




## Research Article

# Community practice and religion at an Early Islamic cemetery in highland Central Asia<sup>‡</sup>

Elissa Bullion<sup>1,2,\*</sup>, Farhod Maksudov<sup>3</sup>, Edward R. Henry<sup>4</sup>, Ann Merkle<sup>5</sup>  
& Michael Frachetti<sup>5,\*</sup> 


<sup>1</sup> Department of Anthropology, University of Pittsburgh, USA

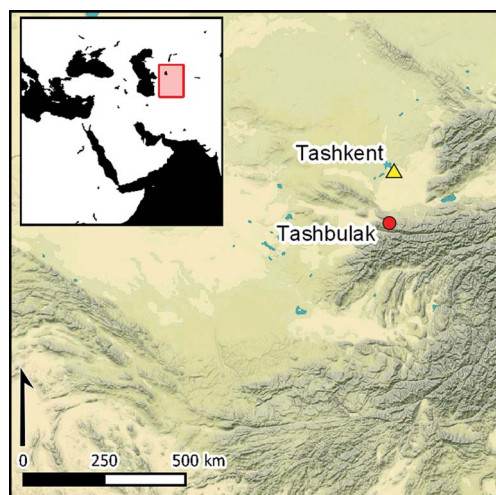
<sup>2</sup> Max Planck Institute for the Science of Human History, Department of Archaeology, Jena, Germany

<sup>3</sup> National Center of Archaeology, Uzbekistan Academy of Sciences, Tashkent, Uzbekistan

<sup>4</sup> Department of Anthropology and Geography, Center for Research in Archaeogeophysics and Geoarchaeology (CRAG), Colorado State University, USA

<sup>5</sup> Department of Anthropology, Washington University in St Louis, USA

\* Authors for correspondence  [elissa.bullion@pitt.edu](mailto:elissa.bullion@pitt.edu) & [frachetti@wustl.edu](mailto:frachetti@wustl.edu)



Archaeological studies of Early Islamic communities in Central Asia have focused on lowland urban communities. Here, the authors report on recent geophysical survey and excavation of an Early Islamic cemetery at Tashbulak in south-eastern Uzbekistan. AMS dating places the establishment of the cemetery in the mid-eighth century AD, making it one of the earliest Islamic burial grounds documented in Central Asia. Burials at Tashbulak conform to Islamic prescriptions for grave form and body deposition. The consistency in ritual suggests the existence of a funerary community of practice, challenging narratives of Islamic conversion in peripheral areas as a process of slow diffusion and emphasising the importance of archaeological approaches for documenting the diversity of Early Islamic communities.

Keywords: Uzbekistan, Early Islamic period, cemetery, burial, ritual, religious practice

## Introduction

Across Central Asia, archaeological studies of Early Islamic communities have focused on lowland urban contexts, framing highland and rural populations as engaged in heterodox, or even insincere, religious practices (Jackson 2005: 274 & 277; Pfeiffer 2006). Here, we

<sup>‡</sup> An author's affiliation was missing in the original published version of this article. A notice detailing the omission has been written and all versions of the article have been updated.

Received: 13 June 2020; Revised: 16 June 2021; Accepted: 24 June 2021

© The Author(s), 2022. Published by Cambridge University Press on behalf of Antiquity Publications Ltd. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

report the results of the recent excavation of burials at the Tashbulak cemetery in the highlands of south-eastern Uzbekistan and argue for the presence of an early frontier Muslim community for whom mortuary practice was central to the maintenance of local identity. Burial analysis provides insight into global integration and community practice of Muslim populations, and the Tashbulak cemetery presents an opportunity to document these dynamics in an understudied region.

## **Background and rationale**

Increasingly, research on the Central Asian highlands has focused on multi-directional, inter- and intra-regional connections. As early as the Bronze Age (third to second millennium BC), the Inner Asian Mountain Corridor—a piedmont zone spanning the Hindu Kush to the Altai Mountains—facilitated the movement of crops and other commodities across Eurasia (Frachetti 2012); in turn, these plants and goods were integrated into the economies of pastoralist groups (Spengler *et al.* 2014; Li *et al.* 2019). Recent archaeological investigations focusing on the medieval period (eighth to thirteenth century AD) reveal that upland regions of Central Asia were socio-political mosaics, shaped by communication and commerce across extensive Silk Route networks (Franklin 2016). These regions were also home to groups engaging in a range of subsistence strategies, from highly mobile pastoralism to settlements based around intensive mining (Stark *et al.* 2010; Frachetti *et al.* 2017).

In contrast to this emphasis on interconnectivity and exchange, the narrative for the introduction of Islamic traditions into rural and frontier regions primarily remains one of unidirectional colonisation. In this framing, unorthodox practices are seen as corrupted or diluted versions of cultural norms (Bulliet 1994; Eger 2019) that deviate from those of ‘true’ urban centres of cultural production (see Lawrence & Wilkinson 2017; Linduff *et al.* 2017). Indeed, within historical scholarship, there is a cliché that Islam “‘sat lightly’ or superficially upon nomads” in Central Asia (DeWeese 1994: 9). The governor of Khorasan initiated the Islamisation of the mountains and steppe of Central Asia in the early ninth century AD, although the process is described as sporadic and unsuccessful until the thirteenth century (Bregel 2003: 18; Deom 2009: 101). Sufi practitioners are also credited with the eventual conversion of nomadic groups, in part through integrating Islamic and indigenous practices (DeWeese 1994; Shingiray 2018: 15). Because of the emphasis on nomads in many of these historical accounts, rural and highland regions are often equated with these groups in broad-brush narratives, masking social and economic diversity.

The medieval cemetery at Tashbulak, a high-altitude population centre in the historical territory of Ustrushana (the area surrounding the Zeravshan River, in modern south-eastern Uzbekistan), presents an opportunity to dispense with core-periphery models and to examine the religious landscape of highland Central Asia through a multidimensional lens. Here, we frame the Central Asian highlands as a frontier, emphasising active adaptation to and engagement with political and social events at multiple scales (Eger 2019: 6–7). During the Early Islamic period, highland Ustrushana was an area of interaction between Sogdian, Persian and Turkic groups, a zone spanning lowland and alpine ecosystems, and a region contested by sectarian and Caliphal forces (Bregel 2003: 16–17). The study of burial at Tashbulak cannot be assumed to represent every mountain site, but our approach documents specific religious

practices, adding complexity to our understanding of early Islam in highland regions beyond the syncretic nomad narrative. Although architecture and household deposits may capture changes in economic, religious and social practices, periodicity can be difficult to delineate in these contexts (Hastorf & D'Altroy 2001). Cemeteries, in contrast, capture discrete events and thus, barring secondary burial, mortuary assemblages document a sequence of ideological behaviour in a community's history (Dethlefsen 1981).

## The site of Tashbulak

The site of Tashbulak was identified during fieldwalking survey in 2011 in the Malguzar Mountains of Jizzakh Province, Uzbekistan (Figure 1) (Frachetti & Maksudov 2014). The site is located at approximately 2100m asl, in a shallow depression surrounded by low ridges. Excavation and geophysical survey conducted from 2012 to 2017 by the *Archaeological Research of the Qarakhanids* (ARQ) project revealed dense occupation covering approximately 7–10ha, comprising several distinct sectors, including a citadel and workshops, and dating from the late eighth to the early eleventh century AD (Maksudov *et al.* 2019). Beyond the site's core lie potential hearth features with no associated permanent structures, but with corals, a tower and a gate. A magnetometry survey of the western slope bordering the settlement identified hundreds of rectangular, low-magnetic anomalies (Figure 2). Excavation has confirmed these to be burials, revealing mortuary practices conforming to Islamic prescriptions.

