

THE GABRI MOD SITE (MOD B), THE CONNECTING RING BETWEEN KHORASAN AND SISTAN REGIONS IN THE HISTORICAL ERA

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Abstract: The Gabri Mod site is located in South Khorasan province, 30 km southeast of Birjand and 3.5 km northwest of Mod in a vast plain called Nokhodi. This site includes two mounds in the northwest and the southeast adjacent to each other. The larger mound is named Mod A and the smaller mound is named Mode B. Their area is over 14 ha. Based on the cultural materials obtained from the excavations, the site of Gabri Mod belongs to the historical era, especially the Parthian period. Since 2018, the Gabri Mod site (southern mound/Tepe Mod B) has been excavated during three seasons as an internship excavation site for archaeology students of Birjand University. The weakness of environmental patterns and climatic limitations in eastern Iran, especially the lack of water resources and suitable soil for agriculture, have caused the absence of large and densely populated settlements in this region. Therefore, Tepe Mod B is of great importance in the archaeological studies of East Iran and its connection between the northern (Khorasan) and southern (Sistan) regions. Based on excavations, architectural evidence, and aerial images of Tepe Mod B, a circular structure was found inside an oval enclosure surrounded by a moat. This research aims to introduce the architectural remains and cultural data found from three seasons of archaeological excavations at Tepe Mod B. This research is descriptive and analytical and data collection is based on documentary studies and archaeological surveys and excavations.

Keywords: South Khorasan, archaeological excavation, Gabri Mod site, Mod B, architecture, pottery, historical era.

چکیده: محوطه گبری مود در استان خراسان جنوبی، ۳۰ کیلومتری جنوب شرقی بیرجند و در ۳/۵ کیلومتری شمال غربی مود در یک دشت وسیع به نام نخودی واقع شده است. این محوطه شامل دو تپه شمال غربی-جنوب شرقی در مجاورت هم می‌شود. تپه بزرگ‌تر به نام مود A و تپه کوچک‌تر به نام مود B نام‌گذاری شده و مساحت آنها بالغ بر ۱۴ هکتار می‌باشد. براساس مواد فرهنگی و کاوش‌های صورت گرفته، قدمت محوطه گبری مود به دوران تاریخی خصوصاً دوره اشکانی مربوط است. از سال ۱۳۹۷ محوطه گبری مود (محوطه جنوبی/مود B) به‌عنوان محوطه کاوش کارآموزی دانشجویان باستان‌شناسی دانشگاه بیرجند (دانشکده هنر)، طی سه فصل کاوش صورت گرفته است. ضعف الگوهای زیست‌محیطی و محدودیت‌های اقلیمی در شرق ایران، خصوصاً کمبود منابع آبی و همچنین خاک مناسب که دو شاخصه مهم کشاورزی می‌باشد که باعث عدم وجود سایت‌ها و سکونت‌گاه‌های پرجمعیت و وسیع در این منطقه شده، به همین دلیل محوطه گبری مود (مود B) در مطالعات باستان‌شناسی شرق کشور و ارتباط آن بین مناطق شمالی (خراسان) و جنوبی (سیستان) از اهمیت زیادی برخوردار می‌باشد. آنچه که بر اساس کاوش‌های انجام گرفته، شواهد معماری و عکس‌های هوایی در سطح تپه جنوبی محوطه گبری/مود B مشخص است، نشان از یک سازه دایره‌ای شکل داخل یک محیط بیضی شکل است که اطراف آن خندقی ایجاد شده است. هدف از این تحقیق، معرفی معماری و داده‌های فرهنگی، در جریان سه فصل کاوش‌های باستان‌شناسی محوطه گبری مود/مود B است. روش تحقیق در این پژوهش، از طریق توصیفی - تحلیلی و گردآوری داده‌ها براساس مطالعات کتابخانه‌ای، بررسی‌های میدانی و تجزیه و تحلیل داده‌های حاصل از کاوش باستان‌شناسی است.

کلیدواژه: خراسان جنوبی، کاوش باستان‌شناسی، محوطه گبری مود/مود B، معماری، سفال، دوران تاریخی.

I. Introduction

Although Sarbisheh County is located between the two cultural domains of Sistan and Khorasan, like Nehbandan, it has received less attention from cultural heritage researchers. Due to its suitable climate and rich pastures, this region has been a suitable place for livestock breeding for a long time. Archaeological research in Sarbisheh County, as a connecting ring between this region and Sistan, Greater Khorasan, as well as Afghanistan, can lead to the discovery of evidence indicating cultural links between these regions (Farjami, 2016). Due to its geological structure, this county is a major center for mineral extraction in East Iran. Mineral veins were exploited in this region in the past as well (Zarei et al, 2022: 32). For many years, the archeology department of Birjand University has carried out excavations in the sites of this county, such as the

mound of Qale Kohneh Mod (2007 to 2010), the Kohnak site (2013 to 2018), and the Gabri Mod site (Mod B).

The Gabri Mod site is located 3.5 km northwest of Mod City and 29 km southeast of Birjand in South Khorasan. This site consists of two mounds in the northwest to southeast direction. Archaeological excavations have been carried out in the southeastern part of the site. The results of these excavations show a circular structure with a moat around it. This circular structure has a base diameter of 40 m and a height of about 1.5 m. The results of the surface survey and site excavations show two settlement stages. The earliest stage is related to the post-Achaemenid period until the beginning of the Sassanid period. At this stage, cultural data, including pottery, indicate the importance of the Parthian period. The second settlement stage is related

to the middle Islamic era. There is a stone structure related to nomads in the eastern part of the circular structure. The use of this structure covers a relatively short period. The surface pottery in the eastern part of the site belongs to the middle Islamic era (7th and 8th centuries AH). The excavations at the Gabri Mod site (Mod B) had an educational aspect and were done in order to familiarize archaeology students with stratigraphy, cultural materials, and archaeological periods. The excavations aimed to know the architectural spaces and the way of settlement, to study the process of technological and economic changes, the interactions of the residents with the neighboring areas, to collect information to complete the chronological table of the region, and to enrich the data of the historical era of South Khorasan.

The main questions and hypotheses of this research are: (1) To what era do the Gabri Mod site (Mod B) and its architectural structures belong? The Gabri Mod site is related to the historical era and has had a relatively long settlement continuity. This site has been an important settlement from the Achaemenid period to the Sassanid period. The surrounding materials are used in the architecture of this historical settlement, according to the climate and environment of the region. Especially, andesite stones have been used in the foundation and sometimes in the walls. (2) What is the main nature of the circular structure that was discovered in the first, second, and third seasons of excavations? It seems that this is a defensive structure with a moat around it, and a wall on the edge of the moat surrounds these parts. Inside, there are residential spaces and production workshops. (3) According to the three seasons of excavations at Tepe Mod B, what application can be considered for the circular structure? The excavations of the past seasons have given rise to the

hypothesis that Tepe Mod B, in addition to being a historical defense structure, can also be a production workshop. Furthermore, cultural materials (pottery) and data related to the subsistence system of the site's residents have been identified.

II. Research background

Among the earliest studies and publications of this site are the determination of the buffer zone of the site in 1999 (Labaf Khaniki, 1999), the registration report of the site (Nasrabadi, 2002), a thesis entitled Systematic Survey of Mod A Mound, Sarbisheh (Behdad, 2012) and the article derived from it (Behdad et al., 2013). This site was re-examined in the archaeological survey of Sarbisheh County and articles were published about the study of its pottery (Farjami, 2013a, Farjami, 2013b and Farjami, 2017). Besides, from the recent important studies, it is possible to point out the following cases; An article entitled Classification and Typological Analysis of the Pottery of Tepe Mod B in Sarbisheh County, South Khorasan (Moradzadeh et al., 2020) and a thesis entitled Analytical Archaeology of the Pottery of Gabri Mod Historical Site (Mod B) in Sarbisheh County with an approach to Mineralogy (Moradzadeh, 2022).

