

# SUSTAINABILITY OF PARTHIAN AND SASSANID ARCHITECTURAL PATTERNS AND COMPONENT, IN ISLAMIC ARCHITECTURE; CASE STUDY: IRANIAN MOSQUE

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## ABSTRACT:

After the end of Sassanid era and the conversion of Iranians to Islam, although there appeared relatively important changes in Iranians` beliefs, the architecture does not lose its way and principle. The present study is an attempt to examine Parthian and Sassanid architectural elements that have contributed to the formation of patterns and architecture of Islamic mosques. In this study; we first identify the principles and patterns of the mosque. The history of their creation in the architecture of Iran and the role of the Parthian and Sassanid architecture to establish the principles and patterns in Islamic mosques are analyzed. As a result, Islamic Architecture is not from the Arab culture of nomadism as Burkhart pays attention to and not as his mystical interpretation of the yard, is an allegorical paradise. Islamic architecture is a blend of artistic principles and patterns that began thousands of years ago based on the formation and history of monotheism and valuable theme which has continued until now.

## KEYWORDS:

Iranian Architecture, Islamic Architecture, Islamic Component, Mosque, Pattern.

## INTRODUCTION

Historically, some of the countries referred to as Muslim countries are countries conquered by Muslims with non-Muslim background architecture; many of their architectural features have been preserved. In Islamic architecture According to Grabar and Etinghauzen [1], Muslims conquered, on the other side, the other side of the Euphrates, the Sassanid Empire fully and its longstanding tradition and artists were attracted to the new Islamic empire [1].

Iran and Egypt have a special place, in the Research of HILAN brand; because he believes these two countries inspired architecture in most parts of the Muslim world, especially after 850 AD. However, Egypt lost its role from 1511, which became one of the states of Ottoman Empire [2].

KONEL is among the theorists who regard the origins of Islamic architecture in the architecture physiques of the past and especially that of Byzantine and Sassanid [3].

Iran is among the countries that became captured in the early decades of Islam by the Muslims. The important thing at this time was use of Persian art to express the Islamic worldview. In other words, at the end of the third century, what was described as the formation of art was a continuation of earlier artistic traditions, with new applications based on Islamic beliefs. From the Muslim conquest to the end of the third century AH, based on the architectural traditions of Sassanid,

architecture was developed and based on what has remained and descriptive records of some original mosques, there were some kinds of harmony between the needs and requirements of Islam and in particular, in the late second century, new construction methods that perpetuated the traditions of Sassanid architecture had special effects on Islamic Architecture [4].

## MATERIALS AND METHODS

The way which this article used, included comparative historical research and content analysis. Tools and techniques to collect data included library research and pictorial study of building. In this research, initially zero and one method was used for detecting patterns of Sassanid and Parthian architecture in the mosque. Then, these patterns were reviewed, analyzed and compared in building mosques, and Sassanid and Parthian buildings. Comparative historical method and content analysis were applied to identify the roots in the construction of Islamic mosques.

## Patterns of Islamic architecture

The term pattern has been widely used in different areas of the Persian language, while according to need, definitions and interpretations each has its own interpretation. The slang meaning of the word is exemplary and model but the reality is that the meaning of the pattern and its corresponding meaning of words and concepts in various fields of



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science literature expresses a deeper meaning. Attention to the model and concepts related is due to the fact that it is concerned with creating high quality architectural space, as one of the main goals of architects and researchers. They rely on the principle of human experience and human achievements in a consolation identity with the knowledge of previous generations [5].

To identify patterns of mosques continued from the PARTHIAN and Sassanid architecture, the patterns used in the PARTHIAN and Sassanid architecture are provided by zero and one method in the mosques in the Islamic era in (Table 1).

Table 1. Investigation of the Sassanid and Parthian patterns in Islamic mosques.

Mosque Names	pattern of spatial organizati	IVAN	Myansara	columned - Bedchamber	er vault pattern
Tarikhaneh Mosque	1	1	1	1	1
Ardestan Mosque	1	1	1	1	1
Isfahan Mosque	1	1	1	1	1
Golpaygan Mosque	1	1	1	1	1
Zavareh Mosque	1	1	1	1	1
Yazd Mosque	1	1	1	1	1
Goharshad Mosque	1	1	1	1	1
Mirchakmogh Mosque	1	1	1	1	1
Golpaygan Mosque	1	1	1	1	1
Meidan Mosque	1	1	1	1	1
Kaboud Mosque	1	1	0	0	1

Then, we will examine the known patterns of mosques; patterns that were emerging during the Parthian and Sassanid periods and due to repetition have become stable.

### The pattern of spatial organization of building

One of the main patterns of the Sassanid architecture transferred to Islamic mosques is the spatial organization pattern of the building this claim can be seen as typical of FIROUZABAD Palace.