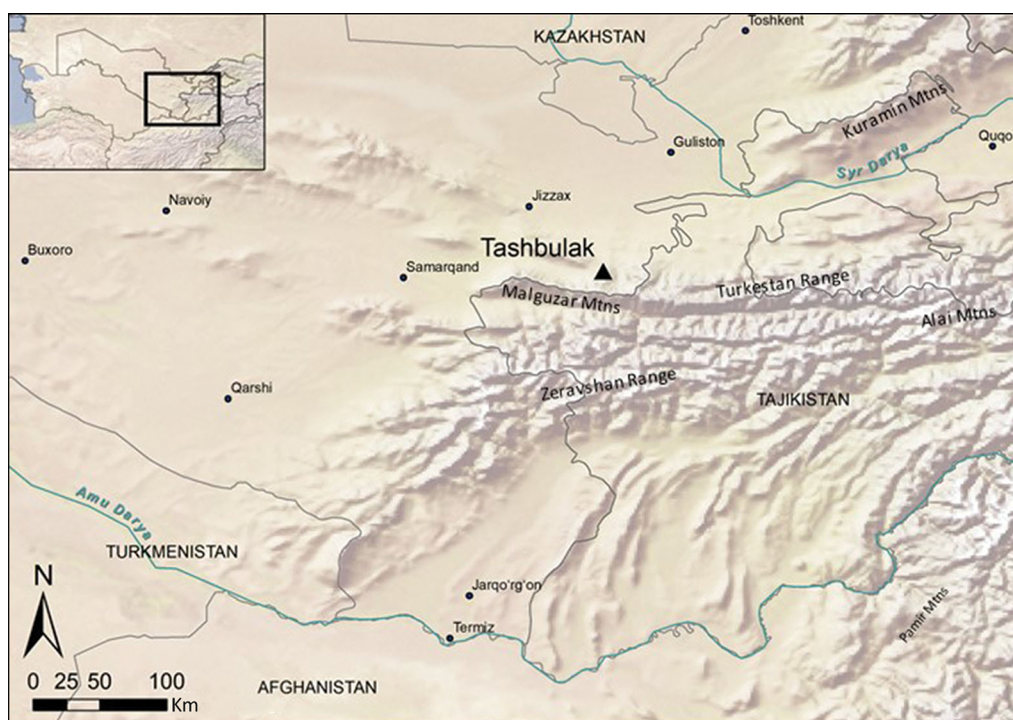


Figure 1. Map showing the location of Tashbulak (map by E. Bullion).



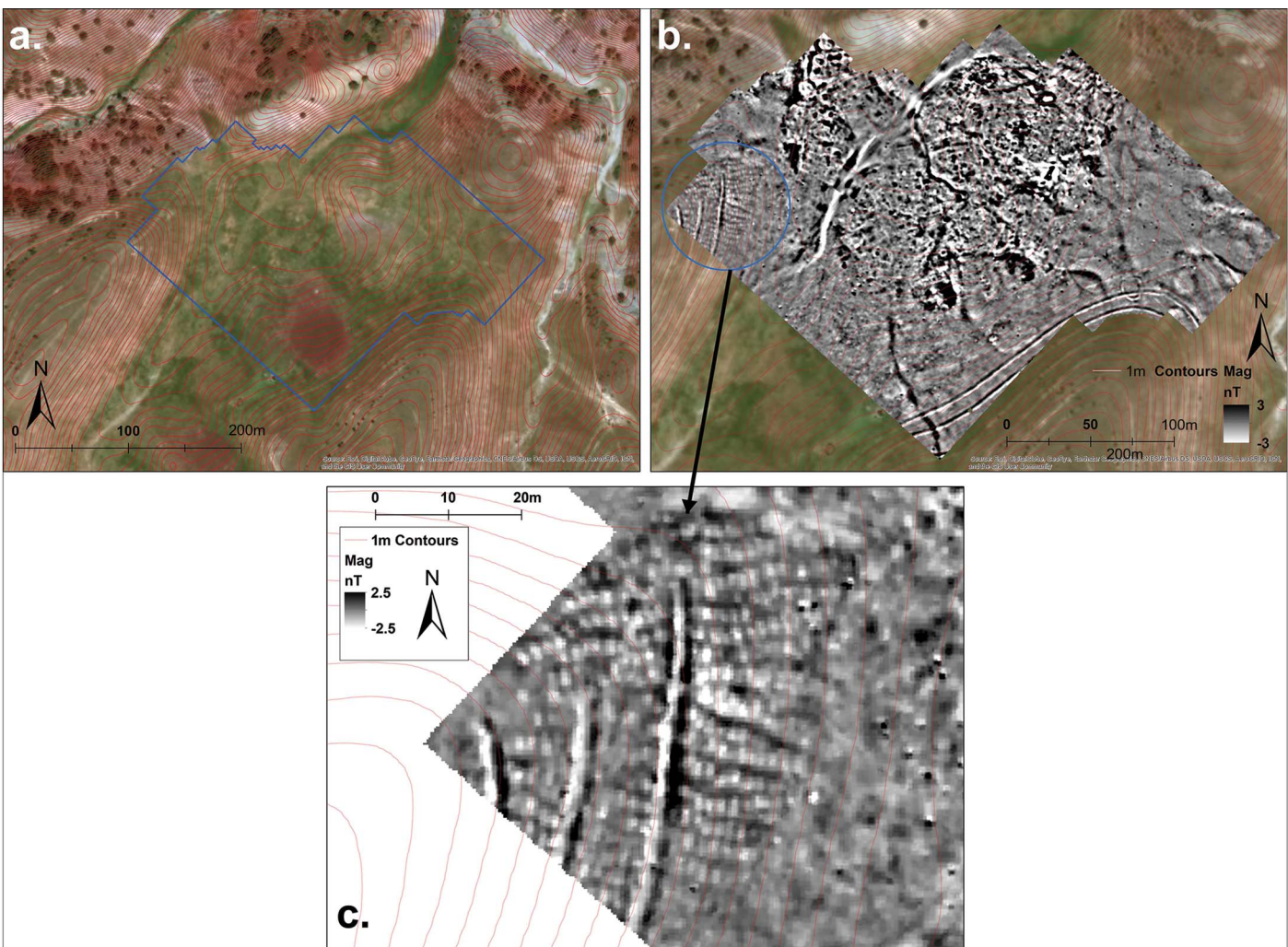


Figure 2. Tashbulak magnetometry survey: a) survey boundaries overlaid onto aerial imagery; b) visualisation of gradiometer data overlaid onto aerial imagery (blue circle denotes the location of the cemetery); c) close-up of gradiometer results over the cemetery (low [white] magnetic rectangles represent grave shafts) (figure by E.R. Henry).



## Islamic burial

Muslim burial rites—a defining component of Islamic identity—follow universal prescriptions of practice, intertwined with regional and temporal traditions (Petersen 2013). These rites are guided by the Qurʾān, *hadith* (a collection of traditions, words and actions of the Prophet Mohammad) and other early literary works, such as the *qisas al-ʿanbiyā* (stories of the prophets) (Zaman 2001: 27). Interpretation of these sources by individuals and communities in different regions results in burials that vary in exact form and ritual, but which adhere to underlying prescriptions. According to the *hadith*, although Mohammad was buried in his house, the Prophet expressed a preference for burial in cemeteries to avoid the later desecration of graves (Echevarria 2013). Islamic cemeteries are generally laid out in a row-and-column pattern, with a preference for proximity to mosques or shrines (Halevi 2007: 147). Early Islamic cemeteries with these elements have been widely documented in Central Asia, for example at Tok-kala in Khoresm and the Shah-i-Zinda in Samarkand (Gudkova 1964: fig. 22; Nemtseva et al. 1977).

