THE DEVELOPMENT OF THE FIRE TEMPLE

By Klaus Schippmann

5th International Congress on Iranian Art & Archaeology
Tehran 1972

If one surveys the present state of research on fire temples, it can be seen that ever since the monograph by Erdmann "Das iranische Feuerheiligtum" published in 1941 - a great many new examples have been discovered; foremost, is due to the research works of Vanden Berghe in Iran.

I should like to describe some of the main characteristics of the fire temple in various epochs; and to examine whether it is possible to determine a line of development in their construction.

I should like to make it clear that I shall not try to propose a new theory. In my opinion the materials for such a new theory are simply insufficient. We must not forget that even today we have only 66 buildings for the entire period of 1200 years (550 BCE to CE 650) relevant for this research and in the case of some of these buildings, the purpose of their construction is open to question. Furthermore, as many as 49 out of these 66 buildings belong to the Sasanian era, so that barely 17 buildings are left for the Achaemenian and Parthian period. Even out of these 17, some could perhaps have been constructed by the Seleucides. All these points must not be overlooked in the following investigation.

Today we know about three types of fire sanctuaries. First the one represented by the two tower-like constructions of Pasargadae and Naqsh-i Rustam; then the type of Susa, and lastly the construction of Dahana-i Ghulaman (Qal'a-i Nau) in Sistan. One wonders why there were three types of fire temples in the Achaemenian period. Erdmann, who did not know about the construction of Dahana-i Ghulaman, held the opinion that they reflected a contrast of different forms of fire-cult: the one represented the cult of the people (town-shrine), exemplified by Susa; and the other represented the cult of the royal court (court shrine), exemplified by the tower-constructions of Pasargadae and Naqsh-i Rustam. Leaving aside the fact that this supposition is difficult to maintain because of the new third type of Dahana-i Ghulaman, there are further objections against it.

The question which arises is the following: how could a contrast exist between these two forms of temple, when we know that the construction of Susa is to be fixed chronologically much later: It is rather a matter of two different forms of construction, one followed by another, indicating that in the beginning there was only the court temple.

Given that it is difficult to explain the two different kinds of construction through the contrast of court and town shrines, it might still be maintained that the two types of shrines go back to two different forms of religion, that is Zoroastrianism and its later "corrupt" form of Zoroastrianism. Already under Xerxes I. (466-465) Zoroastian belief was loosing its purity. Furthermore during the time of Artaxerxes II. (405 - 358) the cult of Mithras and Anahita found its way into Iran, which means that a corresponding replacement, or at least change of cult-form took place. Yet, it is just to this period that we date the Shrine at Susa. We lack, nonetheless, a convincing archaeological argument to prove that this structure was consecrated to Anahita.

How to classify the structure at Dahana-i Ghulaman in this connection, must therefore remain an open question; and there is always the possibility that this particular structure is an exception, especially as it is situated on the outskirts of the Achaemenian empire.

The rather woeful conclusion remains that because of the paucity of the sources in the fields of both religion and archaeology, we still have to depend upon supposition.

Furthermore, one has to examine the antecedents and later developments of the two divergent types as exemplified by the example from Susa and those of Pasargadae and Naqsh-i Rustam. For the tower-like constructions, the antecedents may be sought in Urartu. The characteristics of the Urartian Temple, like those of Cavustepe, Toprakkale and Altintepe are their square form; the comparatively narrow entrance, and the almost square Cella. All these characteristics are also present at Naqsh-i Rustam and Pasargadae. Their development in Iran, however, remained isolated. The only subsequent development we know is
The other form of Achaemenian shrines has greater significance. Here we are fortunate enough to have more models for comparison, so that the discussion is much more extensive. The first scholar to deal with the problem was Oelmann. He indicated in 1921 the resemblance of certain Nabataean temples of the first century B.C. and the first century A.D. to the structure at Susa. The resemblance between the temple of Sahr in Syria and that of Susa is particularly great. In both cases the square cella with four pillars is surrounded by a corridor. In front of this corridor there is a prostas with two pillars, which opens into a square court. Oelmann held the opinion that the Nabataean temples, like the Achaemenian temple at Susa had sprung from the same root, that is the old Syrian architecture.

