

# ANCIENT IRANIAN STUDIES

پژوهشنامه  
ایرانیان  
پارساستان

An Investigation of Parthian-Sasanian Stuccoes of Dastowā Shushtar, Khuzestān, Iran

Author(s): Mehdi Rahbar

Source: Ancient Iranian Studies, July 2023, VOL. 2, NO. 6: 57-75.

Published by: Tissaphernes Archaeological Research Group

Stable URL:

[https://www.ancientiranianstudies.ir/article\\_173518\\_06960e1655a773d58c68fd1b28ff5b7a.pdf?lang=en](https://www.ancientiranianstudies.ir/article_173518_06960e1655a773d58c68fd1b28ff5b7a.pdf?lang=en)



© 2023 The Author(s). Published by Tissaphernes Archaeological Research Group, Tehran, Iran. [Open Access](#).

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial re-use, distribution,

and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

The ethical policy of Ancient Iranian Studies is based on the Committee on Publication Ethics (COPE) guidelines and complies with International Committee of Ancient Iranian Studies Editorial Board codes of conduct. Readers, authors, reviewers and editors should follow these ethical policies once working with Ancient Iranian Studies. The ethical policy of Ancient Iranian Studies is liable to determine which of the typical research papers or articles submitted to the journal should be published in the concerned issue. For information on this matter in publishing and ethical guidelines please visit [www.publicationethics.org](http://www.publicationethics.org).



# An Investigation of Parthian-Sasanian Stuccoes of Dastowā Shushtar, Khuzestān, Iran

Mehdi Rahbar<sup>1</sup>

## Abstract

An archaeological survey was conducted in 2004-2005 in the middle of Mianab Shushtar in Khuzestan, followed by an excavation there in 2005-2006, which led to the discovery of a Sasanian palace as well as valuable stuccoes at two other locations, namely the Jiljilak Tepe and behind a Gas Station on the Shushtar-Ahwaz Road. In this article, the discovered stuccoes have been examined, which indicates that the Jiljilak stuccoes can be divided into three categories based on their features and application: a) geometric patterns, b) plant patterns, and c) animal patterns. Comparing these stuccoes with those found elsewhere such as Kuh-e Khwaja, Bishāpūr, and Bandian in Dargaz shows that they can be attributed to the Parthian-Sasanian period.

**Keywords:** Stuccoes; Dastowā; Jiljilak; Parthian; Sasanian.

<sup>1</sup> RICHT, Tehran, Iran.  Mehdi.rahbar@yahoo.com

**Article info:** Received: 15 April 2023 | Accepted: 12 May 2023 | Published: 1 July 2023

**Citation:** Rahbar, Mehdi. (2023). "An Investigation of Parthian-Sasanian Stuccoes of Dastowā Shushtar, Khuzestān, Iran", *Ancient Iranian Studies*, Vol. 2 (6): 55-73.

<https://doi.org/10.22034/AIS.2023.404142.1043>

## Introduction

A substance called stuccoes has been used in Iranian architecture since at least the 6th millennium BC (Kaboli, 2016: 39 and Masuda, 1975: 63). However, it is during the Parthians that stuccoes became widespread. Many stuccoes have been found in Iran from the Parthian and Sasanian periods. The remains of Parthian stuccoes in Iran have been discovered in places such as Kuh-e Khwaja, Ghaleh Zahhak (Zahhak Castle), Ghaleh Yazdgerd (Yazdgerd Castle), Khorreh Mahallat, and others. Also, many scholars have conducted research on these stuccoes (See Keall *et al.*, 1980; Rostami and Aryamanesh, 2020; Mousavi Haji *et al.*, 2019). During this period, the use of stucco was limited, but gradually it became so popular that it was not only used in palaces, fire temples, and aristocratic homes during the Sasanians but also the average people of that time were inclined to use this art in their homes. The artists of the Parthian period, who were pioneers in the invention of stucco art, not only used it in sculpture and relief but also had remarkable success in using this art in architecture. A look at the capitals of the Ghaleh Yazdgerd depicts the artistic value of the Parthian artists' work appropriately. In these capitals, besides plant motifs, human motifs were also used in an admirable way. In one of these capitals, a person is depicted holding two dolphins with twisted tails. The skillful execution of the dolphins, especially their spiral tails, depicts the Ionic capital's snail-like forms (Keall *et al.*, 1980).

