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An Analytical Study of the Evolution of Qajar Palaces

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Abstract

The political and social system involved in the limbo between tradition and modernity of the Qajar Era caused widespread and quick developments in Iranian culture, art, and architecture as well as a challenge between tradition and modernity. Relatively numerous palaces built in this era were signs of greatness and distinction-seeking of the Qajar kings and aristocrats, who embraced all transformations of architecture in their era and played a significant role in changing Iranian architectural values. Therefore the purpose of the present study is to investigate developments in architecture of the Qajar Era and their effects on the evolution of palaces in this era. Using case studies methodology and referring to historical sources, contemporary studies on Qajar architecture and field studies conducted on outstanding palaces of this era, it can be concluded that the continuation of Safavid architecture early in this period, Qajar kings' tendency to Iranian ancient architecture, and the culmination of the architectural influence of the West in the Nasserid Era were the main factors effective on the formation of Qajar palaces. Moreover, the evolution of these buildings has occurred in three pre, early and late Nasserid Eras with various traditional, eclectic and European characteristics regarding the construction period and the effects of the above factors on the evolution of plans and circulation systems, facades and sections, materials, decorations, and architectural elements. In addition to shedding more light on common features of architecture and decoration of Qajar palaces, the study tried to determine their general and specific differences.

Key words: *Qajar palaces, evolution, tradition and modernity, Iranian architecture, European architecture.*

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1- Introduction

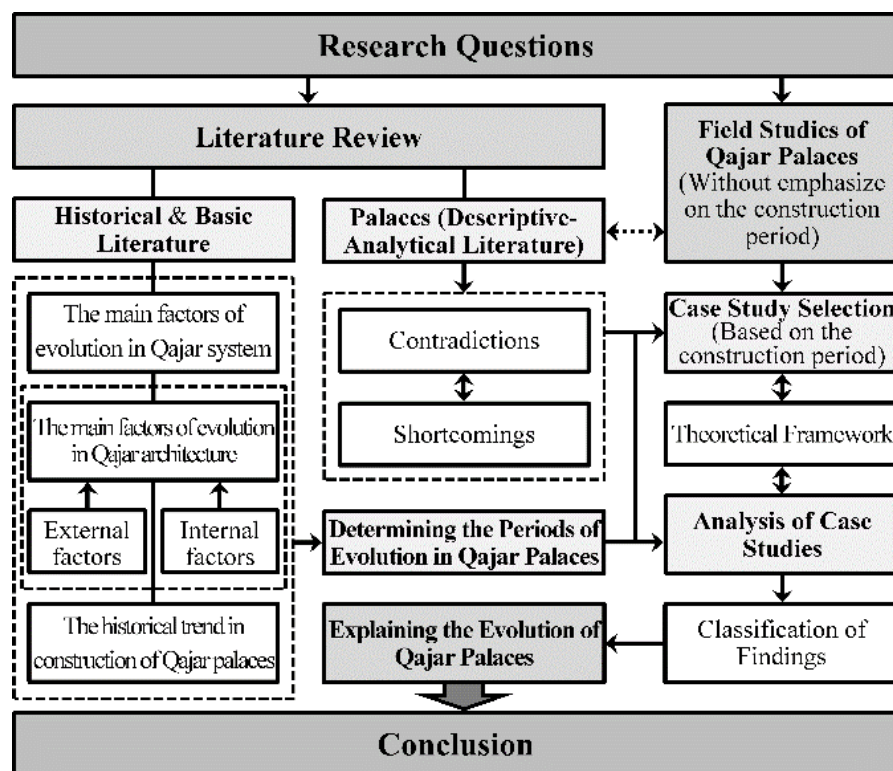
Along with evolving political and social conditions of the Qajar Era, its architecture is a historical turning point in Iranian architecture in disjunction from past traditions and accompaniment with achievements of Western architecture. The domain of architectural developments in this era is very extensive in such a way that by the end of the reign of Qajar kings, ancient traditions in Iranian architecture declined and modern architecture was born. Qajar kings' roles in the establishment of architecture in this period were significant. The luxurious and distinctive spirit dominant over this era resulted in the appearance of magnificent palaces. These buildings, which have welcomed most changes and transformations in the modern architecture, played significant roles in step-by-step changes in models and patterns of Iranian architecture as well as the advent of modern European architecture. The significance of this issue becomes more explicit when we know that palaces in the middle of the Qajar Era are among a few buildings in history of Iranian architecture. Relatively successful experiences of integrating Iranian traditional architecture and Western architectural ideas can be observed altogether in their partial and general structure. Nevertheless, in studies conducted on architecture of this era, some concentrate on the historical evolution of Qajar architecture, urban development, and conflicts between tradition and modernity in Iranian architecture, some others focus on investigating decorative arts in this period, and others probe its architecture with an archeological view. In spite of invaluable results obtained from case studies and sometimes general description and analysis of Qajar palaces, the absence of a special and coherent view to

the trends of its transformation and distinctive properties is clear. With this introduction in mind, the main concern of the present study is to explain the development of palaces in the Qajar Era. Accordingly, the main question is how developments in architecture and decorations of palaces in the Qajar Era have been conducted?

The research method is case studies and combined strategies (Groat & Wang, 2005, 341-370) and the data and evidence were collected through documentary (library) research as well as field studies including preparation and interpretation of drawings and images of case studies (Fig 1). The population of the study consisted of at least 25 Qajar palaces. However, with the aim of more accurate investigations of developments in these buildings, the researcher tried to select those cases determining the results of the research which in addition to having famousness, they had the features of belongingness to the Qajar kings and courtiers or the use of the term "Kakh" (palace) was in their names. Furthermore, few exceptions influencing the results or were lacking in sufficient technical information were neglected¹. The procedure was as follows:

- a. Determining main periods of development in Qajar architecture via investigating written documents;
- b. Determining case studies and analyzing main indices of their architecture and decorations with relying on field studies and related literature;
- c. Classifying the results obtained from analyzing case studies;
- d. Explaining the process of transformations in Qajar palaces based on the construction periods; and
- e. Presenting conclusions.

1. The main origin of formation and evolution of Qajar architecture or the Tehran architectural style is Tehran as the capital of the Qajar Dynasty. Therefore, the most changes and developments carried out in architecture of this era, particularly in Qajar palaces, was influenced by trends in Tehran architecture. In addition, the evolution of architecture in other Iranian cities had lower pace. Additionally, most royal buildings of the Qajar government were constructed in Tehran. As a result, because of more accurate investigation of the evolution of architecture and decorations of Qajar palaces, the population related to field studies and analysis of those buildings mostly focus on palaces constructed in Tehran City.



▲ Fig 1. Research process; (Author)

2- Historical grounds for the establishment of life and architectural systems during the Qajar Era

