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# Typology of Iranian Gardens during Zand Dynasty (1750-1794) in Shiraz, Iran

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### ABSTRACT

Iranian garden is the original output of Iranian life and mental interaction in their natural environment. Zand dynasty, commenced in Iran after overthrowing of Safavid and Afsharieh, is a short period from 1750 to 1794. Yet, not so much studies have been done in Zand architecture and urban planning. In this article, the gardens of Zand dynasty in Shiraz will be functionally, geometrically and structurally analyzed, and in this way the typology of gardens during this period is presented. General speaking, Zandiyeh gardens can be divided into two classes of "state gardens" (e.g., Jahan-Nama, Nazar, Divankhane Gardens) and "graveyard gardens" (e.g., Chehel-Tanan and Haft-Tanan Gardens). Not that Zandiyeh gardens are of ample variety and complexity from viewpoint of form or shape. Pergolas are oblongs of extended length to the northern side of the land or possibly as octagons. The building materials are mostly plain bricks with tiling ornamentations in a minimal. As compared with the Safavid dynasty gardens, the Zandiyeh's are generally of smaller size not to mention their being of more humanitarian scales collated with the Safavid's. The aim in building those gardens had not been amusement of the ruling clause but, rather, focusing on national-urban-state needs.

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### Introduction

In Iranian thought, garden is a manifestation of an ideal concept of the eternal heaven which has been diminished from subjectivity to objectivity. In Iran up to the west side of Zagros mountain range from the time when there is no detail information, maybe the early bronze age (about 3500 BC), people were believing in a heavenly garden, something like paradise (Hasoori, 2002). Although, there is not such evidence of garden construction in Median and Achaemenian era, but in so many ancient and religious texts, the quality of such gardens had been praised (Asadpour, 2005). The present Iranian garden tradition trace back to the first royal Achaemenian gardens in Pasargadae (550 BC) near Shiraz. The basic pattern of these gardens is an inner garden with an area of about 300-350m<sup>2</sup>, in which the stone watercourses are still present. These watercourses divided the garden to four equal portions. The most famous theory on the method of forming landscape in Persian garden is "char-bagh" (four gardens) concept, as mentioned above. However, this concept is not completely true in all historical instances any many criticized its roll (Mansouri and Haidartaj, 2010). None the little, it could be considered as the initial and basic source of formation of this tradition or so-called genotype of that. Many are of the opinion that the old pre-Islamic Iranian garden patterns have formed theoretical roots of Persian gardens as an earth heaven in conjunction with concepts and images that Islam illustrated from the heaven. Thus, Iranian garden could be considered as a manifestation of earth heaven, the reputation of which has been reached to most important languages of the world such as Arabic, English and French.

Going beyond the garden designing methods, concept of "char-bagh" or dividing the garden into four equal parts has become also the basic pattern of carpet designing; the patterns which are called in the same or similar names in different

regions of Iran indicate the same fact. The oldest description of such pattern in Islamic historiographies describes a carpet with an area of 65sq/m woven for Ctesiphon of Sassanid (651-224 AC) which depicted a rosary (Hassori, 2002). Unfortunately, the existing pieces of *rosary carpet* in Iran have been remained merely since Safavid era (1051-1772). The similarity between Persian carpet structures and Persian garden construction has greatly helped understanding the truth of this tradition. A nested margin in carpet design is a symbol of several walls which were constructed in mythical Persian gardens as a barrier against daemon attack to the rosary. The four-sided symmetry in carpets design associates with the garden geometry. Also, using the design of plant and trees such as cypress and other living creatures, all confirm the influence of Persian carpet from Persian gardens.

On the other hand, Iranian garden is also the original output of Iranian life and mental interaction in their natural environment (Mansouri, 2005; Shahcheraghi, 2010). Iran's climate is droughty and the major part of it is desert or semi-desert. In such a dried nature, the presence of water and following that the possibility to grow plants and trees demands its special plans and strategies. This is why the Iranian garden is enclosed and water is considered as the main pillar in its design and construction. So, wherever the presence of water has been possible, a land has been provided and a garden has been established to compensate natural shortcomings of the environment. Throughout its several thousand-year histories, this old tradition has over run its development till the past century.