As can be seen in the picture, the order of the main spaces in FIROUZABAD Palace is IVAN - dome house - IVAN - MYANSARA - IVAN (Figure 1).

This pattern was used gradually with changes as the pattern of Islamic mosques with the order of IVAN - MYANSARA - IVAN - dome house, which is almost the same architectural pattern of Sassanid, and the only site that has changed is the entrance (Figure 3).

The mosques which have based the construction method of second part of FIROUZABAD building

have been known to be Iranian mosques such as the Mosque of Ardebil great mosque [6] (Figure 5).

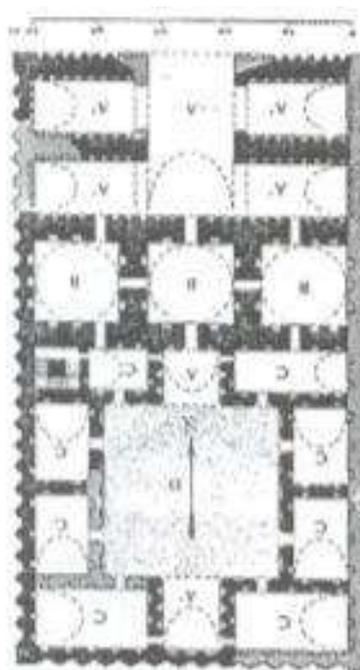


Figure 1. Plan of FIROUZABAD FARS [16].



Figure 2. The pattern of spatial organization in FIROUZABAD FARS.



Figure 3. An example of organization patterns of mosques in Iran.

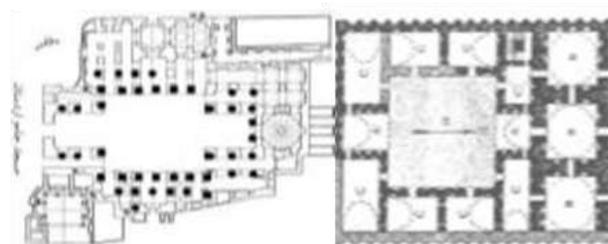


Figure 4. The pattern of spatial organization of second part plan of FIROUZABAD palace in comparison with that of great mosque of ARDESTAN, [16].

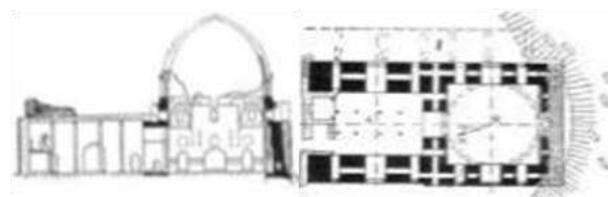


Figure 5. The plan and section of great mosque of Ardabil [16].



## IVAN

IVAN with cradle vault which was previously developed during the Parthian spread in Sassanid religious and court architecture. This pattern came into use equally in ordinary buildings and it has been used for various purposes Such as shading spacious living room at home or in the office building entrance, and forums for visitors to the court [7].

But here, unlike the case for PARTHIANS, IVAN ends up with dome-house hall that seems like a main parlor and porch way to the king throne. In great IVAN of FIROUZ Abad palace, there are signs of applications in architecture of Parthian era; this interesting phenomenon was used in all of the SASANIAN era. And then it was transferred to the Islamic era represented as one of the most impressive architectural patterns of glorious era (Figure 6).



Figure 6: IVAN of FIROUZABAD palace Fars in SASSANIAN period with IVAN of mosque of ARDESTAN, [16].

After the arrival of Islam to Iran, especially in KHORASANI style, mosques were formed with only one IVAN; these porches were called GIRI, According to PIRNIA, the origin of the porch was probably the Temple) [8] (Figure 7).

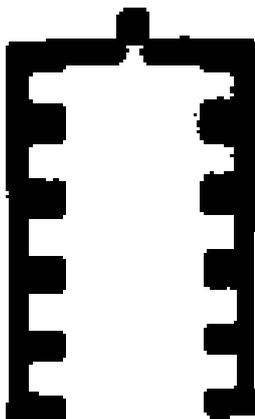


Figure 7. The initial plans for the great mosque NEYRIZ [16].

## MYANSARA

MYANSARA (court yard) is the Old Iranian architecture feature and the two-IVAN sample was first observed in Persepolis.

MYANSARA later became a feature of Islamic architecture that has manifested in many buildings of this period especially in mosques. The MYANSARA evolved form is in four IVAN form which, according

to, PIRNIA is one of fundamental features of Iranian mosques [8].

In this context we recall the ASHUR palace in Parthian period, a building that has four porches; however, there are many buildings in Parthian and SASSANIAN period that are a combination of the porch and MYANSARA, like the ALHAZRA Palace and the Palace of FIROUZABAD FARS (Figure 8).

