

Architecture of Iran in Qajar Era

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DOI Link: <http://dx.doi.org/10.6007/IJARBSS/v5-i5/1638>

Published Date: 24 May 2015

Abstract

The status and rating of Qajar architecture in the architectural history of Iran's past (before the new era) can be discussed and thought. In short, Qajar architecture is the continuation of the prior periods' architecture especially Safavid. In many cases, due to the entrance of elements such as street and square to Iran as well as traveling to Europe and ... some changes occur in the Qajar architecture and architecture is formed based of these elements. In the Qajar era, some elements and shapes such as arc-shaped and crescent-shaped fenestrations above orsi, santouri, springhouse entered in architecture which are counted as architecture characteristics of this era. Therefore, in the Qajar era, despite the entrance of new elements such as streets and squares (today meaning), we are witness to the growth and evolution of the architecture. Thus, in this paper, we attempt to introduce Qajar architecture and its common elements.

Keywords: Architecture, Qajar, Architecture Elements, Decoration

Introduction

In the first century of governance of Safavid, Shah Abbas divides Qajar tribe – which is one of the most powerful Turkish tribes – into three parts and deploys the first part in Merv, the second part in Georgia and the third part which itself is divided into two branches of "Ashatq Bash" and "Youkhari Bash" besides Gorgan river (Saidian, 1992; p. 223). Qajar is one of the most powerful Turkish tribes and about 700 years age Qajar's name was mentioned in the history because the lineage of this tribe is assigned to Turk ibn Japheth ibn Noah and they said that as they are descendants of Qajar Navian ibn Sertaq (of grandees of the court and the Colonel of Holakoukhan army), they have been famous with the name of their forefather (Ibid, p. 2). Qajar dynasty was founded by Agha Mohammad Khan, the second son of Mohammad Hassan Khan and the brother of Hussein Ali Khan Jahansouz. In 1794 AD, he arrested and killed Lotfali Khan Zand and in 1796 AD became the king and set the royal crown on his head and in that year chose Tehran as his capital because of its central location and proximity to the Qajar tribe (encyclopedia, 1937; pp. 116 and 117).

So many innovations and events occurred in Iran's art and architecture over the Qajar era. One of these events was the destruction of buildings remained from previous era especially the Safavid era. The reason that Lord Krozen (English explorer) stated was the fact that

"Eastern people loath fathers who are settled in the house of their fathers, they establish a building for their children and since this building might not be enough for their sons later, or the building style would change and the heir won't be satisfied with it, so, the heirs would consider destructing the buildings as the best way" (Mokhtari Esfehni, 2006; p. 156). Something that Shah Abbas did with the legacy of the past, according to another foreign traveler named Tavernier, "when Shah Abbas set Isfahan as his capital, he did not respect the old mosque of the city while he should have renovated this beautiful place which the importance and reputation of Isfahan is dependent on it" (Ibid).

In the Qajar era, due to the entrance of new elements such as square and street (today meaning) to the architecture field, some changes occurred in Iran's architecture and a new kind of architecture called street architecture is formed. In addition, architecture in Qajar era in different buildings such as: bridge, bathhouse, mosque, school, etc in the continuation of the architecture from the past periods especially Safavid era and of course, it has changes and elements which are dedicated to the Qajar era. To answer the following questions, first we will briefly describe the history of Qajar era and afterwards we will investigate the general characteristics of the Qajar era architecture and in the end, we will review the different types of buildings.

Research method

The method used for the present study is descriptive-analytical method.

Research questions

What changes did Iran's architecture in the Qajar era have compared to other periods?

What were the main features of the Qajar architecture?

The history of Qajar dynasty

The history of Qajar dynasty is politically divided into three periods (encyclopedia, 1937; p. 118).

The first period of Qajar dynasty

This period lasted about 40 years. Agha Mohammad Khan (1210 to 1211 AD) and Fath Ali Shah (1212 to 1250) respectively were the monarchs. During this period, some events such as the French Revolution and the rise of Napoleon I occurred in the West (Kiani, 2000; p. 93). Over this period, Qajar state through the signing of two Golestan and Torkamanchay treaties ceded a large area of Iran to Russia.