Zand dynasty, commenced in Iran after overthrowing of Safavid and Afsharieh, is a short period from 1750 to 1794. In this dynasty, for the last time, Shiraz was selected as the capital of the country. During Zand ear, the gardens of Shiraz, which

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are famous for being historical and paradise like, are considered as a part of invaluable architectural heritage of Iran which deserves more attention. However, not so much studies have been done in this regard. Having a descriptive expression, which is considered as a required, introductory and complete knowledge of each phenomenon, this article has an analytical approach to gardens of Shiraz at the time when it was the capital in Zand dynasty. In this article, the gardens of Zand dynasty in Shiraz will be functionally, geometrically and structurally analyzed, and in this way the typology of gardens during this period is presented.

#### Research Methodology

This research is historical and interpretative one. Due to declining property of natural elements of garden over time, explaining the evolution and history of garden design in Iran based on archeological and objective evidence is considered as a very difficult task. So that in historical knowledge of gardens, various resources and several instruments such as literary and historical texts, travel accounts, archeological documents and the like are conjointly used. Therefore, different prototypes of Iranian gardens are generally classified based on their function and form. Then Iranian gardens of the time when Shiraz was the capital of Iran, Zand dynasty, will be historically studied. In this stage, the historical texts and images have been used. Finally, based on the data of the last two stages, historical gardens of Shiraz in the mentioned period will be studied based on formal and functional typology.

#### Different Types of Iranian Gardens

By type, we mean a series of formal or functional specifications of each garden is in interaction with its similar group, and so providing the possibility for comparison based on similarities, which makes the study of its evolution and development possible. Therefore, Iranian garden includes two types of typology; one based on the main function of the garden which is called "functional typology", and the other is based on its apparent form which is called "formal typology". It is necessary to mention that many researches do various classifications. For instance Ansari (2008) find at least 14 categories in Iranian gardens based on its main functions. Nevertheless, Soltanzadeh's (1999) classification has been used in this paper for its general view. According to him, different Iranian gardens are divided into 5 groups with regard to their main function, named as Fruit gardens, Residential gardens, state-royal gardens, State garden and Grave-gardens.

Fruit garden is the most simple and however the most economic type of garden. Such gardens often lack an edifice and the purpose of its establishment is to utilize fruits and sometimes for plantation and floriculture. Residential gardens are often constructed in suburbs and outside the urban area by lords and rich men, and the purpose for their construction are to provide more favorable environmental conditions. "In term of properties of residential areas, residential gardens are classified into two groups: first the gardens, the residential area of which occupies a small area, or in other word, building is situated inside the garden. The second type, are small gardens which are at the back or besides a residential unit. These small residential gardens are mostly within the city area" (Soltanzadeh, 1999, 44).

The third group of Iranian gardens is state-royal gardens. These gardens are mainly seen in the cities where there are not notable state premises, and in fact, they are considered as a combination of the governing residential area and a place for conducting bureau-administrative affairs. But State garden is

considered as the most complete garden in its type. Such gardens have been established in large cities. State gardens are often part of a larger state complex. And the last type of Iranian garden is "Grave-garden which is a type of garden that the whole or parts of its area was allocated to grave. There is not much more reason and philosophy for the emergence of grave-gardens; also not enough studies have been done on the process of its formation in Iran. Based on the available documents since Eilkhani period (1256-1335), more attention has been given to the construction of grave-garden than before. In Iran, there is no large and glorious grave-garden to be initially designed for this purpose" (Soltanzadeh, 1999, 46, 47).

Another type of typology of Iranian garden is based on the *garden form* and its *physical features*. Physically, Iranian garden includes two types of elements; the first one is interpreted as hard elements which include walls around the garden, structure, summerhouse in the garden, service spaces and plots (flowerbeds) division and water curb. The second part is soft elements which are unstable when encounter with weather-climate changes; such as water, vegetation and trees. Types of trees consider natural requirements and climate condition. Also, the presence of water flow in the garden and how it runs, demonstrates the advanced engineering with an old pattern based on moral-geometrical concepts. This pattern has been formed over time. In general, Iranian garden has been ever an enclosed area. Having demarked the garden limit, the surrounding wall has provided the feasibility of making a micro-climate which has made a suitable space for cultivating other trees in Iran's dried climate with tall and persistent trees which were planted in the garden margin and after the surrounding thick wall. Planting trees in regular rows and benefiting continuous flow of water, ponds and pools, all were designed in a checkered structure identical with the repeated division of square or rectangular modules, known as *char-bagh*.