Muslim burial form and arrangement orientate the dead within Islamic cosmology. Because of connotations between soil and hell, the face of the deceased is protected from direct contact with earth by structures such as niches, and the body, laid directly on the ground, is separated from the soil by only a shroud(s) (Halevi 2007: 92 & 213). Orientation of the corpse is determined by the location of Mecca, with the deceased's face, head or feet pointed towards the birthplace of Mohammad (Petersen 2013: 248). The doctrine of *taswiyah al-qubūr* holds that all Muslims are equal in death, and graves should therefore not be built to distinguish individuals based on their wealth in life (Talmon-Heller 2007: 165). While mausolea have violated this prescription since the beginnings of Islam (Mulder 2014), this doctrine is observed in other widespread practices, including the absence of grave goods.

In many regions, prohibitions on disturbing the dead prevent excavation of Islamic-period cemeteries (Insoll 1999: 169). We fully considered this aspect before excavating the Tashbulak cemetery. Discussions with Uzbek members of our team, including the project's co-director, as well as with the local community, revealed a consensus in support of excavation for research purposes. In general, the excavation of Muslim burials is common in Uzbekistan. The team thus chose to proceed, deciding to prioritise our local colleagues' opinions, rather than imposing assumptions about religious prescriptions.

## The Tashbulak cemetery

The cemetery at Tashbulak stretches approximately 110m along the hillside above the settlement, and 60m up-slope. It contains approximately 400 burials, based on a direct count from the magnetometry survey ( $n = 281$ ), plus an additional 100–150 burials estimated from test excavations. Burials are organised in rows placed perpendicular to the slope, each containing 5–25 graves (Figure 3). No evidence of headstones or external tomb structures was recovered, although the regularity of the rows and lack of overlapping burials suggest that some form of surface markers were present during the cemetery's use.

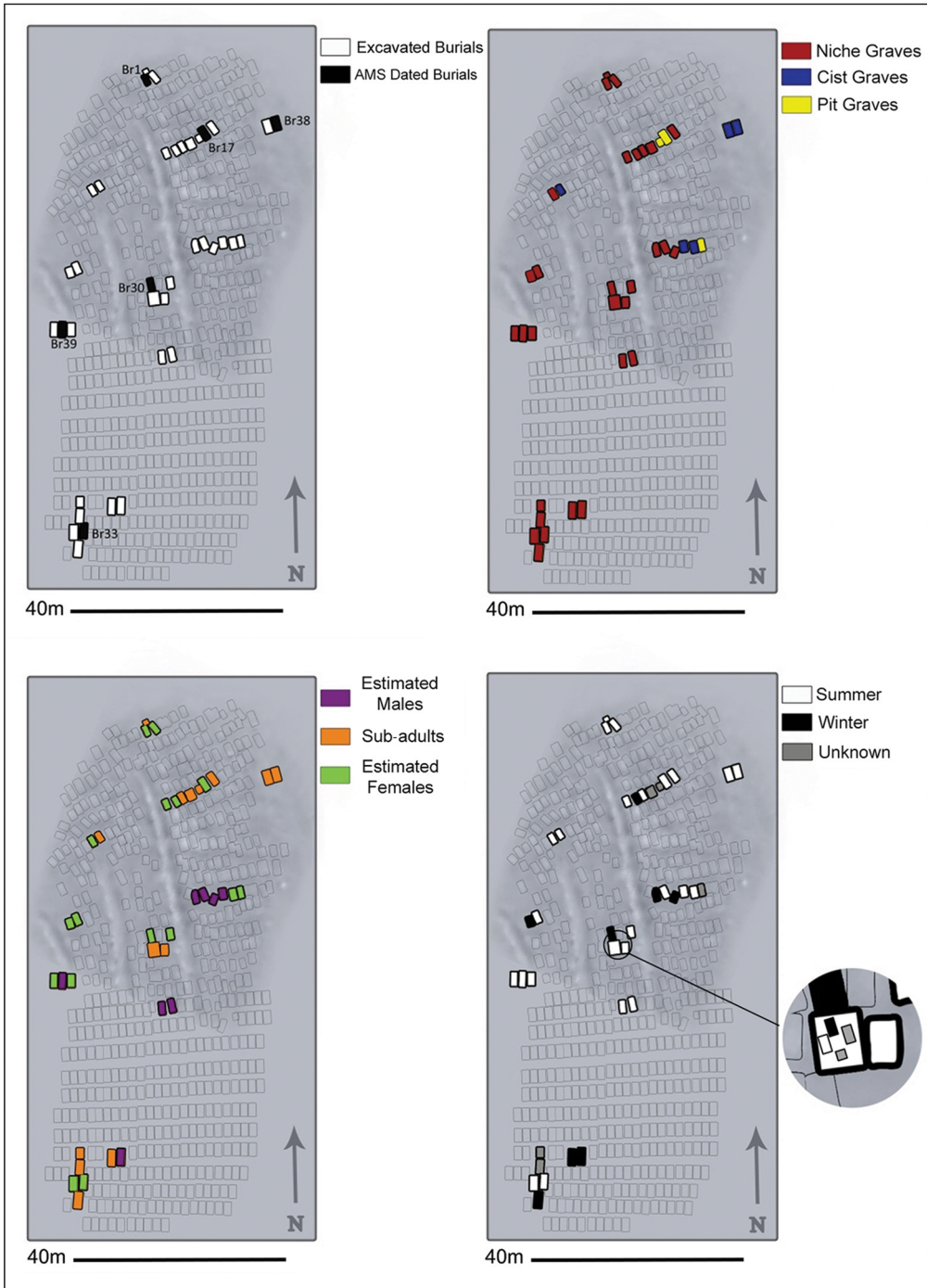


Figure 3. Plans of Tashbulak cemetery: a) location of AMS-dated burials; b) distribution of grave types; c) distribution of males, females and sub-adults; d) estimated season of burial based on face orientation (figure by E. Bullion).

*Burial forms*

Forty-one graves were excavated across the Tashbulak cemetery, and three types documented: cist burials, niche burials and pit/undetermined (Figure 3b). In all forms, a rectangular grave shaft was dug perpendicular to the slope and a burial chamber excavated within the grave shaft to a depth of 0.30–1.10m, with most reaching 0.70–1m. Adult grave dimensions range between 1.15 and 2.10m in length and between 0.33 and 0.52m in width, while sub-adult graves range between 0.48 and 1.62m in length and between 0.11 and 0.42m in width.

In the 32 excavated niche graves, a burial chamber was set into the western wall of the grave shaft, slightly below the level of its floor (Figure 4). After the body was placed in the niche, the space was sealed with mudbricks. One row of bricks was laid flat along the length of the niche and then another row was placed upright on top to close the chamber off from the grave shaft, which was then filled with soil. Mudbricks conform to standardised dimensions of approximately  $0.10 \times 0.14$ – $0.17 \times 0.40$ – $50$ m and included a high percentage of small gravel inclusions.

