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Zoroastrian Dakhma of Turkabad in Ardakan, Yazd, Iran

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Abstract

A dakhma, also known as Tower of Silence is a place where Zoroastrian people used to put the dead bodies of their loved ones. A similar structure from the Sasanian period was discovered in Bandian Dargaz, along with excavations conducted at Gelālak of Shushtar, Saleh Davood of Shush, and Shoghab of Bushehr, as well as other researches and excavations across various regions of Iran. It provides evidence that Zoroastrians practiced a burial ritual involving the removal of flesh from the body of the deceased and subsequent collection of bones, which were then placed in a container known as an ossuary. This intriguing method served as a motivation for the author to undertake more extensive studies on Zoroastrian burial rituals. This article focuses on the archaeological excavations conducted in the Torkabad's Dakhma of Ardakan, Yazd, shedding light on this particular aspect.

Keywords: Zoroastrian; Torkabad's Dakhma; Ardakan; Yazd.

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Introduction

The discovery of the Tower of Silence (Dakhma) from the Sassanian era in Bandian Darghez (Rahbar, 2009) (Map 2), along with excavations at Gelālak of Shushtar (Rahbar, 1984) (Fig. 2; Map 3), Saleh Davood of Shush (Rahbar, 2012) (Fig. 3), and Shoghab of Bushehr (Rahbar, 1988) as well as another (Rahbar, 2007) (Figs. 4, 5), along with extensive excavations and research in various parts of Iran (Nemati, 2011, Boyce and Grenet, 1996: 247), provides evidence Zoroastrians' burial practice. It was a method that involved the removal of flesh from the body of the deceased and subsequent the collection of bones, which were then placed in a container known as an ossuary. This particular method is significant compared to Dakhmas found in Yazd, Sharifabad, Taft, and elsewhere (Fig. 6). The discovery and excavation of these burial practices inspired me to embark on more comprehensive studies concerning Zoroastrian burial rituals.

In 2012, I had the opportunity to briefly visit Turkabad of Ardakan in Yazd. Unlike the previously-mentioned tombs, which were constructed using crushed stone and plaster, this particular structure (Dakhma) was made of clay and layered materials. While the mentioned tombs were situated on elevated areas, the Torkabad's Dakhma (Tower of Silence) was on a flat area surrounded by agricultural fields. Another notable distinction was the presence of multiple rooms around a circular wall. Initial evidence indicated that the entrances to these rooms had dimensions of approximately 80×60 cm. It appeared that these rooms served as burial sites, with each entrance being sealed with clay after placing the dead inside (Figs. 1, 7, Map 4). Therefore, exploring this Dakhma had the potential to enhance our understanding of Zoroastrian burial practices. The excavation of Torkabad's Dakhma was commenced on May 6, 2016.

Excavation of Torkabad's Dakhma

While exploring ancient sites and mounds, the typical initial step involves creating a trench or grid system to accurately record and document the precise location of archaeological discoveries, both movable and immovable, within their original context. However, in the case of Torkabad's Dakhma, the presence of numerous rooms surrounding a circular wall rendered the grid system unnecessary. Each room essentially functioned as an individual trench, allowing for the findings to be recorded based on the coordinates within each room. Based on available evidence, it was estimated that there were approximately 30 rooms in this Dakhma (Map 4). In 2002, the entrance to the Dakhma was initially identified on the west side due to the only visible opening and potential access to it being from that direction. Consequently, the rooms were numbered in a clockwise manner starting from the left of the presumed entrance. However, during the excavation process, it was discovered that the entrance door of the Dakhma was actually located on the southeast. A mound of soil, which had been piled up by local farmers for irrigating their fields, was behind the wall where the gate was supposed to be (Fig. 8). As a result, the location of the gate had been buried beneath that mound and was concealed