Therefore, classifying Iranian gardens with regard to their form is possible based on type and the position of the main summerhouse of the garden. So, Iranian gardens could be classified in two other ways. Based on the location of garden main edifice or based on its forms. Position of the main edifice of the garden is based on the visual scenes. So, in Iranian gardens the its summerhouse or edifice located in the middle of the garden or one-third north and situated in the intersection of the two main axes of the garden. In these cases, there is a water pool in the front and waterfronts in the axes ending to the summerhouse. Such designs are scattered throughout Iran. With regard to the apparent form of summerhouses, facts show considerable variety. Summerhouses which are the only extrovert edifice in Iranian fully-introvert architecture could be designed in different forms in plan; such as square, simple rectangular, octangular and other complicated and regular polygons.

#### Shiraz & Its Historical Gardens

Shiraz, the capital of Fars province, is one of the oldest cities and the most populous cities of the present Iran. Its name has been found in Achaemenian inscriptions explored in Persepolis. Shiraz has a semi-temperate climate, and in the past its water had been supplied from number of subterranean (*Ghanat*). Afifabad, Eram, Delgosha, and Bagh-e-Takht are well-known gardens in Shiraz which have a vague but very old history. Moreover, it has had proficient poets, philosophers, architects and artists during history.

### The Qualification of Shiraz Gardens before Zand era

Our information from Shiraz gardens before Zand dynasty is very low. Giving a definite expression regarding to so many features of these gardens requires more detailed historical and archeological data. However, in the oldest available image of Shiraz, drawn by Andre Dulier-Dealandes in 1664, about 100 years before ruling of Kari khan Zand in Shiraz (1765), an interesting point can be found. Based on Dealandes' illustrations and descriptions, there are lots of cypress trees around Shiraz especially in its northern entrance and west side which has surrounded the city area. This image has been drawn from the north of the city behind *Koran gate* which gated the way to Isfahan (Asadpour, 2007, Sedaghatkish, 2004).

Jean Charden, a French tourist, who visited Shiraz in 1674; about 10 years after Dealandes, has a picture from the city entrance in which the abundant trees are noticeable. In his picture, Haft-Tanan & Chehel-Tanan gardens are seen in the bottom of the picture. Cornelis de Bruyn, the well-known Dutch traveler is another tourist who came to Shiraz in 1704 (61 years before Kari khan came to power). In a picture from the north of city, he pointed out to Koran gate and a straight path which has been surrounded with gardens (figure 1).

However, in Niebuhr's picture (1765), drawn simultaneous with Kari khan monarchy, there is no sign of preminent gardens leading to the city anymore. Perhaps it could be due to events occurred after the collapse of Safavid dynasty till Zand dynasty came to power in 1766. "In 1723, nine months after its peerless and adoring stability and resistance, Shiraz was fallen into the hands of Mahmud Afghan's soldiers and commanders. Also, in 1744 the city was surrounded by commanders dispatched by Nader Shah, and the gardens, fruit trees and products outside the city have been all destroyed. In general, during 100 years before the monarchy of Karim khan Zand, not only we had no development in the city, but also so many developments of Safavid period have been faded away". (Sami, 1984)

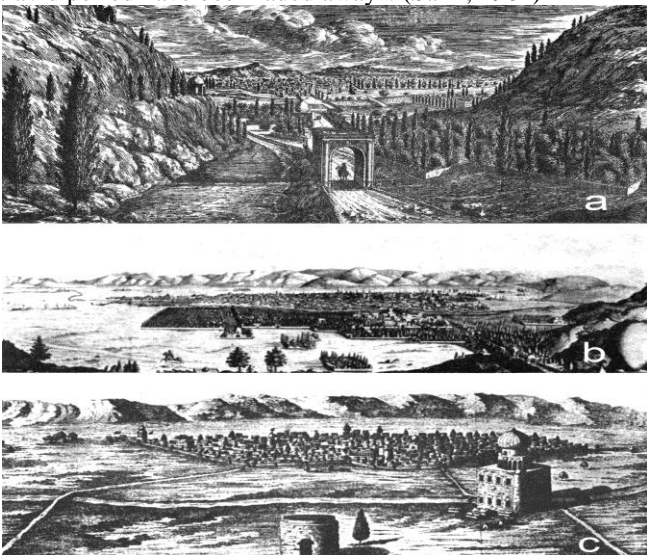


Figure 1: Old Shiraz drawings a: Dealandes (1664), b: Charden (1674), c: Niebuhr (1675)

