

Bathroom Physical Features of Iran in Qajar Era

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Abstract : Bathhouses were of the most important buildings of a city. They were usually located at the center of towns or near the bazars and main roads. From the pre-Islamic era the remainders of private bathrooms were discovered in Persepolis (Achaemenian era) and Assyrian Palace (Parthian era). But the development of the traditional bathhouses, that were used until the time before the modern urban piping emerge, date back to the Islamic era. Since bathing includes several steps, therefore Iranian traditional bathhouses had spaces with different functions.

In this research, study architecture of bathrooms in Qajar era. The research method is documental. In order to collecting data, was referred to organizations such as cultural heritage. Also, was used internet and library. Finding shows, Iranian bathrooms were made very cleverly and had a variety of spaces fitting perfectly with its functions. Iranian baths were built very intelligently. They built the bathrooms with convoluted corridor between corridor and the entrance of the bathroom to adjust the temperature difference of outside and inside. The interior of the warm house was divided into several place for cleaning and pools. There were three pools; one for warm water, other for cool water and the last for latter water. Bathrooms were association place as well as the market in addition to certain operations. Important events such as henna ceremony, wedding shower, delivery, and etc. have also been done there.

Key word : Public bathroom, Iranian architecture, Qajar era

I. Introduction

The public bathhouses are included in buildings as public utilities that have been expanded throughout Islamic realm by arising Islamic religion that cleaning is the preamble for most of its rites. Unfortunately, from the beginning of Islamic period until 8th hegira century (15th AD century) no stable sample of public bathhouses remained in Iran, but many public bathhouses have still remained from Safavid and especially from Qajar era all over Iran. Architecture bathroom like other old buildings follow of specified spatial patterns. Access to water, maintain separate and clean and dirty areas, the original three conditions was for created complex and different spatial with other building in Building bath (Ghobadian, 2006:87). As regards limitations like area ,land limit and also used some decorative elements and architecture and various forms of spaces has caused to changed in the historical bathroom and caused not exactly the same, so don't have two bath but studies show that even take to in consideration this principle that in many case in this building architecture that has followed special principle but the stage of different design and build them have done with consideration climate and natural environment condition and climate had more efficient in this building formation. While maintaining the principles and General pattern of architecture in Bath special in the type and arrangement of spaces in different conditional climate and natural can be seen in the building of baths (Kasmaei, 2006: 61).

Bathhouses were of the most important buildings of a city. They were usually located at the center of towns or near the bazars and main roads. From the pre-Islamic era the remainders of private bathrooms were discovered in Persepolis (Achaemenian era) and Assyrian Palace (Parthian era). But the development of the traditional bathhouses, that were used until the time before the modern urban piping emerge, date back to the Islamic era. Since bathing includes several steps, therefore Iranian traditional bathhouses had spaces with different functions. In this respect the spaces in a bathhouse can be divided into three parts:

1-semi hot and semi humid

2- Hot and humid

3-very hot and very humid (Ghobadian, 2006).

The controlling system of the bathhouse was in a way that the heat and moisture enters from the Entrance vestibule and changing room (semi hot and semi humid) to the hall and bathhouse (hot and humid) and finally would reach to its maximum level in Khazineh (very hot and humid). Therefore these spaces were independent and they were only connected through indirect tunnels or vestibules.

Investigations of the section of old bathhouses show that the ceiling of these places were high and were caped by a dome (Kolombe, Tarkin, Karbandi, and Araghchin). Changing room dome was the main dome of the

bathroom that is the main hall of the bathhouse and the smaller domes belong to the other spaces. Although the dome cover is one of the characteristics of Iranian architecture in terms of the structure of models for ceilings and openings, the height and dome-like ceilings were used for other reasons that originate from the function of such buildings.

The skylight service, generally, was provided through the ceiling and with the help of an element called "Jamkhaneh" that was glass, and a material called "moine" (a combination of washed wool, oil, and clay) was used for sticking the glass and the clay. In addition to these items, we should mention the circuitous tunnels that would prevent the outside air and dust into the bathhouse (Najafi, 2009: 8).

