

Review

Architectural background of Kerman

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This text is an effort to describe the Kerman architectural history since initialization till now, which refers to the placement of the city and its history since the architecture is affected by historical conditions. We describe the history of the city briefly and later classify the effective factors on the shape of ancient architecture and finally discuss the present condition and the kind of behavior with the Kerman historical monuments.

Keywords: Architecture, Kerman, traditional architecture.

INTRODUCTION

Architecture and city construction have never been dissected from history. Sometimes the governors were engaged in wars, or resolve the disturbances, so had no time to improve city plans that resulted in the descending architecture time. Sometimes the governors were angry with the people of a district and there were not enough supply for people to live on and not enough supply for improving the city and sometimes after suffering the people they constructed some constructions, complexes, schools, Quanat, or reconstructing the eroded sections. So we describe the history of Kerman shortly.

KERMAN GEOGRAPHY

Kerman is the center of Kerman state, the biggest state of Iran, which is placed in the South – Eastern portion of Iran, and is classified as dry and warm climate. The city is located near loot desert and is surrounded with mountains, the altitude of the city is 1750 m upper than sea level, but its climate is affected by near deserts and loot desert (Aletaha 1999).

This region has warm summers and cold winters and noticeable difference between day and night temperatures (Sanati, 1996).

Annual raining and relative humidity are low in this city, there are some sand winds in some months which their effect are reduced by performed solutions.

Naming description (The reasons for naming Kerman)

There are different factors for naming Kerman, some of

them are related to persons and some people believe its name is the result of changing some words like Kariman, Karmania, Germania and even Govashir. Here you read a tale from Bastani Parizi.

As it is told Kerman belongs to Kerman son of Hital, son of Arfakhshed, son of Sam, son of Nooh and in some unauthorized books said the Kerman and Makran are sons of Fars, son of Pahlou, son of Kiumars. Some books have written Kerman and Mokran as brothers of Fars. And in some books have written its name is sourced from Haftwad Kerm which is wrong, and it is told that it is derived from Karmian that is unacceptable (Bastani and Mohammad, 2006).

Appearance of Kerman

In most of the cities of Iran, the main core of city were constructed on a hill or high land. Ghal-e-dokhtar and Ghal-e-ardeshir were the initial cores of constructing Kerman on the basis of many historical books (Attari, 2007).

It seems army were one of the main factors appearing city cores, specially the remain of the most ancient monuments are located on the highest land of the city, for protecting the city against enemies, because survival of a human society relays on the army power and protecting strength of that society, although other factors are effective but the presence of wells and castles and trenches show this matter. The other factor for appearance of Kerman was suitable water and soil appropriate for agriculture. Do not forget the starting civilization was together with agricultural revolution,

because man must produce the initial materials including foods. So man settled anywhere that agriculture was possible, but it was not simple.

Kerman is surrounded by a row of mountains benefiting the run off water from mountains. On the other hand the slope of land made it effective for agriculture (Purahmad, 1997).

Even though Mr. "Purahmad" has told that water is one the main factors of Kerman appearance, but it seems that the rain fall rate were low during past time, in this district because there is no trace of the rivers, so his explanations can be related to the underground water and their water was applied through Qanats.

In the agricultural lands of the flat land of Kerman and high distance with the upper lands plus, a good agricultural soil with a limited cohesion made Qanats very long with the necessity of protecting them (Falamaki, 1992).

One of the other factors for the appearance of Kerman was economical and trading affairs. It seems that appearance of Kerman was a necessity because of no raining and no river preparing water was expensive. Kerman was located at the cross road of the silk way and Indian spice way. On the other hand the history witnesses that trade started in Iran before Islam appearance and reached to the pick with Islam appearance, Turkish who dominated on Iran managed trading teams and sometimes constructed new cities a longest the trading way, although the ancientness of Kerman returns to the time before Turkish appearance but locating in the way of trading made a reason for developing the city (Zangiabadi, 1996).

The necessitate for crossing the Kerman and Baluchestan desert for silk way and Indian spice way and Oman seaside way made this point Kerman except the army characteristic of the city that provided by and wall and trench, the economical characteristic promoted the bazaar (Bastani, 2006).