In the five excavated cist burials, a rectangular chamber—smaller than the grave opening—was cut into the base of the pit and lined with large, natural, usually flat stones. In some cist burials, these stones were placed only in the corners or sparsely along the walls, while in

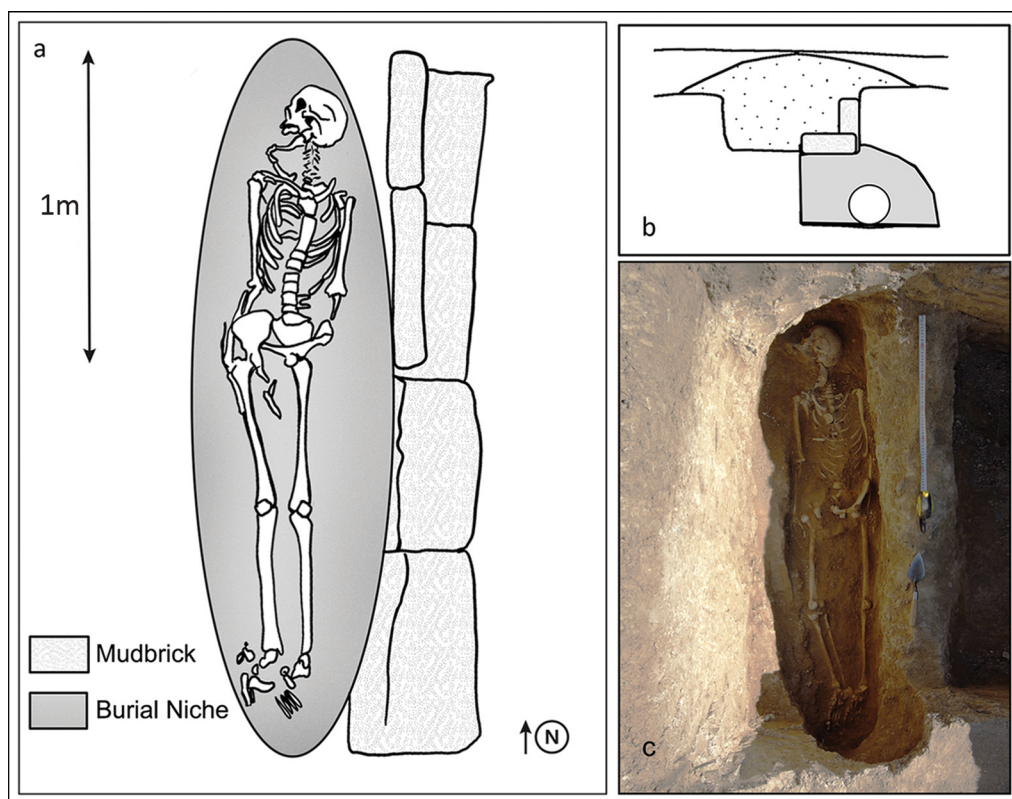


Figure 4. Niche burials: a) plan; b) side view from the north; c) photograph of burial 12 (figure by E. Bullion).



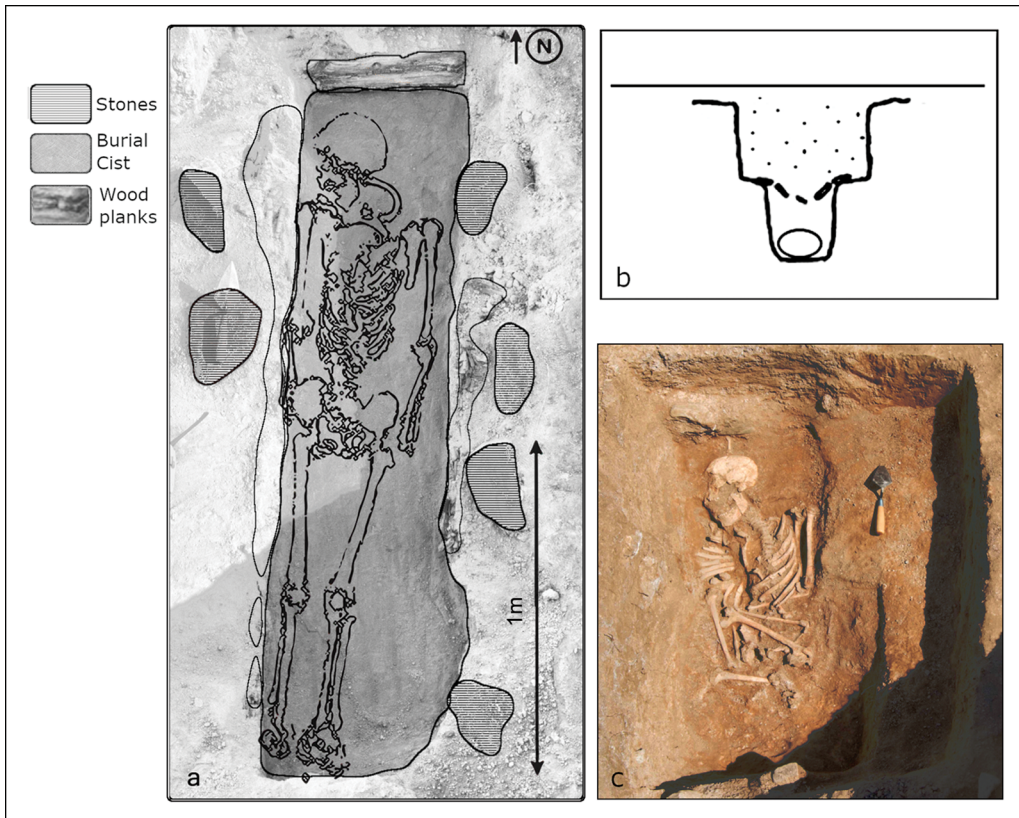


Figure 5. Cist burials: a) plan; b) side view from the north; c) photograph of burial 8 (figure by E. Bullion).

others, they form a more continuous cist. Within these stone arrangements, wooden beams were laid along all sides of the chamber, but not on the floor, leaving a space just large enough for the body (Figure 5). After the body had been placed in the chamber, the latter was closed with timber beams and the grave filled with soil. Preserved beams range in size from approximately 0.10–0.50m in length and 0.10–0.30m in diameter. The larger beams were used to line the walls of the burial chamber, while smaller ones were used to roof it.

In four burials, no structure beyond the grave cut was identified. Two were infant burials, no more than 0.30m below the ancient ground surface. The other two were of adults, including one with a small quantity of wood fragments above the area of the body, but no evidence of a burial chamber or cist.

### Body treatment

The dominant body position is extended and supine, with individuals laid on their backs, with legs fully extended. Arms are either extended by the individual's side ( $n = 20$ ), placed on the pelvic area ( $n = 5$ ), or tucked underneath the pelvis ( $n = 5$ ). The only exceptions are the individual in burial 8, who was interred in a semi-flexed position—a situation

necessitated by a degenerative joint condition (Figure 5c) (Greer & Bullion 2021)—and burial 36, an individual placed in an extended position on their right side. Excavations documented only one individual buried with grave goods: burial 38 (Br38), a cist grave of an older juvenile (8–12 years), containing a bronze earring, a bronze bead, six shell and bone beads, and two ceramic beads (Figure 6) in the chamber fill above the head and torso region.

The heads of the individuals were orientated between north-northwest (335–360°) and north-northeast (0–20°), with faces orientated towards west-southwest (245–270°) to west-northwest (270–290°) (Table 1). Mecca is located to the south-west (242° from geographic north) of Tashbulak, and this seems to have been the focal point for facing individuals at the site. In early Islam, astronomical calculations were often used to determine the *qibla* (the direction of the Kaaba in Mecca, used to orient prayers, religious buildings and burials; King 1996: 155–60). Hinterland communities probably used simpler means, such as the location



Figure 6. Burial 38: a) in situ photograph; b) bronze earring; c) bronze bead; d) ceramic beads; e) shell or bone beads (photographs by E. Bullion).

