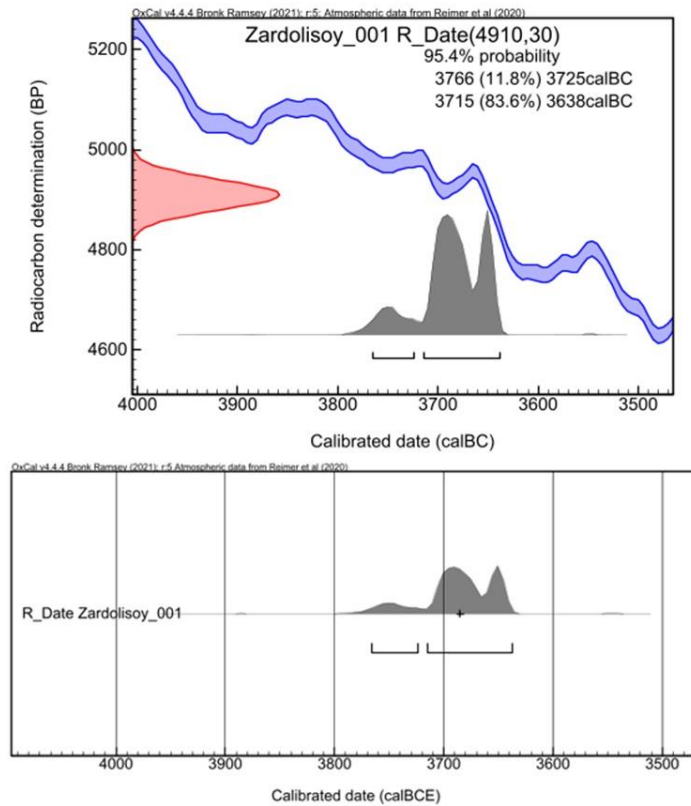


Fig. 10. Radiocarbon (C-14) dating of the human burial from the Zardali site (by Xinying Zhou).

Discussion

The Neolithic period was accompanied by fundamental changes in lifestyles, subsistence strategies, and social beliefs.²⁴ These developments did not occur simultaneously and uniformly in different regions of the world, and for this reason it is of great importance to examine each region in its own historical and cultural context.²⁵ In Central Asia, the process of Neolithization began later than in Southwest Asia,²⁶ and some of its most important components, including the spread of domesticated animals and food production practices, appear to have been influenced by cultural contacts with Southwest Asia, especially Iran.²⁷ Evidence suggests that mortuary traditions can also be an important source for examining these cultural interactions. Genetic studies of human remains from the Tutkaul site have shown that some Neolithic populations of Central Asia showed genetic affinities with populations from Iran and Southwest

²⁴ e.g. Kuijt & Goring-Morris, 2002; Zeder, 2011; Asouti & Fuller, 2013; Özdoğan, 2024.

²⁵ Kozłowski & Aurenche, 2005; Khanipour, 2023.

²⁶ Brunet, 2005; Harris, 2010.

²⁷ Taylor *et al.*, 2021; Nishiaki *et al.*, 2022.

Asia.²⁸ Although the available evidence is not yet sufficient to prove a direct transmission of burial traditions between these regions, similarities such as intramural burial, flexed burial, and the occasional use of ochre suggest that burial rituals were also part of broader networks of cultural interactions during the Neolithic period.

Unlike Southwest Asia, where hundreds of Neolithic burials are known, the evidence for Neolithic burials in Central Asia is very limited. So far, human remains have been recovered from only a few Neolithic sites, including Jeitun, Tutkaul, Sai-Sayyod, Kaylu, Tumek-Kichijik, Koken, and more recently Zardali.²⁹ Therefore, beliefs related to death, ritual practices, and burial customs remain among the most poorly understood cultural aspects of Neolithic societies in the region. The available evidence suggests that Neolithic societies in Central Asia did not follow a single burial tradition. In southern Turkmenistan, the Jeitun tradition is characterized by intramural burials, a flexed body position, and the occasional use of ochre.³⁰ In Tajikistan, the Hissar burials at sites such as Tutkaul and Sai-Sayyod are usually simple burials, lacking grave goods, and with the deceased in a flexed position on the left side.³¹ In contrast, the Kelteminar Culture at sites such as Tumek-Kichijik and Kaylu is characterized by extended burials, extensive use of ochre, and the presence of numerous grave goods, including beads and ornaments.³² In addition, the Neolithic Koken burial in eastern Kazakhstan is another important example of the diversity of Central Asian burial traditions.³³ At this site, the skeleton was placed in a highly compressed position, suggesting that the body was tied with rope or cloth before burial. Although Koken is geographically far from Zardali, the presence of tightly flexed burials at both sites indicates that this burial practice was prevalent in various parts of Central Asia and the adjacent steppes.