CITY DEVELOPMENT TREND

Before Islam

The accurate time of appearance of Kerman is not known. But history attributed it to three civilizations in the region including Shahdad civilization, Tapeh-e-Eblish in Bardsir, Tal-e-lahia in four thousand years before Christ. On the other hand, the remained monuments of Ghal-e-dokhtar showed that the main core of the city appears in Hakhamaneshian time, because the castles were made for worshipping Anahita, and so the castle were named Ghal-e-dokhtar (Osia, 1995).

As "Herodot" in the "Greek History" has told the twelve tribes of Iran and was then renamed to Kermania and then changed to Kerman (Keyhan, 1932).

Eskandar not only invaded to Shiraz, but also invaded

to other cities like Kerman. Mahmood Hemmat has written in the Kerman History Book, when Eskandar came to Kerman he ordered his army to rest one week in the city. We can see that the history of Kerman is extended to Hakhamaneshian times; it is written that Kerman had been place of exile in Hakhamaneshian times (Mirshokraei, 2000).

The Kerman region were paid attention in Sasani time and we can see for the first time, the appearance of Govashir with great fire-places and constructed Gonbad Ganj and Ghal-e-shahr and helped people to construct buildings and promoting agriculture (Bastani, 2006).

Ebne-Asir wrote about Ardeshir and Blash war: that after Ardeshir conquer he selected his son as Kerman governor whose name was also Ardeshir, after his death, Kerman was under government of Sasani kings and they made many monuments and Qanats (Jafari, 1999).

Jebelie Gonbad was constructed out side of Kerman with Sasani style, that camel's milk was used to construct it. But it cannot be said that it was constructed certainly in Sasani time or later times.

There is a tale from the book of Aghdol-ola, since the time of Ardeshir- Babakan, a wall was constructed at the eastern side of city and Mohammad son of Elias reconstructed it. After Arabian conquers to Kerman, they destroyed army places and destroyed fire places (Abuhamed, 2006).

After Islam

At the first century, it was strengthening the columns of Bani Omaie after political settlement of governor the economical settlement would took place and that would be the start of construction and agriculture.

It is written in the history, Ghazban became the governor of Kerman, he developed construction in Kerman considerable (Hemat, 1997).

At that time, Zoroastrians were under pressure of Arabs and exiled to a country side named Gabri place.

In the third century, the Abbasi government in Kerman, it was supposed to become Safavi's capital at that time the city walls were reconstructed and tall south of city.

In the fourth century, first Shiee was governor Kerman, and Aale-Boie afforded constructing in Kerman and the city had city walls and trenches at this time.

At the second portion of fifth century, the Saljooghi army entered Kerman and people suffered from army deficits until son of Gharood Saljooghi made a place in south eastern portion of Kerman, with all commodities including mosque and school and home for solders. But there is only Imam Mosque and Bathroom was remained. Extension of city was toward the north unit this time, but after that it developed to the Westside.

After Saljooghi time Kerman was invaded be foreigners and the invented be foreigners and the city was destroyed, at the early seventh century Iran was invaded

destroyed, at the early seventh century Iran was invaded be safe because of far distance to the Moghol headquarters. But because of treachery of Kerman governor and giving the city to Chengiz, Gharakhtaei received to government constructing many monuments in the city but unfortunately there is less remained.

Most of the monuments of Gharakhtion sets were destroyed and only the gate way. Of the school and their tombs was remained with the name of Ghobe-Sabz. This complex was developed in the north of city but destroyed in 1314 earthquake (Bastani, 2006).

In the eighth century Ale-Mozaffar saved Kerman from Ilghar government. You can read in Bastani Parizi note about Kerman conquer that:

“Interring to Kerman took place from Khorasan entrance and Amir Mobarez–addin landed in bazaar shah place and on the basis of Amir tendency a mosque were mode after tendency a mosque were made after conquer in 752 Hejri the construction of Mozaffari complete mosque near the Zarand entrance constructing.”

Pamenar Mosque reconstructing of city walls and construction of new gate ways like Darvaze-Dolat in Shahrokh Teimoori time.

Safavi kings had special attention to civilization and architecture supreme took place in this time. Safavi kings had special attention to civilization and architecture supreme took place in this time Kerman also not excluded from this rule, especially at the gange-alikhan government (eleventh century) the famous gange-alikhan complex was constructed. It is said that under water supply they had water supply they and the people used them in the wars (Iranmanesh, 2003).