Many mystical interpretations of Islamic architecture patterns have been proposed One of these interpretations in the area of mosques is Burkhart`s comment based on which it is an allegory of heaven. His statement reads:

The mosque courtyard is usually a spring or well F water where believers can do ablution before prayer.

This source of water sometimes is located under a small dome-shaped canopy. Courtyard with a fountain of water in middle is as an enclosed garden whose center is the intersection of four streams, making an analogy of haven [9].

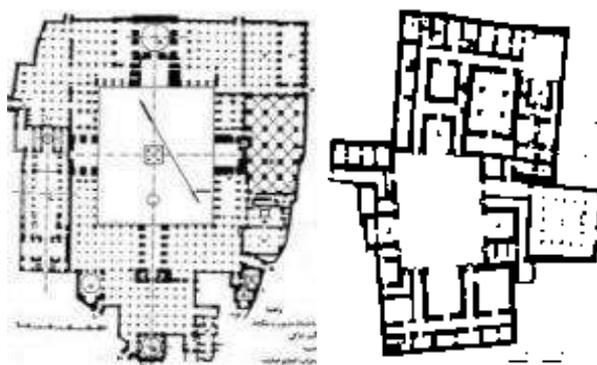


Figure 8: Plan of the ASHUR palace, an example of the four-porch MYANSARA compared with the plan of great mosque in Isfahan [8].

It seems that the word of the spring or well in the mosques is not very satisfactory and often in the middle of the mosque, there was a pond and in the few cases this was originated from Qantas. Perhaps the term has been pushed to the case in translation [10].

The main point in the above passage is likening mosque courtyard to a garden. This is mostly not true, because at first it should be noted that in most large mosques, and especially in great mosques yard, no greenery and landscaping were felt, because in some regions where the weather was perfect in some seasons, the congregational prayers were held in the courtyard of the mosque. In some mosques, prayer line would continue on the floor of the courtyard immediately from the SHABESTAN and thus not a tree could be planted in the mosque. And the courtyard of many mosques was built without the smallest green area [11].

So these interpretations create visions of a supernatural image and help Islamic architecture to remain locked in the field of view.



### Columned- Bedchamber

DIEULAFOY in his famous book (The Art of Ancient Iran) explained his approach to architectural evolution and emergence of flat roof pillars in a building with a clear statement. He believes that applying the columns in Iranian architecture has an ancient history [12].

In this regard, the most important building ever known in Iran with great columned halls is the HSSANLOU stronghold in South of Lake REZAIEH regarded as the most important work of ancient Iran [13].

About the bed chambered mosques, MADINA mosque has been revered by all Muslims, but its basic plan, with brief and uncertain situation, cannot be considered as the prototype of mosques the scientists attributed the Arab Bedouin style plan. Of course, the Umayyad plan is a good example, but as we'll see in the year 698 AD in Mesopotamia, political and artistic realms of the Sassanid, this plan were used [14].

KUFA mosque-a KHIREH succession of KUFA, in southern Mesopotamia was scope and field of Iranian art. The mosque in this city was erected in 11 AH on a piece of land, which was surrounded by a moat, and consisted of a number of columns of the palace of LAKHMY KHIREH by SASSANIAN peasants.

The mosque roof consisted of palm branches and flowers that were on the pillars and the overall roofed space was formed which was open to all parties, [15] (Figure 9).

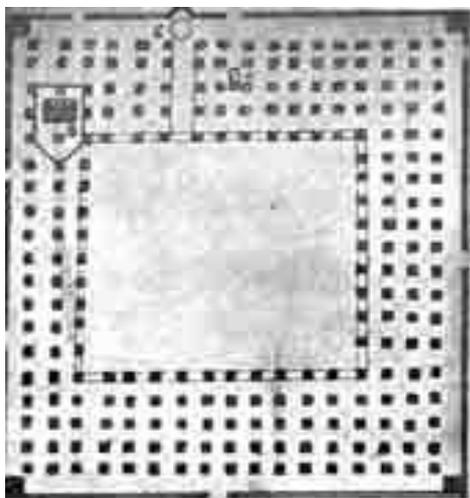


Figure 9: The plan of mosque of Medina built in the year 87 AH by WALID IBN ABD Umayyad, [16].

Mosque of KUFA was built by the order of Arab commander SAAD by ROUZBEH BEN BOZORGMEHR Hamadan, Iranian architect. And around 660 AD at the beginning of the Umayyad Caliphate, it was rebuilt and then the roof was flat and made of wood on stone columns without arch and on the south a door opened up to the ruler's house .