The stuccoes of the Ghaleh Zahhak from the Parthian period are also important. Some stucco there are formed with plant motifs and spirals, and the space between the spirals depicting the image of a young half-naked woman with hanging tresses (Ghandgar, 2004). Given

the spirals used in this capital, it can be considered an adaptation of the Greek Corinthian capital (Charbonneau, 1969: 56; Fig. 51). Although the Greek models should be considered headway for Iranian artists in their approach to stuccoes instead of stone, later, the Greeks and Romans used this Iranian invention, and brought this art to their own country (see Schippmann, 1990). It is natural that from the beginning of their work, some of the motifs that Greek artists used, such as grape clusters, Maeander or Swastika, Astragalus, Nike, Pegasus, and acanthus motifs that did not have a history in Iran until the Seleucids, made their way into the Iranian art from Greece.

## Investigating Plaster Casts of Dastowā (Mianab Shushtar)

In 2004 and 2005, field training for the students of archeology at the Islamic Azad University in Shushtar was conducted under the supervision of the author in the middle of Mianab of Shushtar. The first season was devoted to an archeological survey, and the second season to excavation, in which stuccoes were found at three different locations: a Sasanian palace (Rahbar, 2013: 217) and two other locations (Jiljilak area and behind a gas station on the Shushtar-Ahwaz road), which until that time, apart from a few small pieces of stuccoes obtained from Shoush, had not been reported from Khuzestan province (Kroger, 2017: 92.2).

## Excavation of Jiljilak Tepe

This site is located on the western bank of the Gargar River and Band-e Mahi Bazan or Fishing Dam (Fig. 1). The old road from Shushtar to Ahwaz probably passed through this area, which is why its surface is firm and compact. Also, it is higher in altitude compared to the lands to the west and slopes, and this part has risen

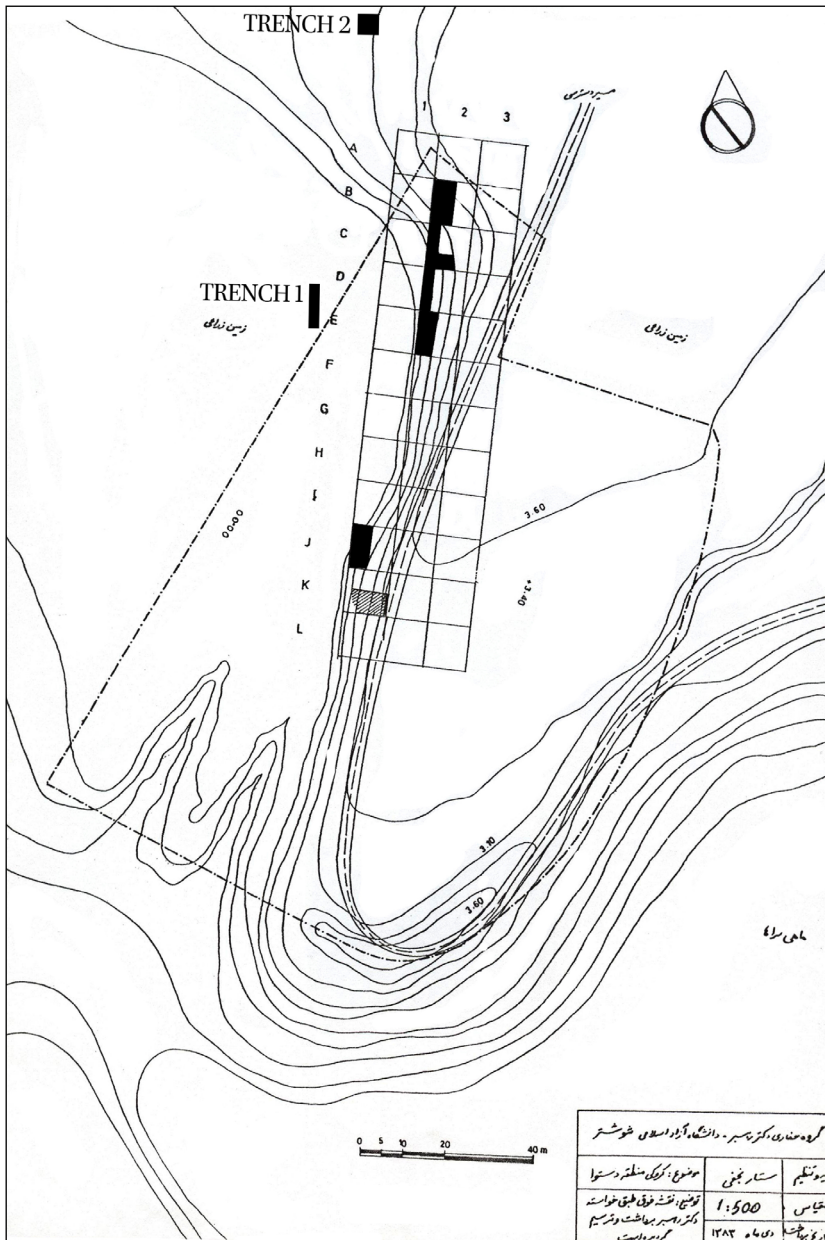


Fig. 1. Excavation Area

about 15-20 meters compared to the surface of the Gargar River. Based on the archaeological survey in 2004 when pieces of stuccoes were found there, it was decided to excavate this site. The trenches were selected in a north-south direction

and along the road. Accordingly, three 10x10 meter trenches were dug in the east-west direction, and 10x10 meter 12 trenches were dug in the north-south direction. In Trench C2, pieces of stuccoes were observed, which apparently had