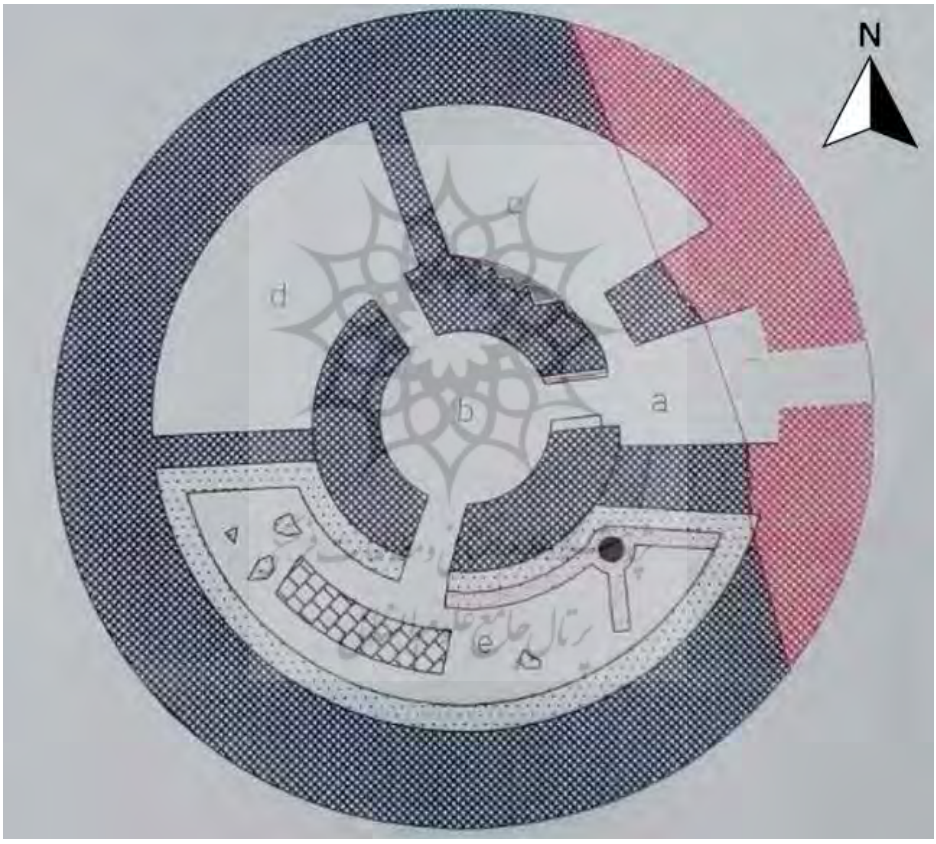
Map 1. Aerial Map of Ardakan City and the Location of Turkabad Crypt

from view. In the first excavation season, only Rooms 1, 2, 3, 4, 6, seven, and 30, as well as the entrance of the Dakhma, were investigated.

Room 1

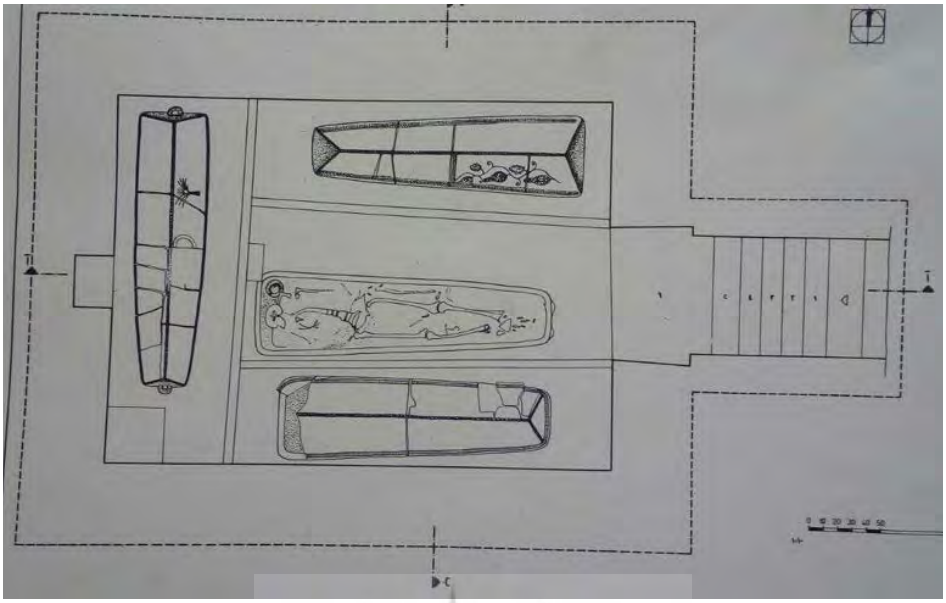
The presence of a circular courtyard surrounded by numerous rooms suggests that these rooms were likely burial chambers or tombs, similar to Gelālak of Shushtar (Rahbar, 1984) and Saleh Davood (Rahbar, 2012). With this assumption, we began our excavation with Room 1. Despite the considerable damage inflicted upon these rooms or tombs over the years, resulting in the destruction of walls and ceilings due to natural and human factors, it was still possible to discern their shape, dimensions, and size from the remnants of some of these rooms. In particular, the remains of clay-covered arches offered valuable insights into the potential date of their construction. The construction material used in this tomb was primarily clay. Presently, only about a quarter of the

