

Persian translation of this paper entitled: بررسی مدارس نوین اصفهان در اواخر دورهٔ قاجار و دورهٔ sispهلوی اول براساس عوامل شکل گیری و اجزای کالبدی also published in this issue of journal.

Original Research Article

Evaluation of Isfahan's New Schools in the Late Qajar and the First Pahlavi Periods based on Shaping Factors and Physical Components*

Mehran Karahmadi¹, Mostafa Kiani**², Maryam Ghasemi Sichani³

- 1. Department of Architecture, Kish International Branch, Islamic Azad University, Kish Island, Iran.
- 2. Department of Architecture, School of Art and Architecture, Art University of Tehran, Tehran, Iran.
 - 3. Department of Architecture, School of Architecture, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.

Received: 22/06/2019 ; revised: 06/12/2019 ; accepted: 19/12/2019 ; available online: 22/08/2020

Abstract

Problem statement: Modernization in contemporary Iranian history has led to the emergence of European-style schools and the city of Isfahan. These schools differed from traditional schools in terms of the content of the lesson and architecture. At the end of the Qajar period and the Pahlavi era, the construction of schools was on the agenda due to the growing population of Iran and the government's policy of slightly expanding schools for training a specialized force. Most of the previous studies on the architecture of Isfahan schools have been focused on traditional schools (Isfahan schools) and less attention has been paid to the architecture of contemporary schools in the above-mentioned and knowledge about the process of its formation is scarce.

Research objective: The purpose of this study is to identify the historical, political, cultural and social factors influencing the modern schools in Isfahan in these periods and to understand the nature of architecture and to compare the physical structure and architecture of these schools with each other.

Research method: This case study is descriptive-analytical. Five schools were selected as case studies. Data on the history of the schools were gathered through relevant documents. Using field study, another set of data on these schools were collected then analyzed based on the aim of the study.

Conclusion: The most important factors in the shaping of new schools are the constitutional revolution, the role of the Pahlavi government and the desire of the government to create the style of antiquity, the evolution in the 19th and 20th centuries in Europe, and the change of the Western educational system and the construction of several European-like schools in Isfahan by French and English missionaries, the presence of native (Isfahani) architects in this city, and their desire to build traditional (Isfahani) style school architecture. Together, these factors have led to the creation of some kind of integrated architecture in the buildings of most Isfahan schools.

Keywords: *Qajar Architecture style, Pahlavi architecture style, Isfahan Qajar and First Pahlavi Schools, Ancient architecture of Isfahan, British missionary schools in Isfahan.*

the supervision of Dr. Mostafa Kiani and advisement of Dr. Maryam Ghasemi Sichani at Islamic Azad University, Kish International Branch. ** Corresponding athor: kiani@art.ac.ir, +989121901544

^{*} The present paper is based on the Mehran Karahmadi's Ph.D. thesis, entitled: "Investigating the Factors Affecting the Shaping of Architecture of Isfahan Schools in Contemporary Period (Qajar- Pahlavi)" under

Introduction

In the contemporary era with the emergence of new sciences, traditional schools in Iran were not keen on disseminating and absorbing these sciences. But these sciences had their own audience and continued to grow; they were first established by the Amir Kabir School of Dar al-Fonoon in Tehran, and then new schools were opened in Tabriz and Isfahan (Rajaee, 2014, 348). "During the first Pahlavi period (1925-1941) the new bureaucracy system emerged with strength and power, and then the education system in the country evolved. It was at this time that the schools were closed and the activity of the seminary schools was reduced. On the other hand, the Department of Education of Isfahan was also involved in the establishment of new schools. The view of schools and education at the end of the Qajar and Pahlavi era was that in the modernist path that had taken place in the country, education had to grow. With this approach many of the old schools were demolished or renovated into new ones" (ibid., 257). One thing to note is that the modern way of modern schooling in Iran in the contemporary era is in line with the Western model that came with the new system of education. Given the evolution of government agencies and their need for skilled human resources, new goals and expectations emerged for public education, so the necessity of a fundamental change in schooling and deviation from the traditional model were put on the government's agenda. The post-revolutionary European school model, which was consistent with both the modern curriculum and the results of advanced countries' experiences, was considered the most appropriate choice for the new Iranian school" (Sami Azar, 1997, 239). The purpose of this study is twofold: First, it attempts to identify the historical, political, cultural and social factors influencing the formation of modern schools of Isfahan in the late Qajar and Pahlavi periods; second, it aims to understand the architecture of these schools and to compare the physical structure and architecture of these schools with each other. The questions raised in this study are: What were the historical political, cultural and social factors influencing the formation of the new schools of Isfahan in the late Qajar and Pahlavi periods, and what role did these factors have in the physical architecture of the schools in this period? What is the nature of the architecture of modern schools in Iran and specifically in Isfahan during the Pahlavi era? What are the similarities and differences between these schools in terms of architecture?