III. Excavations at Gabri Mod site (Mod B)

The Gabri Mod site is located in South Khorasan province, Sarbisheh County, 3.5 km northwest of Mod City (Fig. 1). In the middle of the Mod plain, two mounds are located next to each other, in the northwest-southeast direction and next to the asphalt road of Haji-Abad village. The northwest mound has a higher height than the southeast mound (Behdad, 2013) (Fig. 2).

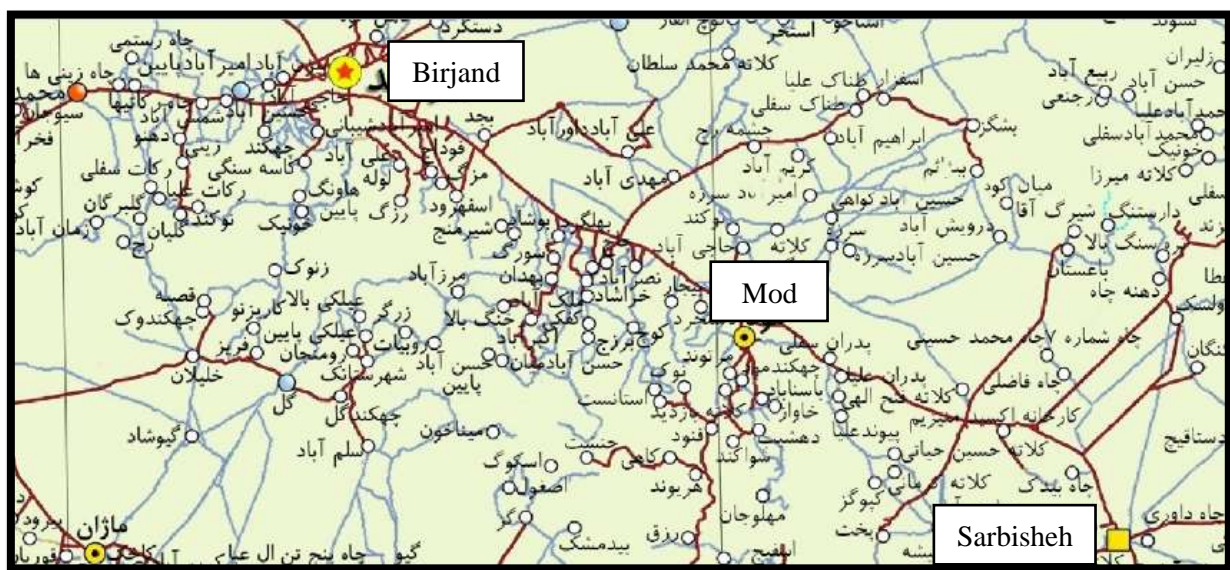


Figure 1. The location of the Gabri Mod site is marked with a star on the map relative to Birjand City (the center of South Khorasan province) and the center of Sarbisheh County (archives of the General Directorate of Cultural Heritage of South Khorasan).

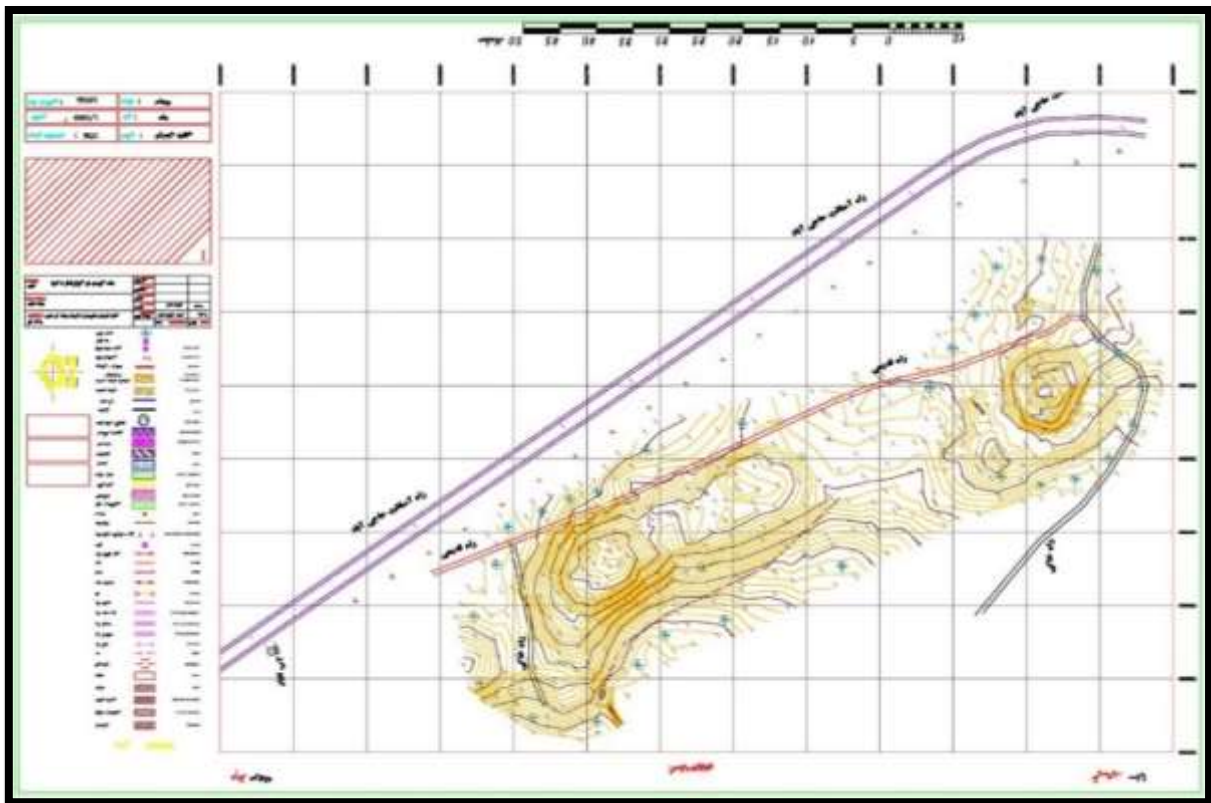


Figure 2. Topography of the Gabri Mod site (north and south mounds) (Behdad, 2012).

The Gabri Mod site is located at the geographical coordinates of $32^{\circ}44'29.37''\text{N}$, $59^{\circ}31'7.47''\text{E}$, and 1799 meters above sea level. All around the site, especially in the south, it can be seen agricultural fields that have encroached on the buffer zone of the site. The Gabri Mod site is located in the middle of a plain known as Nokhodi, between two mountain ranges of Bagharan in the south and Momen-Abad in the north. In the southern view of this site and along the Bagharan mountain range, there are settlements including Mod, Dastjerd, Bijar, Nofirst, etc. The area of this site is about $145,000 \text{ m}^2$ and its height is 10 m. Apart from unauthorized excavations, road construction operations and road crossing from the eastern edge of the site, as well as drainage and water pipe and gas pipe crossing inside the site, are the main reasons for the human destruction of the site. The Gabri Mod site was excavated and determined its buffer zone in 1997, and in March 1998, the first season of excavations and in October 2021, the third season was carried out by the Department of Archaeology of Birjand University.