Fig. 1. Turkabad Crypt before Excavation



Map 2. Plan of Bandian Derghz Tower of Silence

original ceiling of this tomb remains. At the end of the room, just below the ceiling, there is a smooth surface made of soft soil. This surface sits at an elevation of approximately 160 cm from the zero point. A deposit of debris, approximately 70 cm thick, accumulated in the eastern part of the room as a result of the roof



Map 3. Plan of the Underground Tomb of Gelālak of Shushtar

Fig. 2. The Underground Tomb of Gelālak of Shushtar

and side walls collapsing. Upon clearing the debris, we encountered a smooth surface resembling the end section of the room and that was aligned with the flat surface. Continuing the excavation and removing about 30 cm of soft soil, we discovered the remains of an adult skeleton and the bones of a child. Further exca-

Fig. 3. Saleh Davood Underground Tomb, Burial Platforms and the Ossuary of the Elymais

Fig. 4. Graves in Shoghab of Bushehr, Sasanian Period

vation revealed incomplete remains of a skeleton, along with some child bones, at a height ranging between 110 and 120 cm from the zero point, near the eastern wall. The skeletal remains were predominantly concentrated within the height range of 110 to 140 cm. The excavation indicated that the majority of secondary burials occurred within the layer between 50 and 70 cm.

The majority of the skeletal remains primarily belonged to children. In certain

Fig. 5. Graves in Shoghab of Bushehr, Sasanian Period

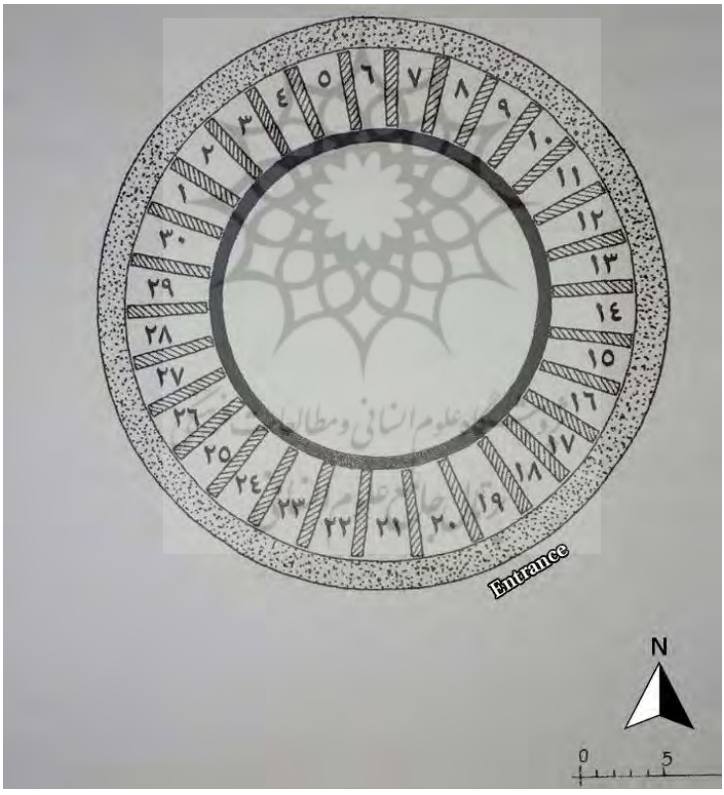
instances, the lower portion of a clay jar was placed alongside the bone remains. Additionally, it should be noted that sedimentary stone fragments, retrieved from the bottom of the aqueducts, were positioned adjacent to the bone remains. The presence of foot fragments, together with the skeletal remains, indicates that the bones were wrapped in a shroud before being buried in soft soil. The excavation proceeded towards the floor of the room, which is comprised of a layer of hard clay that appeared natural and untouched. Room 1 is 470 cm in length, with a width of 150 cm in the east and 200 cm in the west. The side walls have a width of 60 cm. These walls lack a foundation, but prior to their construction, a layer of approximately 3 to 5 cm of river sand was placed without mortar. On top of this layer, multiple rows of mud bricks measuring 6×25×25 cm were carefully placed. As the construction of the wall continued, a layer of clay was added, extending up

Fig. 6. Sharifabad Crypt

to approximately 70 cm in height. Once again, several rows of mud bricks were incorporated into the layered wall, reaching up to the base of the arch. The arch itself begins at a height of around 100 cm from the reference point and ultimately reaches a height of 260 cm. This adobe arch was constructed in a style known as Tizeh or horned arch (Three-pointed arch). The roof of the structure is flat and composed of several rows of mud bricks, joined together using mud mortar.