The differences between the Jeitun, Hissar, and Kelteminar traditions probably reflect differences in livelihoods, social organization, and environmental conditions. The Jeitun communities in southern Turkmenistan were among the first agriculturalists and pastoralists in the region and lived in relatively stable settlements.³⁴ In contrast, the Hissar communities were mainly located in mountainous and intermontane areas, and their economy relied primarily on hunting and gathering, with limited evidence for pastoral activities in later phases.³⁵ The Kelteminar communities also lived in the Amu Darya Delta, around the Aral Sea, and in river and wetland environments, and their

²⁸ Shnaider *et al.*, 2023; Posth *et al.*, 2023.

²⁹ Masson, 1971; Vinogradov, Itina & Yablonskiy, 1986; Doumani Dupuy *et al.*, 2023; Shnaider *et al.*, 2023.

³⁰ Masson, 1971.

³¹ Ranov & Korobkova, 1971; Shnaider *et al.*, 2023.

³² Vinogradov, Itina & Yablonskiy, 1986; Shnaider *et al.*, 2023.

³³ Doumani Dupuy *et al.*, 2023.

³⁴ Masson, 1971; Harris, 2010.

³⁵ Ranov, 1982, 1984; Shnaider *et al.*, 2023.

livelihoods were mainly based on hunting, fishing, and the exploitation of water resources.³⁶ Therefore, the differences in burial practices likely reflect not only religious beliefs, but also may be related to differences in lifestyle, social structure, and environment of these societies. In addition, the growing number of directly radiocarbon-dated burials from Central Asia, including Tutkaul, Koken, and Zardali, now provides a more reliable chronological framework for evaluating regional mortuary traditions. Unlike earlier studies, which often relied on broad cultural attributions to the Neolithic period, these new dates allow a more precise assessment of the temporal relationships between different burial practices across the region.

In this context, the Zardali burial is a valuable example for understanding the diversity of Central Asian burial traditions. This individual was buried in a simple pit grave without any funerary architecture, and the deceased was placed in a flexed position on the left side. Also, no grave goods were identified in direct association with the skeleton. These features clearly differ from the Kelteminar tradition, which uses ochre and abundant grave goods. In contrast, Zardali shows more similarity to the burials of the Hissar tradition, especially Tutkaul, in terms of body position, simplicity of the grave, and lack of grave goods.³⁷ In addition to the tightly flexed position of the body, the location of Zardali in a mountainous environment and the apparent reliance of both Hissar and Zardali communities on hunting and the exploitation of mountain resources may also be significant, although the available data are insufficient to prove a direct cultural connection. So far, only one burial from Zardali has been identified, and therefore it is not possible to speak with certainty about the existence of a specific burial tradition at this site. Furthermore, the limited data and the lack of grave goods limit the possibility of a more precise interpretation of the symbolic and ritual aspects of this burial. Therefore, the similarities observed between Zardali and the Hissar culture burials should be considered at present as formal similarities and not necessarily evidence of direct cultural connection.

At the same time, the Zardali burial reveals important differences between Central Asia and parts of Southwest Asia in the 4th millennium BC. While simple intramural burials continued in many parts of Iran, evidence from cemeteries such as Hakalan and Parchinah suggests that in some areas, more formal cemeteries and increasingly structured mortuary practices were emerging.³⁸ Evidence from Tepe Hissar in northeastern Iran,³⁹ northwestern Iran⁴⁰ and Lapui Period sites in southern Iran⁴¹ also suggests that diverse burial traditions coexisted at this time. In contrast, the evidence

³⁶ Vinogradov, Itina & Yablonskiy, 1986; Brunet 1998, 2005.

³⁷ Shnaider *et al.*, 2023.