II. Theoretical Principle

Bathhouses existed prior to the Islamic period in the Iranian cultural area. However, their number seems to have been limited due to the Zoroastrian religion's reverence for the holy element of water. This may explain why Yāqūt (, quoting the authority of an Arab physician, states that the Sasanians did not know the use of baths. Nevertheless, archeological finds in K̄ārazm, for example, show the existence of cellars under houses, which were cooled by water basins in which the inhabitants may have bathed, though these cellars could be simple sardābs (Spuler, p. 286; Le Strange, p. 337). Other sources also confirm the existence of baths in pre-Islamic Iran. For example, King Vologeses (484-88) incurred the wrath of the Zoroastrian priests by building public baths, for in this way people would pollute the holy element, water. Kavād (488-531), after having enjoyed a bath in Amida after his conquest of that city, ordered the construction of such baths throughout his empire (Mez, p. 365). Finally, Ferdowsī relates that K̄osrow II Parvēz (d. 628), prior to his assassination, took a bath (BAZIN, 1979: 143). This evidence indicates that Yāqūt was probably only partly right. Islamic Iran, medieval period. With the conversion of the population of Iran to Islam, ritual purity (ṭahārat, q.v.), e.g., through washing one's body (ḡosl and woḏū'), became a requirement of religious life. Thenceforth bathing became an integral part of life. Besides, baths were frequented not only for purity and hygienic reasons, but also for medical purposes. Physicians prescribed taking the waters against a great variety of ailments. Baths, as part of charity buildings, have been of particular importance and often accompanied great mosques, schools, and bazaars. The constructors of these baths were governors, the nobles, and charitable people who constructed them for charity and public utility though some might have built for business. The former group, often, endowed the buildings to religious institutes or charitable deeds. On the other hand, baths have been among the most significant elements of urban and rural organizations which, like other urban architecture types, their presence in the texture of the cities is not haphazard and random. In other words, baths were usually built at the center of the cities, center of the neighborhoods, or close to bazaar or the main pathways so as to make them more accessible to people. Also, because of their location in the urban texture and the users, baths had various functions. For instance, baths located in bazaar were for men's use or the biggest, the most luxurious, and the best baths of a town were built at the center of the city, or baths in the smaller neighborhoods were usually smaller and simpler, thus offering little service to the users. Public baths are usually composed of different elements, allowing users do various phases and processes of bathing along with others tasks. Some of these elements are central to the baths, which are common in almost all public baths, and some are special ones existent in some baths depending on the type of their functions. In general, shared locations and elements in all baths and the planning include: portal, vestibule, Sarbinā, Mian dar (the space between Sarbinā and hot-house), hot house, and reservoir(s) in the hot-house. Other spaces and rooms, including small bath, Chal howz (pool), toilets, Nooreh keshkhaneh (shaving room), and alcoves are absent

In many baths. In addition, foundations spaces, like kiln, fuel room, channels and chimneys for

Transmitting heat and smoke, Gav row (cowway), well, water reservoir, and sewage are other major elements of baths. Often, required water was provided from the streams, aqueducts, or wells. However, wells were the most important source for providing water for public buildings in a lot of cities (Abd-Al-Sattar Osman, 1376: 264). The procedures for providing and storing water was first, water was elicited making use of animal, then it was directed toward a basin or water tank usually located on the roof, and later it was transferred into water reservoirs via barrel drains, under the pressure of the height. The water was also heated by kilns, which were below or behind the Ton (water reservoir)(Pirnia, 1378: 199). Since, in the past it was not possible to directly heat the building, heating system was designed in a way that the fire heat and smoke were spread all over the floor through canals built at the bottom and then sent out through the sideway chimneys (Ahmadi & Mo'taghd, 1384: 256). Water distribution in different spots of the bath was also carried out by the pressure caused by the difference between the bottom of the bath and the bottom of the water reservoir on the roof. At the floor of the tank, there were a number of routes each of which provided required water for a few pools in the bath. Each route was blinded by a sphere-shaped cap. Toontap, person in charge of firing the kilns, who was aware of the direction of these routes, took the caps off, when necessary, to fill up the relevant pool (Tabasi, 1386: 156). After Isfahan was selected as the capital of Safavid, a number of baths were built in the city which were larger compared to the ones constructed in the previous era, introducing anew style to the architecture of

these buildings. In the new style, movement is always in the main large spaces in the middle of the Sarbināor hot-house and stillness is in the lateral small spaces, like arcades and platforms (Fakhar-e-Tehrani, 1384: 20).

III. The effective factors in providing good conditions for bathing

The main function of bathhouses can be put forward in bathing, and in order to accommodate a good condition for bathing, having four factors are necessary:

Headings of Main and sub-sections should be numbered. The headings of main sections should be written in capital letter. For the headings of sub-section, only the first letter of word should be written in capital letter as showed in the examples (all the headings should be in bold). Lines of space between sections should be as in the examples.