The second period of Qajar dynasty

The reign of Mohammad Shah Qajar and Nasir al-Din Shah lasted from 1250 to 1313 AD. The significant events during this period are dismissal and the murder of Ghaem Magham Farahani and rebellion of Agha Khan, the head of Islamic sect of Ismaili during the reign of Mohammad Shah (Nasiri Ansari, 1971; p. 273).

The third period of Qajar dynasty

In this period, Muzaffar al-Din Shah ruled Iran from 1934 to 1945 (Kiani, 2000; p. 13).

A: Factors affecting the formation of Qajar architecture

Many factors are involved in the formation of Qajar architecture which are divided into internal and external factors.

1. Internal factors

Factors that are taken from traditional Iranian architecture especially the Safavid era. They can be observed in residential houses, religious buildings such as mosques, Takaya, Hosseinieh, Imamzadeh and also in cafes, refrigerators, etc.

2. External factors

The majority of factors forming the Qajar architecture are the external factors which include factors that are taken from foreign countries especially Western countries and Russia.

Some of the factors that cause the spread of Western architecture in Iran include:

a) Travel of the governing body to Europe with the presence of Iranian consulates in European countries and other countries such as Turkey and Egypt and also Naser al-Din Shah travels to Europe which encouraged and developed town based on Europe urban development proceedings.

b) Education of Iranian architectures in Europe and the presence of European architecture teachers in Dar ul-Funun.

c) The entrance of carriages and cars in the urban transport system (Khosravi, 1998) and inter-urban system which created a particular style in the Qajar period architecture called street architecture style.

d) The presence of Russian and Armenian architects in construction of buildings in Western style (Etesami, 1995; pp. 292 and 293).

B) Street architecture

One factor that did not exist in Iran before Qajar era and was seen in the architecture of Iranian buildings from Qajar onwards was street architecture. The street architecture means construction of houses and shops around the streets which has been entered to Iran's architecture since Qajar era. It was for this reason that the architecture of Qajar period coincided with the entrance of automobile to Iran. During this period, streets that had functional aspect are bodies with the height as 2 to 3 floors facing the street, the row of shops are located on the ground floor and residential buildings are on the upper floors, the shop windows and their billboards, balconies and protrusive windows, arcs that are seen all over the street as an arcade, sidewalks, small canals and a row of trees and a garden on the edge of the street and finally, some of more major functions on the wall retreated and protruded created a kind of architecture called street architecture (Khosravi, 1998; P. 13).

Therefore, the houses were built linearly next to each other and along the edge of the street and the light of many of these buildings were provided from the street and almost the architecture style of old houses especially in big cities leaned from introversion to extroversion.

Streets and boulevards in the Qajar period are taken from European architecture style (French). One of the elements that street brought along itself was the square, but not the square in the style of Safavid period architecture which is seen in Naqsh Jahan Square in Isfahan, but apart from this style and with major changes in it. Among these changes, instead of elements such as mosque, bazaar, governance palace and madras in the square of Safavid period, telegraph house, mail house, bank and police building is seen in the square of Qajar period (Khosravi, 1998; p. 134).

C) The major features of Qajar period architecture

- * The use of vertical colored lattice windows named orsi
- * The use of red or purple colors in seven-color brick tiles
- * Using London flower pattern in tiling
- * Using the crenate along the roof of palace
- * Using the pictures of Persepolis
- * Decorative elements and facade work under influence of Western elements
- * Making large and high iwans in entrances
- * The centrality of buildings with pillars and columns

- * Tall buildings showing the grandeur and power
- * Materials such as stone, cement and iron
- * Introverted
- * Interior decorations
- * Postcard architecture
- * Creating a staircase in the main axis
- * Complying the pecking order
- * Turning three-door rooms to two-doors
- * Gable roof
- * Creating the squares

Decorations of Qajar era:

- * Seven-color tiling and colorful glazes
- * Interior view with stucco work and tiling
- * Using wooden arrays in decorations
- * Colored glass
- * London work paintings
- * London work paintings
- * The use of template decorative brick and specific lathe of Qajar period
- * Using mirror work decorations
- * Using painted tiles (court and ancient mythological paintings)
- * Using cut brick configuration in decorations of religious places
- * Rsmibandi and karbandi

The dominant color of building in Qajar period:

- * Yellow and orange which shape a part of Qajar architecture

D) Common architectural elements in Qajar era

Here, we will introduce five elements dependent on architecture which are of architectural characteristics of Qajar era:

1. Wind catcher

One of the architectural elements of Iran is wind catcher that it was common in Qajar period. Wind catchers were usually built on top of cisterns, palaces (Golestan Palace) and residential houses for air conditioning and cooling the place. At first, this architectural element was very simple and included only one vent opening and guided the air from this opening into inside, it was decorated with beautiful tile work, then, it has taken steps to perfection and their evolved form had two floors and four directions with eight openings and the wind catchers of Qajar period can be seen in Tehran, Yazd, Abarqu, Kashan, Tabas, Semnan and Damghan (Nasiri Ansari, 1971; p. 273).

2. Orsi window

It was a kind of lattice window that was opened and closed vertically and had various functions the locations they were used were in internal spaces, upper rooms and gooshvar rooms located in one or both sides of large and high halls. Orsi windows were also used on the side of the house that was faced to the public pathway. The surface of Orsi windows was decorated with a variety of different gereh sazi (making knot) patterns and colored and simple glass (Soltan Zadeh, 1996; p. 30).

Fenestrations above doors and Orsi windows of Qajar period were in shape of arc and crescent and many of fenestrations were circular and oval and in decorations of Orsi windows in Qajar era mostly the configuration work was used and their difference with Orsi windows of Safavid is that the fenestrations above doors and windows in Safavid era were in rectangular and square shapes or zigzag arc and mostly gereh sazi (making knot) was used in decorating these windows; while the fenestrations above doors and Orsi windows in Qajar period were arc and crescent-shaped and their decorations were configuration work (Sarikhani, 2003; p. 60).

3. Santouri

The antiquity of constructing santouri in architecture goes back to 700 BC in Greek temples architecture. The use of santouri was not common in Iran's architecture before Qajar era and during Qajar period entered into Iranian architecture from the classic architecture of Europe because of relationships with the West and it is one of the characteristics of Qajar architecture. Santouris are not necessarily triangular; they can have vaulted arch above them. The importance of santouri in architecture is that usually an open and wide space is created on them so they could place a particular subject inside them (Soltanzadeh, 1996; p. 163). Another common element in the architecture of Qajar era was jamkhane.

4. Jamkhane

Jamkhane is in fact a kind of window that were used over some door covers especially the bathrooms and some other types of buildings. Jamkhane usually is comprised of one spherical clay surface or in other form which a number of circular holes were created in it. Jamkhane was mostly used in spaces that by taking a number of jams in different seasons, it would be possible to optimize the temperature or humidity of the space (Soltanzadeh, 1996; p. 31).

5. Spring house (hozkhane)

In the late Qajar period, a new use of these spaces was created and by creating a ceiling skylight, a new space was made that was a very favorable living space. Spring house with special decoration and arrangement usually has a prismatic shape which is higher than the rest of the buildings and there are some skylights on top of it that guides the light into the prism and using special wooden covers, the amount of light can be controlled. This space due to having sufficient light, good ventilation and humidity and due to having a small pool of water created in the center on the ground, it is a very pleasant and comfortable place for all seasons especially summer.