In the first season of excavations, a trench measuring $3 \times 3 \text{ m}$ was excavated in the southern

mound/Tepe Mod B. Another trench named IA was excavated on the western side of the mound with the dimensions of $2 \times 12 \text{ m}$ in the form of steps (the dimensions of the steps are $2 \times 3 \text{ m}$). Then, on the eastern side of the stepped trench, trench IB with the same dimensions was excavated and continued to the lowest depth of the stepped trench. In the second season of excavations, in the northern part of the site, the TC trench with dimensions of $5 \times 8 \text{ m}$ was excavated and continued to the virgin soil. In the third season of excavations, trench TD with dimensions of $5 \times 10 \text{ m}$ was excavated in the northern part of trench TC (Fig. 3). The site surface was divided into 100×100 -meter squares based on a map with a scale of 1/1000. Each of these grids has ten squares of $10 \times 10 \text{ m}$, which are named in the north-south direction with numbers and in the east-west direction with Latin letters. The stepped trench is located in the 40V and 40W squares, and the eastern trench is in the 40Y square. Excavations in the Gabri Mod site (Mod B) have been done using the Context method.

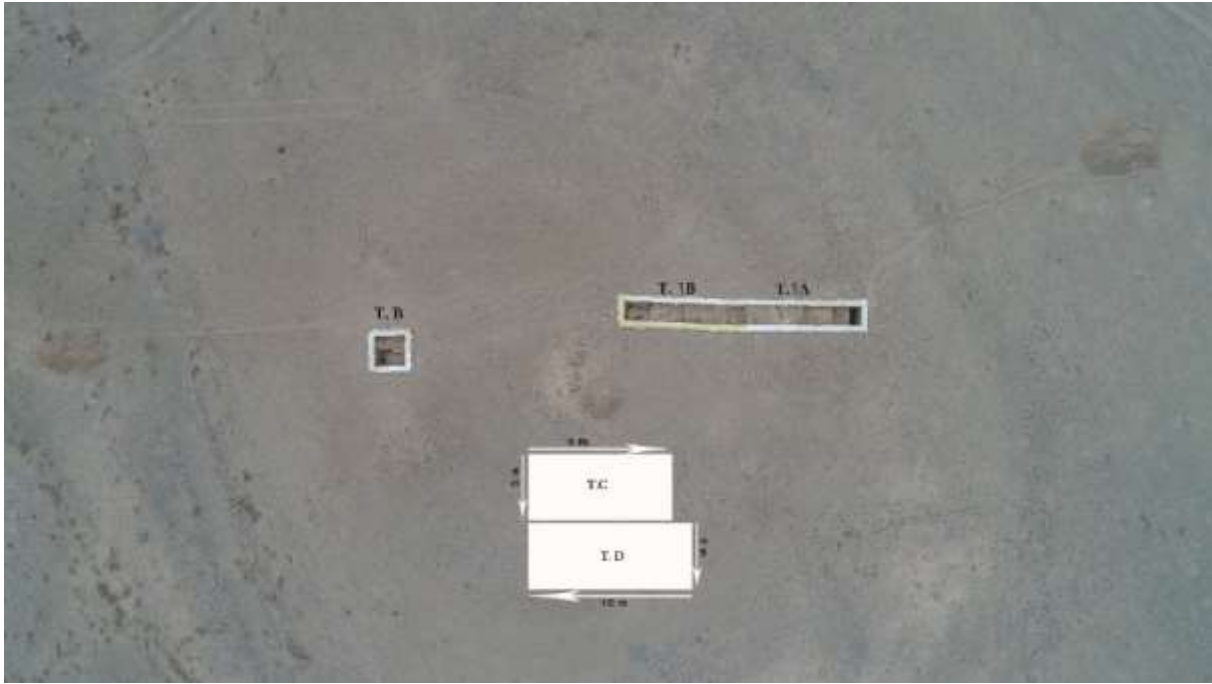


Figure 3. Excavated trenches in the Gabri Mod site (Mod B).

IV. Architectural findings

1. The first season of excavations

Excavations in the southern mound of the Gabri Mod site (Mod B) were started in March and April 2019 to reveal ancient layers and determine the chronology of the settlement. Two trenches were excavated at the highest level of the southern mound. The first trench named IA was dug in the western part of the mound with dimensions of 2×12 m in the form of steps (the dimensions of the steps are 2×3 m) and in the southeast-northwest direction. After the completion of the excavation in this trench, in its eastern part, inside the architectural space of Tepe Mod B, trench 1B with dimensions of 2×12 m was excavated as a replica and continued until the virgin soil. In the eastern part of Mod B, the second trench with dimensions of 3×3 m was excavated until reaching virgin soil (Figs. 2 and 3).

The architectural evidence obtained and the aerial images in Tepe Mod B show a circular structure inside an oval environment around which a moat was created. The evidence of this moat can be seen in trench (1A-P4) (Figs. 4 and 5). In terms of the overall form, this architectural structure is comparable to the architectural structure in Takhcherabad mound, 20 km northeast of

Birjand and 30 km northwest of the Gabri Mod site, which includes a circular mud brick structure and a moat around it (Dana, 2016). Architectural remains were found in this season of excavations. One of the features of this structure was the use of stone supports (1A and 1B) to strengthen the main mud brick wall. Pieces of plaster and lime related to architectural spaces were also found among the debris. The thickness of the mud brick walls with three rows of mud brick with dimensions of $7 \times 40 \times 40$ cm with mud mortar was about 120 cm. In some spaces, in addition to stone walls, stone debris with regular arrangement has also been identified. Excavation in trench B shows two stages of settlement. In the first stage, the architectural spaces are in the form of stones and without clear arrangement, which probably indicates a temporary settlement. In the second (upper) stage, the architectural spaces have a regular arrangement, and in the construction of the architectural spaces, mud bricks with dimensions of $40 \times 7 \times 40$ cm have been used. These mud bricks have a strong texture with a mixture of pebbles and are light brown in color with mud mortar. In addition, in this space, a light brown beaten floor related to a residential space was discovered.

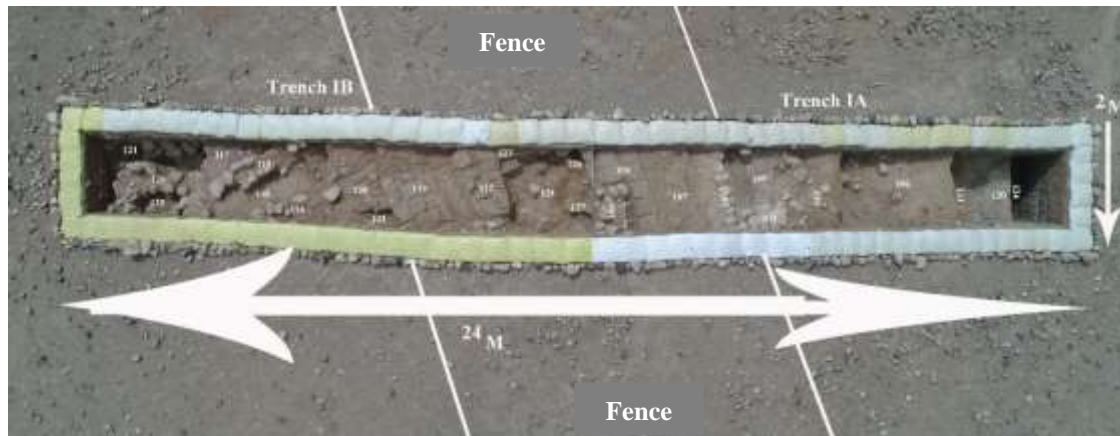


Figure 2. Trench 1A and 1B.