2-1- Political and social developments in the Qajar Era

With regard to extensive domestic and foreign sociopolitical upheavals in the Qajar Era, it was a turning point for culture, art, and architecture in Iran. According to most ideas concerning the establishment of the life system in this era, the issue that Iran was a traditional society belonging to the Eastern world is mostly referred to. The type of clothing, the type of transformation vehicles, communication methods, funeral rituals, the structure of neighborhoods, the texture of cities, etc. had quite traditional atmospheres not much different from past periods (Ghobadian, 2004: 60-63). But, the first confrontation of Iran with the Western civilization, contemporary to a series of Iran's fights with Russian forces and defeats from them, revealed the scientific and technological superiorities of westerners and resulted

in rooting the thought of modernity and acquisition of the Western civilization in the Qajar government (Naghizadeh, 2004: 23). The Qajar rulers found out that they should acquire some skills and techniques creating industrial and military power of European countries for Iran's sovereignty (Wright, 1989: 142). Military reforms, sending students to Europe, establishing Dar ol-Fonun Academy, recruiting foreign teachers, publishing newspapers, and the establishing ministries were among evident consequences of changes in attitudes at higher levels of the Qajar government. However, in spite of outstanding positive outcomes, "these inevitable modern or semi-modern changes with the same motivation of coping with mustiness" (Ghanbari, 2000: 138) resulted in a lot of conflicts in the social and political conditions of Iran due to a diverse range of factors such as the colonial view of Europeans to Iran, no changes in the tyrannical system of the government (Naghizadeh, 2004: 24), the lack of cohesion in intellectuals'

ideas about the issue of modernity (Khasto, 2007: 97), Iranians' avoidance of Western intellectual foundations (Sajadi et al., 2014: 78), and more reliance on foreign changes rather than reliance on domestic historical conditions (Habibi, 1373/1994, 139). The consequences of those changes were the weakening of Iran's historical values and traditions and the expansion of modeling after the outward aspects of the Western civilization. Consequently, the art atmosphere of Iran changed in such a way that Iranian traditional arts weakened at the same time when Western arts developed. In the course of this historic transition, Iranian architecture was considered as a proper place for imitation and inspiration of western arts and Qajar architecture became a turning point in reflecting different architecture styles and the transition from Iranian traditional architecture to quite European architecture by being between two interior domestic (the continuation of traditions of Iranian architecture) and foreign factor (the influence of Western architecture).

2-2- Domestic factors of establishing Qajar architecture

The continuous and gradual evolution of Iranian architecture have been established out of past traditions and experiences over the centuries; as a result, in spite of all immediate changes and transformations caused by military invasions and cultural shocks, traditional Iranian architecture has been considered as a unique one among other Muslim countries (Pope, 1965: 266). Architectural developments in the early Qajar Era was endogenous in nature, had a slow pace matched with other artistic and social phenomena, and was influenced by domestic factors and phenomena in the society (Sajadi et al., 2014: 80). The existence of a brilliant and noncompetitive period of Islamic arts and architecture such as the Safavid Era, not so far from the Qajar Era, was a factor for making kings and architects of that era astonished. In the structure of a lot of buildings in this era such as mosques and houses, quite

imitation of models current in Safavid architecture was done regardless of some partial changes in elements and decorations. In other words, the Qajar rulers were very interested that the new capital (Tehran) could compete with Isfahan as the capital of the Safavid Era (Habibi, 1373/1994, 140). Therefore, some researchers refer to the architecture of the Qajar Era as the continuation of the Isfahan school or the second phase of the Isfahan school (Habibi, 1373/1994, 150); (Pirnia, 2010: 343). Pre-Islamic Iranian architecture was another factor affecting the establishment of Qajar architecture. "Tendencies towards history and famous rulers in the ancient Iran started concurrently with the establishment of the Qajar Dynasty and the rise of Aqa Mohammad Khan. In the age of Fath Ali Shah, the Iranian culture and civilization was pursued merely in the form of tendencies towards history. Not only did Qajar kings but also people and intellectuals of this era praise and admire kings and rulers before Islam" (Haji Ali Lou, 2005: 32). In fact, the political purpose of art and architecture of the early Qajar government was to match Qajar kings with victories of the ancient rulers and glories of kings in ancient Iran (Diba, 1999: 432). Construction of royal palaces built based on the model of Sassanid monuments and Elamite ziggurats (Diba, 1999: 428), utilization of ancient Iranian mythology in a new form of decorating walls of royal palaces (Godard, 1998: 463), significant tendencies towards forms and themes of ancient Iranian arts specially Sassanid and Achaemenid reliefs (Grabar, 2001: 183), and use of paintings with political and epical themes with the purpose of boasting the majesty of kings and dynasties (Hatam, 2009: 36) were in line with this policy. In general, showing the majesty and authority of the Qajar kings in the way of Sassanid and Achaemenid kings were the main concerns of kings of this dynasty.

2-3- Foreign factors of establishing Qajar architecture

Foreign factors with their global origins com-

prehensively and fundamentally changed the ancient life system and demanded its own systems and hierarchy with imposing and creating modern aspects to private and public lives (Afshar Asl & Khosravi, 1377/1998, 121). The confrontation of European technology with Iranian traditional culture at the beginning of Naser al-Din Shah Qajar's government having resulted in gradual acceptance of western materialistic thoughts and representations changed in to a battle and conflict between tradition and modernity (Bani Masoud, 2011: 78). As a result, architecture of Iranian buildings, constructed with regard to principles of traditional architecture and in the form a traditional city at the beginning of the Qajar government, lost gradually its own ancient forms in the Naser al-Din's era and took western shapes (Ramezan Jamaat & Neyestani, 2012: 66). Doubtlessly, Naser al-Din Shah's travels to Europe especially his second travel, profoundly influenced the culmination of architectural influences of the West on Iranian architecture. researcher consider several reasons for the advent of western thoughts and influences on models of Iranian architecture in the Qajar era are as follows: technical, scientific, artistic and social merits of Europe; backwardness of the Qajar government (Nouhi, 1374/1995, 614); the Qajar kings' incomplete familiarity with Iranian cultural characteristics and traditions and their infatuation with Western culture (Zaboli Nezhad, 1387/2009, 157-158); Qajar kings' interests to constructing cities similar to those in the West during their journeys to Europe (Habibi, 1373/1994, 140); having more connections with Europeans and making Iranian architects more familiar with European architecture (Nasiri Ansari, 1350/1971, 274-275); the advent of carriages and cars in urban transport systems (Sarikhani, 1384/2005, 6); the return of Iranian architects educated in Europe and employment of foreign engineers in Dar ol-Fonun Academy (Moghtader, 1999: 483); and implementation of architectural monuments out of the imported Western

postcards (Ramezan Jamaat, 2009: 99).

3- A historical look on the construction of Qajar palaces

Pre-Islamic Iranian culture was founded on the basis of commands and ideas of kings residing in palaces; therefore, the architectural style of palaces was the dominant type of buildings in that era (Kateb-e Valiankoh, 1998: 336). With Iranian's tendencies towards Islam and the advent of mosques as the most important element in the spatial structure of cities, the importance of these buildings reduced. It was in the Safavid Era when royal palaces were considered significant and became one of the main elements of urban squares besides mosques and bazar (Habibi, 1373/1994, 147). As a result, in the three Safavid capitals (Tabriz, Qazvin, and Isfahan) significant numbers of palaces were constructed (Kiani, 2014: 12). The Qajar kings as their Safavid peers were highly interested in surrounding their environment with beautiful landscapes particularly with palaces (Fatullayev, 2013: 220). Consequently, the conduction of buildings were pursued according to Sassanid buildings and Elamite ziggurats in the three forms of Arg (small pavilion enclosed in a vast space), the garden and buildings complexes (taken from Safavid architecture), and Takht (throne) (terraced gardens surrounded by residential buildings) in the early Qajar Era (Diba, 1999: 427-428). Moreover, Aqa Mohammad Khan and then Fath Ali Shah carried out repairs on the Safavid and Zand palaces in such a way that in 1206 AH (1792 AD) carried out some changes on Divan Khaneh mansion under the supervision of Aqa Mohammad Khan (Zoka, 1970: 45). Fath Ali Shah who enjoyed a long-term reign, were interested in entertainment and decorative affairs. Since his capital was Tehran, naturally he needed more entertainment in this city; therefore, he developed the early royal Arg (pavilion) in which he established a large harem and constructed several buildings. He founded Negarestan Garden and its palace and even constructed the famous Qasr-e



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Qajar (Qajar palace) beside Shemiranat Road (Farahmand, 1385/2006, 245). During 14 year reign of Mohammad Shah Qajar, Iran was still concerned with the outcomes of Iran's military defeats; therefore, no significant development was carried out on royal buildings. However, in Nasser al-Din's era, the construction process of royal buildings was accelerated and extensive development occurred in constructing buildings due to the absence of foreign conflicts and the king's interests to travels and entertainments. Repairing previous damages and the expansion of royal Args and Golestan Palace into its largest form were pursued in this process (Farahmand, 1385/2006, 245-246). Among important points in the second half of Nasser al-Din's age, his triple travels to Europe and the reinforcement of motivation and spirit of construction of buildings had European styles. According to valid historical documents, the origin of inspiration of a lot of palaces in the late Nasserid era such as Eshrat Abad Palace, Golestan Museum-Palace, and Kakh-e Abyaz (White Palace) were influenced by these travels. Nevertheless, with the end of Nasserid era and the increase in social and political movements in Iran, the construction process of Qajar palaces decreased and next kings just could left few monuments behind.