This view of Oelmann's was strongly opposed in the following period. To summarise the various opinions, we have two basic standpoints left: a) that the structure at Susa follows non-Iranian prototypes, that is Syrian or Babylonian models, or b) that it is an independent Iranian development.

The advocates of Syrian influence see the type of construction which has been called Hilani as a starting-point for it. I cannot follow this opinion.

The starting-point for Susa, that is the square with four internal columns, is found rather in the palace of Persepolis in the Central Building and at the Xerxes-Gate. There is no convincing argument in favour of the direct influence of old Syrian architecture on the Achaemenian temple; in this way much support is found for the view that the construction of Susa is the model for the Nabataean temples as well.

The bases and the bull protomes in the Nabataean temple of Sic, as well as the fact that it was consecrated to Baal Shamin (the God who was held equal to Ahura Mazda during this period) are further indications that the Nabataean temples are to be traced to an Achaemenian model. The same objections can be made to the suggestion of direct influence from Babylon. In this case, as well, a direct derivation is impossible. Let us consider the Babylonian models mentioned by Gullini in his book about old Persian architecture, for example the temples of Ninmarch and Gula in Babylon as well as the Assyrian temple in the palace of Sargon II. at Khursabad. One cannot deny a certain basis conformity with Susa, such as the plan, comprising the court-yard, the portico and the cella; a resemblance which can also be observed in the Syrian Hilani buildings. Nevertheless, the structure at Susa is clearly distinguishable from these Mesopotamian and Syrian examples in two respects: the square form of the cella with the four internal pillars and the surrounding corridor. Such a plan is not known in Mesopotamia and is a particularly important piece of evidence for the independent development of this type of building.

A further point to be examined is the subsequent development of the Susa-type of structure. Here we have to mention as the first example the Fratadara temple at Persepolis, (sometime after 300 B. C.) where the direct influence of Susa is recognisable. It has a square room with four internal pillars, isolated through small side-room, and in front of the square room there is a portico.

It is not certain which building follows next chronologically, as precise dating is simply impossible. Most probably, however, it is the Parthian sanctuary at the Kuh-i Khwadjia, the construction of which must fall within the second or first century B. C. The sanctuary of Jandial (2nd-1st century B. C.) in Taxila, Pakistan, belongs to almost the same period. The resemblance between Susa and Kuh-i Khwaga cannot be overlooked. In Jandial also we have the same arrangement: a portico with two pillars, behind that a further room, which leads to the main square-room, and, above all, here, as well, is a surrounding corridor. It is, therefore, generally supposed that the layout was planned under Iranian influence. Yet I hold the opinion that this building in its layout remains at a greater distance from the designs of Susa-Fratadara and Kuh-i Kkwadjia; the more so because the four independent pillars in the internal room are missing.

Then follow the Nabataean temples in Syria (1st century B. C. - 1st century A. D.) which we have already mentioned. Close to them, geographically and chronologically, lies the small but well-known structure at Hatra in Iraq, (second half of the first century A. D.). This structure is attached to the southern end of the back wall of the great temple of Hatra: It is an almost square, barrelvaulted building. The square room is surrounded on all its sides by a very high and likewise barrel-vaulted corridor, and has only one small exit on one side. The similarity with the sanctuaries already mentioned is evident: an almost square room with a surrounding corridor, only the four pillars in the main room are missing. The pillars, however, were no longer
new development, which departs from this type in one point, in having strict separation between the place of the Parthian sanctuary. The opinion of Erdmann is not right in so far as he claims that successors to the Susa sanctuary on the Kuh-i Khwadja, which has taken over almost exactly the ground-plan of the sanctuary, the square Cellar with the four internal pillars and the surrounding corridor, is, without any doubt, of Iranian origin. The question of what kind of sanctuary it was, remains disputed.