Theoretical Foundations and Literature Review

Part of the research on the subject has generally examined the status of architecture in the Qajar period and the first Pahlavi period or historical developments in these periods and its impact on architecture. Another part of the research has specifically examined the architecture of schools or the evolution of Isfahan schools over time. These studies are mostly related to traditional schools and due to the special status of traditional schools in Isfahan, numerous studies have been done in this area. Part of the research has also been on historical events reflectig social, political, and cultural developments in different periods of Isfahan's contemporary history. This group of studies specifically deals with historical studies of the formation of contemporary schools in Isfahan. Imanieh (1976) has a historical view of the subject. All schools in Isfahan, from the oldest ones to new ones, have been studied on the basis of the emergence, location, names of sponsors, the capacity of the schools, the possibilities of the names of administrators, etc. Sami Azar (1997) has studied the evolution of Iranian schools based on historical developments and believes that the architecture of the current

schools was the result of historical and social developments and was not the result of thought and solution to physical spaces. Dehbashi Sharif (2000) has evaluated the schools of the first Pahlavi period and presented the views of scholars regarding the formation of schools during that period. According to him, the factors influencing the formation of schools have been associated with the quantitative development of schools and the fundamental changes in the first period of Pahlavi's reign. Kiani (2004) has studied the transformation of ideas and the formation or transformation of architecture based on historical developments in the Pahlavi period. Rajaee (2014) has had a social view of Isfahan history. He has classified the historical developments of schools into several periods and has described the cultural events in Iran each period based on the documents and records of that time and evaluated the influence of these events on the city of Isfahan based on the nature of schools. Taher Sima (2015) has studied the architecture of contemporary schools from the constitutional revolution to the end of the Pahlavi era in Tehran and has studied the impact of educational system changes on the structure of schools and studied the effect of space type on increasing and decreasing learning level. Previous studies have evaluated or studied the history of Isfahan contemporary schools in the past, or have studied the architecture of the schools in this period in general. They have focused on traditional schools (seminary schools) in Isfahan and less attention has been paid to contemporary school architecture, in particular, the Qajar and Pahlavi periods and the process of their formation. The novelty of this study lies in fillings these gaps. In recent decades, a large percentage of these schools in Isfahan, despite the special architecture of the aforementioned periods, have unfortunately been demolished and replaced with a new building without regard to the original

architecture of the building, leaving little to no trace of the old building.

Research Method

In this study, descriptive-analytical and case study methods were used. First, all historicalpolitical, cultural, and social developments related to modern schools in the aforementioned periods were examined using an interpretativehistorical approach. Five schools from Isfahan schools were selected as the case studies. These schools were selected because they are listed as monuments according to statistics provided by the Isfahan General Education Department. The schools were the only ones existing in the late Qajar and Pahlavi periods. Currently, they are in use although some part of the original buildings have been destroyed. Also, the impact of historical developments on the architecture of these schools can be seen. The case studies were analyzed and their features were compared and presented in different tables. Data were collected from relevant documents and field. For those cases whose original buildings were demolished, the documents left from the old buildings were used.

Factors Contributing to the formation of New Schools in the Late Qajar and First Pahlavi Periods and Studying its Architecture

Late Qajar instability and Western missionaries' cultural influence, the relative stability of the country during the first Pahlavi era were influential factors in changing the educational system and the physical structure of schools. In the first Pahlavi period, as the government took over the entire country, it began to carry out its plans. One of the government's plans was to establish new schools quickly in the country. During the Pahlavi era, under the influence European developments in twentieth-century, there was a strong belief in expanding education.