4- A look on common features of Qajar palaces with reliance on written documents and field studies

Different features have been mentioned for commonalities of Qajar palaces such as followings: plans stretched along the façade, heightism and creation of vast landscapes (Afshar Asl & Khosravi, 1377/1998, 133); the use of particular relevance with the aim of showing higher the building (Sarikhani, 1384/2005, 6); large veranda and wide stairs in front of building (Afshar Asl & Khosravi, 1377/1998, 133), stairways starting from the middle of the antechamber and continuing as two branches in front of each other up to stairways (Nasiri Ansari, 1350/1971, 274-275); decorative windows, Greek capitals, and basket-handle

(semielliptical) or Roman semicircular arches (Ansari, 2010: 167); sloping gable roofs instead of flat or domed roofs, plaster decorations of columns and capitals in the Rococo style (Etesam, 1378/1999, 292); triangular or curved pediments on the top of facades; warm and natural colors used in facades and interior spaces; and European fireplaces.

Decorative arts used in most early and middle palaces their particularly sirloin, tiling and paintings on the wall are not much loyal to decoration principles of Iranian architecture compared to decoration of similar buildings in previous periods. They are lacking in geometry, unity and abstract sense of previous palaces which represent the affectedness of realistic western paintings and designs more and more. In other words, decorative forms and shapes discussed under the effect of European art gradually tended towards naturalism and distance from previous abstract forms. In addition to changes in paintings and reliefs, changes in themes of decorative elements is tangible. For example, "in tiling of walls of palaces and aristocratic mansions of this period, construction of epical scenes such as the battle of Rostam and Sohrab, mythical Iranian heroes, banquets of Shirin and Farhad as well as Joseph and Zuleika, and figures of politicians and courtiers of that period, parading soldiers, banquets of kings and courtiers, and even images of half-naked women are observable" (Zaboli Nezhad, 1387/2009, 157-158). The use of these themes was not current in the past. The colors used in the decorative elements are not comparable with the past instances in terms of diversity and frequency (Godarzi Dibaj, 1388/2009, 31-33); they are innovative in such a way that in addition to the existence of a wide range of colors, number and amount of warmer and relatively more innovative colors such as red, purple, yellow, and orange are used more than colder colors such as blue and turquoise used in the past. These transformations in using colors gave a mundane spirit to the spatial sense of most

buildings.

The diversity in forms, themes, and colors of decorations of most Qajar palaces (especially in early and middle palaces) originating from the relatively superficial tendency of Qajar kings and courtiers towards ancient myths and Iranian traditional arts on the one hand, and indicating their astonishment for the majesty of western architectural styles resulted in the appearance of a decorative eclectic style in most palaces and mansions of this period. The result of such a dual approach has led to creating an art which in addition to having a sort of formal and conceptual conflict, influences human emotions more than reason.

Although the mentioned features are not referred to all of them depending on the period of constructing these buildings³, regardless of exceptions, they illustrate a significant transformation in Iranian architecture particularly that simultaneous to the events taken place in sociopolitical space of the Qajar era, architecture and decorations of these buildings changed significantly. As a result, by hypothesizing and confirming the uncertainty of the mentioned common features, outstanding features of those buildings in the four pre-Nasserid, early and middle Nasserid, late Nasserid, and post-Nasserid Eras are investigated.

5- Investigation and analysis of Qajar palaces

Before presenting investigations and analysis conducted on seventeen samples, it should be noted that investigating and analyzing main indices of architecture and decorations of each of these samples were conducted in detail and based on separate investigations of plans and the space circulation system, facade and sections, materials, decorations, and architectural elements. However, because of limitations of the article, their comprehensive presentation is avoided, and instead a summary of main indices of samples are presented in tables 1-4 with their illustrations and drawings. In addition, concluding remarks of their common indices are presented.

5-1- Pre-Nasserid palaces

Pre-Nasserid palaces are those built in the first decades of Qajar Era including Aqa Mohammad Khan's and Fath Ali Shah's eras. Safavid architecture is the main origin of the establishment of Iranian architecture in this period; therefore, this architecture can be considered as the continuation of Isfahan School² and Iranian pre-Islamic palaces. Palaces such as Ayyān-e Takht-e Marmar (the porch of marble throne), Palace of Shaki Khans⁴, Qasr-e Qajar (Qajar palace), Imarat-e Khoruji (Khoruji Mansion), and Imarat-e Badgir (Badgir Mansion) are among outstanding palaces of this period (Table 1).

Most of these palaces have simple plans in

2. Simplicity of designs of buildings, the use of same modulator and anthropometric scales, the minimum recesses and projections in buildings, and the strength and stability of forms are some significant features of the Isfahan Architectural School (Ziari et al., 2014: 43-44).

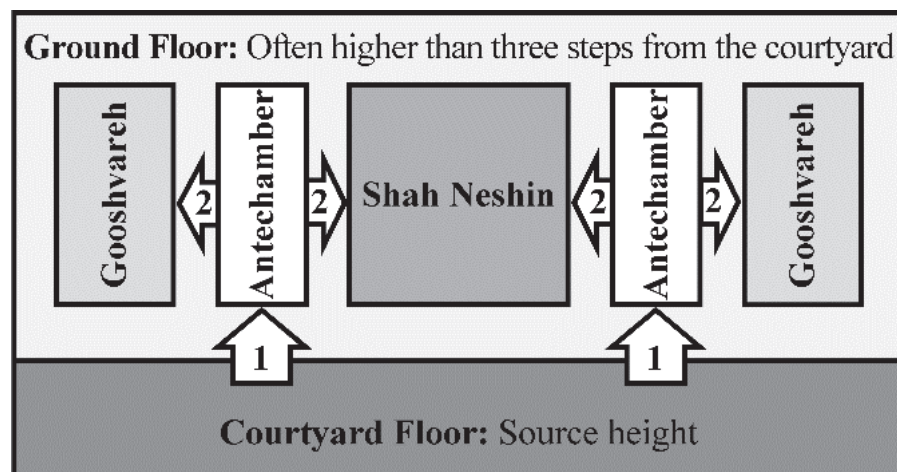
3. The main structure of early palaces of Qajar Era was influenced by Iranian traditional architecture and places of previous eras without some of the Western features such as central stairways of antechambers, Roman semicircular domes, Greek capitals, and pediments on facades.

4. With the main name "Şeki Xan Sarayı" was conducted in 1797, i.e. five years after changes which Aqa Mohammad Khan had done in the porches of Marmar Palace according to the order of Mohammad Hassan Khan and the design of Haji Zein ul-Abedin Shirazi in Shaki City of Azerbaijan. Based on field studies and investigation of the plan, facade, architectural elements, and internal decorations of this building, it seems that the palace has the most similarity with Marble (Marmar) Palace in the Nasserid Era. Unlike the porches of Marble (Marmar) Palace and Badgir Mansion, the initial structure of its architecture and decorations has had no significant changes in next periods. As a result, it can be considered as one of the most genuine palaces remaining from the early Qajar Era.