Next follows chronologically, the sanctuary of Surkh Kotal in Afghanistan (1st or 2nd century A. D.). This building at Surkh Kotal is a large sanctuary built on five terraces, one above the other. A broad stair-case leads to the sanctuary which lies on the top-most terrace. The main room contains one cella (ca. 11 x 11 m) in the middle of which there is a square platform of stone with three steps and one pillar-base on each side.

Schlumberger had already indicated in his first report that there was a remarkable resemblance to the Iranian temples, particularly the sanctuaries of Susa and Persepolis. However, it must not be overlooked that many other characteristics, for example the peristyle and the attic profiles of the pillar-bases indicate a Greek influence. Nevertheless, the original ground-plan of the sanctuary, the square Cellar with the four internal pillars and the surrounding corridor, is, without any doubt, of Iranian origin. The question of what kind of sanctuary it was, remains disputed.

If we try to review these two epochs, we come to the conclusion that there is one form of sanctuary (see Plate 1) which remains more or less unchanged throughout many centuries: Susa (5-4th century) - Fratadara temple (beginning of the third century) - Kuh-i Khwadja (2nd-1st century B. C.) - Nabataean temples (1st century B. C. to 1st century A. D.) - Hatra (1st century A. D.) - Surkh Kotal (1st to 2nd century A. D.). The most prominent characteristics of these buildings are as follows: the square form of the cella, the four internal pillars replaced in the case of Hatra by the barrel-vault-the surrounding corridor as well as, in the case of Iranian fire-sanctuaries in this line of development - the union of the Atashgah and the public center of cult in one structure. In addition to this, all these buildings (except that of Surkh Kotal) have the portico with two or more pillars. A further speciality of these buildings (except in the case of the Nabataean temple of Sahr) is that the view into the inside of the temple is obstructed either by means of an axial dislocation (Fratadara-temple), or by means of an intermediary wall (Susa), or by means of placing the structure on a terrace, so that it could only be reached by ascending the steps (Khu-i Khwadja, Surkh Kotal).

It is remarkable that the orientation of the individual constructions is very different. In the case of the tower-like constructions of Pasargadae and Naqsh-i Rustam there was a certain uniformity (the entrance in case of Zindan-i Sulaiman as well as in Ka‘ba-i Zardusht lay on the northwest). It is however impossible to find out any uniformity in case of the succeeding structures. In the temples of Susa and Surkh Kotal the entrance was on the East; in the sanctuary on Kuh-i Khwadja on the north-west, in the Fratadara temple and in the structure annexed to the temple at Hatra in the West and in the temple of Jandial on the South. When one considers the following era, the Sassanian period, it is at once apparent that the number of the sanctuaries and fire altars and fire bowls, so far discovered, is relatively large.

A distinctive novelty of Sassanian temple construction is the introduction of the Chahar-Taq; the nucleus of the structure is no longer closed, each of its four walls opens into a wide bow-position, its dome being based upon freely standing columns at the corners. Not long ago, the presumption was that such a Chahar-Taq had already existed on the Kuh-i Khwadja during the Parthian period. Gullini's research, however, has revealed that this construction with four bows originates from the Sassanian period. Of course, the possibility cannot be excluded that one day a Chahar-Taq might be found which dates from the Parthian period. Even in that case, the introduction of this type of construction could only have taken place almost at the end of the Parthian era; that means sometime after the construction of the building annexed to the temple at Hatra (second half of first century A. D.). The square ground plan of this building would lead one to expect a dome-construction; the buildings, however, have applied a barrel-vault which, in my opinion, proves that they did not know about the other construction, or at least were not so familiar with it.