At the beginning of twelfth and with the weak ends of Safavi government, Afghan invaded to Iran, and Kerman became belonged to them. It is said that Afghans feared of the Kermanian and they made a castle outside of the city. At the time Afsharian a new place was made in North-Eastern of Kerman and governor construction and Shahrokh-tekye were reconstructed at this time.

It is a strange matter that the last king in the each kingdom chain refuged in Kerman. This was the reason that the Kerman people did not give up the angry Ghajar king aggressed the people and took 20000 eyes of these people out. After that time other Ghajar kings wanted to placate the people by constructing new useful constructions like Ebrahim khan efforts for surviving Qanats and building new Qanats and big complexes or construction of Vakil-ol-molk (Iranmanesh, 2003).

Ghajar kings trip to foreign countries the effect of western architecture can be seen. At that time a great change took place in the city texture, on the other hand presence of non – Iranian families increased these changes; constructing Kerman Dolat-tekye using the opera salon architecture was the supreme of this change.

Finally entrance of automobile at the end of Ghajar time

made more necessitate for constructing street. It is said that first Kerman's street connected government gateway to Zarand gateway in 1307 and gradually Sepah Street building and Kazemi street till Shapour street (Iranmanesh, 2003).

Characteristics of initial architecture in Kerman region

Ancientness of architecture and city-dwelling life can be studied using ruins of three civilizations of Shahdad, Tapeh-Yahya and Tel-Eblish. What has been found in these three areas and has been mentioned by Afzaloddin Abouhamed Kermani in his book entitled “Aghdolala Lelmoghefolala” is that the ancientness of city dwelling in this region dates back to forth millennium BC. The ruins show that mud brick was used for construction at that time (from 4300 years B.C); the builders had been learned to make some holes in mud brick so that the mortar could penetrate easily into the holes while brick lying and thus more adherence was created between mud brick and mortar (a technique which is used now in making bricks). Another considerable characteristic which can be found in these buildings is the use of clay and straw. Moreover, builders plastered both sides of the wall to prevent erosion of walls and mud bricks used in them (Zangiabadi, 1995).

Effective factors in the shape of buildings and type of Kerman city texture

In his report on comparative plan of Kerman Cultural-Historical Axis, published by Kerman Province Housing and City Planning General Office, Mohammad Asghar Moradi considered nine principles in the formation of Kerman old buildings; they include: reflection of sun heat, buildings proper directions, prevention of penetration of very hot and cold weather, protection of people in the complex, providing desirable and cool weather, making use of evaporative cooling, creation of desirable weather in the yard, optimum use of sun heat, and keeping the room cold in summer and hot in winter.

Although this category is respectful, we have divided the effective factors in the formation of Kerman buildings and urban texture in three general categories.

(A) Factors related to climate: Climatic conditions includes rainfall, weather dryness, low humidity, temperature (in Kerman, we can mention very hot weather in summer and very cold weather in winter), sun shine, direction of improper winds (cold winter winds and seasonal sandy winds); climate seems to be one of the most important factors affecting shape, appearance and type of construction, especially when we think of the old days when no technologies existed for creating

desirable weather and comfort. In this case, the architects had to think of some measures to create desirable conditions in interior areas of buildings using properties of materials and climatic factors. Sometimes, effects of climatic conditions have been considered as one of integral parts of Iran's architecture. Two viewpoints exist concerning the shape of Iran's buildings especially in dry and arid regions: some consider it as one of the principles of Iran's architecture which sometimes comes from people's beliefs; and some regard it the best answer to improper climatic conditions. Low rainfall, sandy winds, very hot weather in summer, very cold weather in winter and lack of water are climatic factors which affect the formation of Kerman buildings and urban texture.

Creation of central yards in Kerman old buildings was one of the measures people took to overcome climatic problems. Existence of trees and their shades, gardens with humid soil, existence of areas around yards and making use of sun light in all four directions all resulted in the creation of desirable air in the building and in preventing the sandy winds from penetrating into the yards.