So many of the old and traditional schools were demolished or renovated. Various factors led to the construction of different school architecture from the past (traditional schools). In the following section, the important factors are explained.

• The late nineteenth and early twentieth century developments and their impact on school architecture

In the nineteenth and twentieth centuries, industrial development, scientific and technological progress, and urbanization in the West led to fundamental changes in the social organization and cultural habits of the people around the world. Education played a key role in this transformation. In this century, the school was the only educational institution built on a large scale and developed with great effort and expertise (Connell, 1980, 4). On the other hand, the colonialist view practiced by European governments for centuries became more dominant. The weakness of the Qajar government and the importance of the city of Isfahan were among the factors that drew the attention of Western governments to the city and religious propaganda in the form of cultural centers. When Reza Shah's government was established, Iranian traditional society found itself in the modern, industrial, progressive and transformed world of Europe, and at once accelerated through the cycle of change, leading to a radical transformation during this period. "All of these developments in social aspects, new needs and new architectural functions were actually rooted in developments in the West. The new functions gained state identity in Iran and their construction was also taken over by the government, which included administrative, military, cultural, educational, civil and [...] functions" (Kiani, 2004, 146-148). During the first Pahlavi period due to the profound evolution of the new world system and the new social structure, new scientific,

educational functions such as primary school, high school, university and etc. were created alongside old functions such as lecturer, they went to the school and the seminary school. On the other hand, in the aforementioned centuries, as industry progressed in Europe and elsewhere, a kind of architecture called industrial architecture emerged (Falamaki, 1992, 474); and their associated architecture was mainly factories created and developed by the Industrial Revolution. In Iran during the first Pahlavi era, the establishment of these factories in the ancient and traditional fabric of cities created a special architecture that should be considered the beginning of Iranian industrial architecture from this date (Kiani, 2004, 142). But the impact that this industrialization had on the education system was needed for trainingindustrial centers and the establishment of new training centers called industrial conservatories to train industrial jobs¹.

• The Constitutional Revolution and its Impact on the Schools of Isfahan

After the issuance of the constitution in 1906, School building in Isfahan increased and by the year 1919 when the Education Bureau was established in Isfahan, many schools were opened. But financial troubles and social unrest have led to the closure of most of those schools (Motamedi, 2007, 21).

• French missionaries and their impact on Isfahan schools

The history of French-Iranian political and social relations and the presence of French Christian missionaries in this country and the city of Isfahan date back to the Safavid era. During this period, missionaries sought to expand French influence by propagating religious doctrines (Kajbaf & Dehghannejad, 2008, 217). Unlike the Russian and British governments, whose influence in Iran was based on political influence, the French based their activities on a cultural basis. The

weaknesses of the Qajar government, the geographical location and importance of the city of Isfahan, and the presence of the Jolfa Christian neighborhood were the factors that drew the attention of French missionaries to the preachings of Catholic Christianity and the construction of several schools, including the Morning Star School and the French School².

• English Catholic Communities and its Impact on Isfahan Schools

In the early 20th century two boys' and girls' schools were established in Isfahan. The schools were staffed by short-term foreign teachers and some Iranian teachers; these schools were closed down by the government in 1939 (Hekmat, 1964, 1210). And these evangelicals were gradually diminishing against Russians and American delegations who had more capital and subsidized students; their activity gradually diminished (Nategh, 2001, 47; Akhjaste & Advari, 2012, 672).

Archaism and its Impact on School Architecture

Archaism at the beginning of the first Pahlavi rule based on historical possessions created movement in all fields, one of which was the creation of a new architecture with a strong ancient tendency; the government pursued activities aimed at achieving its political goals, including the use of the Ferdowsi Shahnameh for modern Pahlavi language and literature and its exploitation to revive ancient civilization (Ghani-nejad, 1998, 38; Kiani, 2004, 65-84).

Traditional Architects³ of this period were forced to resort to the use of ancient architectural elements on the one hand, and the use of other Western or traditional architectural elements on the other (Kiani, 2004, 88-90). Concerning the influence of archaism on the architecture of Isfahan schools, this effect can be seen in some schools as Achaemenid ornamentation, writing of Ferdowsi's poems on tile, creation of high columns, etc. (field visit by the authors). Figure 1 shows the influence of antiquity on Isfahan schools. Figure 1-A shows the columns of the Fine Arts Conservatory are depicted; figure 1-B shows the base of Saadi's school columns; figure 1-C shows the Saadi's poems on Saadi's school tile, and figure 1-D shows a representation of the Lotus Flower at the Fine Arts Conservatory.