3.1. Temperature

Providing the temperature in the bathhouse was not possible directly. It was due to the reason that in the past the artificial heat was generally created by burning organic materials, the smoke and Carbon dioxide would prevent respiration and other human activities inside the enclosed area of the bathhouse. Therefore, the required temperature was obtained outside of the bathhouse and by burning the organic materials in the fireplace under the caldron of Khazine, and it would heat the water of Khazine. The smoke and the heat of fire would also be transferred under the ground of the bathhouse. The fireplace room (Patoon) had a way to the public path that was the way by which fuel would enter the bathhouse. The heat and smoke of the fireplace go to through underground tunnels (Gorbero) that are narrow paths. These Gorberos would cross under the floor of bathhouses and bring the heat to the atmosphere of the bathhouse. The Gorberos were covered with marbles and other similar stones. These stones would both provide the heat transfer and were durable and easy to be cleaned (Ghobadian, 2006).

3.2. Water and Moisture

The required water was obtained from the creeks, aqueducts, and wells. In the proximity of those bathhouses that were supplied by the well water, a well would be created and some men or bullocks would take out the water. The water would then enter a pool and by some ceramic pipes called “Tanbooshe” would enter the bathhouse Khazineh. In the proximity of Garmkhane in some of the bigger and better bathhouses there was a pool called “Chaharhoze”. Their water was not usually warm and they were used for swimming in the summer, however some of these Chaharhozes had Tian that was used to heat the water. Except for the Chaharhozes, there were also other small pools that people wash themselves up beside them. There was usually a big pool at the center of the changing room that in addition to beauty would help to moisturize the atmosphere. The paths to the main spaces of bathhouse were indirect and restricted; therefore the excessive moisture of the humid areas would not be entered to the semi-humid sections. The body of the clients, when entering the bathhouse, would gradually feel the water or the temperature and at the time of leaving, too, the temperature and moisture would be reduced gradually (Ghobadian, 2006).

3.3. Light

Since a major part of the lateral surfaces of most bathrooms are located under the ground therefore the sunlight would go into the bathhouse through the skylights and the windows under the vault. To this end, convex glasses called “Goljam” were installed at the top of the dome, and its surrounding was sealed with Sarooj or Mumine mortar. In cases of lacking adequate light, handheld lights would be used (Ghobadian, 2006).

3.4. Ventilation

Accommodating a good condition for bathing, in addition to controlling the temperature, moisture and light, requires a regulation of ventilation system. Bathing of many people at the same time as well as the moisture and heaviness of the bathhouse air and utilization of lights that create smoke and carbon dioxide and the restricted area of the bathhouses requires controlled ventilation; otherwise it may lead to Asthma or even suffocation. To this end, the windows under the vault would be opened to avoid any respiratory problems (Ghobadian, 2006).

IV. Analyzing bathhouse from Qajar era

4-1- four season bath (Arak)

One of the famous Iranian historic bathrooms that have been converted into the Museum of Anthropology is Four Seasons Bathroom in Arak that is the largest bathroom in Iran. This bathroom was built in the late Qajar (Ahmad Shah) by Haji Muhammad Ibrahim khansari. Variety proficient tiles can be referred as the used decorations in the building that displays the design of human, animal, and plant. Drawings and paintings of the four seasons of the year in the four corners of the bathroom is the reason for its name. The bathroom is the only bathroom in where, a separate part is devoted to religious minorities. Four Seasons Bathroom is recorded in the National Heritage List.

Golkhan with firewood and plants "framework" was burned and hot and cold dishes according to the law related by clay was all over the bathroom. The large water storage tanks, Golkhan and fuel depots in the middle of the building makes it easily possible to have all bath seven-color mosaic tiles and tile Maqly of the most used in the bathroom. These plans have been implemented very artistically tiled and has a beautiful plan for human, animal and plant various Han. Topics and projects used in the bathroom tiles includes a variety of flowers and plants, ivy and grape trees, pine and spruce, with views of rivers, springs, wild plants and birds on branches, fought a lion with a dragon head , milk and cattle as well as the plans of the military campaign coverage period of time. More colors used in the tiles yellow, blue, turquoise, white, green, gray, red and orange.