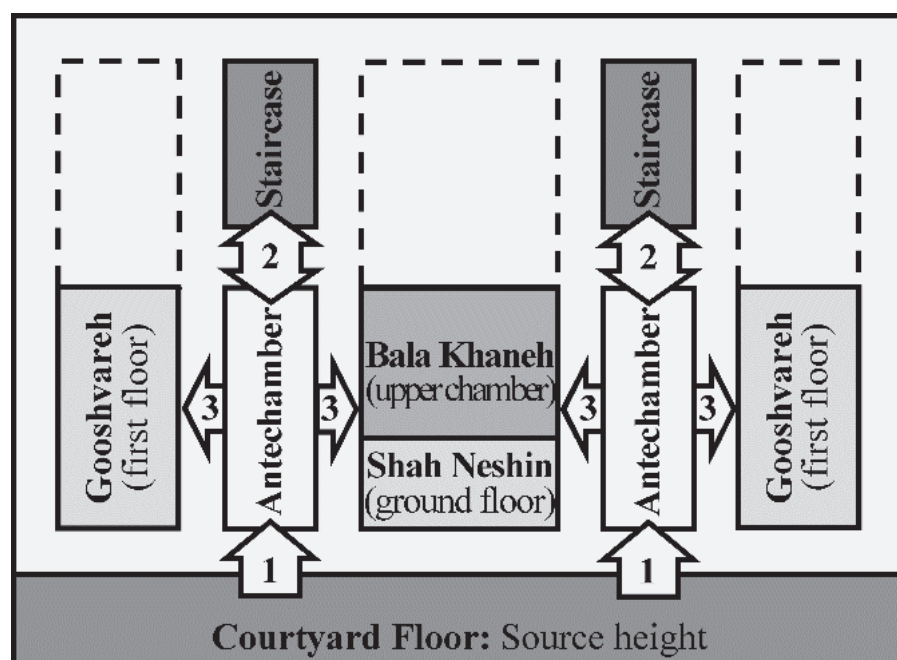
5. Imarat-e Badgir was lacking in projections in the northern angle in pre-Nasserid Era. Regardless of stretch the south side of the alcove, it had an approximately rectangular plan. See (Heshmati, 1386/2007: 80-81) & (Bani Masoud, 2011: 94).

6. Hashti: Main space of entrance; the entrance space of Persian buildings.

7. Gooshvareh (or Gushvareh): Symmetric rooms in two sides of an Ayyān.



▲ Fig 2. Traditional horizontal circulation system in the Pre-Nasserid palaces; (Author)



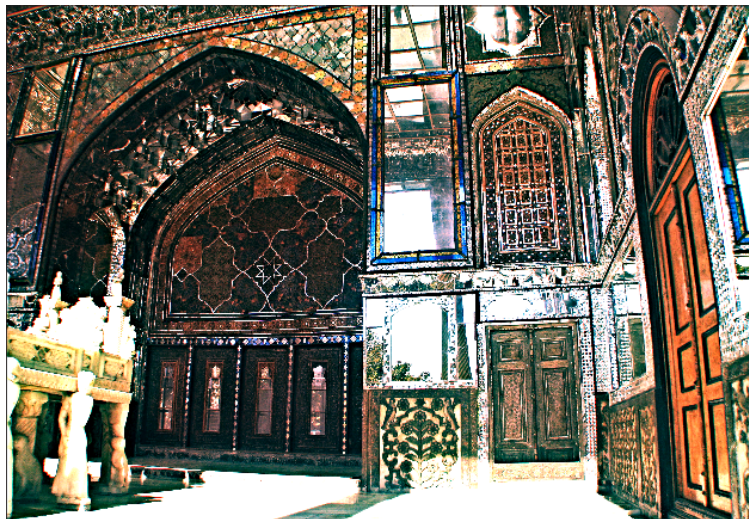
▲ Fig 3. Traditional unimportant and relatively hidden vertical circulation system in the Pre-Nasserid palaces; (Author)

the form of rectangles stretched along the east-west direction⁵. The discussed palaces are often two-story buildings and have straight skyline, beamed ceiling and flat roof. Spaces like sar-dar (entrance door), antechamber or hashti⁶, shah neshin (alcove), Gooshvareh⁷, Ayvān (porch) and staircase are the main spaces of these buildings. The plans and façades of these buildings are often symmetrical and all the spaces are organized around the alcove; as a result, they can be called alcove-based build-

ings. Alcoves usually have two floors with their two-storey spaces in their both sides consisting of antechambers and gooshvarehs as their braces. These buildings are mostly lacking in the central entrances. The mode of accessing them is mostly via corridors and porches located in both sides of alcoves (Fig 2). Stairways and vertical connections of these buildings invisibly constructed near exterior walls of buildings and on the path of entrance corridors and porches are lacking in central



▲ Fig 4. Palace of Shaki Khans (1797); (Author)



▲ Fig 5. Ayvān-e Takht-e Marmar (1760-92); (Author)

parts organizing surrounding spaces . The mode of access is in coordination with the current spatial hierarchy in the Iranian traditional architecture .

The formal structure of the discussed buildings enjoys the relatively extrovert spirit because of having singular forms and multiple windows. Nevertheless, the density of decorations in interior spaces influenced by the current model of Iranian traditional architecture is higher than the exterior facades. The peak of interior decorations is concentrated on the alcoves and other spaces have relatively fewer decorations. Brickwork, tiling, plasterwork, Gereh chini

(lattice work), mirror work, plasterwork on mirrors, and carvings and paintings on plaster and canvas were used in interior decorations of alcoves. There are also some plasterworks in the form of muqarnas on galuees . The exterior façades of alcoves are usually covered with latticed rectangular panj-dari (five-door), haft-dar (seven-door) or noh-dari (nine-door) orsis . Orsis are often decorated with Gereh chini. Doors and windows of those palaces are usually rectangular; however, sometimes windows were built with pointed arches . Arches applied to upper parts of interior and exterior shelves, doors, and windows are usually

pointed and western semicircular arches can be rarely observed. In general, all three types of flat decorations, low reliefs and high reliefs (muqarnas) can be observed in these buildings. These decorations are crafted in a vast range of geometric, semi-arabesque, human, floral, animal, and natural landscapes motifs. Warm colors such as red, yellow, orange, and golden are the features of arts and architecture in the early Qajar era. In fact, they can be observed in decorative elements of these buildings. The color tonality used in these decorations is warmer than the tonality used in future palaces (Fig 4 & Fig 5).

In spite of creating relatively majestic and luxurious spaces, diversity in motifs, themes, and colors prevents the unity in interior spaces because of poor visual coordination. The result of this decorative style is the superiority of sensual aspects on the rational ones in the interior decorative composition.

This group of Qajar palaces can be described as palaces with the Qajar traditional style because of following the hierarchy and circulation system as well as the use of elements, spaces, and decorative style common in the Iranian traditional architecture.

5-2. Palaces of early and middle Nasserid Era

The three early decades of Nasserid Era (years before Nasser al-Din Shah's second travel to Europe) was concurrent with the peak of the influence of Western arts and architecture on Iranian architecture due to sociopolitical upheavals. As a result, the Iranian traditional architecture was integrated with Western architecture. Qajar palaces are at the top of manifestation of these developments. Nasser al-Din Shah's roles in moving the mentality of architects and designers of Qajar palaces towards western architecture are very important. In his era, most pointed arches of the complex of Golestan Palace were converted into Roman arches (Zoka, 1970: 282). Zoka writes about Shams-ol Imareh Mansion as the most outstanding building of this era that

“before traveling to Europe, Nasser al-Din Shah tended to build a high-rise building such as Farangestan buildings in the capital of his reign due to observing images of buildings and skyscrapers in western countries in order that he and his wives could see the landscape of Tehran and its surroundings” (Zoka, 1970: 270). From among outstanding palaces of this era, Shams-ol Imareh, Eshrat Abad, Golestan, Sepahsalar and Saheb Qaranieh Palaces and Divan Khaneh and Sofreh Khaneh mansions in Masoudieh Complex can be referred to (Table 2).