C) Review of the types of buildings

1. Mosques

Discussion on the features of the design, architecture and spatial qualities of mosques are not included within the scope of this article. Only it should be stated that historically, spatial layout of the mosque in Safavid period (such as Shah Mosque in Isfahan) with two domes on the back of east and west iwan (porch) and placing the entrance on the back of the north iwan represent the completed form of the four-iwan mosque model with dome which has been acquainted with Bibi Khanom of Samarqand Mosque. Although, in terms of delicate shapes and sophistication and beauty of proportions and greatness, Abbasi Mosque is not comparable with Bibi Khanom Mosque (Haji Qasemi, 2007; p. 95). Open-handed use of color and pattern and substantiation of the full color space in this mosque have provided some evidence of the works of Timurid era Goharshad Mosque in Mashhad and Khargerd madras

in Khaf. But the combination of mosque and madras (with the addition of two madras yards in a form consistent with the mosque plan) in this building and also creating bedchambers (shabestan) with so many openings with stone columns at two sides of dome house (gonbadkhane) which make them look like some vast halls, both are new inventions that became common in later periods especially in Qajar era.

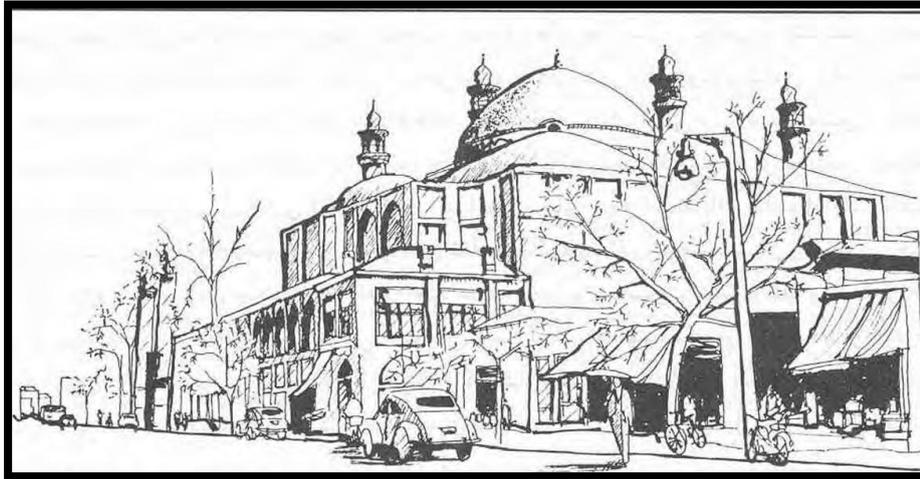
Qajar era mosques in terms of general plan including having four iwan, bedchamber, dome, minaret, altar, pulpit etc are taken from noble architecture of previous periods. But some qualities can be seen in architecture style of Qajar mosques which distinguishes it from other architecture styles of different eras and that's the existence of three large and important entrances in the middle of three west, east and north fronts of the building. Such a design didn't exist in the mosques of Iran's previous periods while some examples of this design are seen in Indian mosques of Vorkanian period. Also, the existence of a major front for qibla, one dome house and three more shallow fronts that these features are more or less seen in Indian mosques such as Delhi Jameh Mosque. This indicated the relationship of Qajar era with India and the influence of Indian mosques on Iranian mosques such as Imam Mosque in Tehran, Sepahsalar Mosque etc (Kiani, 1987; p. 10).

The minarets of Qajar period were usually short and narrow and there is a tremendous difference between Qajar minarets and Safavid minarets in terms of diameter and height (Kiani, 1987; p. 101). Minarets also have upper atriums mainly covered and tied with small dome-shaped head minarets with halo.

Qajar architects represented the non-religious function of minarets through increasing using them to emphasize the decorative market (Yazd) and urban (Qazvin) and palaces (Tehran) entrances.

2. Madrasa (school)

Schools of Qajar era somehow exhibit the peak of glory of schools architecture. Among schools of Qajar period is Sepahsalar Madarsa (picture 2) which is a complete example of schools architecture in Qajar era and the thirteenth century AH (Bozognia, 2004; p. 37). In this madras, small octagonal yards in the corner of courtyard have solved the problem of old figure of the corners of the yard beautifully. In the courtyard, instead of pool, a stream flows directly and some platforms are built on both sides of it as seats of students. The rest of the courtyard is covered with a variety of trees and plants and they make the yard look like a refreshing and pleasant garden. Another point is the conscious combination of various materials such as tile, plaster, marble and wood with various patterns and colors in courtyard facades which give an intimate and joyful appearance to it. Also, this combination of materials can be seen in the façade of Safavid period madrasa such as Chahar Bagh Madrasa.