Fig. 2. Mass of Stuccoes

accumulated in this way over the years due to sun and rain exposure. At a depth of 60 centimeters, we reached a piece of stucco. The excavation continued with great care, and as a result, we reached a mass of irregularly stacked stuccoes at a depth between 60 centimeters to 150

centimeters. This mass stuccoes had a width of about 1.5 x 2.5 meters (Fig. 2).

On the eastern part of this mass of stuccoes, a wall was discovered in the northeast-southwest direction made of mud but had been plastered with stuccoes on two surfaces. It became clear



Fig. 3. Some of Stuccoes of Jiljilk

that these pieces of stuccoes had been moved from another location to this site and the above wall had no connection to the discovered stuccoes. At a depth of 115 centimeters in Trench D2, pieces of stuccoes were also found, which were a continuation of the C2 stuccoes. Additionally, in this trench, we encountered a piece of stucco that had a reddish color. Therefore, it can be assumed that at least some of the stuccoes had colors. From this same trench, a piece of stucco was obtained that displayed an image of a muscular man in red color.

### Motifs of Stuccoes at Jiljilk Tepe

Dastowā stuccoes can be divided into several groups in terms of their application and role. A) Group of geometric patterns; B) Group of plant motifs; and, C)

Group of animal motifs.

Several pieces of decorative stuccoes with a diameter between 12 and 15 centimeters were obtained during the excavation of Dastowā. Given their small size, they can be considered to have been used solely alongside doorways and lintels. The discovered stuccoes from Jiljilak lacked plant motifs. Their decorative elements included overlapping petals or left-right petals, meanders, and finally, fish-shaped scales (Fig. 3).

### Maeander

Maeander comes from Greek Maiandros, an old name for a winding river in Asia Minor that is now known as the Menderes. Ancient Greeks compared it to decorative borders and patterns. Apparently, this pattern, like some other motifs, en-



Fig. 4. Maeander Motif

tered Iranian art during the Seleucid era. We see this decorative element, for the first time, in the stuccoes of Kuh-e Khwaja and then in Qal'a-ye Yazdgerd as well as some other places. After that, it was widely used in an array of stuccoes during the Sasanian period. This motif has been used in Bandiyan Dargaz (Rahbar, 1997), Bishāpūr (see Ghirshman, 1956), Qela Gury-e Ramavand (Hasanpour, 2015: 27), Hajiabad Fars (Azarnoush, 1994), Tepe Hissar of Damghan (Scmidt, 1937: 327, 330-331, 333-336). The Maeander motif has almost always been used as a frame for decorations and sidelines in stuccoes (Fig. 4).

#### Decorative Arches

One of the elements in Sasanian stuccoes

is decorative arches. In fact, it is mostly used to decorate the arches of doorways and entrances (Fig. 5). Examples of this decoration can be seen in Bishāpūr and Seymareh (Lakpour, 2009: 29), Qela Gury-e Ramavand (Hasanpour, 2015: 27), and Jiljilak from Dastowā. Several pieces of this motif were obtained from Jiljilak, which had been used to decorate cornices.

#### Lotus Motifs

Another motif in the stuccoes of Jiljilak in Dastowā is a row of Lotus. These flowers, arranged in a row with a particular order, are connected to each other by two curved branches of this plant. At the end of the flower, these two stems are tied together with a band. There-



Fig. 5. Decorative Arches

fore, it can be imagined that they were located in front of an arch (Fig. 6). The Lotus stuccoes pieces in Jiljilak are an exact copy of the lotus on the scabbard of the Achaemenid era. Similar motifs can be seen in Chāl ʿTarkhān, Kish (Watclin, 1938), and al-Ma'aridh sites (Kröger, 2017: 93, 87, 36) and in Qela Gury-e Ramavand (Hasanpour, 2015: 268). We see a copy of the lotus in the stucco discovered from Qal'a-ye Gur-e Rumon and in private hands, which is exactly copied from the protruding relief of Darius in the Hundred Column Hall at Persepolis (see Ghirshman, 1963).