A Case Study of Some Late Qajar and Pahlavi Schools

Five schools were selected as cases in the courses mentioned, Adab High School and Behesht Aeen High School girls were built by English missionaries and Behesht Aeen High School was the first girls' high school in Isfahan. Isfahan Daneshsara-ye Moghadamati (Teachers' elementary college) is chosen because it is very similar in terms of architecture and architectural style to the old buildings of Adab and Behesht Aeen (two schools were demolished because of a wrong policy and two new buildings unrelated to the school's historical background were built on it). The old building of the Saadi school was built







C



Fig. 1. The impact of archaism on Isfahan schools. Photo by M. Karahmadi.

by the French architect Maxim Ciro. Conservatory of Fine Arts with a dominant Iranian ancient architecture that demonstrates the Pahlavi state's archaic tendency.

Adab High School

This high school was founded by an English man named Dr. Bruce, around 1870 and after a few years in 1915 the school was moved to its current location and renamed Stewart Memorial College (Motamedi, 2007, 64)⁴. The architectural style of this school has been a combination of four traditional styles, ancient Iran, Western classics and modern. Figure 2 shows the plans and images of the high school and table 1 shows the architecture of the high school.

• Behesht Aeen High School for Girls

The first girls' high school in Isfahan was founded in 1900 under the reign of Mozaffar al-Din Shah Qajar by the British religious missionaries (the British Merslin Mission) in Isfahan. In 1927 a woman named Miss Aydin became a headmaster. She purchased the land and founded Behesht Aeen High School building in 1928 (Motamedi, 2007, 26)⁵. The architectural style of this school has been a combination of four traditional styles, ancient Iran, Western classics and modern. Figure 3 shows the plans and images of the upper secondary school and table 2 shows the architecture of the high school.

• Daneshsara-ye Moghadamati⁶ (Isfahan Department of Education, Building No. 3)

The building is built on a land area of approximately 2090 square meters and two floors with a total area of 1540 square meters⁷. The architectural style of this building is a combination of four traditional styles, ancient Iran, western classics and modern. Figure 4 shows the plans and images and table 3 illustrates the architecture of Daneshsara-ye Moghadamati.

Saadi High School

High school construction began in 1935 and high school opened in 1937. The architectural

style of this school is a combination of four traditional styles, ancient Iran, Western classics and modern⁸. Figure 5 shows plans and table 4 shows the High School architecture.

Conservatory of Fine Arts

In 1937, the Department of Vocational Arts and Crafts was formed in Isfahan province, and the head of the department was Kazem Sayyah. He ordered a plan to be set up for the school. The architectural style of this school is a combination of four traditional styles, ancient Iran, Western classics and modern in which ancient Iranian style dominates⁹. Figure 6 shows the school plans and illustrations and table 5 is the school's architectural style.

Findings and Discussion

In sum, the factors contributing to the formation of new schools in Isfahan can be classified into two groups of internal and external factors (Table 6 & 7).

Developments in the West in the late nineteenth and early twentieth centuries have changed the educational system of schools; these changes have in the past led to new educational practices (primary schools, high schools and elementary schools), educational-industrial spaces (technical schools) and art-educational (arts schools), in Isfahan. In the Qajar period, the constitutional revolution was one of the few factors contributed to the development of schools. On the other hand, during the first Pahlavi period central government policy was the most important factor in the formation of new schools and the reduction of traditional methods of education. Meanwhile, the progress of the industry in Iran and Isfahan and the creation of new factories with factory architecture led to the establishment of industrial training centers in this city. The tendency of the Pahlavi government to archaic architecture is evident in the architecture of most schools. As in some high columns, Achaemenid Lotus ornaments are the basis of ancient stone pillars;