The eastern wall of the room, which also serves as the enclosing wall for the courtyard and obstructs access to the rooms, reaches a height of approximately

Fig. 7. Turkabad Crypt in 2002



Map 4. Plan of Turkabad Crypt, about 30 Rooms Are Built Around the Outer Wall

200 cm. Evidence indicates that this wall was constructed up to a height of around 60 cm from the yard floor during the initial building phase of the rooms. With each burial layer added, the height of the wall blocking the rooms was increased.

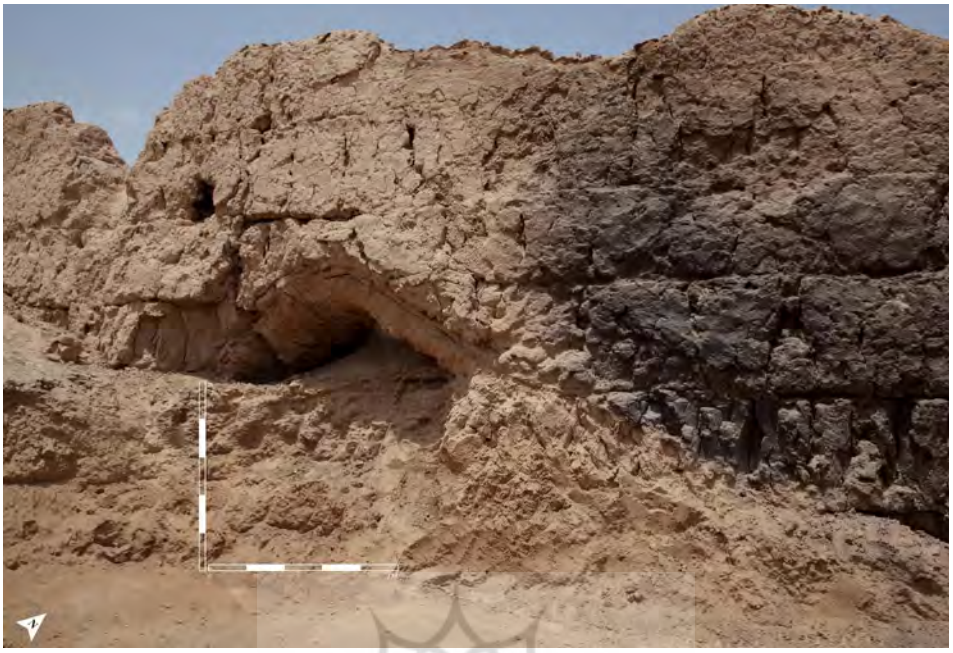


Fig. 8. The Farmers had Piled the Soil Collected from the Fields behind the Wall

Fig. 9. Room No. 1

The lack of connection between the front wall of the room and the side walls further supports this hypothesis. The discovery of scattered bone remains in soft soil across different layers revealed that our initial assumption about the Turk-

Fig. 10. The Internal Circular Wall of the Crypt Blocking the front of the Room

Fig. 11. Room No. 1 Remains of Scattered Bones Buried in Soft Soil

abad Dakhma, envisioning it as a tomb or primary burial site, was incorrect. Instead, we encountered with a series of rooms that were likely used as studios. It is worth noting that rooms of this size and dimensions have not been previously documented. Simultaneously, it is the first instance of observing secondary burials within the soil. Many researchers consider the practice of placing even bone remains in the soil to be contrary to Zoroastrian religious beliefs, as it is viewed as polluting the ground. A notable challenge was that while the location

Fig. 12. Scattered Bones Buried in Room 2

Fig. 13. Room No. 1. after Excavation

Fig. 14. Scattered Bones

of secondary burials or master burials was identified, the primary site where the bodies were decomposed remained unknown within this tomb. The presence of several skulls on the roof or walls, positioned near the roofline, strengthens