### Rosette Motifs

Rosette motifs can be seen in the stuccoes of Jiljilak Tepe. This flower, with

several petals, sometimes fills the empty space between the motifs individually, and in some cases, the four-cornered design is decorated with the four-petal rosette. Also, in the center of each side of a frame, four half-rosettes are depicted (Fig. 7). This flower can be seen in the Achaemenid glazed brick decoration, as well as in the stuccoes of Nizamabad, Chāl ʿTarkhān, Kish (Watclin, 1938), and al-Ma'aridh in the Sasanian period (Kröger, 2017: 93, 87, 36).

### Acanthus Motifs

This motif is predominant in Jiljilak Tepe and is combined with other roles, like frames trapped in a lion's head. In fact, they are stems of the Acanthus that are tied together with a band in the corners





Fig. 6. Lotus Motifs

of the frames, and finally, several Acanthuses decorate the frames. In some cases, Acanthus leaves have been used in a row next to each other, probably decorating the border (Fig. 8). This design has also been used in Bandiyan Daragaz, but only for decorative frames. It has

also been used in Tepe Mil of Varamin, Chāl Ṭarkhān, Bīshāpūr, Tepe Hissar of Damghan, Kish, and Nizmabad (Rahbar, 1998: 38-245).

### Grape Clusters Motifs

This passage discusses the limited use of



Fig. 7. Rosette and Acanthus Motifs



Fig. 7. Rosette and Acanthus Motifs

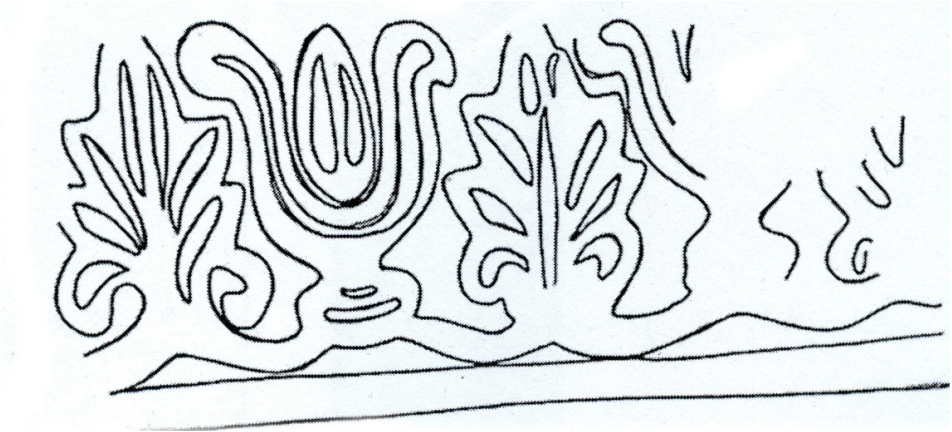


Fig. 8. Acanthus Motifs

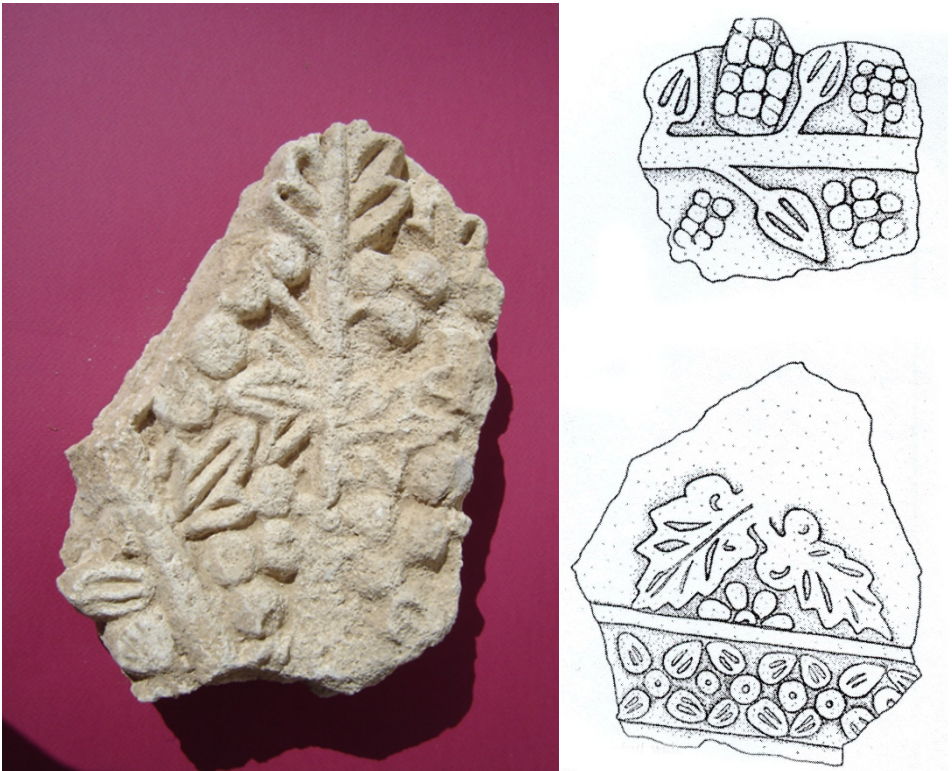


Fig. 9. Grape Clusters Motifs

hair curls and grape clusters in the art of the Parthian period. In the ceramic sarcophagi of Gelalak of Shushtar, we can see depictions of grape clusters (Rahbar, 1984: 178-179). Only a few pieces of art fea-

turing these motifs have been found from the Jiljilak, but they are slightly removed from the nature. It appears that the artist took great care in creating the grape cluster motif, unlike other motifs in the



Fig. 10. Moqrans Decorations