A general view of the Sassanian cult buildings so far known to us, leads us to the conclusion that, although the ritual buildings during this period still show a number of characteristics of the preceding epoch, the new epoch also had its own traditions.

The structure at Bishapur clearly shows Achaemenian influence. The same is true about the Sassanian sanctuary on the Kuh-i Khwadja, which has taken over almost exactly the ground-plan of the preceding Parthian sanctuary. The opinion of Erdmann is not right in so far as he claims that successors to the Susa type of temple are to be found only outside Iran. But besides the continuation of the Susa-type, there is a new development, which departs from this type in one point, in having strict separation between the place of
worship and the Atashgah. Even where it is otherwise, that is where the Chahar-Taq and Atashgah are united in one building, it is conspicuous that the inter-relationship of the two elements is extremely loose.

The new type of sanctuary, that is the Chahar-Taq, brings an important question with it: why does the act of worship which in the case of the Achaemenian and Parthian period was held in more or less closed rooms or buildings, now take place to a great extent in an open space, visible from far off? Does it mean that the religion was more strongly forced by the State during the Sassanian period? In other words, that the State and its representatives tried to make the "State-Religion" popular by erecting numerous Chahar-Taqs? Of course, the nature of the official religion of the Sassanian state remains in dispute to this day and it would appear that at least for a certain period, numerous religions contested with each other. The bluntly fanatical zeal with which, for example, Kartir pushed forward the propagation of state religion in the third century, brings us to the conclusion that there existed a certain resistance which had to be overcome. In his inscription on the Ka'ba-i Zardusth in Naqsh-i Rustam, Kartir reports, inter alia: "and I made many fires and Magians successful in the empire of Iran." Thus one may assume that the Chahar-Taq was selected as the form of sanctuary, as its fire was visible from far off.

If one tries to find out certain basic characteristics of the Sassanian temple, one will find the best possibility in the main form of structure in the Chahar-Taq. Out of 49 structures known to us today no less than 41 are Chahar-Taqs. The remaining buildings are of various types. It is remarkable, that first and foremost, the Chahar-Taq is found in Fars (19) Iraq-i 'Adjami (10) and Kirman (6). This means that more than half of all the Chahar-Taqs lie in Fars and one third in Iraq-i 'Adjami and Kirman. The rest of the Chahar-Taqs are scattered as follows: Khuzestan (2), Sistan (1), Kurdistan (1), Azerbaijan (1) and Khurassan (1). This unfavourable relation of the last mentioned provinces would not change even if the rest of the buildings which are not Chahar-Taqs are taken into consideration, as they also lie in Fars and Iraq-i 'Adjami. Even if those fire-sanctuaries which have been mentioned by the Arab Geographers, and which do not exist anymore are taken into consideration, the proportion would not change.

It might be asked, whether the three provinces, Fars, Iraq-i 'Adjami and Kirman played a special role for Zoroastrianism during the Sassanian period? For the greater number of sanctuaries found within these provinces cannot simply be explained by the consideration that these areas have been better archaeologically explored.

To examine the individual ChaharTaqs, one can differentiate between two major groups: one consisting of ChaharTaqs connected with other large complexes (Takht-i Sulaiman, Qasr-i Shirin, Kuh-i Khwadja and Kunar Siah) and a further group consisting of Chahar-Taqs to which sometimes an Atashgah and other unpretentious sub-rooms are attached.

It is remarkable that all the large buildings have a surrounding passage, with the possible exception of Qasr-i Shirin, where it is no longer ascertainable whether such a passage existed; though it is assumed to have been done so by many scholars. Those Chahar-Taqs in the second group which are distinguished by their size such as Tall-i Gangi and Chahar Dih, also possess such a surrounding passage. Out of 41 Chahar-Taqs known to us, 19 have this feature. Furthermore, it is to be assumed that some of the other ChaharTaqs also had it, but that it simply disappeared in the course of the centuries.