Fig. 15. Scattered Bones

Fig. 16. Sherds of Pottery with Incised Decoration

the hypothesis that the bodies may have been placed on the roof as an offering to scavengers. However, the discovery of a sloping surface in the center of the courtyard, constructed with flat stones and plaster, both in front of the gate and in the northern part of the Dakhma, specifically in front of Rooms 7 and 8, suggests that the bodies were likely placed on this floor for scavenger consumption. Nevertheless, a conclusive opinion cannot be formed until the yard is thoroughly ex-

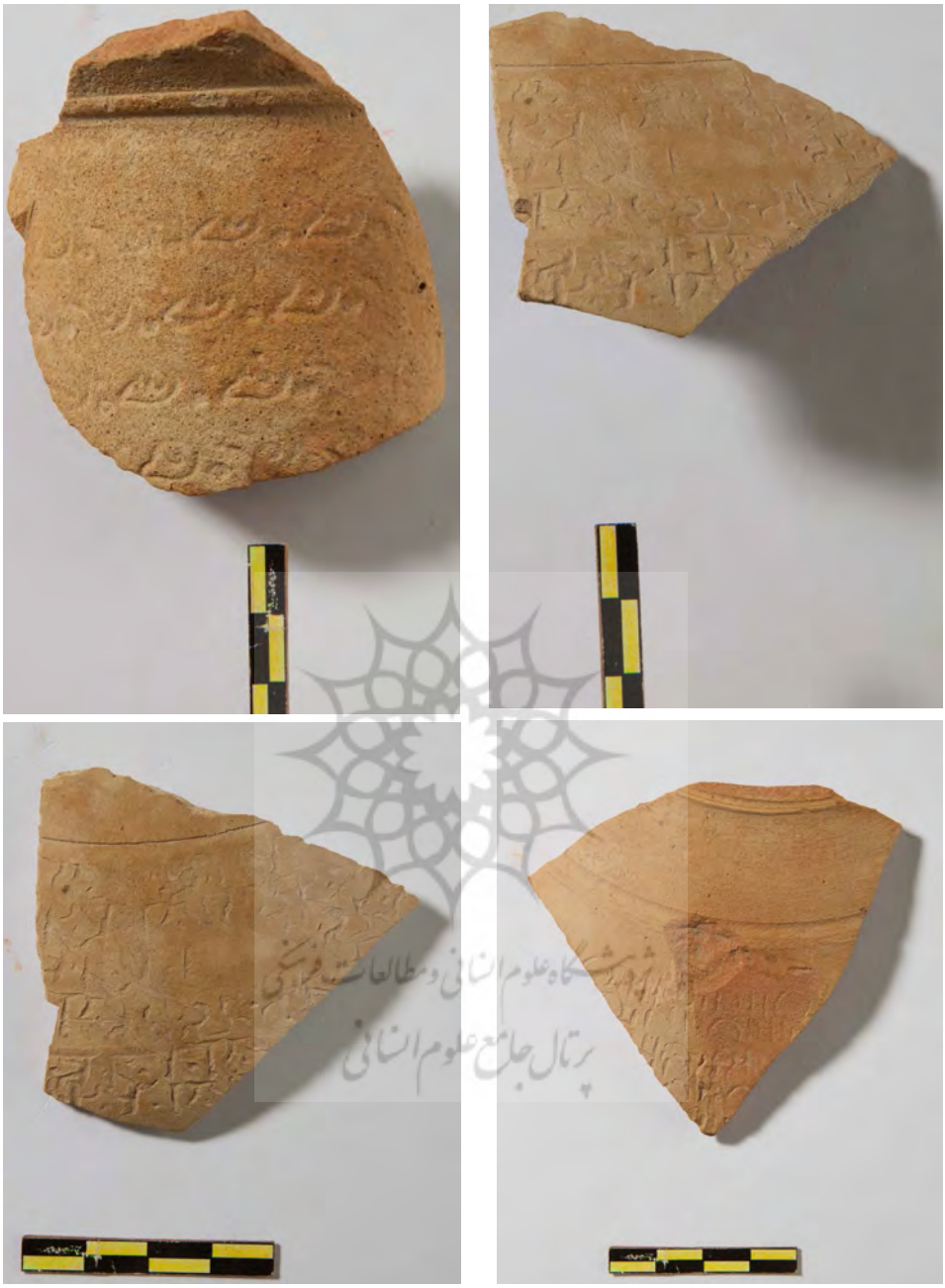


Fig. 17. Sherds of Pottery with Incised Decoration

plored. Furthermore, it is highly probable that the presence of skulls on the roof was the result of carnivorous birds and animals.