**Table 1. Demographic and burial information for excavated individuals (Y = 18–35 years of age; MA = 35–50 years of age; OA = 50+ years of age).**

Burial no.	Grave type	Age	Sex	Face orientation
1	Niche	OA	Female	230°
2	Niche	YA	Female	220°
3	Niche	Neonate (0–1 months)	–	220°
4	Niche	MA/OA	Female	290°
5	Niche	MA	Female	250°
6	Cist	Adolescent (16–18 years)	–	258°
7	Niche	MA	Female	230°
8	Cist	Adult	Male	250°
9	Niche	MA/OA	Male	275°
10	Niche	YA	Male	275°
11	Niche	MA	Female	268°
12	Niche	YA/MA	Female	300°
13	Niche	Juvenile (2–4 years)	–	240°
14	Niche	Infant (11–18 months)	–	Straight up
14b	Pit	Infant (9–18 months)	–	Straight up
15	Pit	MA	Female	275°
16	Pit	MA	Female	Straight up
17	Cist	MA	Female	250°
18	Niche	Infant (6–9 months)	–	262°
19	Niche	MA	Male	290°
20	Niche	Adolescent (8–12 years)	–	290°
21	Niche	Foetus/Neonate (6–9 months <i>in utero</i> )	–	Unknown
22	Pit	Foetus (5–6 months <i>in utero</i> )	–	Unknown
23	Niche	Juvenile (3–5 years)	–	288°
24	Niche	Infant (4–7 months)	–	280°
25	Niche	YA/MA	Male	285°
26	Niche	MA	Male	280°
27	Niche	MA	Male	295°
28	Niche	M/OA	Female	240°
29	Niche	Juvenile (3–5 years)	–	275°
30	Niche	YA	Female	288°
31	Niche	Infant (6–12 months)	–	Straight up
32	Niche	Foetus/neonate (6 months <i>in utero</i> –2 months)	–	Unknown
33	Niche	MA	Female	270°
34	Niche	YA/MA	Female	282°
35	Niche	Adolescent (11–15 years)	–	286°
36	Niche	Adult	Female	282°
37	Cist	Adolescent (6–10 years)	–	282°
38	Cist	Adolescent (8–12 years)	–	282°
39	Niche	YA/MA	Male	275°
40	Niche	MA	Female	275°



of the rising and setting sun (Gorzalczy 2007: 76). The azimuth of the sunrise varies at Tashbulak between approximately 123.5° in January to 85° in July. In winter, therefore, orienting the dead toward Mecca would result in faces orientated between 284° and 303°, and summer burials between 265° and 284°. These ranges match the burial orientations found at Tashbulak (Table 1; Figure 3d). The smaller number of winter burials ( $n = 9$ ) may be due to the seasonal mobility of some portions of the population, although we should also consider the difficulty of digging graves in frozen ground. Two infants in adjacent burials and one adult in the same column have faces pointing straight up.

### Demographic profile

Sex estimation was based on os coxae and cranial morphology (Phenice 1969; Walker, in Buikstra & Ubelaker 1994). Adult age was estimated by scoring changes to the pubic symphysis and auricular surface of the os coxae (Meindl & Lovejoy 1989; Brooks & Suchey 1990). Sub-adult age was estimated from tooth eruption and formation, and epiphyseal closure and long bone length (Ubelaker 1984; Scheuer & Black 2000; Al Qahtani *et al.* 2010).

Twice as many sets of excavated individuals were estimated to be female ( $n = 16$ ) compared with male ( $n = 8$ ). Males and females are similarly distributed across age groups (Table 1). Orientation and grave construction do not differ significantly between age categories, although no infants were buried in cists (Figure 3b–c). There is also a slight tendency of males, females and sub-adults to be buried next to at least one other individual of the same sex or age category, although these small groups are distributed across the cemetery.

### Chronology

Bone collagen from the metatarsals of six individuals from burials at the cemetery was AMS dated (Figure 3a). The resulting ranges cover a period from AD 680–970 (at 95.4% confidence, calibrated in OxCal v.4.3.2 using the IntCal13 curve; Reimer *et al.* 2013; Bronk Ramsey 2017) (Table 2; Figure 7), overlapping the occupation of Tashbulak's settlement, which ceramic typology, numismatics and radiocarbon dating place from the early to mid-eighth

Table 2. AMS dating of Tashbulak samples.

Burial no.	NOSAMS lab no.	Material	$\delta^{14}\text{C}$	Radiocarbon years BP	cal AD (95.4%)*	Median (AD)
1	OS-137180	Bone	-152.9	1270±20	680–770	720
17	OS-137181	collagen	-145	1190±25	760–940	830
30	OS-137182		-140.1	1150±20	770–970	890
33	OS-137183		-139.8	1150±20	770–970	890
38	OS-137184		-144.9	1190±20	770–890	830
39	OS-137185		-142.5	1170±20	770–950	850

\* Calibration in OxCal v4.3.2 (Bronk Ramsey 2017), using the IntCal13 atmospheric curve (Reimer *et al.* 2013). Dates have been rounded to the nearest 10 years.

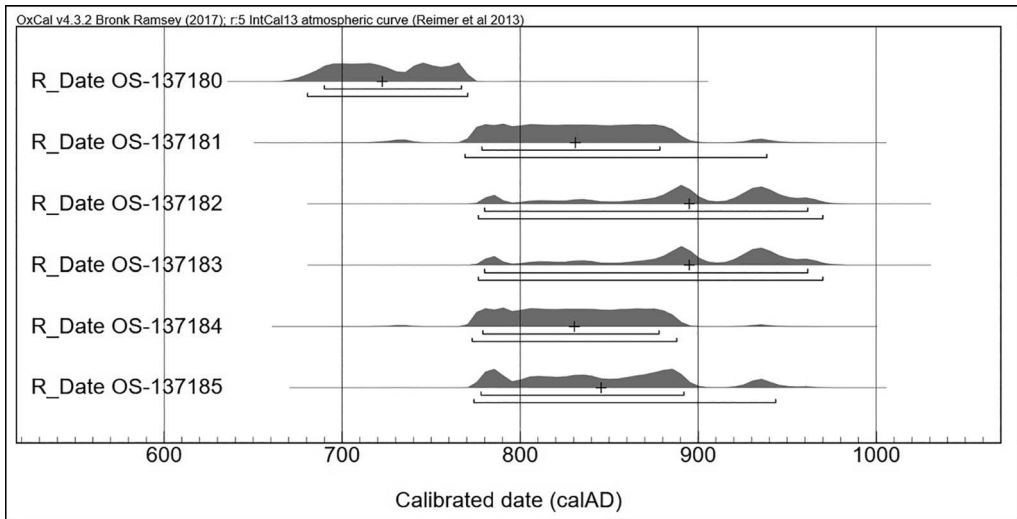


Figure 7. Radiocarbon distribution curves for dated human remains (calibrated in OxCal v.4.3.2 using the IntCal13 curve (Reimer et al. 2013; Bronk Ramsey 2017)) (figure by E.R. Henry).

century to the mid-eleventh century (Maksudov *et al.* 2019). It is important to note that the radiocarbon curve plateau between *c.* AD 800 and 900 results in wider estimated ranges (Youssef-Grob 2019).