(source: Sedaghatkish, 2004)

### Shiraz Gardens during Zand Dynasty

Having taken the power, finally Karim khan Zand chose Shiraz as his capital. He made his efforts for redevelopment of the city. In general, five gardens, among Shiraz historical and momentous gardens, belong to Zand dynasty. Nazar and Divankhane (Forum) have been in the historical urban fabric of

Shiraz located around Toupkhaneh square in Vakil Complex, and Jahan-Nama, Haft-Tanan & Chehel-Tanan have been extramural gardens (figure 2). Except for Jahan-Nama and Divankhane (Forum) gardens, there is no evidence of the exact date of construction of the other gardens. Most historians have sufficed to mention the year 1766.

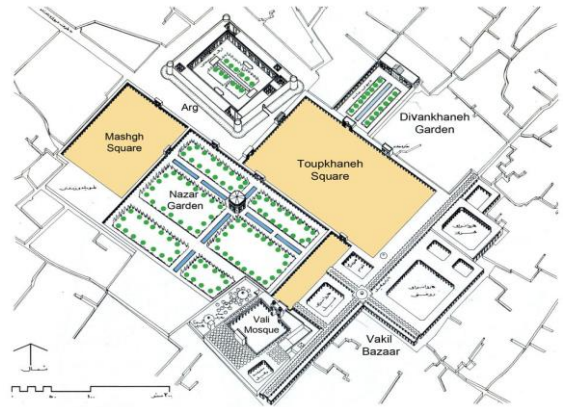


Figure 2: Vakil Complex and gardens around it (Source: Tavasoli and Bonyadi, 2008; Edited by authors) **Nazar Garden**

This garden is of the first constructed gardens in Zand dynasty which is located in the southern side of *Toopkhaneh* square. The garden had existed before Karimkhan Zand's domination (Danesh Pazhooh, 1998). At his time, Karimkhan (*Vakil*) renewed, paved and flowered the garden and added some structures to it, therefore, he is known as the garden builder (Pirnia, 2001). It is told that the garden design has been made by Vakil, he has made a four-season pergola, in four sides of which there are four long pools (Forsat Hosseini Shirazi, 1998) as if he had made this construction for his cemetery (Behroozi, 1975). During his rule, Nazar garden was also a governmental garden (Karimi, 1965). This garden was a place for performing government affairs (Forsat Hosseini Shirazi, 1998), and was used for caterings, official salutes, and ceremonies (Sami, 1984). After Karimkhan's death, he was buried in its eastern king seat, but later on Agha Mohammad Khan Ghajar exhumed his body and took his body to Tehran and buried it under the staircase of Golestan palace (Behroozi, 1975).

The garden summer house is an octagonal edifice which is 1.5 meter above the garden level (Figure 3). Inside the building, there is an octagonal pool made from marble, and there are four king seats in four sides of the middle chambers. There are paintings on the interior walls of the pergola structure and in its ceiling you can see stalactic work of flower and bird. The facade is from brick with a little tile work. It have also carved plinth. Having been expanded the city, a great part of the garden has gone on for the recent decades specifically in first Pahlavi era.



Figure 3: Nazar garden (photo by authors)

### Jahan-Nama (Vakil) Garden

Jahan-Nama Garden is one of the oldest gardens of Shiraz. According to the historical documents, this garden has been in its utmost development in Al-Muzaffar and Al-Injuids era (14 AC), and before the attack of Teimour Gorgani. It is stated that in his campaign to Iran, Teimour had been attracted by Eram, Takht & Jahan Nama gardens in Shiraz and ordered to establish such gardens in his capital, Samarkand. Zarkoob Shirazi (14 AC) in his book titled "Shiraznameh" pointed out to an edifice in this garden (Zarkoob Shirazi, 1931). Forsatodoleh Shirazi in his book titled "Asar-e-Ajam" knew the well-known Jafarabad, to which Hafez pointed out in his poems, as the place of Jahan Nama garden and its locality. Jahan Nama garden has been also populous in significant in Safavid dynasty as well. However, as narrated by Mirza Mohammad Kalantar Fars, during the warfare between throne claimants after Nader Shah Afshar till Karimkhan Zand's establishment, the majority of Shiraz gardens such as Jahan Nama have been greatly damaged (Arianpour, 1986).