³⁸ Haerinck & Overlaet, 1996.

³⁹ Schmidt, 1937.

⁴⁰ Karimikiya *et al.*, 2022.

⁴¹ Mirzaei & Sardari-Zarchi, 2021.

from Central Asia continues to focus primarily on simple burials associated with settlements, lacking complex funerary architecture or rich assemblages of grave goods.

From a theoretical perspective, scholars have emphasized that burial is not simply a reflection of biological death, but rather a social and symbolic behavior through which societies express their identity, values, and attitudes toward death.⁴² In some societies, these concepts are expressed through grave architecture, grave goods, or the use of ochre, while in others, the position of the body, the orientation of the deceased, and the location of the burial are more important. In this context, the lack of grave goods at Zardali should not be interpreted as a lack of symbolic beliefs or a lesser significance of the deceased. On the contrary, it seems that in this burial tradition, the symbolic dimension of the funerary ritual may have been expressed not through grave goods, but through the position of the body and the manner of placing the deceased in the grave.

A major limitation of the present study is the poor preservation of the burial remains. Large portions of the skull, pelvis, vertebrae, ribs, and terminal skeletal elements were either fragmented or completely absent. Furthermore, no traces of tomb architecture, markers, or possible superstructures were preserved. As a result, the original appearance of the tomb and the complete sequence of burial practices cannot be reconstructed with certainty. Similarly, the incomplete preservation of the skeleton limits biological interpretations and makes cultural comparisons necessarily tentative. Therefore, the interpretations presented here should be considered preliminary and subject to revision as more burials and better-preserved evidence from Central Asia become available.

Conclusion

Archaeological excavations at the Zardali site have provided new information about the Neolithic of Central Asia, and in particular the burial traditions of this region. The most important finding of this research is the discovery of a human burial in a simple pit grave, in which the deceased was placed in a flexed position the left side. Bioarchaeological studies suggest that the burial belonged to an adult individual, probably female, although this assessment remains provisional due to the poor preservation of the diagnostic skeletal elements. Radiocarbon dating results indicate that this burial belongs to the first half of the 4th millennium BC. This date is of particular importance, since few Neolithic burials in Central Asia have been directly dated, and as a result, this data can help to better understand the temporal sequence and synchronicity of the various burial traditions of the region. Direct radiocarbon dating of

⁴² Parker Pearson, 1999; Nilsson Stutz & Tarlow, 2013; Poodat, 2022; Nourallahi, 2022; Khanipour & Akbari, 2024.

Neolithic burials is particularly important in Central Asia, where many previously reported burials were assigned to cultural traditions primarily on the basis of associated artefacts or stratigraphic correlations rather than direct chronological evidence.

Comparison of Zardali with other Central Asian Neolithic burials shows that the site, in terms of the simplicity of the grave, the flexed position of the body, and the lack of grave goods, is more similar to the burial tradition of the Hissar Culture than to the Kelteminar Culture, which is characterized by extended burials, the use of ochre, and the presence of numerous grave goods. However, the presence of only one burial at Zardali does not permit a secure cultural attribution, and these similarities must at present be interpreted as formal similarities. The available evidence also suggests that the Neolithic societies of Central Asia did not follow a single burial pattern. The differences between the Jeitun, Hissar, and Kelteminar traditions likely reflected differences in subsistence strategies, social organization, and environmental settings. While the agricultural communities of Jeitun, the hunter-gatherer and mountain communities of Hissar, and the groups associated with the riverine and wetland environments of Kelteminar each lived in different conditions, their burial rituals also show different patterns. In addition, the Zardali findings contribute to the broader discussion of the process of Neolithization in Central Asia and its connection to Southwest Asia. Genetic studies of the human remains of Tutkaul have shown that some Neolithic populations in the region had links with populations related to Iran and Southwest Asia. Although the available burial data are not yet sufficient to prove the direct transmission of burial traditions, these findings suggest that integrating genetic, archaeological, and mortuary evidence may help clarify the nature of interactions between Central Asia and Southwest Asia during the Neolithic. Although the limited archaeological evidence prevents detailed reconstruction of ritual behavior, the deliberate placement of the body in a tightly flexed position and the selection of a burial location within a Neolithic occupation area indicate that death was treated through culturally structured practices rather than simple disposal of the dead.

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