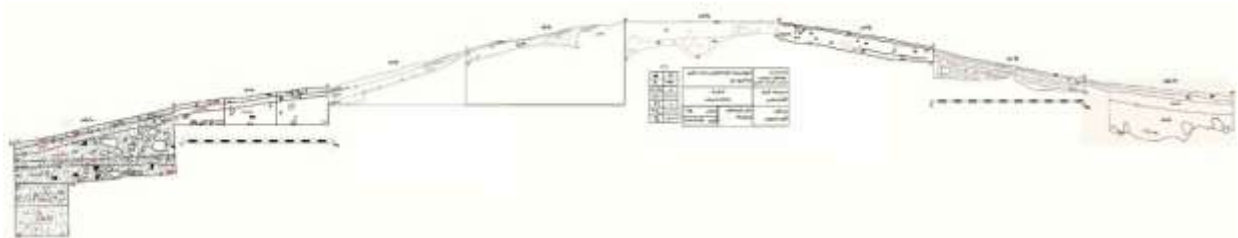


Figure 3. Location of contexts in Trench B.

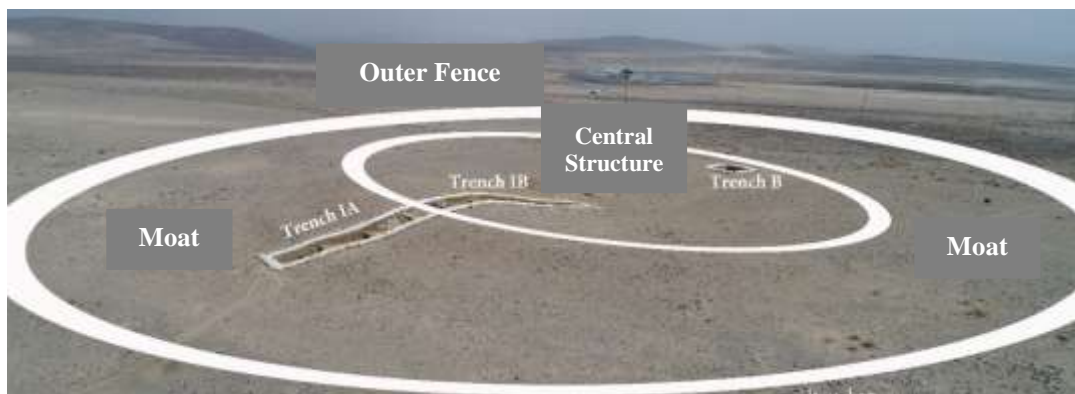


Figure 4. Trench 1A and 1B and Trench B.

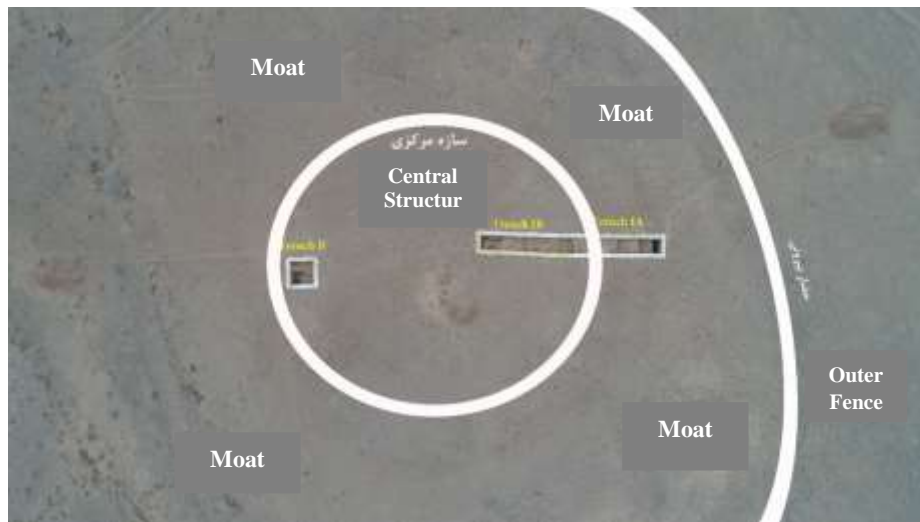


Figure 5. Location of contexts in Trench B.

2. The second season of excavations

Trench C was excavated in the north of the southern mound with dimensions of 5 × 8 m, and the remains of two architectural phases were uncovered. In the old phase, evidence of stone architecture was discovered, in which, in addition to mud mortar, pieces of plaster mortar were also used. In the second or newer phase, the architectural spaces were revealed, which were built with mud brick walls with dimensions of 10 × 40 × 40 and 8 × 38 × 38 cm (Fig. 6). These mud bricks have a

strong texture with a mixture of pebbles and are light brown in color with mud mortar. Large stone slabs among the debris and architectural spaces indicate that some architectural spaces were covered in the form of flat covering. One of the interesting points among the architectural spaces is the large amount of stone rubble piled up and had no regular arrangement. Since in this season of excavations, many grindstones and stone mortar handles were obtained from this trench, there is a possibility that this space was used as a workshop for making these handicrafts.

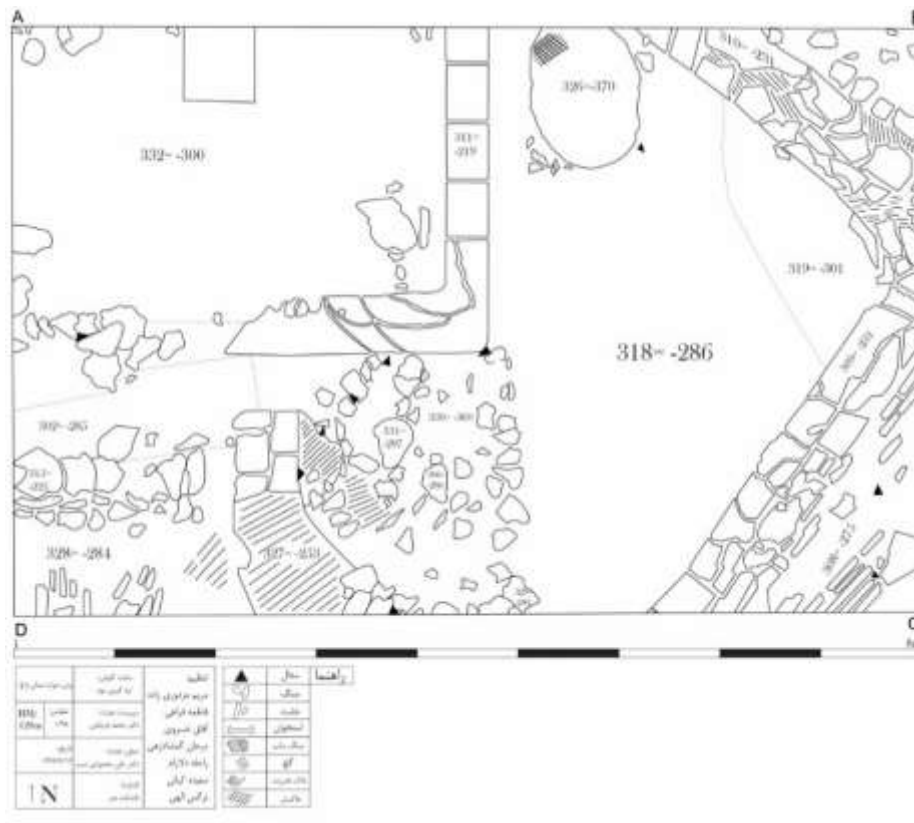


Figure 6. The final plan of Trench C.