Finally, in 1771, Karimkhan walled around the garden and made an edifice inside it (Arianpour, 1986). There are different sayings about the date of its construction. Some resources know the date of its establishment as of 1766 (Wilber, 2004), some other in 1766 and a few after that (Hosseini Fasaei, 2003). This garden too has been a ministerial and called Vakil garden. But after half a century, it turned into Jahan Nama (Wilber, 2004). Its design is the same like as Nazar garden, a brick octagonal edifice in the middle, four routes around it with water fronts. In Qajar period the edifice of this garden has been a place for catering foreign guests (Figure 4).



Figure 4: Jahan-Nama garden (photo by authors)

### Divankhane Garden

Divankhane edifice is situated in a large garden in the north of Toupkhaneh square. Nothing has been remained from the garden and its trees except for the edifice itself. Its construction was commenced in 1766 and terminated in 1779. Divankhane functioned at that time included a wide range of duties and responsibilities of the today's justice department and Ministry of the Interior. The garden had a pool in front of the edifice and there was a waterfront in the middle (Figure 5). Having recently excavated the garden, the trace of its waterfronts has been found. This edifice was at the disposal of Shiraz telegraph and post office during Pahlavi era, and they had made walls, temporary separating wall, and post counters in it, then the southern part of the garden was destroyed and Shiraz ex-post office was instead made there. This office has been destroyed as well and is in the process of restoration project. Divankhane edifice includes all northern side of the garden and has so many adornments.



Figure 5: Divankhane garden in Pahlavi Era (source: cultural heritage organization of Iran)

### Haft-Tanan Garden

Haft-Tanan garden-tomb is another Karimkhani monument, located in the north of Hafez tomb, at Chehel Magham mountain slope and after Takht-e Zarabi (Figures 6, 7). The etymology of this monument which is called "Haft-Tan" in the common public's language is the presence of 7 (Haft) unmarked graves. The very presence of 7 unknown graves containing the remains of mystic Sufis has been the cause for the populace calling them that way. Worthy of mention is the fact that the mystics had been entombed there before the dynasty of Zandiyeh. Various volumes of books (as, for example, "Mazarate Shiraz" means Shiraz's Tombs) have narrated different myths of multiple sources about them.

The garden's length enclosed by a high wall is as much as double the size of its width. The original plan to the garden is an unofficial one; several rows of tall trees have been planted right parallel to the enclosing wall. The garden's edifice is laid out in such a manner as to cover the whole northern side. The general shape of this edifice has been formed by an Ivan of two pillars in the middle in addition to two rooms around. The veranda or Ivan is in possession of five paintings of oil imaging five feasts made on a layer of wall plaster; these paintings are numbered amongst the masterpieces of Zandiyeh period. There is no exact clue as to their precise date of building.



Figure 6: Haft-Tanan garden (photo by authors)

### Chehel-Tanan Garden

Around two hundred strides down the Haft-Tanan garden graves are located the Chehel-Tanan garden graves. It comprises of a quasi-mosque building (generally named Tekiyeh in Persian) that had been erected for the sake of the poor by Karimkhan (Forsat Hosseini Shirazi, 1998). Formerly, it had just been a graveyard without any walls or enclosures (Karimi, 1965). As of the previous garden, there are yet again no exact clues to the names of forty persons whose remains are in the

graves. The garden's pergola is as wide as the garden's width lying to the north of it containing a porch and four rooms opposite Kibla (the most sanctified direction in the Mohammad religion right towards Mecca). The whole area is known by the name of Eshgh-Abad, which, in point of fact, is a garden of sour oranges (Karimi, 1965). The only inkling as to the original date of its building we have at hand is that it had been erected after Haft-Tanan garden while keeping all characteristics of resemblance from the point of view of planning and type with Haft-Tanan garden.