## Discussion

Archaeological studies of Islamic burials are unevenly distributed and often emphasise ‘universal’ Islamic traits, with less attention paid to community belief and choice (Bradbury 2016: 201). The past decade has nevertheless seen an increasing number of studies that have focused on Islamic burial variation, especially in rural or nomadic regions (e.g. Bradbury 2016). Shingiray (2018), for example, documents a thirteenth to fourteenth century burial in the Golden Horde at Bolshoi Tsaryn in Kalmykia (Russia), in the Lower Volga region, which combines Islamic body positioning and the inclusion of nomadic grave goods. Other recent studies use evidence of ‘typical’ Islamic burial traits not only to identify Muslims, but also to discuss the formation of these groups and their relationships with other local communities (e.g. Gleize *et al.* 2016; Srigyan *et al.* 2020). These studies often document contexts in frontier regions or in areas where Islam was recently introduced or rarely practised. The few Islamic cemeteries documented in the medieval Central Asian highlands (e.g. Bubnova 1985; Stark *et al.* 2010), however, have not been analysed within their social and political context.

There is no obvious deviation from ‘universal’ Islamic prescriptions in the Tashbulak graves. Men, women and children were, for the most part, interred without grave goods, in an extended, supine position and with faces turned towards Mecca, in graves that protected their faces (through the construction of niche and cist chambers). Burials identical to the Tashbulak niche and cist graves are documented in Early Islamic rural and urban cemeteries across Central Asia (Amirov 2010: 60–64). From this evidence, it appears that individuals at Tashbulak were adhering to orthodox Islamic prescriptions for burial—at least in

non-perishable aspects of mortuary practice. This is an important distinction, since behavioural deviations from orthodoxy in burial generated more concern than those associated with construction in the early centuries of Islam (Grabar 1966: 8). Ethnographic studies document the persistence of pre-Islamic traditions among Central Asian Turkic groups, such as visiting graves and tying flags at pilgrimage sites. Other typical Islamic funerary elements, including washing the body and processions, are similarly unlikely to leave significant archaeological traces (Dawut 2009).

The orthodox nature of burial forms at Tashbulak should also be evaluated. The niche grave (*podboy*) was widely used by steppe populations, and some scholars suggest its use in Islamic Central Asia derives from pre-Islamic practice (Fedorov-Davydov 1966: 125; Vlaskin *et al.* 2006: 46). Grabar (1966: 8) provides a counter to this, arguing that Islamic societies tended to break from earlier mortuary forms rather than integrate them. In addition, niche burials are found throughout the Early Islamic world. Although burial form alone cannot be taken as evidence of religious orthodoxy, Tashbulak does appear to have been a community with access to knowledge of widespread Islamic grave forms and body treatment.

In medieval cities, Islamic scholars provided guidance on proper burial, and specific funerary-related occupations emerged, including mourning and grave digging (Halevi 2007: 90). Outside of urban centres, these networks of experts were largely absent. Bulliet (1994: 32–33) argues that many communities learned Muslim practice not through formal instruction, but by observing and questioning pious individuals and jurists about daily rituals and behaviours. Early Muslims were exhorted to distinguish themselves from members of other religions through funerary practices, which would have made these rituals crucial for fledgling communities such as Tashbulak (Zaman 2001: 32–33; Halevi 2007: 3).

The date range of the earliest Tashbulak burial firmly overlaps the earliest AMS dates from the settlement. This suggests that the cemetery was established concurrently with the core of the site, and that knowledge of Islamic burial was present at that time. It is possible that Islamic burial was introduced to Tashbulak through contact with dynastic or sectarian forces and groups. The earliest burials at Tashbulak date to a period of caliphal incursions into Ustrushana. Military fortifications or destruction of sites are usually cited as evidence of caliphal military presence (Deom 2009: 108). There is no such evidence at Tashbulak, but we cannot rule out the temporary presence of Umayyad or Abbasid forces. The earliest Central Asian dynastic assemblages at Tashbulak are attributed to the Samanids (AD 819–899), a Persianate Islamic polity, although they are outnumbered by remains of objects associated with the Turkic Qarakhanids (Maksudov *et al.* 2019), who converted to Islam in the mid-tenth century.

Sufi groups credited with shaping ‘indigenous’ Islam were not widely active until the eleventh to twelfth century. From the early eighth century, however, other sectarian groups holding anti-Caliphate agendas, and with ideologies combining Iranian religions with Islamic teachings, were present in the highlands (Deom 2009: 101). These movements, such as the Khurramiyya, were commonly allied with Turkic groups, many of whose leaders converted to Islam and embraced heterodox beliefs (e.g. the Qarluq *yabghu* [ruler] converted in AD 780, embracing the Mubayyidites’ creed; Crone 2012: 139). These movements appealed to Central Asians of all social classes for their emphasis on equality, piety and asceticism (Daftary 1998: 53). By the eighth century, Islam was practised in many major Central Asian cities (Bregel 2003: 18). It is therefore possible that one or several Muslim individuals



or families from these cities and regions helped found Tashbulak and shared their knowledge of proper burial.

Whatever the origins of Islamic mortuary ritual at Tashbulak, its practice was sustained throughout the life of the site. Burials at Tashbulak show virtually no variation in grave form and body treatment across the cemetery, which we suggest reflects a community of practitioners maintaining knowledge about proper burial rites. Communities of practice comprise individuals interacting around a shared objective and require continual creation of technical knowledge and social understanding (Lave & Wenger 1991). As individuals engage in a joint enterprise, they develop norms and expectations, reified through the enactment and transmission of shared knowledge. Communities of practice are also resistant to external influence, with practices embedded in a system of relationships that remain constant across generational and societal changes (Sassaman & Rudolphi 2001: 422). This type of community would explain the consistency of burial at Tashbulak over at least a century and potentially more than three, in the face of external influences from trade and dynastic elements.

The grave-form variation at Tashbulak could reflect the identities of those interred or of those who constructed the graves. While the form of a grave does not correlate to its occupant's age or sex, it is possible that it was related to another type of identity. Multiple social and economic classes existed at Tashbulak. Glazed finewares—similar to those found throughout major cities of the region—and the remains of imported fruits and nuts hint at an elite echelon (Spengler *et al.* 2018). Handmade, slip-painted ceramics of a type attributed to pastoralist groups, along with evidence of ephemeral occupation and corrals, suggest that a portion of the population could have engaged in seasonal mobility, while workshops and metalworking artefacts indicate the presence of artisans (Maksudov *et al.* 2019). The absence of grave goods makes it difficult to assess the social identity of the occupants of the Tashbulak burials, but future isotopic and osteological studies may identify markers of occupation and status. Both niche and cist forms vary little across the cemetery, and the date range for the directly dated cist burial (Br38) overlaps with most of the niche burials (Table 2). If different grave forms were created by different practitioners, it is likely that they were operating concurrently.

Conversion to Islam was often communal and defined by the performance of correct acts, emphasising the idea that the heart will follow the body (DeWeese 1994: 25–26). Muslim funerals bring together communities for rituals that reinforce gender roles and social hierarchies according to Islamic ideologies (Halevi 2007: 231). Through preparing the body, funerary processions and prayers, members of the Tashbulak population would have affirmed their place within the Muslim community, with the cemetery acting as a focal point for the maintenance of Islamic identity.