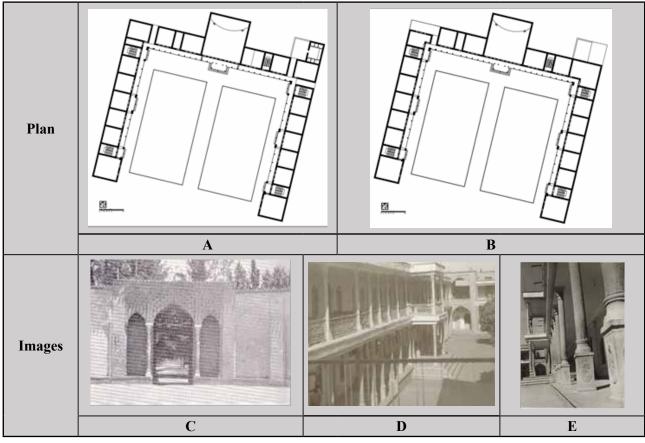


Fig. 2. Adab High School: A- Ground floor plan; B- First floor plan (Mapping: Authors based on documentations); C- High school entrance; D- South view of the school; E- Columned Iwan. Source: Archive of Isfahan Museum of Education.

Table 1. Adab High School Architecture style. Source: Authors.

Style	Field of review	Details	Image
	Plan	Semi-central U-shaped plan	
Traditional	Facade	Plastered brick facade in plastered facade; tiling over arches; acute arch above doors and windows	
Traditionar	Material	Use brick on the facade	
	Ornament	Moagheli tiling	2000
Iranian (ancient)	Plan	Columned Iwan	THE PERSON NAMED IN
	Facade	Stone pillars; building on a rock platform	المسلطة
and Western classics	Material	Stone columns (archaism)	- 3
	Ornament	Columns with plant ornaments (Western classics)	
	Plan	Linear	But Ind
Modern	Facade Fusion of traditional and ancient style; modern f decorations Material Metal fences		
			404
	Ornament	Arabesque-shaped fences	

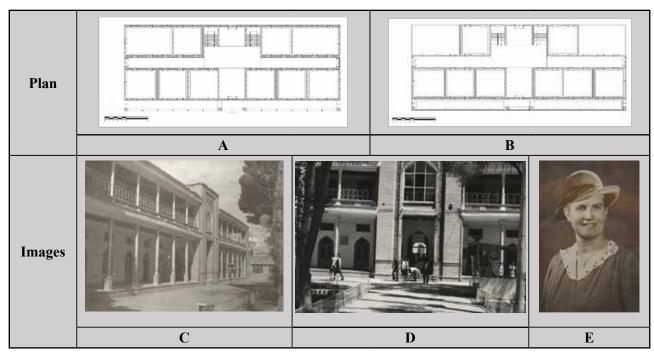
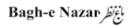


Fig. 3. Behesht Aeen High School: A- Ground floor plan; B- Ground floor plan (Mapping: Authors based on existing replica and documentation); C-South view; D- South facing; H- Miss Aydin prtrait. Source: Archive of Isfahan Museum of Education.

Table 2. The architectural style of Behesht Aeen High School for Girls. Source: Authors.

Style	Field of review	Details	Image
	Plan	It was not traditional school architecture and the organization of linear building	
Traditional	Facade	Plastered brick facade in plastered facade; tiling over arches; acute arch above doors and windows	
	Material	Use brick on the facade	-20-02
	Ornament	Moagheli tiling	
	Plan	Columned Iwan	
Iranian (ancient)	Facade	Stone pillars; building on a rock platform	
and Western classics	Material	Stone columns (archaism)	
	Ornament	Column with plant ornaments (Western classics)	
	Plan	Linear plan	FID
Modern	Facade	Fusion of traditional and ancient style; modern fence decorations	
	Material	Metal fences	Mille
	Ornament	Arabesque-shaped fences	



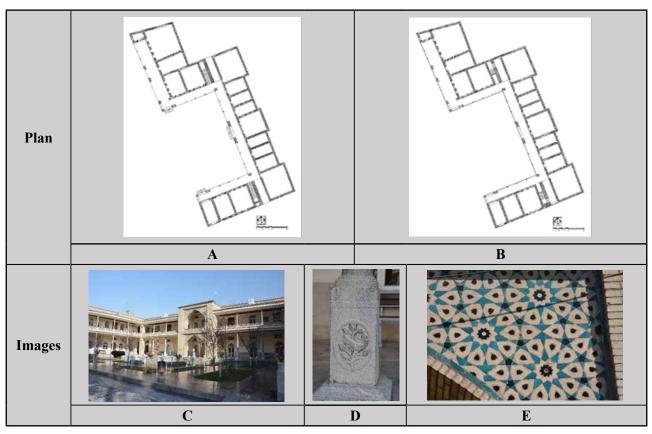


Fig. 4. Isfahan Daneshsara-ye Moghadamati: A- Ground floor plan; B- First floor plan (Mapping: Authors); C- North and east view; D- Stone pillar; E- Tile decorations. Photos: M. Karahmadi.