Picture1. Sepahsalar Madrasa in Tehran, one of Qajar buildings

3. Gardens

The date of building gardens in Iranian architecture goes back to pre-Islamic periods (gardens of Pasargadae) and achieving the discipline dominating Iranian gardens has been possible along with the formation of Iranian culture. Although, this discipline is based on the views of Zoroastrianism and Islam and then Iranian culture, but the tradition of building garden in Iran's architecture has continued by the late Qajar period and even in the present time in the form of patterns, shapes and new scale rulers. Although, the tradition of building garden in the middle of Qajar era especially the reign of Naser al-Din Shah was influenced by Western architecture and most of the designers of most of the Iranian gardens were Italians, but in addition to this factor, using the experience of building Iranian gardens by domestic engineers was not ineffective.

The tradition of building gardens continued by the late Qajar period, but from that time onwards, due to the lack of interest in taking advantage of this good tradition (complying the principles of building gardens in Iran) and imitation of the West and establishing useless and gardens with few trees, the green spaces in cities were unable to create shadows over the head of citizens, let alone treat the air and reduce the pollution (Diba, 1995; p. 38).

In this part, we also refer to Kashan Fin Garden. Fin is a very old garden which Safavid played the major role in the preservation, rebuilding, reconstruction and recompletion of this garden. The middle kushks of this garden are considered to be of Shah Abbas I period buildings. This garden is one of the few gardens of our history that has continued to exist to date and the whole features of an Iranian garden can be touched and perceived in it. The existence of tall plane trees to create the shadow is one of the features of Iranian gardens in Safavid era which can be seen in garden architecture of Qajar period. Pools and rock pools were rectangular before Qajar period and the use of oval-shaped pools in Iranian gardens for the first time are observed in Qajar era.

The point applied about Iranian gardens in different historical periods especially Qajar period is avoiding inanity and being introverted of gardens which are of important features of Iranian gardens. The prevalence of oval-shaped pools is specific to Qajar period and influenced by the West architecture (Sarikhani, 2003; p. 19).

4. Bridge

Bridges built during Qajar period are influenced by the architecture of bridges built in Safavid era in terms of design and general style especially in using opening of percussive arch water

breaker (breakwater) and kanoes. But in terms of beauty, elegance, decorations and strength, Qajar bridges are not as good as Safavid's. because the peak of bridge building art in Iran is in Safavid period which can be seen in Khajoo Bridge and Si-o-se pol (Sarikhani, 2003; p. 192). Among bridges built during Qajar period are: Bagher Aabad Bridges in Varamin, New Bridge in Ardebil, Vinar and Mazrae Bridges in Tabriz, Saruq Bridge in Takab and Khatoun Bridge in Khoy etc.

5. Markets (Bazaar)

Building markets in Iran's architecture has several thousand years of history. According to written resources, the age of market in Iran goes back to pre-Islam period; even the word bazaar or vazaar or vakaar is rooted in Pahlavi language. The greatest works of architecture remained from markets in Iran's architecture belong to Safavid and Qajar periods and the tradition and style of markets in Qajar era is the continuation of architecture style in Safavid era. Their only innovation is creating Timcheh and jamkhane.

Among the buildings related to Safavid markets such as caravanserais in the cities and inns which the architecture of markets is completed with them, only a limited number remained and the rest either were destructed or reconstructed over time.

In recent period (from the beginning of Pahlavi dynasty onwards), due to developments and economic and social changes, traditional markets (bazaar) couldn't adjust to the new changes and partly lost their effectiveness and thus, making bazaar in traditional way was stopped (Mollazadeh, 2000; p. 5). The main cause was the entrance of street and boulevard in the mid and late Qajar period in architecture of Iran. Some other construction built during Qajar era include coffee houses, ice houses and Timcheh in bazaar (such as Amin al-dole Timcheh in Kashan) and columns used over this era.