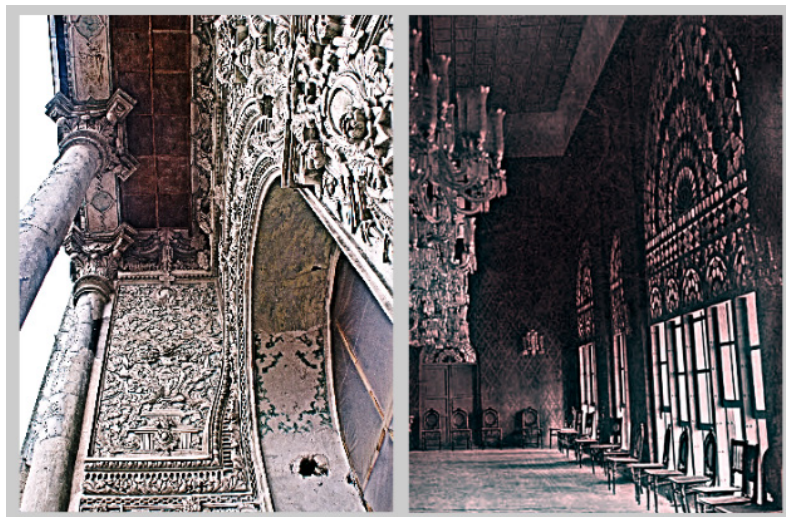
Most of these palaces have plans stretched along buildings; therefore, they have more semi-open spaces, projections and recesses in their structures. These palaces have two floors with beamed ceilings and gable roofs and non-smooth skylines (composed with curves and triangles). Similar to the models used in the pre-Nasserid Era, most of those buildings have plans and façades with axial symmetries; however, in some exceptional cases such as Golestan Palace and Sepahsalar Palace, repetitive symmetries have been used (Table 2). Spatial organization of these palaces have more diversity than pre-Nasserid palaces do, but classifying them into several models is not much possible. However, in a more dominant type used in Golestan Palace and Divan Khaneh Mansion in Masoudiyeh Complex, spaces have been influenced by Western architecture and are organized around stairways or all over the entrance. The building has the central entrance as well. Stairways and vertical connections of these buildings are very important and can be origins of expansion of stairways starting from the middle of antechambers and being stretched along staircase in the form of two parallel branches or in front of each other (Fig 6). In another type used for example in Shams-ol Imareh and Saheb Qaranieh Place, spaces follows spatial organization and Iranian architecture proportions around the central chamber, but the connection between spaces is composed of Iranian room-to-room con-

Palace Name; Characteristics	Picture	Plan / Facade
Ayyān-e Takht-e Marmar (1760-92) <ul style="list-style-type: none"> • Symmetrical and simple linear plan • Noncentral entrance, alcove-based plan, traditional circulation system and unimportant vertical circulation • Straight skyline, beamed ceiling, flat roof • Rectangular sashes and pointed arches • Prolific interior decorations, diversity and lack of unity in decorative motifs, spicy hot colors, volumetric and flat decorations 		
Palace of Shaki Khans (1797) <ul style="list-style-type: none"> • Symmetrical and simple linear plan • Noncentral entrance, alcove-based plan, traditional circulation system and unimportant vertical circulation • Straight skyline, beamed ceiling • Rectangular sashes and pointed arches • Prolific interior decorations and relatively minimal exterior decorations, diversity and lack of unity in decorative motifs, spicy warm colors, volumetric and flat decorations 		
Qasr-e Qajar (1798) <ul style="list-style-type: none"> • Symmetrical and simple linear plan • Noncentral entrance, alcove-based plan, traditional circulation system and unimportant vertical circulation • Almost straight skyline, beamed ceiling • Rectangular sashes and pointed arches • Prolific interior decorations and relatively minimal exterior decorations, diversity and lack of unity in decorative motifs (Najmi, 1363/1984) 		
Imarat-e Khoruji (1801) <ul style="list-style-type: none"> • Symmetrical and simple stretched plan • Noncentral entrance, alcove-based plan, traditional circulation system and unimportant vertical circulation • Straight skyline, beamed ceiling • Rectangular windows and pointed arches • Prolific interior decorations and relatively minimal exterior decorations 		
Imarat-e Badgir (1813) <ul style="list-style-type: none"> • Symmetrical and simple linear plan • Noncentral entrance, alcove-based plan, traditional circulation system and unimportant vertical circulation • Straight skyline, beamed ceiling • Rectangular sashes and pointed arches • Prolific interior decorations in comparison with the relatively minimal exterior decorations, diversity and lack of unity in decorative motifs, spicy warm colors, volumetric and flat decorations 		

▲ Table 1. The introduction and comparison of outstanding Qajar palaces in the pre-Nasserid Era and their main features; (Author)



▲ Fig 6. The centrality of stairway at the spatial organization of Golestan Palace (Pictured right) and Divan Khanh mansion (pictured left); (Author)



▲ Fig 7. Interior of Sofreh Khaneh Mansion (Masoudieh complex) (URL 02); Exterior of Sofreh Khaneh Mansion; (Author)

nections and western corridor-to-room. The main entrances are on either side of the main chamber.

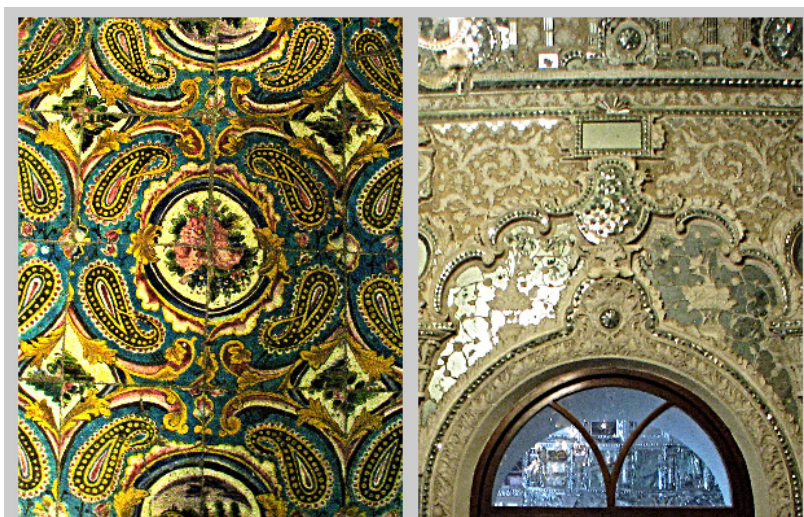
Palaces of this era are mostly extrovert. Although in Qajar early palaces, the ratio of density of decorations in interior spaces is higher than the exterior spaces, the considered ratio of these buildings is balanced. In other words, with the culmination of the influence of western architecture and consequently the increase in extraversion of the structure of Iranian architectural works, prolific interior decorations in early palaces are transferred gradually to

exterior facades of the buildings. The peak of this decorative approach can be observed in mansions of Masoudieh Complex (particularly Divan Khaneh and Sofreh Khaneh Mansions) (Fig 7).