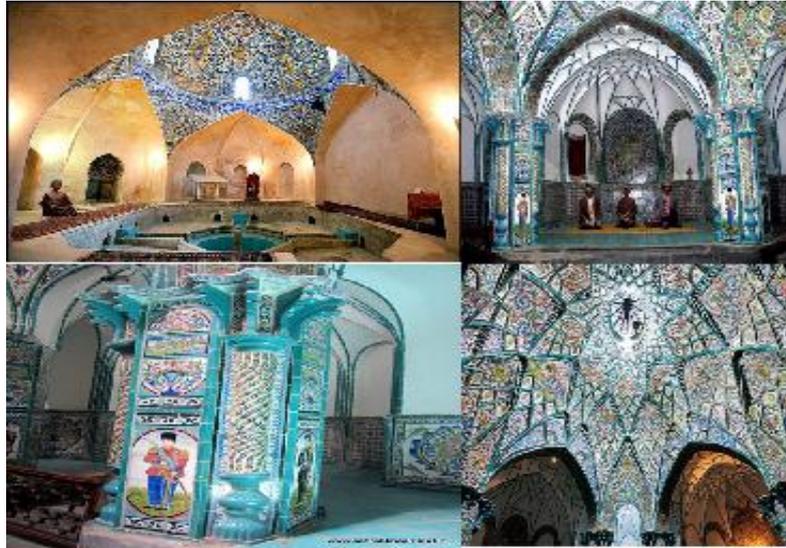
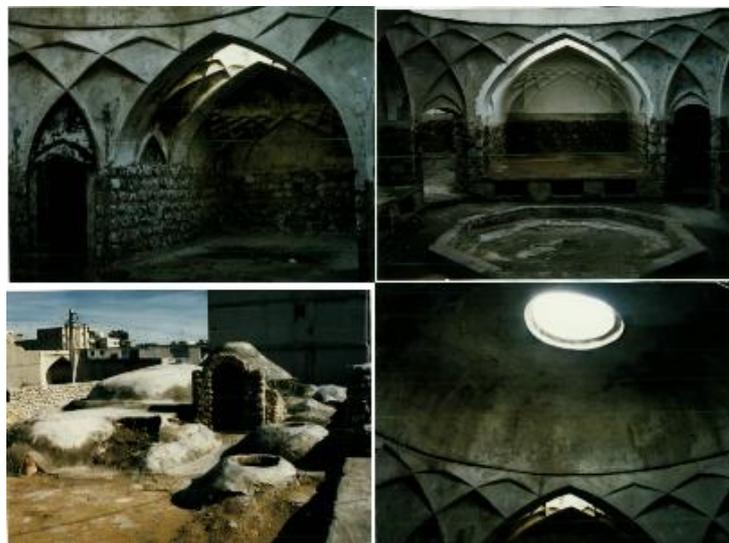


Figure 1: four season bath in Arak city

4-2- Galehdari bathroom (Bandarabbas city)

The same is the only historical bath in Bandar Abbas, and there is a strong possibility that this be related to the Safavid period. This bath is located in the Eivazi vicinity of the city. During the Qajar era, this bath was endowed to the Galehdari Mosque by Haj Sheikh Ahmad Galehdari. The structure is rectangular in shape and has small and large domes.

The bathrooms in the city of Bandar Abbas in the Persian Gulf Boulevard on the beach on a bed of clay that the permeability of the due ghosts of seawater is enormous bathroom herding is the weather warm, moist coastal that the maximum temperature of 5 °Construction materials forming areas of the building stone and mortar sponge local and mortar ax is lined inside.Channels to transfer warm waterish embedded spaces, all the details can be seen in the image below. Architecture baths can be found in the central desert, are divided acts as the channel of warm house, sees, meanders may also be seen as a warm bath in the area.



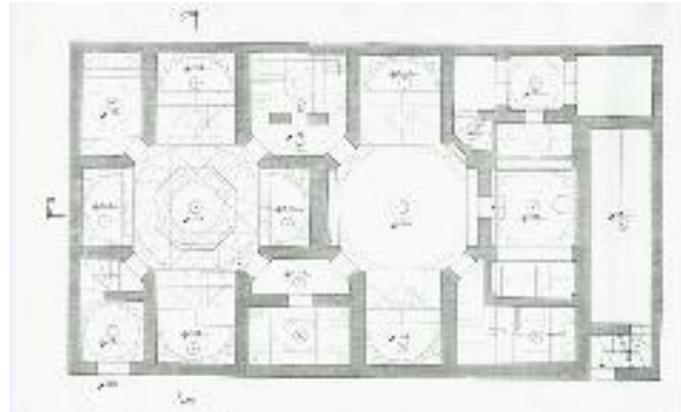


Figure 2: Galehdari bathroom (Bandarabbas city)