## **Conclusion**

Burial practice at Tashbulak reflects the presence of a Muslim community in the Central Asian highlands potentially as early as the mid-eighth century AD. This community organised its cemetery in the same fashion as, and with burials identical to, those found in cities and towns across Early Islamic Central Asia. The consistency of grave placement and form across 400 burials suggests a group of practitioners dedicated to maintaining knowledge of Islamic burial norms. Our study demonstrates that Islamic practice in highland Central

Asia was not necessarily characterised by syncretism or unorthodoxy, although we cannot rule out heterodox behaviours not captured in the archaeological record. The establishment of the cemetery at the same time as the settlement suggests that Islamic burial practice was known to the founders of Tashbulak. Finally, engagement in funerary rituals would have reinforced Islamic identity, making the cemetery a prominent shaper of both the physical and religious landscapes of the community.

## Acknowledgements

The authors thank Samiriddin Mustafakulov and Amriddin Berdimuradov at the Institute of Archaeology in Samarkand for institutional support. Jay Johnson and the Center for Archaeological Research at the University of Mississippi kindly permitted use of their equipment for magnetometry survey. Many thanks also to the *Archaeological Research of the Qarakhanids* project crews.

## Funding statement

Funding was provided by the National Geographic Society (PI: M. Frachetti), Max von Bercham Foundation (PI: M. Frachetti), the National Science Foundation (grant BCS-1724495, PI: M. Frachetti, Co-PI: E. Bullion), the Barakat Trust, Lambda Alpha International, the Association for Asian Studies and I-CARES (Washington University in St Louis).

## References

- AL QAHTANI, S.J., M.P. HECTOR & H.M. LIVERSIDGE. 2010. Brief communication: the London atlas of human tooth development and eruption. *American Journal of Physical Anthropology* 142: 481–90. <https://doi.org/10.1002/ajpa.21258>
- AMIROV, S.S. 2010. Archaeological aspects of the Early Islamic period in Khorezm, in A. Betts & F. Kidd (ed.) *Archaeologische Mitteilungen aus Iran und Turan*: 59–66. Berlin: Dietrich Reimer.
- BRADBURY, J.N. 2016. Presenting the past: a case study of Islamic rural burial practices from the Homs region, Syria, in S. McPhillips & P.D. Wordsworth (ed.) *Landscapes of the Islamic world*: 200–18. Pittsburgh: University of Pennsylvania Press.
- BREGEL, Y. 2003. *An historical atlas of Central Asia*. Boston (MA): Brill. <https://doi.org/10.2143/JA.291.1.504710>
- BRONK RAMSEY, C. 2017. OxCal (v4.3.2). Available at: <http://c14.arch.ox.ac.uk> (accessed 16 June 2021).
- BROOKS, S. & J.M. SUCHEY. 1990. Skeletal age determination based on the os pubis: a comparison of the Acsádi-Nemeskéri and Suchey-Brooks methods. *Human Evolution* 5: 227–38. <https://doi.org/10.1007/BF02437238>
- BUBNOVA, M.A. 1985. Srednevekovie Kladbisha Pamira X–XI bb. (k voprosu o verovanniya), in M.S. Asimov (ed.) *Pamirovedenie*: 58–87. Dushanbe: Academy NAYK Tadjikskoi SSR.
- BUIKSTRA, J.E. & D.H. UBELAKER. 1994. *Standards for data collection from human skeletal remains*. Fayetteville: Arkansas Archeological Survey.
- BULLIET, R.W. 1994. *Islam: the view from the edge*. New York: Columbia University Press.
- CRONE, P. 2012. *The nativist prophets of Early Islamic Iran: rural revolt and local Zoroastrianism*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139088459>
- DAFTARY, F. 1998. Sectarian and national movements in Iran, Khurasan and Transoxania during Umayyad and early Abbasid times, in C.E. Bosworth & M.S. Asimov (ed.) *History of civilizations of Central Asia: AD 750 to the end of the fifteenth century*: 41–60. Delhi: UNESCO.
- DAWUT, R. 2009. Shrine pilgrimage among the Uighurs. *The Silk Road* 6(2): 56–67.
- DEOM, J.M. 2009. Islamization and early Sufism in Central Eurasia during the pre-Mongolian period

- (8<sup>th</sup>–13<sup>th</sup> centuries AD), in G.L. Bonora, N. Pianciola & P. Sartori (ed.) *Kazakhstan: religions and society in the history of Central Eurasia*: 99–112. London: U. Allemandi.
- DETHLEFSEN, E.S. 1981. The cemetery and culture change: archaeological focus and ethnographic perspective. *Modern Material Culture* 1981: 137–59.  
<https://doi.org/10.1016/B978-0-12-293580-0.50016-0>
- DEWEESE, D.A. 1994. *Islamization and native religion in the Golden Horde: Baba Tükles and conversion to Islam in historical and epic tradition*. University Park: Pennsylvania State Press.
- ECHEVARRIA, A. 2013. Islamic confraternities and funerary practices: hallmarks of Mudejar identity in the Iberian Peninsula? *Al-Masāq* 25: 345–68.  
<https://doi.org/10.1080/09503110.2013.845519>
- EGER, A.A. (ed.). 2019. The archaeology of medieval Islamic frontiers: an introduction, in *The archaeology of medieval Islamic frontiers*: 3–28. Louisville: University Press of Colorado.  
<https://doi.org/10.5876/9781607328773>
- FEDOROV-DAVYDOV, G.A. 1966. *Kochevniki Vostochnoi Evropy pod vlast'iu zolotoordynskikh khanov: arkhеologicheskie pamiatniki*. Moscow: Izd-vo Moskovskogo universiteta.
- FRACHETTI, M.D. 2012. Multiregional emergence of mobile pastoralism and nonuniform institutional complexity across Eurasia. *Current Anthropology* 53: 2–38.  
<https://doi.org/10.1086/663692>
- FRACHETTI, M.D. & F. MAKSDOV. 2014. The landscape of ancient mobile pastoralism in the highlands of south-eastern Uzbekistan, 2000 BC–AD 1400. *Journal of Field Archaeology* 39: 195–212.  
<https://doi.org/10.1179/0093469014Z.00000000085>
- FRACHETTI, M.D., C.E. SMITH, C.M. TRAUB & T. WILLIAMS. 2017. Nomadic ecology shaped the highland geography of Asia's Silk Roads. *Nature* 543: 193–98.  
<https://doi.org/10.1038/nature21696>
- FRANKLIN, K. 2016. Assembling subjects: cosmopolitanism in late medieval Armenia, in E.M. Bonney, K.J. Franklin & J.A. Johnson (ed.) *Incomplete archaeologies: assembling knowledge in the past and present*: 131–48. Oxford: Oxbow.  
<https://doi.org/10.2307/j.ctvh1dhw1.14>
- GLEIZE, Y. *et al.* 2016. Early medieval Muslim graves in France: first archaeological, anthropological and palaeogenomic evidence. *PLoS ONE* 11: e0148583.  
<https://doi.org/10.1371/journal.pone.0148583>
- GORZALZCANY, A. 2007. The Kefar Saba cemetery and differences in orientation of Late Islamic burials from Israel/Palestine. *Levant* 39: 71–79.  
<https://doi.org/10.1179/lev.2007.39.1.71>
- GRABAR, O. 1966. The earliest Islamic commemorative structures, notes and documents. *Ars Orientalis* 4: 7–46.
- GREER, S. & E. BULLION. 2021. Reconstruction of anatomy and care provisioning in a severe case of spondyloepiphyseal dysplasia. *International Journal of Paleopathology* 34: 147–54.  
<https://doi.org/10.1016/j.ijpp.2021.06.009>
- GUDKOVA, A.B. 1964. *Tok-Kala*. Tashkent: Publishing House of the Sciences of the Uzbek SSR.
- HALEVI, L. 2007. *Muhammad's grave: death rites and the making of Islamic society*. New York: Columbia University Press.
- HASTORF, C.A. & T.N. D'ALTROY. 2001. The domestic economy, households, and imperial transformation, in T.N. D'Altroy & C.A. Hastorf (ed.) *Empire and domestic economy*: 3–25. New York: Springer.  
[https://doi.org/10.1007/0-306-47192-2\\_1](https://doi.org/10.1007/0-306-47192-2_1)
- INSOLL, T. 1999. *The archaeology of Islam*. Oxford: Blackwell.
- JACKSON, P. 2005. The Mongols and the faith of the conquered, in R. Amitai & M. Biran (ed.) *Mongols, Turks, and others: Eurasian nomads and the sedentary world*: 245–90. Boston (MA): Brill.
- KING, D.A. 1996. Astronomy and Islamic society: Qibla, gnomonics and timekeeping, in R. Rashed (ed.) *Encyclopedia of the history of Arabic science, volume 1*: 128–84. London: Routledge.
- LAVE, J. & E. WENGER. 1991. *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.  
<https://doi.org/10.1017/CBO9780511815355>
- LAWRENCE, D. & T.J. WILKINSON. 2017. The northern and western borderlands of the Sasanian Empire: contextualising the Roman/Byzantine and Sasanian frontier, in E.W. Sauer (ed.) *Sasanian Persia: between Rome and the steppes of Eurasia*: 99–125. Edinburgh: University of Edinburgh Press.