In the exterior façades of most of these buildings, composition of architectural elements related to Iranian and Western architecture such as pointed, semicircular, and three-centered arches as well as semicircular sashes are observable. The upper forms of these sashes which are mostly semicircular or crescent-shaped have been decorated with Qavarehkari



▲ Fig 8. The entrance hall and Talar-e Āj in Golestan Palace; (Author)



▲ Fig 9. Plasterwork on the wall and tile work on the floor in Shams-ol Imareh; (Author)

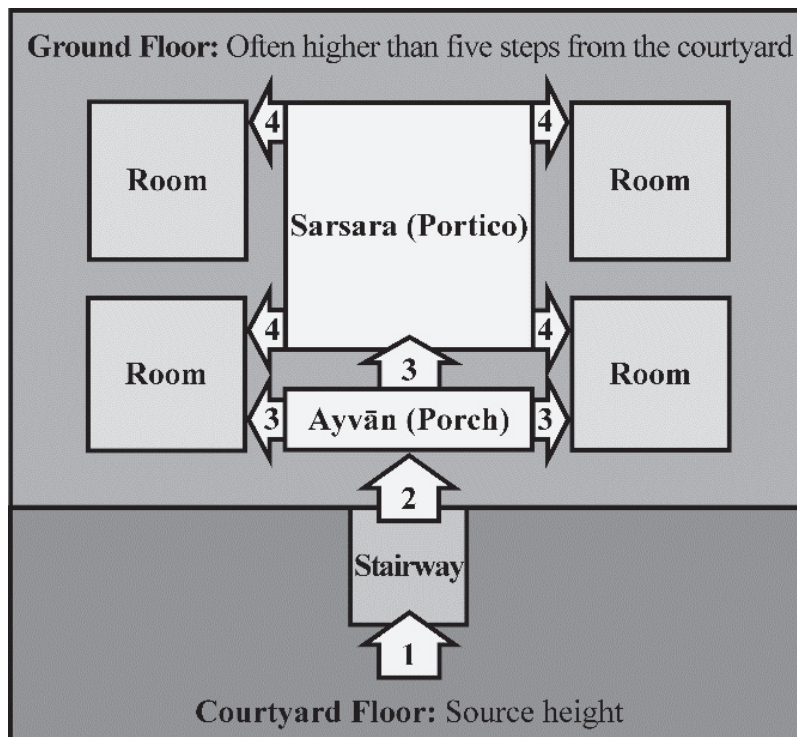
unlike previous palaces having decorated with Gereh chini. The upper parts of doors are semicircular. In exterior facades and interior spaces of most palaces, there are structural and decorative columns as significant elements which determine the importance of buildings. These columns which are mostly constructed with woods have the spirit of Corinthian columns and Rococo-style decorations (Fig 8).

Interior decorations of these palaces are a set of plasterworks (on walls, ceilings, and galleries), mirrorwork, plasterworks on mirrors, tiling (on walls, plinth and floors), paintings

on plaster and stone (varnished paintings on the plinths) and reliefs on plinths. Among all these features, low-relief and half-relief plasterworks with natural paintings are more highlighted. Decorative motifs of these palaces are evidently influenced by both Iranian and Western motifs in such a way that in spite of using semi-Arabesque motifs in plasterworks, tiling, and even mirror works, these motifs have moved away from abstract quality of Iranian motifs and taken the realistic aspects of Western motifs (Fig 9). In decorative motifs of tiling and wall paintings (frescos), one can

Palace Name; Characteristics	Picture	Plan / Facade
Shams-ol Imareh (1865-68) <ul style="list-style-type: none"> • Symmetrical linear plan with projections and recesses • Central and noncentral entrances, eclectic circulation system, unimportant vertical circulation • Broken skyline, beamed ceiling and gable roof • Semicircular and pointed arches and sashes • Relative balance between the interior and exterior decorations, diversity and lack of unity in decorative motifs, warm and cool bright colors, half-relief motifs and decorations 		
Kakh-e Sepahsalar (1874) <ul style="list-style-type: none"> • Linear plan with projections and recesses • Central and noncentral entrances, eclectic circulation system • Broken skyline, beamed ceiling and gable roof • Semicircular and pointed arches and windows • Relative balance between the interior and exterior decorations, warm and cool bright colors, half-relief motifs and decorations 		
Kakh-e Golestan (1874-77) <ul style="list-style-type: none"> • Linear plan with projections and recesses • Central entrance, eclectic horizontal circulation system, western vertical circulation • Broken skyline, beamed ceiling and gable roof • Semicircular arches and windows • Relative balance between the interior and exterior decorations, diversity and lack of unity in decorative motifs, warm and cool bright colors, half-relief motifs and decorations 		
Masoudieh Garden-Palace (1873-78) <ul style="list-style-type: none"> • Symmetrical linear plan with projections and recesses • Central entrance, eclectic horizontal circulation system, western vertical circulation • Broken skyline, beamed ceiling and gable roof • Semicircular arches and sashes • Relative balance between the interior and exterior decorations, diversity and lack of unity in decorative motifs, warm and cool bright colors, half-relief motifs and decorations 		
Kakh-e Saheb Qaranieh (1851-80) <ul style="list-style-type: none"> • Linear plan with projections and recesses • Central entrance, eclectic circulation system • Broken skyline, beamed ceiling and gable roof • Semicircular arches, sashes and windows • Relative balance between the interior and exterior decorations, diversity and lack of unity in decorative motifs, warm and cool bright colors, half-relief motifs and decorations 	 	

▲ Table 2. The introduction and comparison of outstanding palaces of the early and middle Nasserid Era and their main features (Author)



▲ Fig 10. Western horizontal circulation system in the Late Nasserid palaces; (Author)

face with a lot of instance of realistic designs including natural landscapes, images of European buildings, human figures, and animal motifs. As in case of palaces of the early Qajar palaces, the use of warm colors are highlighted in these palaces; but it seems that color tonality used in these palaces is lighter and brighter, and colors such as purple and tonalities of light yellow, orange, and blue (common in Rococo style) are replaced by warmer colors of early palaces (Fig 8 & Fig 9).

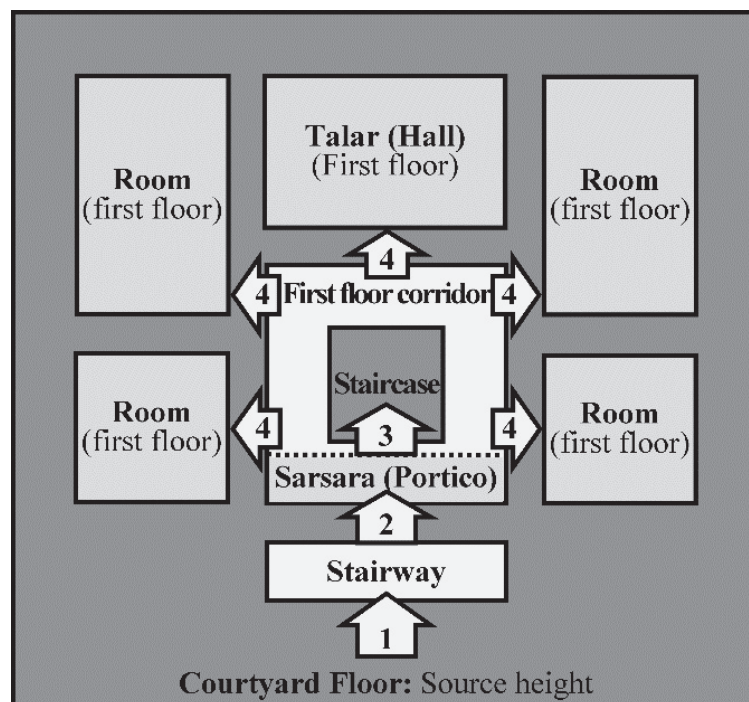
In composition of decorative motifs of these palaces, as early palaces, there are significant deficiencies in the general unity of elements in such a way that artists and architects of these monuments in spite of tendency towards innovative integration of different traditional and western ornaments, were not able to create favorable part-to-whole and whole-to-part visual harmony due to factors such as haste, lack of required skills and coordination, and relatively superficial understanding of Iranian and Western decorative arts.

This group of Qajar palaces can be called eclectic Qajar palaces because of having ele-

ments, motifs, decorations, and spatial-regulatory system of Iranian and Western architecture.