6. Coffee house (ghahve khaneh)

For the first time, coffee house were built in Qazvin city during the reign of Shah Tahmasb Safavi (930 to 984 AD) and later were developed in Isfahan city over the reign of Shah Abbas I (996 to 1038 AD) and the architecture of coffee houses in Qajar period is the continuation of Safavid era. During this period, especially since the reign of Naser al-Din Shah Qajar onwards, opening and holding coffee houses was increased in large cities including Tehran (Sarikhani, 2003; p. 60).

7. Ice house (yakhchal)

Architecture and construction of ice houses were reported in this period according to the available documents of the Safavid period and even if some construction in this field had built before then, it must have been destroyed. Anyway, the oldest remained ice houses are associated with Safavid era and were widely spread over Qajar dynasty.

Qajar ice houses are the continuation of Safavid architecture in terms of design and plan and other components such as shadowing wall, ice reservoir, pools for making ice, two short and low height entrances, ice pit, channels for the outflow of excess water and directing it to a well next to ice reservoir and this exact construction without any manipulation was imitated in Qajae era. Their only distinction factor is in building materials especially the size of bricks used (Mokhlesi, 1995).

8. Bathhouses (garmabeh)

Making bathrooms (garmabeh) in the architecture of Iran has a history of several thousand years old and according to the archaeological excavations carried out in Persepolis, it dates back to Achaemenid period and this trend continued in the Islamic period and the late Qajar period and even today we can see some bath houses built in traditional way in Iranian architecture.

The peak and brightness period of bathhouse architecture is related to Safavid. In this regard, Ganj Ali's Bath and Khosro Agha Bath can be pointed. Also, in Qajar period as well, some magnificent baths were built such as Ibrahim Khan Bath. On how these baths are designed and worked, Ibn Okhveh stated: know that the natural effect of baths is being warmed up by its air and getting wet by its water. The first serra (bath house) is drier and wetter and the second serra is warming and soothing and finally the third serra is warmer and drier (Sarikhani, 2003; p. 1).

Cleaning house entered into the Garmkhane (the mains space of Iranian bath) since Safavid era onwards and before this era, the place of cleaning house was in the middle of the door (Sarikhani, 2003; p. 133). Also, Jamkhane was an element in the baths to provide the light of the place through the ceiling. This element is one of the major architecture features during Qajar period. The general plan of baths was the same all over Iran and the only difference between baths of cold climate and hot climate is in depth which in the cold climate is deeper due to the cold weather (Sarikhani, 2003; p. 134). In general, the architecture of baths in Qajar period is the continuation of bath architecture in Safavid era.

Conclusion

Architecture changed over Qajar period and Iran gradually lost its artistic richness was influenced by West arts and some factors such as contacts with the West, the effect of colonialism, social cohesion in the form of formation of new classes, promotion of new thought and requests for the continuation of changes, the travel of authorities and students abroad and transferring the information to the countrymen, the entrance of new technical, technological and cultural phenomena led to the emerge of this trend in a way that a wave of inside and outside of Qajar system rose to conduct these changes. Qajar architecture is the continuation of previous periods especially Safavid era. In many cases, due to the entrance of some elements such as streets and squares to Iran and also traveling abroad, some changes occurred in Qajar architecture and the architecture in this period was formed based on these elements.

During this period, through the entrance of elements such as streets and squares (in modern form) to the field of Iranian architecture, some changes happened and a new architecture called street architecture was formed. In addition, architecture in Qajar era in different buildings such as: bridge, bathhouse, mosque, school, etc in the continuation of the architecture from the past periods especially Safavid era and of course, it has changes and elements which are dedicated to the Qajar era.

As a result, it can be said that given the gradual entrance of different ideas to the Iranian architecture in Qajar period, interaction and dynamics are the characters that can be observed over this era.

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