During the continued excavation of Rooms 2, 3, 4, 6, 7, and 30, as well as the entrance door of the Dakhma, it was observed that all these rooms or studios

Fig. 18. Small Bronze Ring with a Turquoise Gem

share similarities in terms of materials, form, and function. The only minor variation among them is their sizes, with variations of a few centimeters.

All of these rooms consist of multiple layers of secondary burials in soft soil. Within each layer, along with the skeletal remains, there are fragments of the shroud, sedimentary rocks, and the lower halves of clay jars. In the earlier layers, a higher number of buried bones were found, indicating the presence of a sizable population in Turkabad at that particular time.

In Room 2, in addition to bone remains and a shroud, a piece of leather was also discovered (Figs. 19, 22, 23). In room number three, a total of 23 skeletons were uncovered, with most of them belonging to children. Interestingly, in some instances, bones of unborn children were also found. From this room, a fragment of a pottery vessel with decorative lines on its body was retrieved (Figs. 16, 17). Furthermore, a small bronze ring with a turquoise gem, which belonged to a child, was found at a height of 75 cm from the reference point (Fig. 18).

The dimensions of Room 4 are 165×229×500 cm. From the roof of this room, the skull of a child was discovered,

Fig. 19. Along with the Buried Bones, there were Pieces of Shroud and a Piece of Stone

likely brought there by animals. In the second layer of this room, the body and shoulder of a clay vessel were unearthed, featuring four lines of decorative patterns (Fig. 17).

Among the discoveries in this room, alongside the bones, fragments of the shroud and the lower section of a jar were found.

In the various layers of Room 6, the remains of 100 skeletons were uncovered, with approximately one-third of them belonging to children. Notably, there were a few pieces of sedimentary rock and a collection of braided hair. Moving to Room 7, situated in the northern part of the Dakhma, a skull was found on the right wall of the room at a height of 215 cm. In the uppermost layer, which is about 130 cm from the reference point, a mixture of various bones from different parts of the human body could be observed, along with fragments of a shroud, a piece of sedimentary rock, and the lower portion of a clay jar. Additionally, some braided hairs were discovered in conjunction with the bone remains (Figs. 20, 21). The majority of the burials within this Dakhma are attributed to room or ossuary number seven.

The excavation of ossuary number 30 was initiated to remove the accumulated soil from the central part of the Dakhma. However, after removing several layers, the work had to be halted due to the height difference between the courtyard

Fig. 20. Braided wig Discovered from Rooms 6 and 7

and this section. Transferring the soil became impractical, risking damage to the site. Therefore, the accumulated soil had to be transported outside using a crane. Furthermore, in addition to the bone remains, pieces of the shroud were also obtained from this location (Figs. 19, 22, 23).

By excavating the outer part of the Dakhma, specifically in the southeast, covered by a clay arch, the entrance door

Fig. 21. Braided wig Discovered from Rooms 6 and 7

was revealed. However, it was obstructed by a clay wall. At the lowest level of the gate, a layered wall measuring approximately 60 cm in height was observed.

It appears that this particular layer was constructed simultaneously with the outer wall of the tomb. Clay was used on this layered wall, reaching a height near

Fig. 22. Shroud Fragments Discovered along with Bones

the top of the arch (Figs. 24. 25). Upon further excavation inside the gate, it was discovered that secondary burials were conducted in this area (Fig. 26). Alongside bone remains, a shroud, and fragments of pottery were also uncovered. The finding of a half of a glazed clay goblet suggests a timeframe between the Ilkhanid and Timurid periods (Fig. 27). The presence of secondary burials within the gate indicates a possible connection to the final years of Zoroastrians' residence in Turkabad. Additionally, a bronze object, resembling a pendant for a necklace, was found at the gate (Fig. 28).