collection (Fig. 9). These motifs can be seen in Palmyra, Tepe Mil, Chāl Tarkhān, and Ctesiphon (Kröger, 2017: 103.3, 96.4, 94.6, 103.4). Another motif depicts a tree with round fruits in the JilJilak stuccoes, which may possibly represent pomegranates or apples.

### Moqrans Decorations

Some pieces of stuccoes are arranged as adjacent squares among a collection of plaster pieces called JilJilak. Inside each square, from the edges towards the center, there is a slight depression that creates a Moqrans with diagonals of each square. The placement and purpose of these decorative elements are unknown to us (Fig. 10).

### The Rhombuses Motif

The rhombuses motif enclosed in circles are from the JilJilak motifs. Some of these decorative elements show that they have been patterned one after another under a prominent strip, with additional motifs like acanthus, and so on above this strip (Fig. 11).

### Oval Stucco

Among the stuccoes decorations in this area, a relatively large number of oval-shaped stuccoes were obtained, each measuring approximately 23 centimeters in length, 12 centimeters in width, and 9 centimeters in thickness. Their inner surface is slightly concave, with some having a leaf-like pattern inside while others lacking the pattern. It seems that these plaster pieces were used individually in the decorations (Fig. 12).

### Lion's Head Motifs

Of the discovered stuccoes pieces from JilJilak, 16 are dedicated to lion's head. Some of the plaster pieces do not have heads, but evidence such as a part of sunflower and half of rose flower and leaf in the frame are indications that we can be sure these natural elements are part of the lion's head inside the frame. The artist has used short parallel lines around the lion's neck to show its body hair, but has depicted the animal's high mane in the form of a sunflower. The lions in this collection with a high mane represent

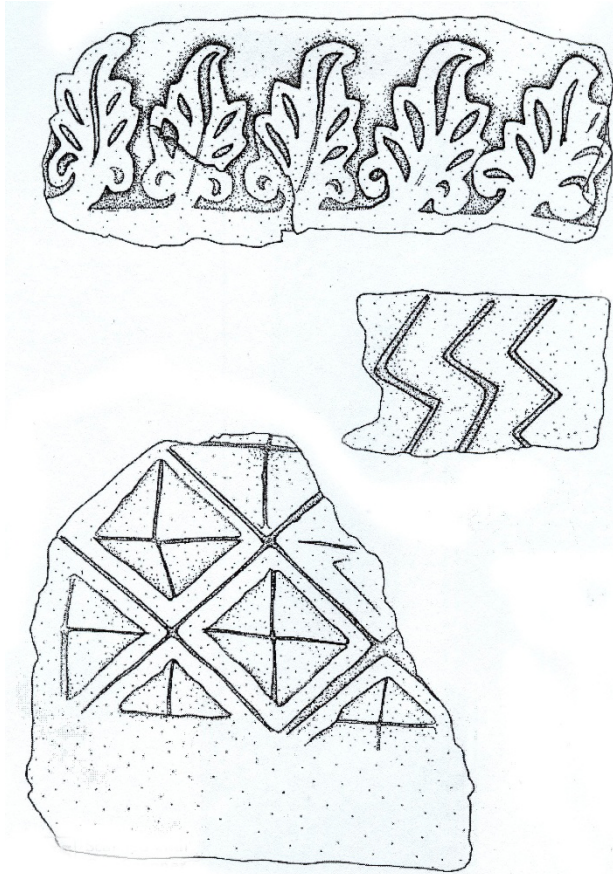


Fig. 10. Moqrans Decorations

male lions. In the Iranian art, almost always, the head of a male lion has been used as a symbol of superiority and power in the designs (Fig. 13).