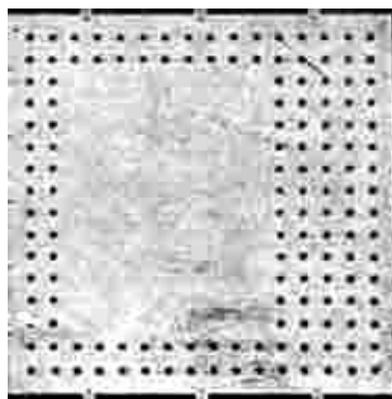


Figure 10. Plan of KUFA Mosque dated 40 AH in the Umayyad caliphate which was begun 37 years before the MADINA mosque, [16].

At reconstruction a Persian architect also led the construction. This mosque was regarded to be an appealing gift of Iranian art to Islamic architecture and, while considering the available evidence, the first hypostyle mosque with a courtyard surrounded by a colonnade .

It is expressed, with respect to Titus Burckhardt [9] that Islamic architecture arose from the nomadic Arab culture. He wrote about it [9]:

“The first mosque, which consists of a large hall for prayer, and its wide roof was placed horizontally on the grove of columns resembles a nomadism environment”.

As is apparent from the text, he knows bed chamber architecture stemming from the concept of nomadic. While this architecture is just seen in none of nomadic Arab tribes before Islam, But it was the kind of luxurious architecture for large spaces in many great ancient civilizations such as the Iranian ancient monuments like the great halls of columns in Persepolis [10].

Based on the above, SASSANIAN era architecture as well as further testimony to this claim.

### Arch and Vault Pattern

other features of the Sassanid architecture is making U-shaped arches and lancet arch and multi-part forms which were likely inspiring Mugharnas works of Islamic Architecture of Iran and other Muslim countries.

Cradle roof was in use in SASANIAN period and even before it in the Parthian period ASHUR and HATRA palaces of Parthian and Sassanid palace of FIROUZABAD, SARVESTAN, Ctesiphon, and DAMGHAN are clear examples. The roof is also seen in architectural remains from the middle of second millennium BC in HAFTTAPEH of SHOOSH.

Experts have long debated the lancet arch in archeology and art history, and still it is sometimes discussed in journals. Aside from the numerous ways at Sassanid era architecture including the porch arches of KASRA IVAN and vaults of GHALEH



DOKHTARIN BISHABOR, these types of arches can be observed in the Parthian era tombs excavated by the Anglo-Iranian delegation led by Mr. ASTRONACH in 1964) (Figure 11).

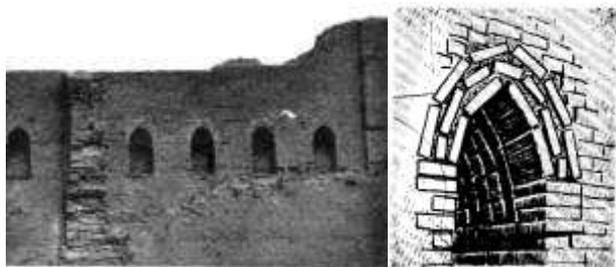


Figure 11. Small lancet arches of KASRA Arch in the SASSANIAN period [16].

Parabolic arch of SASSANIAN monuments in Ctesiphon Palace could be a good model for the mosques of the early centuries, especially TARIKHANEH DAMGHAN. Arches of TARIKHANEH slowly move toward a lancet form and from this point of view are similar to the arches of KASRA vault and a stage of development of parabolic arch Sassanid to Islamic lancet arch [12] (Figure12).

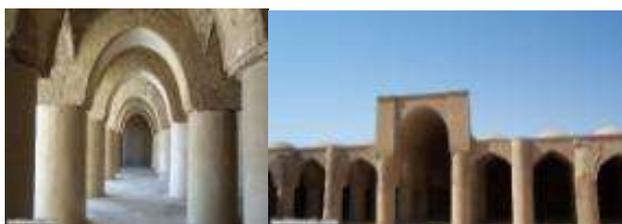


Figure 12: TARIKHANEH Mosque of DAMGHAN [17].

## CONCLUSION

Architecture is one of the most important factors reflecting the culture of a nation and challenges People at different historical periods have been grappling with, and among these, religious buildings are of particular importance. According to what was discussed, Islamic architectural principles and patterns perpetuated many of the principles and patterns of Persian architecture. So, thinking backing the principles of this architecture is Iranian, and we must not be confused with the elusive and mystical interpretations of theorist's who have proposed them in this field, that Islamic architecture is rooted in the Arab anomalism culture, such as those of Burekhardt who attributed the mosque courtyard as a vehicle of paradise.

Islamic architecture is a blend of artistic principles and patterns starting to take shape thousands of years ago based on monotheism background and valuable themes which continued through the ages Here the discussion that Iranian

people are among the first nations who worshiped the God and their worldview was more favorable than others to accept the new religion, maybe deviate us from our main objective, but it would be appropriate to remind that the appealing to a single source, from the beginning, has been merged with Iranian religious traditional architecture. Iranian avoidance of making bodies as the incarnation of god who were tremendously popular in other religions attests to this claim.

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