3. The third season of excavations

Trench D was excavated on the southern mound, in the north of Trench C with dimensions of 5 × 10 m. Two architectural phases were identified in this trench. The upper phase, which includes mud brick and stone debris, indicates the occurrence of a possibly natural event such as an earthquake. The arrangement of stone and mud brick was regular. Mud brick debris was detected horizontally on the surface of the trench, which indicated that the roof of this architectural structure collapsed simultaneously and suddenly. Besides, this state of rubble shows that the roof was dome-shaped. The mud bricks obtained from the trench have dimensions of 10 × 40 × 40 cm and 8 × 38 × 38 cm and have a firm texture with a mixture of pebbles and pale brown in color (Fig. 7). In this phase, in the northern part of the trench, there is a thick mud wall with a length of 10 m, which corresponds to the outer wall of the site's circular structure. This wall has a

strong texture with a mixture of pebbles, the mud of which is well mixed and a part of it is visible in a circular shape on the surface of the trench. In the foundation of this wall, which was found on the surface of the earth and virgin (sedimentary) soil, rubble was also used in the layers, and due to its large diameter, it was less damaged. The second (lower) phase of architecture in Trench D is related to two residential floors. In this part, only the floor of the residential space along with some ovens (heaters) have been obtained. Among the interesting points of interest in this phase is the presence of characteristic pottery pieces with patterns and pipes, as well as many pieces of animal bones related to the Parthian period. Stone is also used in the construction of architectural spaces. In addition to mud mortar, pieces of plaster were also found among the debris. The presence of large stone slabs among the debris and architectural spaces indicates that some of the arches of the structures were covered with flat covering.

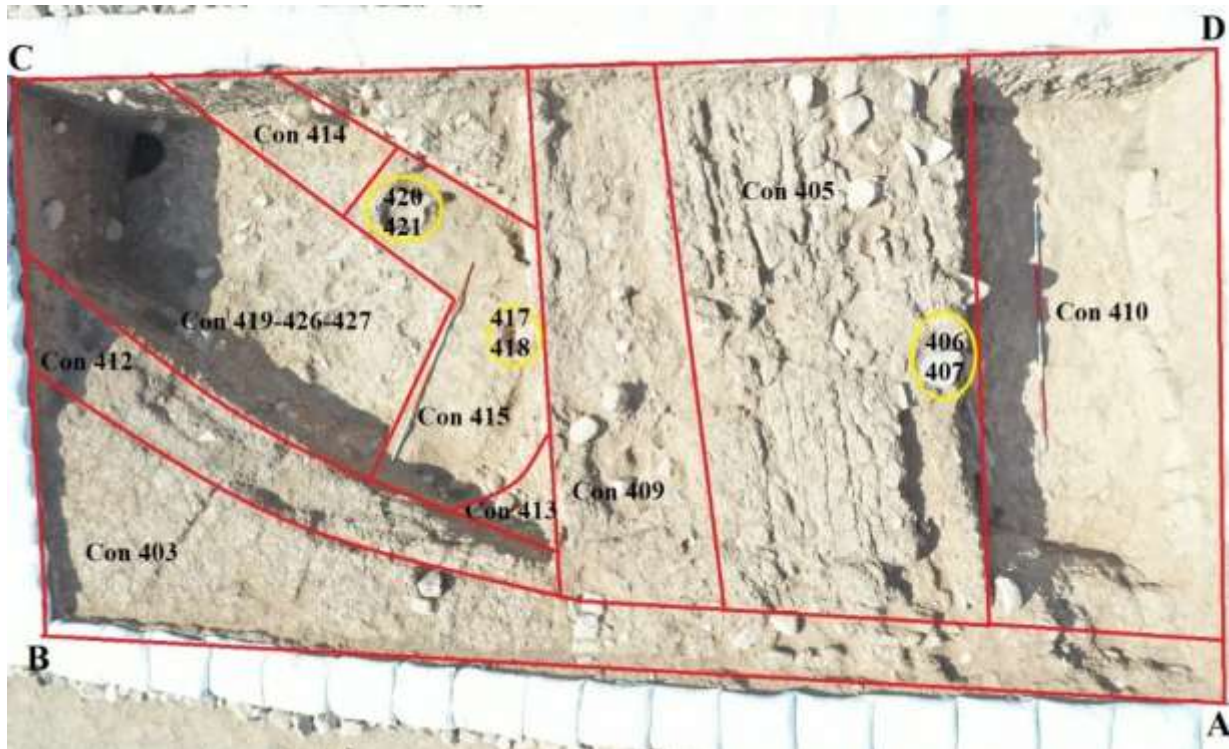


Figure 7. Aerial image of Trench D

Portable findings: The most cultural findings obtained from the site are pottery. In total, 3707 pottery pieces were numbered in three excavation seasons; Four caps, 538 rims, 2792 bodies, eight handles, three pipes, 361 bases, and one unknown piece (Fig. 8). The pottery

was both simple and decorated. The patterned pottery is decorated with the techniques of carving, grooving, adding motifs, and painting with geometric and sometimes animal motifs.

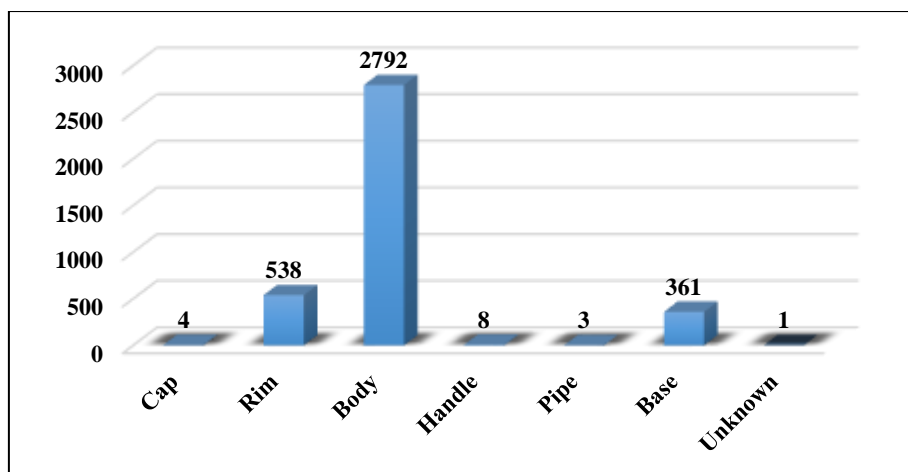


Figure 8. Types of pottery found from the three seasons of excavations at Tepe Mod B.

In terms of manufacturing technique, potteries are divided into two general categories. The first category includes handmade pottery, with insufficient baking and gray, black, and sometimes brown paste. These pottery are very rough and have a mixture of coarse sand. The outer and inner surfaces of most of them are smoky and their slip is mud in a range from black-gray to brown. In general, these potteries are often handmade and are not of high quality.

The second category includes wheel-made pottery, with enough baking and pale brown, gray, red, and brown paste. Their quality is relatively high. The chamotte of potteries is mineral (sand). Many potsherds are related to food storage containers, especially pots, which in some cases are very rough due to the chamotte of coarse sand. The outer and inner surfaces of the pottery are covered with mud slip in pale brown, brown,

red, orange, and gray colors. A small percentage of pottery is often carved with parallel-wave lines. Some pottery is decorated with ocher mud, which is called Londo pottery. The motifs of these pottery are mostly geometric. Most of the pottery belongs to this category.

V. Pottery typology

Introducing pottery types is a basic measure to better understand the settlements and a step towards the reconstruction of the economic, social, and cultural status of societies in cultural periods. From Tepe Mod, pottery belonging to the Achaemenid (Fig. 9 and Table 1), Parthian (Fig. 10 and Table 2), and Sasanian (Fig. 11 and Table 3) periods were identified. These potteries include normal, grooved, burnished, painted, carved, and boat types. Most of the pottery forms include pots, bowls, and small carafes.