4.3. Khani bathroom (Shiraz city)

Khani bathroom Qajar period in Shiraz, martyr St. Dstghyb, Moshir Mosque located next to this effect on August 8 1381 with registration number 6028 was registered as one of the national monuments. The bathroom includes an inlet In the east, changing room or locker, and your oven (Fire House) is. The changing room was built in the shape of four predominantly the pair facing each other. 4 platform height of 47 cm predominantly in the changing room. The roof over the head weakly embedded into the changing room lighting is provided. A water feature in the center changing room is small with dimensions of 127×90 . Western corner of a room in the changing room into the bathroom, and in recent years there 6 showers separately made. A narrow corridor in the southeast corner of the changing room and hallway corridor between the oven and the changing room. It has a slim 67 inches wide. Incubated with 4-sided stone columns 8 to Bashd.kmy above the 4 columns square to circle earrings that convert and transfer duty on the roof is not responsible attention. Like the changing room, the oven also has over it. A small area in the northern corner of the changing room, which in the past has been used as a tea.

In the building, including stone, brick and plaster and mud is. Now the building is used for bathing and cleaning. A prominent feature of the building located at the basement of the ISI. The bathrooms are old seen not only on new tiles installed on the platforms and walls of flowers, is closed portrait Imam Ali (AS), the words of Allah, Muhammad, Ali, Fatima, Hasan, Hussein, I Alnzaf neophyte .



Figure 3: Khani bathroom (Shiraz city)

4.4. Kornasian bath (Dezful city)

Dezful, a city in the north of Khuzestan, is one of the few cities in Iran which still have preserved its old historical context and cultural identity in central part of the city. The old texture_ over 200 acres_ is on the edge of the river consists of 28 districts with some archways called "Sabat" to connect the districts.

Most buildings in the old textures are made of bricks and have been ornamented by elegant bricklaying. That is why Dezful is known as "Iran's brick museum".

In the old textures' archways, eye-catching bricklayers could be seen that are called "Khoon chinii". Within the city's historical brick texture, over 113 national monuments have been registered including old mosques, baths, houses and historical archways.

Dezful Kornasian Bath Historic Bath (Museum of Ethnology) the number of rows national record in 8477, and one of the buildings of qajar Branch is located in the center of the neighborhood Kornasian. It has an area of approximately 880 meters and both men and women related as well. The exclusive features of this building which is of great importance and position in the valuable collection of buildings includes big old houses, mosques and tombs of great poets and mystics of Dezful in the name of Sayed Abdullah Dai. this building 82 years started and during this period the restoration of parts of the entrance corridor, men's changing room, oven and fireplace (delete extensions, coverage roofs, reconstruction of some or adulterate brick walls and instead of old materials, interior spaces and roof, wiring, construction and installation Wooden internal and external spaces, etc.) and 50 percent of other parts, including bathing spaces for women and communication and Meanders finished .so return to the stage to deliver projects, roads blocked and these spaces with other parts of the final stages Repair work is being carried out in these areas.