Function of Torkabad's Dakhma

Through the excavation of the Dakhma

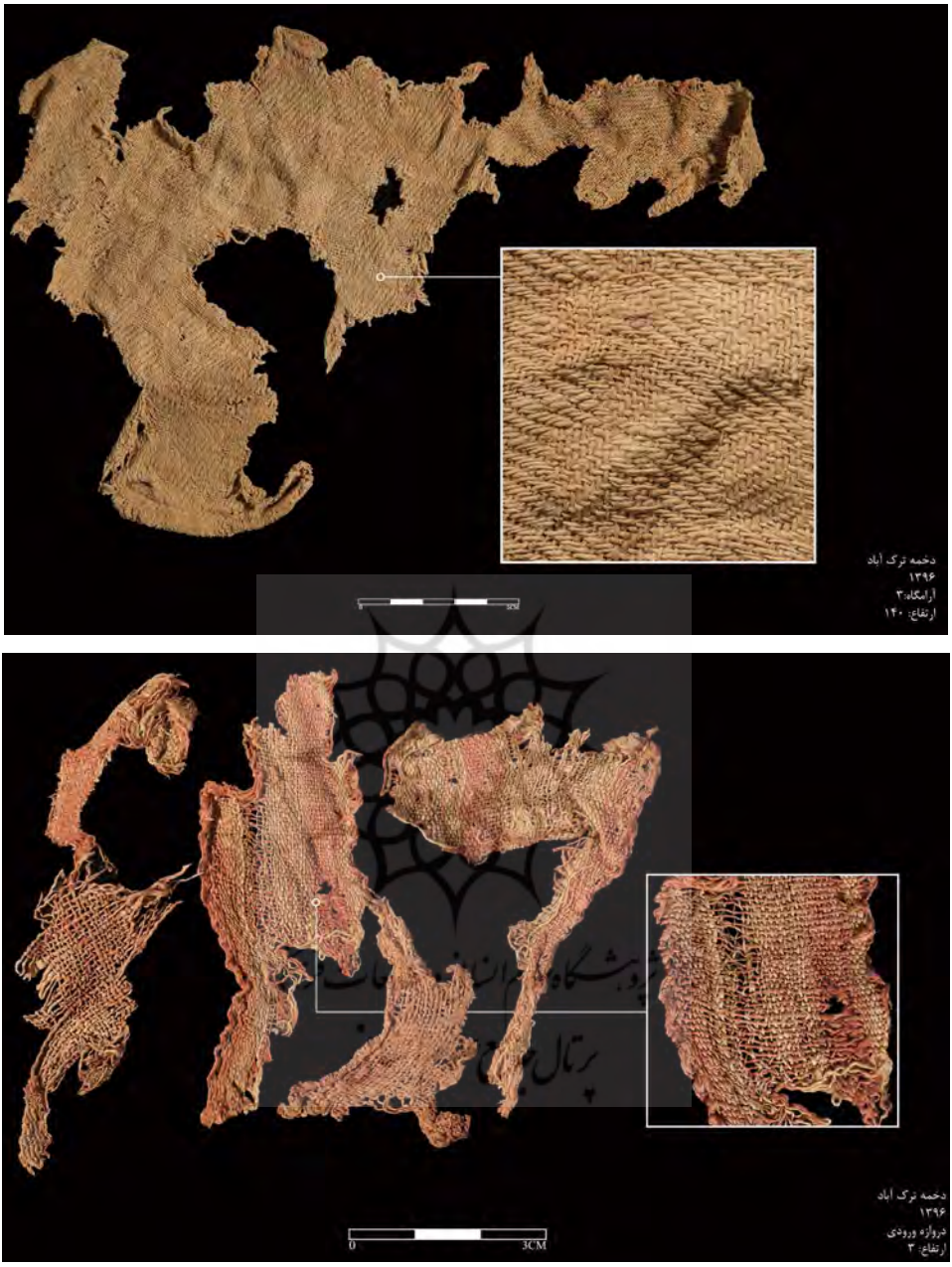


Fig. 23. Shroud Fragments Discovered along with Bones

at Torkabad, it became evident that the numerous rooms constructed around the circular wall, contrary to our initial hypothesis, served as study halls rather than burial sites. This revelation presents a novel phenomenon, as the concept of such student-like figures was previously unknown. Until now, the term ossuary

Fig. 24. Burial Layers in Room number 7

Fig. 25. A View of the Crypt Entrance Gate in the Southeast

referred to a relatively small container or pot used to keep fleshless bones of corpses in the soil. Now with the acknowledgement of the existence of different types of students, the question arises as to how and where the corpses in Torkabad's Da-

Fig. 26. Bones were also Buried inside the Gate

Fig. 27. Bones were also Buried inside the Gate

khma were separated from their flesh.