5-3- Late Nasserid palaces

In the last two decades of Nasserid Era, i.e. after Nasser al-Din Shah's second travel to Europe in 1878, fascination and trends towards Western arts and architecture reached its peak so that direct modeling was carried out of European buildings in designing palaces and royal buildings. Zoka writes about Imarat-e Khabgah (Khabgah Mansion) that "unlike other mansions and palaces, this mansion was built with the use of European style. In fact, it was constructed and decorated out of Dolmabahçe Palace in the Othman Government" (Zoka, 1970: 254). Dr. Février believes that Kakh-e Abyaz (Abyaz Palace) was built based on the architectural style in the era of Louis XVI (Fauvriér, 2006: 113). Most of palaces in this era were designed and constructed out of images and drawings of European buildings. The issue worthy of mentioning here is that in spite of the effect of different European and Iranian architectural styles in construct-



▲ Fig 11. Western very important and visible axial vertical circulation in the Late Nasserid palaces; (Author)

ing early palaces of the Nasserid Era, late palaces were merely influenced by Neoclassical styles. Kakh-e Shahrestanak (Shahrestanak Palace), Qasr-e Yaqut (Yaqut Palace), Imarat-e Khabgah (Khabgah Mansion), Kakh-e Abyaz (Abyaz Palace), and Imarat-e Malijak (Malijak Mansion) are among significant palaces of this era (Table 3).

Palaces of the late Nasserid Era mostly have simple rectangular or near-quadrangular plans. Most of those palaces are two-floored; lower floors have flat beamed ceilings and their broken skylines are triangular and trapezoidal due to using corrugations on roofs. Most of palaces enjoy axial symmetry of the facades and plans and their spaces are organized symmetrically around the sar-sara (entrance hall) and stairways.

Vertical connections in these buildings, unlike models of Iranian traditional architecture, are very important and considered as the main factors of organizing spaces of plans. Therefore, they can be called as stairs-oriented buildings. Spatial connections inside floors are possible via entrance halls or corridors around central

stairways (Fig 9). This issue has influenced proportions of plans and their expansion in the depth of buildings (Fig 9 & Table 3).

These palaces are very extrovert because of having a lot of semi-open spaces (in the form of terraces and balconies), frequent windows around the buildings, and the use of high and visible columns in facades. Palaces of the late Nasserid Era were highly influenced by Neoclassical architecture and most of their visible motifs and decorations such as Greek capitals, crescent windows in exterior facades, wide stairways in front of entrances, stone fences in porches or balconies, sloping roofs (sometimes similar to mansard roofs), stone and plaster decorations around crescent and basket-handle (semielliptical) windows, pediment-shaped decorations on rectangular windows and white plasterworks of exterior facades and interior spaces inspired from images of European Neoclassical monuments (Fig 10).

Unlike types of earlier Qajar palaces which have diverse decorative elements, exterior and interior decorations of those palaces are minimum and mostly limited to plasterworks exist-



▲ Fig 12. The elements located in the eastern facade of Kakh-e Abyaz; (Author)



▲ Fig 13. The entrance and central staircase of Kakh-e Abyaz; (Author)

ing in exterior facades. Generally, architectural decorations of these palaces are focused on exterior facades and interior spaces have few decorations; therefore, it seems that formal and structural extraversion specific to Qajar palaces are more completely manifested in their exterior and interior decorative proportions than the previous types in those buildings (Fig 11).



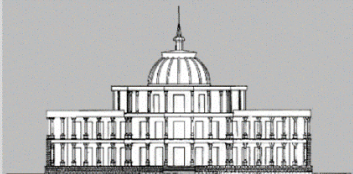

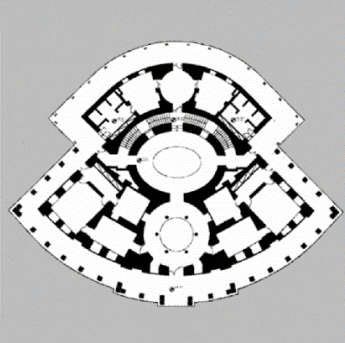
Relative unity in composition of decorative motifs is another feature of these buildings. In

the composition of decorative motifs of earlier palaces, due to the common and usually uncoordinated effects of Iranian and Western decorative arts, the desired unity has not been achieved; but in the palaces of this era, this quality has been just relatively achieved because of direct modeling of European Neo-classical styles.

This group of palaces having significantly moved away from luxury architecture of early Qajar architecture, because of minimal decora-

Palace Name; Characteristics	Picture	Plan / Facade
Kakh-e Shahrestanak (1880-81) <ul style="list-style-type: none"> Symmetrical rectangular shape plan with semi-open space and high extraversion Central entrance with "Sarsara", western circulation system Broken skyline, beamed ceiling and gable roof Semicircular arches and windows Relatively minimal interior and exterior decorations Use of white color on decorations 		 
Qasr-e Yaqut (1882-84) <ul style="list-style-type: none"> Closely symmetrical rectangular shape plan with semi-open space, throughout windows and very high extraversion Central entrance with "Sarsara", central stairway, western circulation system Broken skyline, beamed ceiling and gable roof Semicircular and three-centered arches and windows Very minimal interior and exterior decorations Use of white color on decorations 		 
Imarat-e Khabgah (1885-86) <ul style="list-style-type: none"> Symmetrical rectangular shape plan with semi-open space, throughout windows and very high extraversion Central entrance with "Sarsara", central stairway, western circulation system Straight skyline, beamed ceiling Semicircular and segmental arches and windows Focused on exteriors decorations Use of white color on decorations 		
Kakh-e Abyaz (1889-91) <ul style="list-style-type: none"> Rectangular shape plan with semi-open space, throughout windows and very high extraversion Central entrance with "Sarsara", central stairway, western circulation system Broken skyline, beamed ceiling and gable roof Semicircular and segmental arches and windows Focused on exteriors minimal decorations Neoclassical plaster and stone decorations on facades, use of white color on decorations 		 
Imarat-e Malijak (1885-86) <ul style="list-style-type: none"> Closely symmetrical rectangular shape plan with semi-open space, throughout windows and very high extraversion Central entrance with "Sarsara", central stairway, western circulation system Broken skyline, beamed ceiling and gable roof Semicircular arches and windows, pediment shape decorations on facades Focused on exteriors minimal decorations Use of white color on decorations 		 

▲ Table 3. The introduction and comparison of outstanding palaces of the late Nasserid Era and their main features; (Author)

Palace Name; Characteristics	Picture	Plan / Facade
Kakh-e Dār Abad (1902) <ul style="list-style-type: none"> • Symmetrical rectangular shape plan with semi-open spaces and projections and recesses, throughout windows and high extraversion • Central entrance with “Sarsara”, central stairway, western circulation system • Broken skyline, beamed ceiling and gable roof • Rectangular shape windows, pediment shape decorations on façade windows (destroyed) • Focused on exteriors minimal decorations • Use of white color on decorations 		
Kakh-e Farah Abad (1903-04) <ul style="list-style-type: none"> • Symmetrical plan with semi-open spaces and projections and recesses, throughout windows and very high extraversion • Central entrance with “Sarsara”, western circulation system • Broken skyline, beamed ceiling and gable roof • Greek style columns and capitals • Roman dome • Focused on exteriors minimal decorations • The use of the white color on decorations 	 	

▲ Table 4. The introduction and comparison of outstanding palaces of Qajar in the Post-Nasserid Era and their main features; (Author)

tive motifs and more emphasis on the function and spatial connections, is one of the primary signs of the entrance of Iranian architecture to modernity and the absolute change of its basics with Western architectural basics. As a result, they can be described as Western style of palaces in the Qajar Era due to having the circulation system of the Western spaces, high extroversion, and the use of neoclassical architectural elements.

5-4- Post-Nasserid Palaces

In the final three decades of the Qajar Era, the trend of constructing palaces and governmental mansions approximately stopped because of the culmination of public movements, unfavorable sociopolitical conditions, and weaknesses in the Qajar government. Following the style used in palaces of the late Nasserid Era, Some palaces such as Farah Abad and Dār Abad, constructed in Mozaffar al-Din Shah Qajar, were built based on fully European style (Table 4). Although palaces of the late Nasserid Era present the fairly regular process of influence and evolution of Western elements and spaces in their architectural structure, a few palaces built after the Nasserid Era were

constructed merely out of images and drawings of Western instances and the Qajar kings' tastes. In other words, in spite of having totally Western identity, a few palaces constructed after the Nasserid Era not only cannot be considered evolutionary for palaces of the late Nasserid Era, but also are an end to the evolution of architecture of Qajar palaces.