Table 3. The architectural style of Isfahan Daneshsara-ye Moghadamati. Source: Authors.

Style	Field of review	Details	Image
	Plan	Semi-central U-shaped plan	7100 6
Traditional	Facade	Plastered brick facade in plastered facade; tiling over arches; acute arch above doors and windows	TA MI
	Material	Use of bricks on the facade	concesso
	Ornament	Moagheli tiling	******
	Plan	Columned Iwan	
	Facade	Stone pillars; building on a rock platform	U. I
Iranian (ancient) and	Material	Stone columns (archaism)	THE
Western classics		Column with plant ornaments (Western classics)	
	Ornament	There are no ornament in Iranian ancient manner	
	Plan	Linear plan	FF
Modern	Facade	Fusion of traditional and ancient style	Emmi.

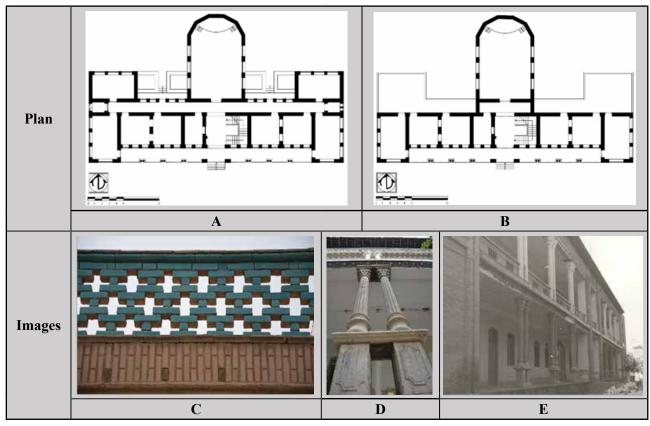
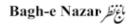


Fig. 5. Saadi High School: A- Ground floor plan; B- First floor plan (Mapping: Authors); C- Buildin groof wall; D- Accouplement (Twin columns); E-South view. Photos: M. Karahmadi. Source of Fig. 5-E: Archives of Isfahan Museum of Education.

Table 4. The architectural style of Saadi High School. Source: Authors.

Style	Field of review	Details	Image	
	Plan	It was not traditional and organized on the Iwan, along the Iwan	1,0,0,0,0,0	
Traditional	Facade	Roof wall with glazed brick, like Ali ghapoo Mansion; brick facade; capato like Ali ghapoo		
	Material	Brick use on the north facade		
	Ornament	Tiling (Haft-rang, Moarragh & Moagheli)		
	Plan	Columned Iwan as communication space		
Iranian (ancient)	Facade	Front Iwan columns		
and Western classics	Material	Metal fences	THE PART IS NOT	
	Ornament	Semicircular arches and arches on doors and windows	FRI FRI IN	
	Plan	Linear T-shaped plan; wide three-way staircase; amphitheater	Alle Marian	
	Facade	Semicircular arch; simple windows on the first floor		
Modern	Material	The roof of the amphitheater is galvanized	88	
	Ornament	The Ornaments are in traditional and ancient style	Test Los	



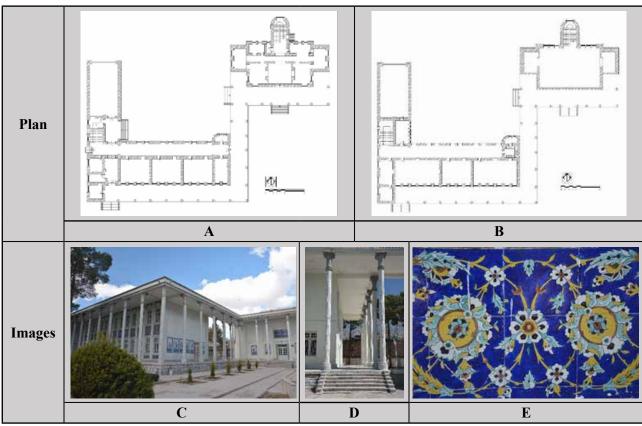


Fig. 6. Fine Arts Conservatory: A- Ground floor plan; B- First floor plan (Mapping: Authors); C- South view of School; D- Columned Iwan; E- Tile decorations. Photos: M. Karahmadi.