In some Sasanian areas such as Hajarabad in Fars (Azarnoush, 1994), the head of a lion is depicted on a circular plaque that is installed on the wall like a picture frame. In the stuccoes decorations of Jil-Jilak, the lion head motif is executed in two ways: either appears within a square frame (Fig. 14) or inside a circle decorated with several simple bands (Fig. 15). The lion heads are located within the square frames are adorned with leaf and berry.

In each of the four corners of this frame, there is a heart-shaped element.

The number of petals around the lion head in the circular frame is about 16, while the number of petals around the lion head in the square frame is about 30. The remnants of a smooth and undecorated surface on the outer edge of the circular frame may suggest that the lion head was installed at a specific and unique distance on the wall of a hall.

#### Excavation behind Shushtar Gas Station Site

During the archaeological survey of Dastowā in 2004, pieces of bricks along with stuccoes were observed in a limited area on the right side of the Shushtar-Ahwaz Road and behind the Gas Station. Since



Fig. 11. Rhombuses Motif

the presence of brick and stuccoes is a sign of a relatively important structure in Khuzestan, an estimated dimension of 2x5 square meters was marked. With about 15 centimeters of excavation from the surface level, we encountered with a layout of bricks whose mortar was made of stuccoes. The smooth and uniform surface was constructed with upright rectangular bricks (Fig. 16). The arrangement of the bricks is upright, which we see in some cases during the Parthian period. As excavation continued and the estimated area expanded, it became clear that our interpretation of the brick wall was incorrect and the wall had completely collapsed along its length due to lack of a strong foundation. With the expansion of the excavation area, a mass of stuccoes

was exposed behind this wall at a depth of about 30 centimeters (Fig. 17). These stuccoes had no diversity and only used a repeated decorative element (Fig. 18), which is the four-petal rose. Its ovary consists of several concentric circles. In each of the four directions, there is a stem of a plant with five leaves on each. The end leaf of each stem creates a four-petal flower with the three other leaves whose tips are close to each other, forming angular petals. By repeating this decorative element, surface decoration is created that forms eight-sided hollow cavities at a certain distance. Upon further investigation, it became clear that this collection of stuccoes produced a panel that was probably installed on a wall as a window for ventilating a hall or a room.



Fig. 12. Oval Stucco

The collection of stuccoes in this excavation consisted of 136 pieces, and by calculating the pieces without decoration and powdered pieces, the extent of this panel or window can be estimated. So far, no window with such size has been reported from the Parthian and Sasanian periods. However, the existence of round windows in the form of circular plates decorated with leaf motifs and with a circular cavity for ventilation in the middle has been confirmed. The existence of round windows has also been reported in Ctesiphon, Bishāpūr, and al-Ma'aridh (see Kröger, 2017). According to Oscar Reuther, it is believed that these round decorative plates with a circular cavity in the middle were installed on the stepped vaults of shelters (Reuther, 1939: 522-523). Following Reuther, Prada identifies the plates containing rose flowers and suggests they may have been used around the roof of one of the palaces in Qeshm (see Porada, 1965). Stucco windows dec-

orated with multi-petal flower patterns have been used from the Sasanian period to the Safavid and Qajar eras and were usually used for lighting and ventilation purposes above the entrances or on both sides of doorways.

### The Technique of Making Jiljilak Stuccoes

The techniques used in the stucco decorations of the Parthian and Sasanian periods were either mold casting or carving. In some cases, both techniques were used together. By examining various pieces of stucco decoration in Jiljilak, it was revealed that only the carving technique was used in all pieces of stucco there. The lack of uniformity in the details of a single motif, such as lion heads and acanthus motifs, in the repetition of patterns, can prove the authenticity of our claim that there was no mold casting used in Jiljilak stucco decorations. On the other hand, in the mold casting technique,



Fig. 13. Lion's Head Motifs

the decorative elements installed next to each other in specific dimensions are not only the same in general but also have no noticeable differences in their details.

### Conclusion

The stucco decorations in Jiljilak were not found at their original installation site but were transferred from an im-

portant hall, such as a royal one, to this location and piled on top of each other. Therefore, dating them is problematic. Several pieces of pottery and one glazed jug from the Parthian period were found with the stucco decorations, but they cannot be conclusively attributed to the stucco pieces. By comparing the patterns of the stucco decorations in this area with





Fig. 15. Pieces of Bricks



Fig. 16. Pieces of Stucco

those of other areas, it can be attributed to the late Parthian and early Sasanian periods. In addition to the stucco decorations, two pieces of stuccoes with a single design were found in Jiljilak. The design on it depicted a muscular figure in red which is bare and holds something heavy over its head. The pose, move-

ments, and nudity of this figure resemble one of the Atlas (Greek: Ἄτλας, *Átlas*). Therefore, this figure has a Greek theme as we know that elements of Greek art entered Iranian art during the Parthian period. Perhaps, this stucco decoration can be attributed to the late Parthian and early Sasanian.