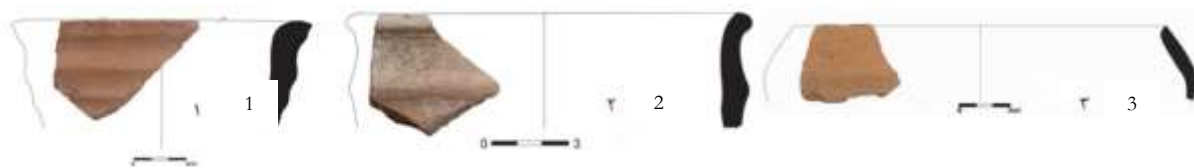


Figure 9. Pottery attributed to the Achaemenid period

Table 1: Samples of indicative pottery attributed to the Achaemenid period

No.	Description	Period	Sources
1	Normal texture, red paste, red clay coating, mineral chamotte, sufficient baking, wheel-made.	Achaemenid	Dales 1977: Pl. 21, no. 5.
2	Normal texture, red paste, pale brown clay coating, mineral chamotte, enough baking, wheel-made.	Achaemenid	Helms 1997: 332, fig. 121, no. 1566, Ricciardi 1980: 68, no. 4; Dales 1977: pl. 22, no. 7.
3	Normal texture, red paste, red clay coating, mineral chamotte, sufficient baking, handmade.	Achaemenid	Whitehouse 1978: fig. 6, no. 59 & 61, fig. 15, no. 255.



Figure 10. Pottery attributed to the Parthian period.

Table 2. Samples of indicative pottery attributed to the Parthian period.

No.	Description	Period	Sources
1	Fine texture, red paste, buff clay coating, mineral chamotte, sufficient baking, wheel-made, burnished.	Parthian	Roustaci, 2012: Fig. 183, Wheeler, 1962: Fig. 25
2	Normal texture, red paste, red clay coating, mineral chamotte, sufficient baking, wheel-made.	Parthian	Roustaci, 2012: Fig. 75
3	Normal texture, red paste, red clay coating, mineral chamotte, sufficient baking, wheel-made.	Parthian	Alizadeh, 2012: plan 48, Dales, 1977: Fig. 8:1



Figure 11. Pottery attributed to the Sassanid period.

Table 3. Samples of indicative pottery attributed to the Sassanid period.

No.	Description	Period	Sources
1	Fine texture, red paste, mineral chamotte, insufficient baking, wheel-made.	Sassanid	Priestman, 2009: 174, fig. 1. Pushnigg, 2006: 185, R175
2	Fine texture, red paste, red clay coating on the outside, mineral chamotte, enough baking, handmade.	Sassanid	Labaf Khaniki, 2009: 170, fig. 8, no. 1. Bagh Sheikhi et al., 2019: 99, fig. 15, no. 8.
3	Normal texture, red paste, red clay coating on the outside, mineral chamotte, sufficient baking, wheel-made, carved pattern on the outside.	Sassanid	Basafa, 2008: 201, pl. 19, no. 2

Examining the types of pottery in different areas in South Khorasan shows different characteristics. No glazed samples have been identified among the pottery from Tepe Mod. Most of the pottery on this site is wheel-made, in colors of pale brown, red, and orange, with medium and high fineness. Four types of pottery were identified in terms of decoration: simple unglazed pottery with carved motifs, pottery with ocher mud, and burnished and grooved pottery. Potteries are technically of high quality. The color of the paste of most pottery is red and orange. Although in terms of construction technique, decoration method, color, and typology, the pottery of this site has many similarities with the samples of exported pottery and the main workshops of the historical era, in qualitative comparison with the

main centers of pottery production of the historical era, the studied potteries were probably imitated in local workshops. Many comparable samples have been identified among the pottery, but only three samples from the neighboring sites of Gabri Mod are presented. In the following, we will introduce the decoration types of potties of the Gabri Mod site.

A) Simple and unglazed pottery with carved patterns: This type of decoration has been used since before Islam, and it includes most types of pottery. These ceramics have almost the same decorations in most sites, including geometric motifs (wavy, parallel, diagonal, checkered lines), and are in the form of bowls, carafes, jars, and pots (Fig. 12).



Figure 12. Simple and unglazed pottery with carved patterns.

Table 4. Info of simple and unglazed pottery with carved patterns.

No.	Description	Period	Sources
1	Medium texture, red paste, pale brown mud coating, mineral chamotte, sufficient baking, wheel-made, carved patterns.	Parthian	
2	Medium texture, red paste, orange mud coating, mineral chamotte, sufficient baking, wheel-made, carved patterns.	Parthian	
3	Medium texture, red paste, pale brown mud coating, mineral chamotte, sufficient baking, wheel-made, carved and pressed patterns.	Parthian	
4	Medium texture, red paste, pale brown mud coating, mineral chamotte, sufficient baking, wheel-made, carved patterns.	Parthian	

B) Patterned pottery: One of the types of pottery in South Khorasan is patterned pottery with crossed lines, and red and sometimes brown to black stripes, which have been identified in historical sites. In eastern Iran's studies, Haerinck refers to several samples of patterned pottery, some of which are similar to the patterns of patterned pottery in South Khorasan. Perhaps one of the most known types of pottery of the Parthian period in the southeastern region of Iran, Baluchistan of Iran and Pakistan, and the southern coasts of the Persian Gulf, is the carved pottery known as Londo and Namord (DeCardi, 1951; Seyed Sajjadi, 2013; Khosrowzadeh, 2018). Londo pottery is wheel-made and has high quality and a red homogeneous paste. The patterns of Londo pottery are dark brown on a pale brown coating (Haerinck, 1997). At first, De Cardi attributed this type of pottery to the late second millennium BC, but after revision, he suggested a date between the third and second centuries BC (Ibid: 244). Stronach considered this pottery culture to be closely related to the type of pottery with the triangular pattern of Ardabil. According to him, this type of pottery was popular from the second half of the first millennium BC until the Achaemenid period, and similar to it was

obtained from Jame Shuran, Mahidasht (Stronach, 1974: 242).

The carved pottery from South Khorasan is mostly attributed to the Iron Age III and the Achaemenid period (Dana, 2019). However, according to the evidence, they can also be dated to the Seleucid and Parthian periods. Samples of carved pottery from Dokuhe have also been identified, the most important of which has an image of a bird. This sample cannot be dated to the Achaemenid period, because it is on pottery with a double rim, which is an indicator of the late Parthian period, and from sites such as Yazdgerd Castle of Kermanshah (Keall & Keal, 1981), Tepe Mod A (Behdad, 2012), Dokuhe Khosf, and Qale Asrar. It is reported in the middle (Dana, 2019: 403). In addition, the carved pottery that was found on the floor of the architectural spaces (Fig. 13 and Table 5) are indicative samples that Haerinck identified similar pottery to them from northwestern Iran and attributed them to the early to mid-Parthian period (Haerinck, 1997: 147). These motifs are very similar to the known motifs of the Ardabil style (Ibid: 149).



Figure 13. Patterned pottery from Tepe Mod B.

Table 5. Info of patterned pottery from Tepe Mod B.