Table 5. The architectural style of Conservatory of Fine Arts. Source: Authors.

Style	Field of review	Details	Image
	Plan	It was not traditional and organized on the Iwan, along the Iwan	
	Facade	Acute arch	11 33
Traditional	Material	Brick use on the north facade	
	Ornament	Tiling (Haft-rang & Moarragh)	Service.
	Plan	Columned Iwan	
Iranian (ancient) and Western	Facade	Diminished column; building on the platform	
classics	Material	Stone platform; base of stone column	BUOTA
	Ornament	Embossed ceiling ornament (Lotus flower)	
	Plan	Linear Plan	1
Modern	Facade	Modern north facade	
	Material	Main facade covered with white cement; roofing of one of the buildings with galvanized sheet roof	
	Ornament	On the north facade (view) of a modern architect with minimal ornaments	ALL REPORTS



Some schools also have limited ornamentation of architecture in the form of Ferdowsi's poetry (Saadi's school), along with other traditional ornamentation.

The cultural activities of the Armenian and French missionaries in the Pahlavi period were significantly reduced compared to the Qajar period. The five schools studied were examined in terms of architecture and physical structure; Table 8 provides the results and presents the style or architecture and physical structure of the schools during the first Pahlavi period.

As it was said, two of the five school buildings in the tables were demolished by the School Renovation Organization and were replaced by new buildings. Historically, schools were built in their place.

Existing documents (old school paintings and some of the remaining artifacts) suggest that the three buildings (courtesy and heavenly) have a similar architecture.

In all three schools, a public terrace has been built in front of the building and horizontal communication prevents the direct sunlight. All three have stone pillars with a classic Western-style headstone. From a stylistic point of view, the three case schools have combined traditional Iranian architecture with Western and modern classical styles. In the past, these schools used to have a large garden in front of the building, which in addition to the greenery of the courtyard has been used to clean the school air. Two other schools in table 8 have been built in close proximity; the location in some

Table 6. Internal factors influencing the shaping of modern schools in Isfahan in the late Qajar period and the first Pahlavi period. Source: Authors.

Internal factors	Consequences						
Qajar government weakness	Constitutional Revolution	Increasing schools					
Pahlavi rule as a major factor in the shaping of schools	Eliminate or diminish old educational practices Industrial architecture Archaism and its imp	Closure of Traditional schools and reduction of seminary activity Establishment of industrial schools pact on Modern schools					
Isfahan Traditional Architects and Masters	Preserving traditional architecture and creating integrated architecture						

Table 7. External factors influencing the shaping of modern schools in Isfahan in the late Qajar period and the first Pahlavi period. Source: Authors

External factors	Consequences						
Twentieth century developments and the restructuring of the new Western educational system	- Shifting the educational nature to non-religious by relying on the Western educational system						
	- English missionaries	- Increasing cultural activity and establishing several schools					
Cultural activity of Armenians and missionaries abroad that began in the Qajar period	 French missionaries supported by foreign Catholics Extensive activities in Jolfa neighborhood of Isfahan 	- Missionary schooling in the Pahlavi era declined compared to the Qajar period					
	- Overseas financial support of Armenians living in India, Russia and	- Armenian school building declined during Pahlavi era and Armenian schools became public schools					
Developing international relations in Pahlavi period and the impact of these relations on architecture	- Western advisers activities (Belgium-Germany) - Reza Shah's visit to Turkey and meeting with Ataturk - Western architects presence						

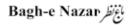


Table 8. Stylistics of English Missionary schools and similar late schools in the late Qajar and Pahlavi periods. Source: Authors.