Trying to work out further typical characteristics of the Chahar-Taq, we have to think about the following: the size of dome, the length of the sides, the orientation of the building and the structure of the dome. These characteristics should be examined separately in each individual province and then compared over the whole area.

To begin with the province in which most of the Chahar-Taqs are situated, Fars (19), the largest dome-diameter is 8.70 while each side of the square building measures 14.30 m. (Bala Dih). The smallest comparative measurements from Qal'a Quli are 2.10 m. and 3.50 m. respectively. Almost all other dimensions between these two extremes may be found but it is remarkable that there is no constant relationship between these dimensions.

Likewise, it cannot be said that the thicker the external pillars the greater the dimension of the dome.

As for the orientation of the individual Chahar-Taqs in Fars, a certain conformity is recognisable: 5 buildings
are so designed that their corners face the four cardinal points. Only in one building this is not the case. As for the remaining Chahar-Taqs in Fars we have no description of the orientation.

This lack of constant relationship between the various dimensions is not found in the province of Iraq-i 'Adjami. Here we come to ascertain that the thicker the external pillar, the greater the diameter of the dome and 'the external dimension. Furthermore, these buildings are in general larger than those in Fars. With regard to the orientation it is again remarkable that the corners of four constructions likewise point to the four cardinal points.

In the province of Kirman, on the contrary, many irregularities are to be found between the individual buildings. There are three buildings orientated to the cardinal points, as above. In the three others there is no such orientation.

If one compares the relationship of these three provinces to one another and the remaining Chahar-Taqs from the other provinces, one cannot arrive at a standard type on the basis of the dimensions. One may recognize three characteristics or qualities which appear fairly often: the orientation towards the four cardinal points which has already been pointed out, is also to be found in the sanctuaries - of Bishapur and Kuh-i Khawaga. As regards the length of the sides, it is to be concluded that out of all the 41 Chahar-Taqs known today in Iran, 22 are between 8.01 m. and 11.40 m. long. Finally, it is to be noticed that in the 'Trompen' area the Chahar Taqs have a small window on each side of the room, as far as meaningful photos of individual Chahar Taqs exist; the only exceptions are Kunar Siah, Kiratah and Zahrshir.

To my mind, no development towards an ideal type has taken place, although such could have been expected by the end of the Sassanian period.

Vanden Berghe drew attention towards the fact that it might perhaps be possible to arrive at a dating by means of studying the method and style of the construction of the dome. But the difficulty is that a greater part of the domes of the individual Chahar Taqs are no longer extant. On the other hand we find that construction of the dome of the Chahar-Taq of Niyaasar corresponds exactly with that of Yazd-i Khwast; although the one building has been placed presumably at the beginning and the other at the end of the Sassanian period.

Finally it is to be ascertained that though there are a number of particular points which distinguish the Chahar Taqs, they are not sufficient to make an exact dating possible. It appears, as if the Chahar-Taq, once in use as a type of construction, did not undergo any significant developments in the architectural sense. Only a few variations are found: for example the rectangular form of Farrashband no. 3, Naqqara Khana and Nigar, of the more complex Chahar-Taqs of Tall-i Gangi and Nigar, each one of them is surrounded by a certain conformity, partly vaulted corridor.

Finally, the question remains, whether an arrangement or hierarchy of these fire-shrines exists. According to the Bundahishn there are three great royalfires: Atur Fambag, the fire of the priests; Atur Gusnasp, the fire of the warriors and Atur Burzin Mihr, the fire of the peasants. Besides these, however, there were other fires: firstly the Atash Ohrmizd (the symbol of the royal sovereignty) and the Atash Bahram.

Another classification is known to us from the Kartir inscription on the Ka'ba-i Zardusht, it is the distinction between the Bahram-fire ("Atur-i Varhran") and the other fires ("Aturan"). It appears to be a real differentiation, most probably in the form of an hierarchy. This division, being the only one recorded from the Sassanian period, is very important.