- <https://doi.org/10.3366/edinburgh/9781474401012.003.0005>
- LI, Y. *et al.* 2019. Farming strategies of 1<sup>st</sup> millennium CE agro-pastoralists on the southern foothills of the Tianshan Mountains: a geoarchaeological and macrobotanical investigation of the Mohuchahangoukou (MGK) site, Xinjiang, China. *PLoS ONE* 14: e0217171. <https://doi.org/10.1371/journal.pone.0217171>
- LINDUFF, K.M., Y. SUN, W. CAO & Y. LIU. 2017. *Ancient China and its Eurasian neighbors: artifacts, identity and death in the frontier, 3000–700 BCE*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290555>
- MAKSUDOV, F. *et al.* 2019. Nomadic urbanism at Tashbulak: a new highland town of the Qarakhanids, in C. Baumer & M. Novák (ed.) *Urban cultures of Central Asia from the Bronze Age to the Karakhanids*: 283–305. Wiesbaden: Harrassowitz. <https://doi.org/10.2307/j.ctvnrnfq57.21>
- MEINDL, R.S. & C.O. LOVEJOY. 1989. Age changes in the pelvis: implications for paleodemography, in M.Y. Iscan (ed.) *Age markers in the human skeleton*: 137–68. Springfield (IL): Charles C. Thomas.
- MULDER, S. 2014. *The shrines of the 'Alids in medieval Syria: Sunnis, Shi'is and the architecture of coexistence*. Edinburgh: Edinburgh University Press.
- NEMTSEVA, N.B., J.M. ROGERS & Ā. YĀSĪN. 1977. Istoki Kompozitsii i Etapy Formirovaniya Ansamblya Shakhi-Zinda [The origins and architectural development of the Shāh-i Zinde]. *Iran* 15: 51–73. <https://doi.org/10.2307/4300564>
- PETERSEN, A. 2013. The archaeology of death and burial in the Islamic world, in S. Tarlow & L.N. Stutz (ed.) *The Oxford handbook of the archaeology of death and burial*: 240–58. Oxford: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199569069.013.0014>
- PFEIFFER, J. 2006. Reflections on a 'double rapprochement': conversion to Islam among the Mongol elite during the early Ilkhanate, in L. Komaroff (ed.) *Beyond the legacy of Genghis Khan*: 369–89. Leiden: Brill. [https://doi.org/10.1163/9789047418573\\_022](https://doi.org/10.1163/9789047418573_022)
- PHENICE, T.W. 1969. A newly developed visual method of sexing the os pubis. *American Journal of Physical Anthropology* 30: 297–301. <https://doi.org/10.1002/ajpa.1330300214>
- REIMER, P.J. *et al.* 2013. IntCal13 and Marine13 radiocarbon age calibration curves 0–50 000 years cal BP. *Radiocarbon* 55: 1869–87. [https://doi.org/10.2458/azu\\_js\\_rc.55.16947](https://doi.org/10.2458/azu_js_rc.55.16947)
- SASSAMAN, K.E. & W. RUDOLPHI. 2001. Communities of practice in the early pottery traditions of the American Southeast. *Journal of Anthropological Research* 57: 407–25. <https://doi.org/10.1086/jar.57.4.3631353>
- SCHEUER, L. & S. BLACK. 2000. *Developmental juvenile osteology*. London: Elsevier. <https://doi.org/10.1016/B978-012624000-9/50004-6>
- SHINGIRAY, I. 2018. An Islamicate body: a case study of a nomadic burial from the core territory of the Golden Horde. *Revue des mondes musulmans et de la Méditerranée* 143. <https://doi.org/10.4000/remmm.10777>
- SPENGLER, R. *et al.* 2014. Early agriculture and crop transmission among Bronze Age mobile pastoralists of Central Eurasia. *Proceedings of the Royal Society B: Biological Sciences* 28: 20133382. <https://doi.org/10.1098/rspb.2013.3382>
- 2018. Arboreal crops on the medieval Silk Road: archaeobotanical studies at Tashbulak. *PLoS ONE* 13: e0201409. <https://doi.org/10.1371/journal.pone.0201409>
- SRIGYAN, M. *et al.* 2020. Bioarchaeological analysis of one of the earliest Islamic burials in the Levant. *BioRxiv* <https://doi.org/10.1101/2020.09.03.281261> (preprint).
- STARK, S., U. ESHONKULOV, M. GÜTTE & N. RAKHIMOV. 2010. Resource exploitation and settlement dynamics in high mountain areas: the case of medieval Ustrushana (northern Tadzhikistan). *Archäologische Mitteilungen aus Iran und Turan* 42: 67–85.
- TALMON-HELLER, D.J. 2007. *Islamic piety in medieval Syria: mosques, cemeteries and sermons under the Zangids and Ayyūbids (1146–1260)*. Leiden: Brill. <https://doi.org/10.1163/ej.9789004158092.i-308>
- UBELAKER, D.H. 1984. *Human skeletal remains: excavation, analysis, interpretation*. Washington, D.C.: Taraxacum.

VLASKIN, M.V., A.I. GARMASHOV & S.A. NAUMENKO. 2006. Pogrebal'nye Kompleksy Zolotoordynskogo Vremeni v Kurgannom Mogil'nike Verbovyi Log VIII, in M.V. Vlaskin, A.I. Garmashov, Z.V. Dode & S.A. Naumenko (ed.) *Pogrebeniia Znati Zolotoordynskogo Vremeni v Mezhdurech'e Dona i Sala*: 9–74. Moscow: Pamiatniki Istoricheskoi Mysli.

YOUSSEF-GROB, E.M. 2019. Radiocarbon (<sup>14</sup>C) dating of Early Islamic documents:

background and prospects, in A. Kaplony & M. Marx (ed.) *Qur'ān quotations preserved on papyrus documents, 7<sup>th</sup>–10<sup>th</sup> centuries*: 139–87. Leiden: Brill.

[https://doi.org/10.1163/9789004376977\\_006](https://doi.org/10.1163/9789004376977_006)

ZAMAN, M.Q. 2001. Death, funeral processions, and the articulation of religious authority in early Islam. *Studia Islamica* 93: 27–58.

<https://doi.org/10.2307/1596107>