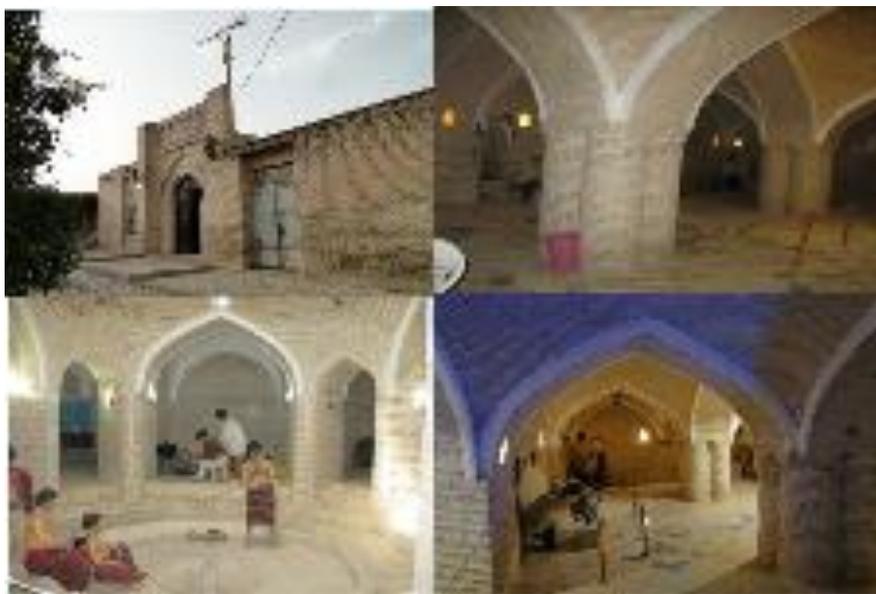


Figure 4: Kornasian bath (Dezful city)

4.5. Haj Mir Mohammad bathroom (Qazvin city)

Haj Mohammad Rahim Qazvin bathrooms located St. Montazeri. This is to the number registered in the national indexing 1119, the only surviving in rooms from the Qajar period. Judge Mohammad Rahim Qajar bath tissue in the neighborhood of the moat once was and the name of and census of 1299AD, in the reign of Prince Mali votes in Qazvin has been Twin room area Haj Mohammad Rahim, who, according to the text of its inscription in the name of peace was also known, is now about 1,000 square meters and consists of two rooms: one smaller and one larger. Cather's a small bathroom, and the bathroom is larger for men (plan) bathroom's closed, but continue to use the bathroom's Hmamrdranh runs. Both bathrooms have baths and traditional sectors of Iran's main entrance, see, between the warm house, treasury and secondary sectors, including tone, cache home. Hey both Haj Mohammad Rahim bathrooms decorative painting on limestone, including designs of plant, animal and human, respectively. According to local elders, painter stories were detailed. Both bathrooms have a common tone of the roof of the bathroom can be found that way. Tone the south side of the building and the treasury of both the bathroom is located, the treasury that both warms the water. In addition whole basin, bath water is water stocks for Save Hey Knob when the bath water has been filled with water reservoirs one of the women's bathroom is located adjacent to the vestibule. Water use fields for has long been used in Qazvin and Hamd Allah mentions the Exchequer in the eighth century .

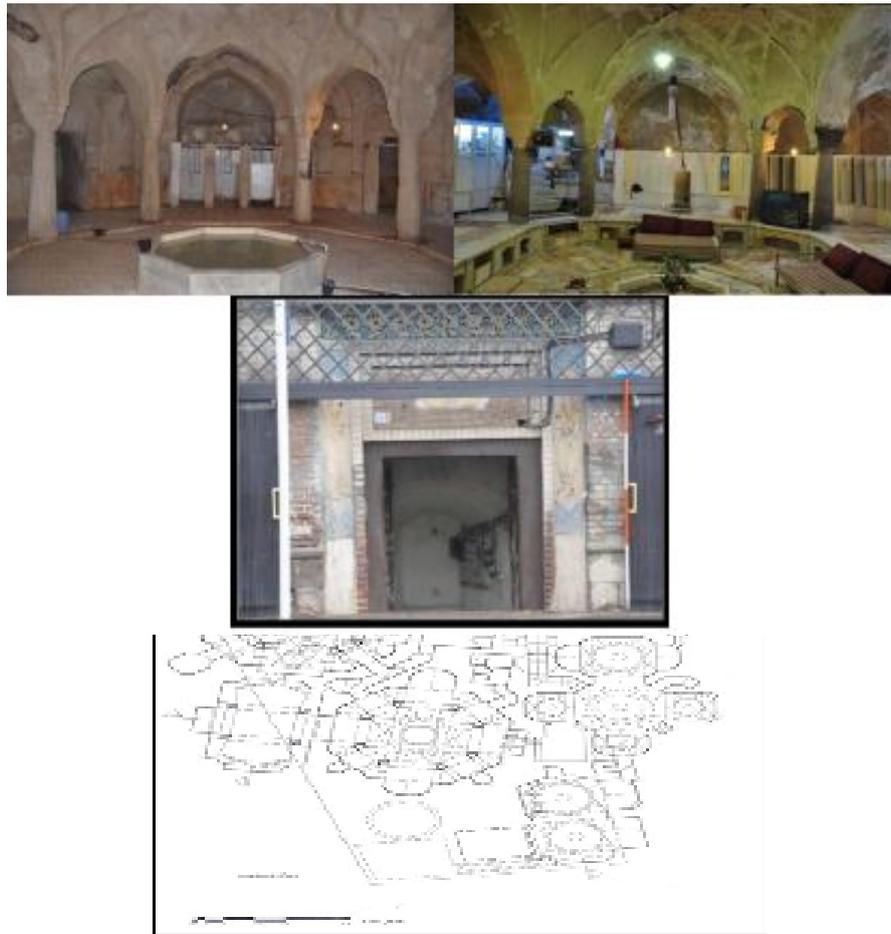


figure 5: Haj Mir Mohammad bathroom (Qazvin city)