No.	Description	Period	Sources
1	Fine texture, red paste, pale brown mud coating, mineral chamotte, enough baking, wheel-made, painted with ocher mud.	Parthian	Alizadeh, 2012: 213, plate 36, No. 175. DeCardi, 1951, fig. I, No. 109.
2	Fine texture, red paste, pale brown mud coating, mineral chamotte, enough baking, wheel-made, painted with ocher mud.	Parthian	Alizadeh, 2012: 213, plate 36, No. 181.
3	Fine texture, red paste, pale brown mud coating, mineral chamotte, enough baking, wheel-made, painted with ocher mud.	Parthian	Haerinck, 1997: 149, fig. 20, No. 5.
4	Fine texture, red paste, red mud coating, mineral chamotte, sufficient baking, wheel-made, painted with ocher mud.	Parthian	Khosrowzadeh and Aali, 2004: 65, design 12, No. 2.
5	Fine texture, red paste, red mud coating, mineral chamotte, sufficient baking, wheel-made, painted with ocher mud	Parthian	DeCardi, 1951: 68, fig. I, Nos. 3-5.

C) Burnished pottery: Haerinck has suggested the production period of burnished pottery in the historical era from the 3rd and 2nd centuries BC to the Sassanid and Islamic periods (Haerinck, 1997: 235). All researchers agree on the production of this pottery in the historical era (Mehrafrin et al., 2014). Some scholars consider its origin to be in northern Afghanistan because its samples were obtained from Shamsirghar related to the Kushan-Sassanid period, which shows the continuity of this pottery tradition from the Parthian period to the fall of the Kushans (Dupree, 1958; Schachner, 1996). There are also samples from Nad Ali in Afghanistan, which are attributed to the Parthian and Sasanian periods (Dales, 1977). Some samples of burnished pottery with radial designs from the Kandahar Kohneh site related to the Achaemenid and

post-Achaemenid (Moorian) periods have been introduced and show that most bowls and small vessels were burnished (McNicoll & Ball, 1996). Some burnished samples can be seen among the pottery of the Dahan-e Gholaman site (Zehbari et al., 2014: 69, Fig. 6 and 7).

According to the findings of archaeological surveys in the South Khorasan region, it can be said that this type of pottery has been identified from the surface of a number of historical sites. The dominant forms of this pottery include carafes, bowls, goblets, and jars. Among them, large vessels such as pots and jars are less common. Burnished pottery from sites such as Poshteh Avesta, Anbazposhteh (Farjami and Mahmoudi Nasab, 2014), Tepe Kureh Mohammad Abad Zirkuh (Gholinejad, 2015), Korgah Chaharfarsakh (Heidari,

2016), Kalateh Shahpuri and Qale Neh (Farjami, 2020; Labaf Khaniki et al., 2021), and Anjirak (Heidari, 2015), Nehbandan have been identified. Other samples have also been identified from the Survey of Birjand County and the Burj Cheshmeh Molid site (Heidari, 2012), Tepe Takhcherabad (Dana, 2009; Dana, 2017), and the Kheshkeshunak site in the Sedeh Plain, Qaenat

County (Gholinejad, 2016). Due to the lack of indicative dated samples from these sites, it isn't easy to distinguish the burnished potteries related to the Achaemenid and Parthian periods. The samples found from the Gabri Mod site are in different forms bowls, carafes, pots, and thermoses (Fig. 14 and Table 6).



Figure 14. Burnished pottery from Tepe Mod B.

Table 6. Info of burnished pottery from Tepe Mod B.

No.	Description	Period	Sources
1	Fine texture, red paste, red mud coating, mineral chamotte, sufficient baking, wheel-made, burnished.	Parthian	Wheeler, 1962: fig. 27, no. 216.
2	Fine texture, red paste, red mud coating, mineral chamotte, enough baking, wheel-made, burnished.	post-Achaemenid	Stronach, 2000: 328, No. 110, Vol. 7.
3	Normal texture, red paste, red mud coating, mineral chamotte, enough baking, wheel-made, burnished.	Parthian	Roustaei, 2012, Nos. 223 and 234.

D) Grooved pottery: Among the other indicative pottery of the Parthian period in East Iran, which is widely distributed in the north of Sistan, is the grooved pottery. This pottery has been identified in the exploration of South Khorasan sites (Dana, 2016, 2017, 2018; Labaf Khaniki, 2007) and in the archaeological surveys of this area (Gholinejad, 2015; Farjami and Mahmoudi Nasab, 2014). Archaeological evidence indicates that the production of grooved pottery in eastern Iran continued from the Achaemenid period to the Islamic era (Haerinc, 1997: 270; Mousavi Haji and Atefi, 2010: 325). Grooved pottery is wheel-made, relatively high quality, and has sufficient and uniform baking. The chamotte of these pottery is often mineral and organic chamotte is rarely used in their construction. The color of the paste of these pottery ranges from red-brown to pale brown and generally, the surface of the pottery is the same color as the paste. The quality and thickness of grooved pottery shows that this type of pottery certainly belonged to large jars and pots (Haerinc, 1997: 233). The distribution of this pottery in the South Khorasan region and adjacent to Sistan is much more than in other parts of South Khorasan province. This type, which is also known as Sistan grooved pottery, has a significant distribution and diversity in the Neh Plain, but only a limited number has been found in the Zirkuh area (Farjami and Mahmoudi Nasab, 2014; Qolinjad, 2015). Archaeological studies of South Khorasan show that grooved pottery is seen only

in historical sites in the southern half of the province and there is no evidence of it in the northern half of the province. Despite three seasons of archaeological excavations and systematic surveys at the Gabri Mod site, a handful of grooved pottery has been identified. This diversity of pottery and the prevalence of grooved pottery in Takhcherabad sites in the northern part of Birjand Plain and the Gabri Mod site are very few, while the surface survey of the Sorg site (Heidari, 2013; Esmaili, 2021) shows a high variety of grooved pottery. Considering the prevalence of this type of pottery in the sites of Sistan (Mehrfarin et al., 2015) and South Khorasan (Labaf Khaniki et al., 2021) belonging to the historical era and mostly Parthian period, the pottery of Tepe Mod can also be cautiously attributed to the Parthian period.

Grooved pottery found from Tepe Mod and Takhcherabad has shallow and spaced or unbalanced grooves. This type of groove is mostly seen on large potteries. This decoration is a single groove with a very regular distance, relatively shallow and narrow (Fig. 15 and Table 7). The paste of this type of grooved pottery found from two sites Ab Joo in Neh plain and Tepe Chardah Sorg in the southeast of Birjand plain and the northern slope of Baghran mountain, is red. The coating of this pottery is pale brown at both sites. Similar to this grooved pottery, it has also been identified from the study of the Sistan Plain (Fairservice, 1961: 46).



Figure 15. Grooved pottery from Tepe Mod B.

Table 7. Info of Grooved pottery from Tepe Mod B.

No.	Description	Period	Sources
1	Normal texture, red paste, pale brown mud coating, mineral chamotte, sufficient baking, wheel-made, grooved.	Parthian	Fairservice, 1961: 46, fig. 13, no. a.

E) Boat and tulip-shaped pottery: this pottery is often open-mouthed, with a shallow concavity, a common form of pottery throughout the Achaemenid realm (Genito, 1990: 592; Adachi, 2005: 26; Haerincq 1997: 267). Production of this pottery from the Iron Age III to The third century BC has continued (Genito 1990: 592-593). There are carvings of this pottery in the reliefs of the eastern staircase of the Apadana of Persepolis, in the hands of the Balxh and Assyrian delegations (Schmidt, 1963).

Tulip pottery is bowl-shaped, with the difference that their opening is often smaller, their depth is greater and the upper part of the pottery is more elongated. This type of pottery is mainly wheel-made, has sufficient baking, and fine texture, and sometimes has white particles in the paste. Polished lines can be seen on their surface. They are usually red and brown with red, brown, and pale brown coatings.