During the excavation, we observed several skulls and bone fragments on ceilings and walls, leading us to speculate

Fig. 28. A Bronze Pendant was Discovered from the Floor of the Gate

that the bodies may have been exposed to animals on the Dakhma's roof. However, in the final days of excavation in the central area near the entrance gate, we came across a pavement made of sedimentary stones, coated with plaster (Figs. 29, 30). A similar structure was also discovered in front of Rooms 7 and 8 in the northern part of the Dakhma. These cobblestones exhibited a steep slope from the edges towards the center.

According to Zoroastrian beliefs, pollution of water, soil, and fire is considered a major sin. Among the sources of pollution, the human body is regarded as the most impure object. To prevent soil contamination, Zoroastrians, from the Achaemenid period to the present day, have employed various methods for burying the deceased. These include pavements, stone coffins, chambers carved in rock or clay, as well as coffins and pots made of conglomerate stones. In cases where coffins and containers were not feasible, plaster was utilized to isolate the soil, serving as a burial medium. An example of this practice can be observed in the Sassanian Tower of Silence in Bandian Darghz (Rahbar, 2008).

The presence of the plain stone surface with a plaster coating leads us to believe that the central courtyard of the Torkabad's Dakhma was the primary location for placing the bodies. While definitive conclusions can only be drawn after the completion of the tomb's exca-

Fig. 29. In the Central Space, in front of the Gate and in front of Rooms 6 and 7, a part of the Pavement Covered with Plaster was Discovered.

Fig. 30. In the Central Space, in front of the Gate and in front of Rooms 6 and 7, a Part of the Pavement Covered with Plaster was Discovered.

vation, the open nature of the Turkabad tomb's courtyard convinces us to accept that it served a similar function as tombs of Taft, Yazd, and Sharifabad. In other

words, the courtyard of the Turkabad Dakhma was also a place where corpses were offered to scavengers. Therefore, our previous hypothesis regarding the placement of bodies on the Dakhma's roof was incorrect. The absence of plaster coating or paved surfaces on the roof suggests that the bones and skulls found there were not originally placed there, rather transported by animals.

With this understanding, the Torkabad's Dakhma should be regarded as the oldest and possibly the first Dakhma of its kind, where corpses were offered to scavengers. It is worth noting that, thus far, no tombs employing this offering method have been reported from the Achaemenid to Sasanian periods, or even the early Ilkhanid period. Offering corpses in this manner was not a practice within the Zoroastrian religion. As Herodotus points out, the Persians buried their dead, while the Mughals placed bodies in front of scavengers. All tombs, graves, stone and clay coffins from the Achaemenid period to the 8 AH were never exposed rather buried. Consequently, the offering of corpses did not exist until that time, suggesting that the sudden emergence of this practice has reasons that should be considered in the erroneous perception of Zoroastrianism by Parsis. They mistakenly associated Magi customs with the Zoroastrian religion.

Conclusion

Other than shrouds, no items have been reported in these burial type tombs. It is likely that the same principle was followed in the Torkabad's Dakhma. However, one way to approximate the historical context of an ancient site is by consulting texts. Unfortunately, there are few and scattered written sources on this matter. In Rab'-e Rashidi's Deed of Endowment (Hamadani, 1976: 60), a reference is made to a tomb of Magus, which is the Torkabad's Dakhma. Boyce mentions a significant gathering of Zoroastrians in Turkabad during the 8th century. She states that Zoroastrians migrated from different parts of Iran, particularly Isfahan and Fars, to Yazd due to pressure from Muslims. Many of them settled in Sharifabad and Turkabad, bringing their two sacred fires from Fars (Boyce, 1988: 244 and Ramadan Khani 2008: 396).

Information regarding Torkabad's Dakhma can be gleaned from the excavations, such as the discovery of various shroud fragments with different textures and colors. Additionally, the architectural style of this Dakhma, particularly numerous rooms made of mud bricks measuring 6×25×25 cm in a Tizeh or horned arch (pointed arch), offers clues for dating this burial structure to the middle Islamic centuries, based on the size of mud bricks. Furthermore, within each layer of secondary burial in the ossuary, we found pottery jars, only their lower portions, and these were placed alongside skeletal.

Upon entering the Dakhma through its entrance, alongside the interred bones, several artifacts were found. These included the lower portion of a clay jar and two halves of turquoise-glazed clay cups that can be dated back to the 8th and 9th centuries AH. Additionally, fragments of a clay vessel were recovered, displaying decorative motifs resembling writing on its body.

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