4.6. Fin Bathroom (Kashan city)

Fin bathroom is another "bath museum" that is located in Fin garden and it is the shambles of Amir Kabir. This bathroom consists of two large and small bathrooms. Construction of small bathroom is related to the Safavid era and it has been created with the original building of the garden. By building a large bath in the time of Fath Ali Shah, the large bath was allocated to state dignitaries and VIPs of community and it was known as the Royal Bathroom. In contrast, small bathroom was recognized as crew bathroom and was used by the general population.

The remarkable thing is that both bathrooms were complete with all the traditional features and architectural landmarks. Fin Bath in 1314 was registered as national monuments; it has also been registered in the UNESCO World Heritage List in 2011.



Figure 6: Fin Bathroom (Kashan city)

4.7. Khor bathroom (Larestan city)

It's located in hot and dry climate of southeastern province LARESTAN. Bath has appropriate parts of the break (see) and floor (oven) and health services and the treasury organization. Ceiling and floor of the dome. Break Qsmhay used in bathrooms are plastered stone and mortar Bashd.az in foreign plated dome is used, the inner walls of concrete-lined bathroom with bath. Floor and cloakroom separated by a corridor the bathroom entrance archway into. Creek estuary in the village in the list of endowment and endowment management Lar claim ownership of it. The building with number plate 2827 notary office in the city of Lar in a series of works dedicated to the historical record is not yet worthy.

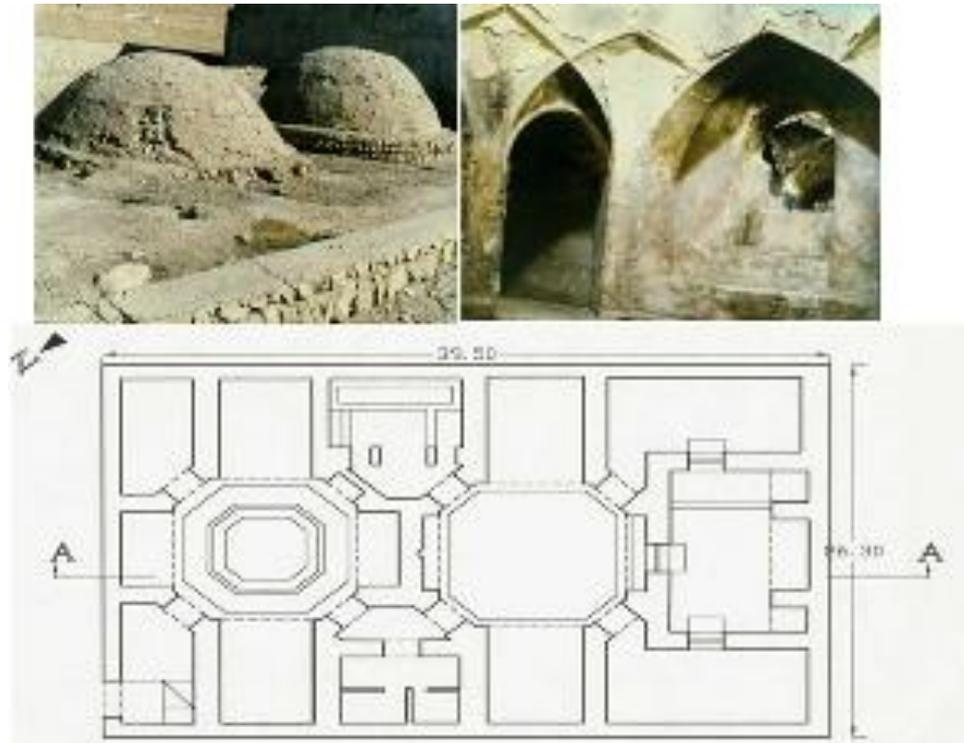


figure 7: Khor bathroom (Larestan city)

4.8. Kushk-e Qazi (FASA city)

Kushk-e Qazi (Persian: , also Romanized as Kūshk-e Qāzī, Kūshk-e Qāzī, and Kūshk-i-Qāzī; also known as Kushk Qāzī and Kūsk-e Qāzī) is a village in Kushk-e Qazi Rural District, in the Central District of Fasa County, Fars Province, Iran. At the 2006 census, its population was 4,053, in 1,073 families.