These vessels have been found in South Khorasan sites from Tepe Takhcherabad in Birjand (Dana, 2009, L.13; 172-2; Dana, 2016; Dana, 2017; Dana, 2018; Dana, 2019), Shah-Wali in Dermiyan (Zafranloo, 2003:

14), Chah Gaz (Farjami, 2020: 628), Korga (Heidari, 2012: 27; Heidari, 2016: 48) and Kalate Shahpuri Nehbandan (Heidari, 2013: 67), Dokuhe Khosf site (Yousfi, 2009), Dezag site (Farjami, 2020: 351), Tepe Kureh of Mohammad Abad (Gholinejad, 2015: 53), Tepe Salek Abad (Ibid: 278), Tepe Gerd Estand (Farjami, 2020: 293), Poshteh Avesta (Farjami, 2020: 315) and Anbaz Poshteh of Zirkoh County (Farjami, 2020: 337), Kheshkheshunak site (Gholinejad, 2016: 500), Talkhik Zol (Gholinejad, 2015: 636) and the ancient city of Qaen in Qaenat County (Labaf Khaniki, 2008, no. 21 and 545) have been identified. It should be noted that high-quality samples of this type of pottery have been found in the southern half of Khorasan province and the neighboring parts of Sistan in the Chahar Farsakh Valley of Nehbandan. This pottery has been identified in most of the sites of South Khorasan and it seems that its distribution in the east and west of territory was done in the same way and it has also had local influences. Vessels with this characteristic form have been found at the Gabri Mode site (Mod A and Mod B) (Behdad, 2012: 102; Moradzadeh et al., 2020: 102) (Fig. 16 and Table 8).



Figure 16. Boat and tulip-shaped pottery from Tepe Mod B.

Table 8. Info of Boat and tulip-shaped pottery from Tepe Mod B.

No.	Description	Period	Sources
1	Normal texture, red paste, pale brown mud coating, mixed chamotte, sufficient baking, wheel-made.	Achaemenid/post-Achaemenid	Dana, 2019: 402, Figure 10, No. 28 Qale Asrar.
2	Fine texture, pale brown paste, pale brown mud coating, mineral chamotte, sufficient baking, wheel-made.	Achaemenid/post-Achaemenid	Sumner, 1986: 6, fig. III.2, no. I. Stronach, 2000: Figure 106, No. 12. Petrie et al., 2008: fig. 2, no., 269 & 473.
3	Normal texture, red paste, pale brown mud coating, mineral chamotte, sufficient baking, wheel-made.	Achaemenid/post-Achaemenid	Dana, 2019: 401, figure 9, number one, Takhcherabad.
4	Fine texture, red paste, red mud coating, mineral chamotte, sufficient baking, wheel-made.	Achaemenid/post-Achaemenid	Dales, 1977: pl.19, no. 13. Dana, 2019: 402, fig. 10, no. 28 Qale Asrar. Vahdati, 2015: 273, fig. 12, no. 17.
5	Normal texture, pale brown paste, pale brown mud coating, mineral chamotte, underbaked, wheel-made.	Achaemenid/post-Achaemenid	Ataci, 2006: 60, fig. 2, no. 2.
6	Normal texture, red paste, pale brown mud coating, mineral chamotte, sufficient baking, wheel-made.	Achaemenid/post-Achaemenid	Ricciardi, 1980: 61, fig. E, no. 3.

VI. Other finds

In addition to pottery, other finds such as broken pieces of Grindstone and complete and broken querns, cut brick related to the heel of the door, a knife sharpener, stone mortar handle, metal, a piece of metal that was probably a stud on a wooden door, slag, a large stone that belonged to the heel of a door, a stone knife sharpener, a piece of shell, an agate bead, and animal bone fragments related to the jaw (concerning the food of the inhabitants of the site), tooth, joint, and skull were also found (Fig. 17). The most important portable finds obtained from these excavations are the engraving

of a broken cross (Fig. 18) on the upper part of a vessel in trench II and an inscribed piece of pottery on which a Parthian Pahlavi (Aramaic) letter in the form of a Latin P is engraved (Fig. 19). In the historical era, there is a swastika on the body of some pots, which had a burial function. This function has been identified in pot graves, Taq Bostan, Kermanshah (Kambakhsh Fard, 1968), and Garmsi, Moghan Plain (Kambakhsh Fard, 1998). The most important portable find obtained from the second season of the excavations is an animal clay figurine without the arms, legs, and head, which can be cautiously attributed to a cow (Fig. 20).



Figure 17. Some indicative findings from the Gabri Mod site. From right to left: slags, querns, and pieces of plaster.



Figure 18. The swastika pattern on a pot found from the first season of the excavations at Tepe Mod B.



Figure 19. Inscribed pottery found from the first season of excavations at Tepe Mod B.



Figure 20. Clay figurine found from the second season of excavations at Tepe Mod B.

VII. Conclusion

The study of the findings obtained from the three seasons of the excavations at the southern mound of the Gabri Mod site (Tepe Mod B), which mostly includes slag, stone tools, and pottery, indicates the chronology of the settlement from the Achaemenid period to the Sassanid period. The few pottery found around the site belong to the Islamic era. The chronology proposed in this research is based on pottery data and is their comparative study. Therefore, absolute chronology is necessary for the sites of the historical era of South Khorasan. According to the findings, the Gabri Mod site had the largest extent and continuity of settlement in the Parthian period. In addition, the settlement of Gabri Mod during the Parthian period has more cultural interactions with the cultural region of Sistan and Baluchistan than Khorasan. The architectural structures identified in the three seasons of excavations include parts of a thick mud wall with a width of about 2 m, which is more than 1.5 m high in some parts of the mound. This wall can be considered related to a circular structure similar to the architectural structure of Tepe Takhcherabad, in Birjand Plain, 25 km northwest of the site. Takhcherabad structure has a mud brick wall with a height of 4 m. Of course, in the first season of excavations, in trench I, the highest part of the wall has mud brick, which indicates the construction or reconstruction and restoration of the wall with mud brick (5 x 38 x 38 cm). The circular structure has no foundations and is built on the sedimentary layer of the plain, similar to Takhcherabad. Still, it has at least two small seat rows with small andesite stone fragments collected from around. This method was also used in other walls built in the first phase of the settlement. The mud layers are arranged together in orderly pieces and

there is a very small distance between these layers, which are filled with andesite rubble or broken pieces of mud brick in some parts. Internal structures can be examined in two phases. The upper phase is mainly mud brick walls, which are built in some parts with 40 x 40 and 38 x 38 cm mud bricks on mud layers or mud brick parts of the older phase. It seems that most of the remains left in Tepe Mod B are related to this phase, and in some parts of the wall, andesite rubble was also used for wall construction. Mud bricks were probably used to cover the vaults and large stone slabs were used to cover the roofs. The type of arrangement of mud bricks and their destruction, which happened simultaneously and suddenly, indicates a natural event (probably an earthquake) in the region. This incident caused the entire structure and the mud bricks to collapse completely, in such a way that even the mortar was not moved between the mud bricks and the mud bricks were placed next to each other. The presence of many pieces of plaster coating on the floor of the architectural spaces indicates the use of this material for coating the spaces, especially in the northern part of the trench of the second season of excavations. Evidence of plaster decorations has not been found so far. In general, the architectural structures in Tepe Mod B were built with materials of mud, mud brick, and rubble on the surface of the ground and without foundations. The primary floor of the architectural spaces was beaten, and created on the sedimentary surface of the plain. In the second phase of architecture, some collapsed walls and spaces were restored. The presence of unfinished grindstones on the floor can indicate the existence of a stone-cutting workshop for the production of millstones, querns, stone mortar handles, etc., in this part of the Gabri Mod site.

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