Fig. 17. Pieces of Stucco

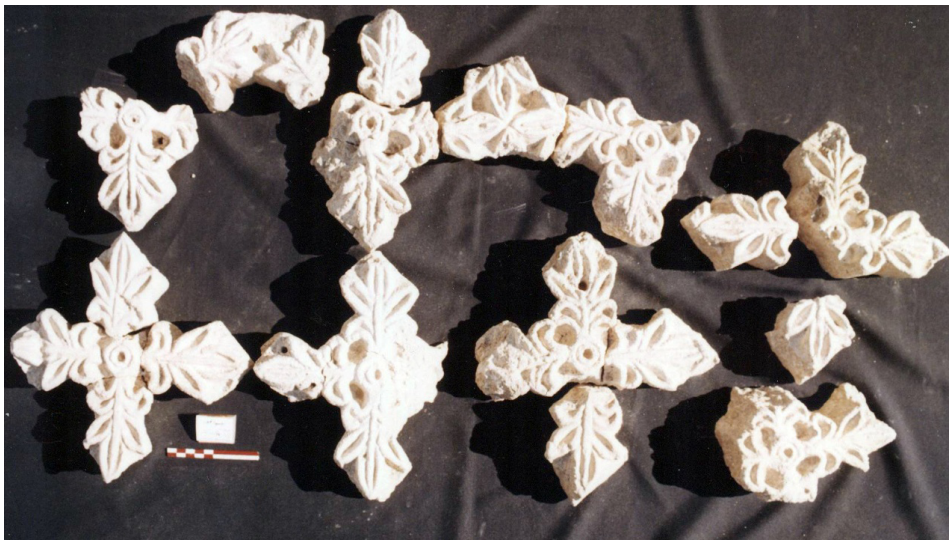


Fig. 17. Pieces of Stucco

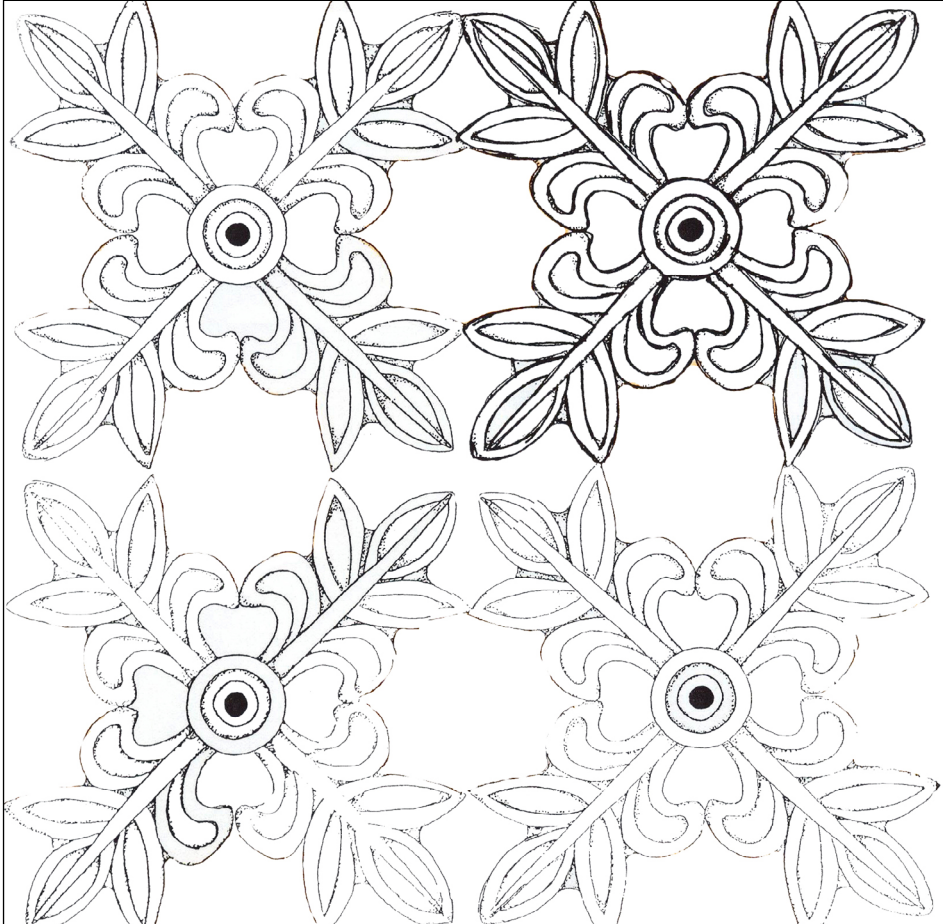


Fig. 18. Decorations of Stucco

## Bibliography

- Ahanchi, A. (2016). "Daylaman's Political Circumstances in the pre-Islamic Period," *Quarterly for Humanities of Al-Zahra University* 16 (60):1-20 (in Persian).
- Aslanov, G.M., Vaidov, R.M., and Ione, G.I. (1959). *Ancient Mingechevir*. Baku: Academy of Sciences of Azerbaijan SSR Institute of History (in Russian).
- Azarnoush, Massoud. (1994). *The Sasanian Manor House at Hajiabad, Iran*, Le Lettère, Florence.
- Charbonneaux, Jean; Martin, Roland; Villard, François. (1969). *Grece Classique*, Editions Gallimard.
- Watelin, L. C. (1938) "The Sasanian Building Near Kish", In Arthur Upham Pope and Phyllis Ackerman (eds.), *A Survey of Persian Art*, 6 vols, Oxford University Press. Ghandgar, Javad. (2004). "Archaeological excavations report of Zahhak Castle of Hashtrood", In Masood Azarnoush (ed.), *Proceeding of the international symposium on Iranian archaeology: Northwestern Region*, Tehran: Cultural Heritage and Tourism (in Persian).
- Ghirshman, Roman. (1956). *Bichâpour*, vol. 2, Paris.
- Ghirshman, Roman. (1963). *L'art de l'Iran: mede et achemenide*, Paris.
- Hasanpour, Ata. (2015). "Comparative study and comparison of the Qela Gury-e Ramavand stuccos", In Leyla Niakan (ed.), *Archeological researches of Simreh dam*, Tehran: ICAR & IWPCO (in Persian).
- Kaboli, Mirabedin. (2016). *Excavations of Qara*

- Tepe of Qamroud*, Tehran: Cultural Heritage and Tourism (in Persian).
- Keall, E.; Leveque, M; Willson, Nancy. (1980). "Qal'eh-i Yazdigird: Its Architectural Decorations", *Iran*, Vol. XVII, Pp: 1-41.
- Kröger, Jens (2017). *Sasanidischer Stuckdekor*, translated by Faramarz Najd Sameiei, Tehran, Richt & Samt (in Persian).