6- Conclusion

Multiple factors such as the continuation of Isfahan Architectural School in the early Qajar Era, the tendency of Qajar kings towards ancient Iranian arts and architecture and culmination of the influence of Western architecture in the Nasserid Era are main origins of construction of Qajar palaces. The diversity existing in these factors caused that the discussed buildings were converted into the most revolutionary and progressive architectural monuments of this era in the reflection of different Iranian and European styles and schools. Mainly extrovert Qajar palaces, which are mostly constructed in Tehran, have more regular evolution of Iranian traditional architecture into totally European architecture than other buildings. The evolution in the three pre-

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Compared Item	Palaces of Earlier than Nasserid Era	Palaces of the Early & Middle Nasserid Era	Palaces of the Late Nasserid Era and Then
Era	• Aqā Mohammad Khān and Fath Ali Shāh Eras	• The first three decades of the Nasserid Era	• The last two decades of the Nasserid Era and then
Construction Date	• Roughly from 1792 to 1834	• Roughly from 1848 to 1878	• Roughly from 1878 to 1925
Prominent Buildings	• Ayyān-e Takht-e Marmar, Palace of Shaki Khans, Qasr-e Qajar, Imarat-e Khoruji, Imarat-e Badgir	• Shams-ol Imareh, Kākh-e Eshrat Ābād, Kākh-e Sepahsalar, Kākh-e Golestan, Masoudieh Garden-Palace, Kākh-e Saheb Qaranieh	• Kākh-e Shahrestanak, Qasr-e Yaqut, Imarat-e Khabgah, Kākh-e Abyaz, Imarat-e Malijak, Kākh-e Dār Ābād, Kākh-e Farah Ābād
Affecting Styles	• Traditional (in architecture) • Traditional and baroque (in decorations)	• Traditional and neoclassical (in architecture) • Traditional, neoclassical and rococo (in decorations)	• Neoclassical (in architecture and decorations)
Plan	• Symmetrical and simple linear plan without projections and recesses • Alcove-based plan with axial symmetry • Noncentral entrance, antechamber or Hashti, Shah Neshin, Gooshvareh	• Linear plan with projections and recesses • Axial symmetry or repetitive symmetry • A. Noncentral entrance, antechamber or hashti, hall, rooms • B. Central entrance, antechamber or hashti, hall, rooms	• Rectangular plan with semi-open spaces • Axial symmetry or repetitive symmetry • Stair-based plan and its expansion in depth • Central entrance, sarsara (portico), staircase, rooms
Circulation System	• Traditional circulation system due to the existence of antechamber or hashti and room to room circulation • Unimportant and hidden vertical circulation	• Eclectic circulation system due to the existence of corridors or sarsara and room to room circulation • Relatively important and visible vertical circulation	• Western circulation system due to the existence of sarsara or corridors around the central staircase • Very important and visible axial vertical circulation
Façade & Section	• Commonly straight skyline, beamed ceiling, flat roof • Rectangular sashes and pointed arches	• Broken skyline, beamed ceiling and gable roof • Semicircular, three-centered and pointed arches, and windows	• Broken skyline, beamed ceiling and gable roof • Semicircular, three-centered and segmental arches and windows
Elements	• Rectangular shape or pointed niches • Rectangular shape traditional fireplaces • Use of common columns in Zand architecture • Use of sashes containing Gereh chini and colored glasses	• Semicircular niches • European fireplaces • Combinational use of Iranian and European columns • Use of sashes containing Qavareh kari and colored glasses	• Semicircular niches • European fireplaces • Use of Neoclassical columns and capitals • Use of hinged windows with simple glass
Decorations	• Focused on interiors prolific decorations • Use of volumetric, half-relief and low-relief decorations • Use of mortar or plaster Muqarnas on galuees • Use of spicy warm colors (such as golden and spicy red, yellow and orange)	• Relative balance between the interior and exterior decorations • Use of half-relief and low-relief decorations • Use of half-relief and low-relief plasterwork on galuees • Use of bright warm colors (such as bright pink, orange and yellow) and bright cool colors (such as bright blue and green)	• Focused on exteriors minimal decorations • Use of half-relief and low-relief decorations • Very minimal plasterwork decorations in interiors • Use of white color on decorations
Materials	• Composition of many kinds of motifs (such as arabesque, human, floral, animal and landscape motifs) • Diversity and lack of unity in decorative elements and motifs • Local materials in general and partial structure of buildings	• Composition of many kinds of motifs (such as arabesque, human, floral, animal and landscape motifs) • Diversity and lack of unity in decorative elements and motifs • Local materials in general structure and European materials in partial structure of buildings	• Relatively minimal and geometric Neoclassical motifs • Relative unity in decorative elements and motifs • Local materials in general structure and European materials in partial structure of buildings
Style	Traditional	Eclectic	Western

▲ Table 5. The results of the comparative comparison of the dominant types of Qajar palaces in the pre-Nasserid Era, early and middle Nasserid Era, late Nasserid Era and then; (Author)

Nasserid, early and middle Nasserid, and late Nasserid eras is investigable (Table 5).

Adherence to the principles of Iranian traditional architecture is the main feature of pre-Nasserid palaces. Plans have hierarchies and traditional circulation systems, mostly flat skylines, reliefs with minimum of projections and recesses, non-central entrances sunken and dissolved in the structure of buildings, non-significant and relatively hidden vertical circulation, priority of interior decorations over exterior

ones, the use of pointed arches, and rectangular sashes with Gereh chini are instances of traditionalism. However, the use of warm and luxurious colors prevalent in the Baroque style and the existence of images of inanimate creatures in decorations of those buildings, which are signs of the effects of Western architecture and the lack of adherence to principles of Iranian traditional architecture, are considerable. With the culmination of the influence of Western arts and architecture on Iranian archi-

texture in the early Nasserid Era, Qajar palaces gradually took those transformations. As a result, a kind of integrated style in architecture appeared in architecture of Qajar palaces. The integrated circulation system and the gradual advent of sar-sara, central stairways and corridors in the structure of plans, the significance of vertical circulation, the increase in projections and recesses in the structure of buildings, the breakage of skylines by pediment-shape elements, the use of projected entrances, and the increase in extroversion and gradual transference of prolific interior decorations of previous palaces to exterior facades are among evident features of these developments. In the composition of motifs and decorations of those buildings, other features draw attentions: the integration of pointed arches with Western semicircular, three-centered and basket-handle arches, the prevalence of using semicircular windows and sashes and the use of Qavareh kari in their decorations, the prevalence of low-relief plasterwork based on the Rococo style, and lighter color tonality of decorative motifs.

Direct modeling out of European buildings is a firm approach in designing palaces of the late Nasserid Era and the three final decades of Qajar Era. The main distinctive feature of those buildings compared to palaces of the early Nasserid Era is the deletion of components related to Iranian traditional architecture and its replacement with instances of European Neoclassical architecture. The circulation system has a quite western hierarchy, the expansion of plans in the depth of buildings due to the centrality of sar-sara (entrance hall) and central stairways in organization of their spaces, high use of semi-open spaces in forms of balconies and terraces, gable roofs and broken skylines, relatively minimal geometrical decorations centralized on exterior facades, projected columned entrances, and expensive use of white monochrome are main features of the modeling.

Generally speaking, the development of Qa-

jar palaces was carried out in the three pre-Nasserid, early and middle Nasserid, and late Nasserid eras. The rise of those developments was dependent on the continuation of previous traditions, their culmination was based on integrating tradition and modernity, and their declines was due to blind replacement of previous traditions with manifestations of the Western civilization. Although those developments showing sociopolitical upheavals of those eras were considered necessary and inevitable, because of inappropriate understanding of the Qajar government from Iranian historical traditions, new world conditions, and the way of integrating these two factors with each other resulted in the weakness of Iranian architectural traditions and the untimely birth of modern, but bizarre architecture.

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