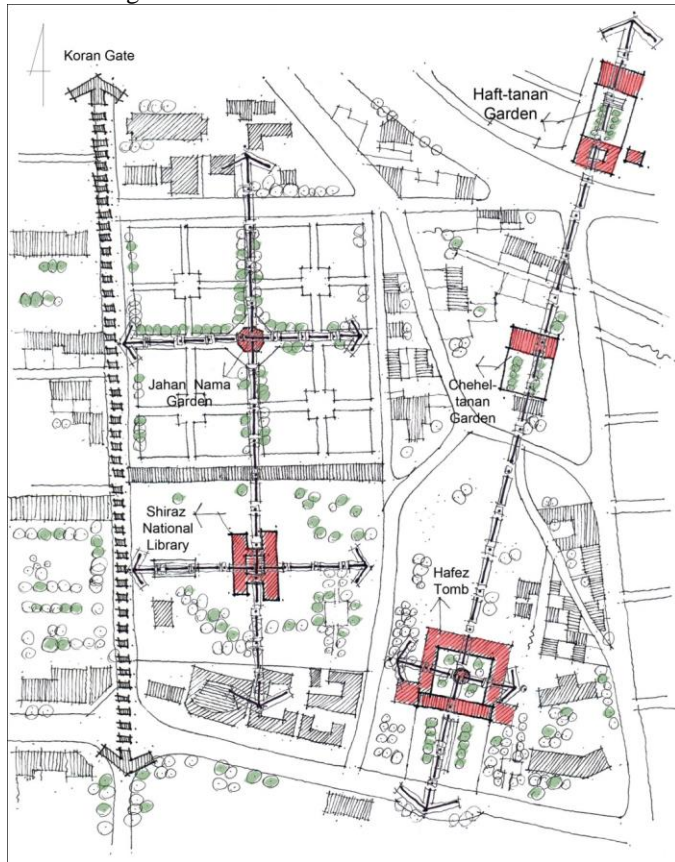


Figure 7: Location map of three Zandiyeh gardens in Shiraz (source: authors)

### The Typology of Zandiyeh Gardens

The Shiraz gardens of the era of Zandiyeh can be classified from two differing viewpoints. We might categorize them according to their functionality or alternatively, we might classify them from the point of view of the garden's shape and the pergolas' format.

### Functional Typology

On functional typology, Zandiyeh gardens are dividable into two categories of "state" gardens and "graveyard" gardens. Of the first type are: Nazar garden, jahannama garden, and Divankhaneh garden; of the second genus are Haft-Tanan and Chehel-Tanan gardens (diagram 2). The original functions of these gardens have kept the same even till the end of Ghajar dynasty. It was only through the Pahlavi era and thereafter when various functionalities not opposed to the original edifice's function were brought into them, sometimes simply to introduce reconstruction and refurbishing purposes. An example is the changeover of Nazar Garden edifice into Pars museum (1936). Other examples are the Divankhaneh's changing into the post office (in Pahlavi era) while reconstructing it into the House of Culture with reception facilities for tourists [adding on, at the same time, the information pavilion again part of the

refurbishing plan] in addition to Haft-Tanan garden's changeover to have the museum of ancient stones (in the present decade).

### Typology according to Form

On this standpoint again two branches of classification could be brought in to focus: the first one being based on the intended garden's planning and shape; the second: based on the pergola's planning and the garden's building.

### The General Planning of the Garden

The common paradigmatically pattern of Zandiyeh gardens is "Char-Bagh". Still great consideration had been devoted into their general planning while building; considering natural (climatic) circumstances and the area of the land under construction. Wherever land had been in profuse availability, the enclosing wall had generally had proportionality with some square-shaped planning, or occasionally quasi-square outlaying. Under this condition, the pergola had usually been built in the middle. This procedure had been of common use in planning Nazar and Jahan-Nama gardens. The aerial vision of Jahan-Nama garden is of square characteristics while yet again square modules are well visible in its plotting.

There were other cases where land was not profuse to be devoted to various purposes upon which the garden's edifice had to be built on the northern side just equal to the land's widths (Figure 8). These gardens are of unofficial planning; they have an area of water front fore to the edifice and pools longitudinally mapped out. Examples of this type are Haft-Tanan, Chehel-Tanan, and Divankhane gardens that had been designed this way regardless of the buildings functionality, focusing only on the land availability limitation.