- Lakpour, Simin. (2009). *Archaeological Excavation and Research of Darreh Shahr (Seymareh)*, Tehran: Pazineh (in Persian).
- Masuda, S. E. (1975). "Report of the Archaeological Investigation in Shahrud", In: *Proceedings of the IVth Annual Symposium on Archaeological Research in Iran*.
- Mousavi Haji, Seyed Rasoul; Mousavi, Seyed Mehdi; Rostami, Houshang; Aryamanesh, Shahin. (2019). "Symbolic Figures in Sassanian Rock Reliefs and Stuccoes", *The International Journal of Humanities*, Vol. 26, No 3. 61-84.
- Porada, Edith. (1965). *The Art of Ancient Iran. Pre-Islamic Cultures*, with the collaboration of R. H. Dyson and contributions by C. K. Wilkinson, New York.
- Rahbar, Mehdi. (1997). "Excavation at Bandiyan, Darreh Gaz, Khorasan, in *Archaeological Reports of Iran*", Vol. 1, Pp: 9-32, Tehran: ICAR (In Persian).
- Rahbar, Mehdi. (1998). "Découverte d'un monument d'époque Sassanide à Bandian, Dar-gaz (Nord Khorassan). Fouilles 1994 et 1995", *Studia Iranica* 27, 213-250.
- Reuther, Oscar. (1939). "Sasanian Architecture a History", In Arthur Upham Pope and Phyllis Ackerman (eds.), *A Survey of Persian Art*, Oxford University Press.
- Rostami, Houshang & Aryamanesh, Shahin. (2020). "Investigation on Symbolic Badges in Sasanian Rock Reliefs", In Kamal-Aldin Niknami & Ali Hozhabri (eds.), *Archaeology of Iran in the Historical Period*, Springer Nature Switzerland, 319-328.
- Schippmann, Klaus. (1990). *Grundzüge der Geschichte des sasanidischen Reiches*, Wissenschaftliche Buchgesellschaft.
- Schmidt, Erich Friedrich. (1937). *Excavations at Tepe Hissar, Damghan: with an additional chapter on the Sasanian Building at Tepe Hissar*, Philadelphia: Pub. for the University Museum by the University of Pennsylvania Press.