Thus, we have three different arrangements of the fires: first the classification according to different groups: priests - warriors - peasants, and beside that the bi-partite division in to the Ohrmizd - and Bahram - fire and finally the contrast of the Bahram - fire and other fires. The position of the various fires in relation to each other is not very clear; this is particularly applicable to the fire of Bahram in contrast with the three great fires of the three groups. Is it possible that these three fires were also Bahram-fires, or did any contrast, contradiction or hierarchy exist?

The question remains, how far does the archaeological evidence correspond with this. The position of the three royal fires cannot be determined to utmost certainty. One may indeed localize the Gusnasp-fire with
three royal fires cannot be determined to utmost certainty. One may indeed localise the Gushnasp-fire with some certainty on the Takht-i Sulaiman in Azerbaijan; but as for the other two fires, only suppositions exist due to the lack of the archaeological findings. Only one indication is known concerning the localisation of an Ohrmizd-fire: a column found by Ghirshman during the excavation at Bishapur. It bears an inscription which, inter alia, employs the following wordings: "in 40th year of the fire of Ardashir" and "in 24th year of the fire of Shapur".

The state of knowledge about the Bahram-fire is no more satisfactory. Today no construction has been found in Iran which could be a fire-temple according to the archaeological evidence, and, at the same time, is mentioned as a Bahram-fire in the sources. In the "Kamamak" and also in the inscription of Kartir on the Ka'ba-i Zardusht, a number of Bahram-fires are mentioned, but either there is no mention of the place or they cannot be located. There is no archaeological evidence for the distinction made by Kartir between Bahram-fire and other fires; the only division which is recorded from the Sassanian period itself. In my opinion, this division cannot be reflected in the contrast between sanctuary with a palace and the rest of the sanctuaries. Only four constructions of the first category exist, which hardly justify the claim of Kartir regarding the establishment of numerous Bahram-fires. Furthermore, two out of these sanctuaries have presumably been constructed very much later. Therefore, one has, perhaps, to draw a line between the Chahar-Taqs on the one hand and the free-standing altars on the other hand.

With that, the survey of the Iranian fire-temple comes to a close. It becomes clear that many questions still remain open which can only be solved by further work both on the architectural remains themselves and in the field of Zoroastrian Studies. I should, therefore, like to mention some projects and themes, which, if examined and worked out, would help to solve some of the problems.

For the Achaemenian period, the following explorations or excavations may be taken into consideration:

1) The immediate surroundings of Ka'ba-i Zardusht. Schmidt might have undertaken explorations in Naqsh-i Rustam in the course of the Persepolis excavation but unfortunately, no report is available about that.

2) The Fratadara-temple near the terrace at Persepolis.

3) Qiz Qal'a, a high site in the vicinity of the inscriptions of Gandj Nama near Hamadan.

4) Kuh-i Khwadja, where the actual area of the fire temple has never been excavated.
For the Parthian period, the following places come into consideration:


Though the number of monuments of the Sassanian era is considerably higher, yet there are some structures of which an examination would be of great service for the research. I should just like to mention the following places:

1) Firuzabad. Of course one does not think of the whole town, only the tower-shaped construction in its vicinity.

2) A new examination of the so-called Chahar Qapu near Qasr-i Shirin should be very important.

Besides these tasks for field-research the following special studies would be desirable:

1) A re-examination of the MiddlePersian Zoroastrian literature and the indications of the nature of the Zoroastrian cult.

2) Work on the altars. Not only should the various surviving altars in the field be considered, but also special attention should be devoted to the examination of representations of altars on rock-reliefs, on seals, coins and on clothes.

3) A scholarly compilation of such available sources as could give information about the religious activities or views of each individual ruler of the Achaemenian, Parthian and Sassanian eras.

To my mind, it may well be that a comparative study of religion in these periods might one day produce a clearer, more coherent understanding of Iranian fire-temples, even with regard to the various architectural forms.