Fasa in location 3953 in length and 2857 in width, located on a fertile land for agriculture with rainfall of about 220 mm and moisture content of up to 85 and at least 18%, and agricultural products include barley, maize, cotton and citrus orchards and palm is. Entrance on the east side into the bathroom and after coming down from the 9 steps into the changing room (dressing room) bathroom interiors we include changing room to change clothes oven includes an oven space include a large space in the middle and three space domed skylight dome with the smaller parties oven with mosaic floor tile plinth and roof of the oven by using white cement to cover has also lined bathroom roof is thatch.

The bathroom, like most of the old baths, including entrance, corridor changing room (dressing room, anteroom, pool halls with stove, oven and other architectural space is. Use Chevron and double arches on the entrance wall of the oven the changing room wall oven and run the most important decoration is used in the bathroom .



Figure 8: Kushk-e Qazi (FASA city)

4.9. Haj Shahbaz Khan Bathroom (Kermanshah)

The bathroom is for Qajar era and it is located in Modarres Street in the old space of the city. Haj Shahbaz Khan Bathroom was built in 1232 AH by Haj Shahbaz Khan, son of Manouchehr Khan Biglarbeygi, one of the political figures at that time. The bathroom has benefited from all the architecture elements of traditional bathroom. Domes in the bathroom have lime Mogharnas. Murals are another eye-catching decoration of the bathroom. Haj Shahbaz Khan Bathroom is registered in the National Heritage List with No. 20495 in 2008.



Figure 9: Haj Shahbaz Khan Bathroom (Kermanshah)

4.10. Navab bathroom (Teharan city)

Navab bath Among the Qajar period and in the streets of Tehran, 15 May Damghani Big East streets (former Navab Bazaar). In the first maps from Tehran over bath Navab listed. Built by Sultan women named Sarah and Sara Khatun girls were named Navab made. Navab bath to prevent heat loss and the possibility of using water field sand springs for bathing built below ground level. Materials used in the construction, including brick, lime, mortar, stone and tile. In the building after the restoration, the cement used to secure. Navab bath of parts such as the vestibule, changing room, clean the oven, bathroom, treasury, is evident in the architecture of the building and operation Iranian national was registered.



Figure 10: Navab bathroom (Teharan city)

V. Conclusion

A public bath was an important part of the complex of buildings in large cities in Iran. Public baths were divided into four main parts: an entrance, a cloakroom, a main door (middle corridor) and a hot chamber (garm khaneh) where washing took place. Cloakrooms were usually octagonal, occasionally square. A handsome, usually octagonal pool surrounded by a foot washing channel (pa shuyeh) stood at the center of the cloakroom. The complex (Ganjali Khan) is situated in the middle of the city of Kerman and next to the Bazaar of Kerman in south Iran; it occupies an area of 11000 m² and includes a palace, a mosque, a bathhouse (now converted to a museum of anthropology), a caravanserai, and a small bazaar. The layout, the space, and the architecture of the Ganjali Khan bath was such as to satisfy the most exacting of tastes. The placement of the baths alongside other public buildings within the texture of the city, the supply and storage of water and the removal of sewage, the maintenance of the right level of the temperature and humidity, the size elaboration or simplicity of the edifice were important issues in the design and execution of this building. The bathhouse is a unique building because of its ornamentation in the style of two historical periods, the *Safavid* (17th Century) and the *Ghajar* (19th) and because of its tiles, painting, plaster work, the decoration in the cladding of the ceiling and the interior of the dome, and the arrangement of glazed skylight named goljam. This bathhouse is 46 meters long and 30 meters wide. It contains an entrance portal (Sar Dar), a corridor, a closet, a place between the hot area and others, a source pool, private bathhouses, and a furnace. In the closet and lobby area, there are some symmetrical arches and columns, and the light comes from a few openings in the roof so the rays rush inside and reflect on the water.

One particularly attractive area of the warm-room consists of a pool of cold water, covered by a tent-shaped glass roof supported by eight pillars. These stone pillars, each carved from a single piece of stone, show a herringbones patterned ceilings with a mild slope placed upon them.

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