Construction of some rooms with a little pool in them and sometimes a louver on top of them for cooling the rooms in summer and making use of rooms with high penetration of southern sun light for heating the rooms in winter were other innovations of architects of Kerman. Urban texture also follows climatic issues; in addition to creating shade for people who walked there, narrow and meandering alleys prevented the penetration of dust storms, winds and sandy winds into the city.

(B) Usable materials: Some properties of buildings mainly depend on the materials. Master "Pirnia" has pointed to Iran's architecture and accessibility to necessary materials. That is, for constructing a building, it was always tried to use materials which were easily available at that region. Since Kerman is located in desert, soil was the most accessible material for construction. Therefore, mud bricks or baked mud bricks were used in most buildings and it resulted in the creation of some special construction techniques like arches, domes and thick walls. Moreover, thermal factor of products made from soil including clay, straw and mud brick was very suitable for creating proper living conditions in interior areas of the building in different seasons and temperatures.

(C) Beliefs and bigotry: Some spaces and characteristics found in old architecture of Kerman were resulted from beliefs, thoughts and culture of these people. For example, privacy was very important and respectful in this city, so it appeared in architecture of this city in the following forms:

Visual privacy: in old houses of Kerman, no visual privacy can be found from alleys and streets to the yard

and rooms. In other words, pedestrians walking in the street cannot see inside the house even if the entrance door is open. This privacy can even exist for unfamiliar guests. In other buildings rather than houses, visual privacy can be seen too.

Separation of public and private spaces

Creation of privacy -which was a kind of respecting the personal area of the owner of the building in the interior spaces of buildings, was also considered. No matter what kind of building it was (residential, shop, caravansary etc.), in every building there were always some parts which were used exclusively by the owner and his Family and other visitors never entered them. It was mostly seen in houses and when the owner was rich, he made a house with three or four central yards. The biggest yard was related to the private part of the house (known as Orangey); one yard for servants and workers; one for entertaining the owner's guests who were not the owner's relatives and friends, but rather who came there to do business and to work); and sometimes a yard in the vicinity of stables or a yard as a working place for the owner who worked in his house.

Kerman architecture status quo

What is left today from condensed and unique texture of the old city is only some lands and ruins remained from the destruction of our old texture; these ruins have been mainly appeared due to establishing and widening the streets. We always choose the easiest way to solve problems like traffic and that is destruction of buildings located in the vicinity of streets even if these buildings are very old and very valuable. Nowadays, in our city the value of buildings constructed without observing the principles of architecture and city planning in recent years is more than that of those buildings remained from special styles of traditional architecture.

We have left our city alone and are establishing big complexes around it; Kerman urban texture is now so worn out and tired that it can be destroyed more due to our ignorance. We have also forgotten the privacies and respects and are establishing new buildings regardless of the values of the remained old buildings just to create the modern buildings we have seen in some posters and pictures. We are not even ready to predict the level of destruction new buildings can impose on our old houses, bazaars and valuable buildings and we never try to prevent them. In addition, we have some constraints that economical issues impose on us. We should also note that in constructing houses with only 75 sqm, there is no place for creating privacies. In the smallest lands, we should make the highest use; and we decorate outside and inside of our buildings with pictures and designs which are unfamiliar in our architecture. We are even

afraid of thinking about this fact that these heights and symbols can damage the old remained texture which still expects to live.

We always sigh and wail that our fathers had reached high achievements and progress in architecture and construction but where are we now? But we have forgotten this main point that the reason why architectural development has stopped in our city is just due to our ignorance, because we have more technology and facilities in comparison with our ancestors.

We have also forgotten that the Qanats (underground water channels) on which we construct our houses can cause some disasters; we have also heard that we have to empty the underground water which is going up to the surface in the old texture of our city with some machines at night. Is it really a suitable solution for preventing the destruction of our old texture? Can we help and save our architectural heritage by designing a suitable sewage network?

The only thing we do now is to write a list of Kerman old complexes and buildings and to proudly say that they are the treasures left from our ancestors. But we never mentioned how to use, keep and respect them.

Remember that in the near past, we destroyed arches and porches around Arg Square to show the view of our new building more clearly. God bless those who protested against this disaster and who reconstructed them; however, it should be mentioned that reconstruction of these old buildings is not easy. I wish we thought more carefully before destroying these old buildings. We cannot construct the building which once was located in Ferdosi Street and other buildings anymore.

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