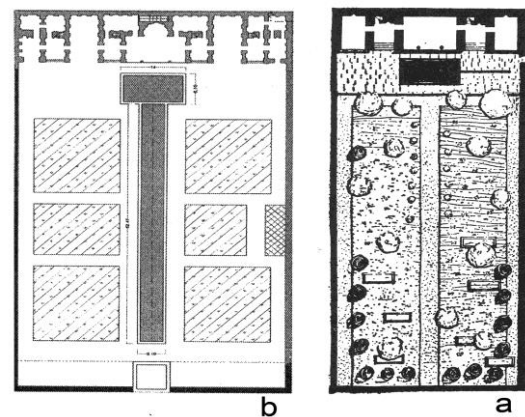


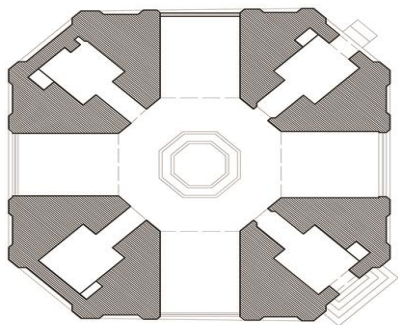
Figure 8: a) Haft-Tanan Plan (Wilber, 2004), b) Restoration plan of Divankhane garden

### The Pergolas Planning and the Gardens Edifice

Zandiyeh gardens have pergolas and buildings limitedly characterized in two ways: pergolas without any certain directionality mostly planned out in an octagonal outlay; there are still other edifices to the northern side of the land with its own width possessing some veranda/porch to the south. Of the first type are Nazar garden and Jahannama's pergolas so similar to each other in planning with the hint that Jahan-Nama garden's pergola as compared with its counterpart in Nazar garden is not only of smaller size, but also of fewer outer decorations (Figure 9). However, in both cases, the principle of "non-directionality" has been observed on the octagonal planning.

The same manner imposed to be seen in Haft-Tanan and Chehel-Tanan gardens as in Divankhane garden; i.e., there can be found again an Ivan with two rows of masonry colonnade plus bays and corridor all around symmetrically (with the exemption that part of the stone colonnade had been removed

during the period of Ghajar). Such an extending and expanding way of planning had become a peculiar mannerish style in old Shiraz houses, keeping its existence even after Zandiyeh. The most significant element of such planning is, actually, the very presence of Ivan of two rows of (stone) columns being an important indicator of Zandiyeh planning and building style.



**Figure 9: Jahan Nama edifice (source: authors)**

### Conclusion

General speaking, Zandiyeh gardens can be divided into two classes of "state gardens" (e.g., Jahan-Nama, Nazar, Divankhane Gardens) and "graveyard gardens" (e.g., Chehel-Tanan and Haft-Tanan Gardens). Not that Zandiyeh gardens are of ample variety and complexity from viewpoint of form or shape. Pergolas are oblongs of extended length to the northern side of the land or possibly as octagons (Table 1). The building materials are mostly plain bricks with tiling ornagements in a minimal. As compared with the Safavid dynasty gardens, the Zandiyeh's are generally of smaller size not to mention their being of more humanitarian scales collated with the Safavid's. The aim in building those gardens had not been amusement of the ruling clause but, rather, focusing on national-urban-state needs.

This is to be better understood in view of the political and cultural facets of the Zandiyeh dynasty whose kings considered being "proxies/advocates" of the Iranian nation contrary to the epoch's royalty then. Also, the present destruction visible before the coming to the power of Zandiyeh in Shiraz and the necessity for building development in a rapid manner has had its own gross effect on the level of decorations. Al in all, Zandiyeh garden-making fashion ought to be recognized as set in the rut of Iranian gardening much to have been forgotten since the Ghajar dynasty onwards. Long, extended waterfronts with thick plantations of endogenous trees of Shiraz (like Cyprus and sour oranges) are important elements in Zandiyeh garden-making tradition.

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**Table 1: Typology of Zand Gardens in Shiraz (source: authors)**

Garden Typology		Type	Name / Analysis	
Functional		State gardens	Divankhane, Nazar and Jahan-Nama	
		Graveyard gardens	Haft-Tanan and Chehel-Tanan	
Formal	Garden Plan	Square shape	Nazar and Jahan-Nama	
		Rectangular shape	Divankhane, Haft-Tanan and Chehel-Tanan	
	Edifice Plan	Octagonal shape	Nazar and Jahan-Nama	
		Rectangular shape	Haft-Tanan (a), Divankhane (b) and Chehel-Tanan	