School name Details	Adab High School (Stewart Memorial College)	Behesht Aeen High School for Girls	Daneshsara-ye Moghadamati	Saadi High School	Conservatory of Fine Arts		
Year of construction	1915-1933	1928	1938	1935-1937	1936		
Manufacturer name	Dr. Bruce-Bishop Stewart - Changed by Reza Shah	English Missionaries - Miss Aydin	Dr. Bruce-Bishop Stewart - Changed by Reza Shah	Belgian Counselors - Designer: Maxim Siro	Wilhelm Mayer Founder - Kazem Sayyah and Isa Bahadori, supervised by German engineers		
	Traditional	Traditional	Traditional	Traditional	Traditional		
Architectural style	Modern	Модет	Tradi	Iranian (ancient)	Iranian (ancient)		
	Western classics	Western classics	Western classics	Western classics-Modern	Western classics-Modern		
Description	Traditional Symmetry, use of arches, tile and brick composition Western Classical Extraversion, plan elongation Western-modern Stone pillar, metal fences Traditional Symmetry, use of arches, tile and brick composition Western Classical Extraversion, plan elongation Western-modern Stone pillar, metal fences		Traditional Symmetry, use of arches, tile and brick composition Western Classic Extraversion, plan elongation, Western stone column	Traditional Classical bamboo, glazed brick wall Ancient Iran Column base Western Classic Extraversion, plan elongation, stone column Western-modern Stair	Traditional Arch use, classic tile Ancient Iran Columns with base and Persian decorations Western Classic Lantern elongation, Western stone column Modern Simple and white view		
Plan							
Plan							

of the schools under study seems to have been unaffected by the architecture of these schools; For example, the Saadi School is located in the west of the Plaza Role of the World and the Aali ghapoo High Mansion. In both cases, the Saadi School and the Fine Arts Conservatory have a traditional blend of ancient and western Iranian classics, and in both cases the classical style of ancient Iran is predominant, which may be due to the anti-Semitic view of the government and Reza Shah is ascribed. In both cases, as in most of the schools studied, there is a porch in the Fine Arts Conservatory which does not function as a communication space and it is possible to connect the spaces through the hallway inside the building. In sum, the five schools under study can be summarized in table 9 in terms of the approach of architectural style, geometric shape, and decorative materials and decorative art:

Conclusion

This paper was an attempt to answer two main questions: What historical political, cultural social factors influenced the formation of modern schools in Isfahan in the late Qajar and Pahlavi periods? and what role did they have in the physical architecture of the schools? Internal factors included the weakness of the Qajar government and the constitutional revolution, the role of the Pahlavi government and the presence of indigenous masters and architecture, and the external factors included the activity of English religious missionaries as important factors in the formation of these schools, high-rise buildings with Persian elements reflecting the tendency of the Persian -style government, the traditional style of Isfahan's native architects, and the western architectural style of these schools reflecting the preference of its European founders schools. What is the nature of the research sub-questions under the title of Modern Iranian School Architecture and Isfahan in particular in these courses?

Karahmadi et al.

These schools have a variety of physical styles and styles that differ from the traditional structure of traditional schools. In all the schools under study, there is a traditional

Table 9. A comparative study of the late Qajar schools and the first Pahlavi period in morphology, architectural style and decorations. Source: Authors.

			Architectural style			Geometric			Materials and Ornament					
Row	School name	Year of construction	Traditional	Ancient	Classics	Modern	Central courtyard	Linear	Semi-central courtyard	Brick	Tile	Capital	Parapet	Others
1	Adab High School (English missionaries)	1933-1915	*	*	-	-	-	-	*	*	*	*	*	-
2	Behesht Aeen High School (English missionaries)	1928	*	*	-	-	-	*	-	*	*	*	*	-
3	Conservatory of Fine Arts	1936	*	*	*	*	-	*	-	*	*	*	-	Cement plaster
4	Saadi High School	1936	*	*	-	-	-	*	-	*	*	*	-	-
5	Daneshsara-ye Moghadamati	1938	*	*	-	-	-	-	*	*	*	*	-	-



Iranian style (Isfahani) along with other architectural styles. The reason for this may be attributed to the presence of local Isfahan executives and practitioners who have tended to practice traditional Isfahan practices. The geometric shape of most schools is in the eastwest direction; there are 2 semi-central and U-shaped courtyards and the porch is available in all schools. Regarding the materials used in the building, all the schools under study have either a brick facade or a combination of bricks with other materials, and tiles can be found in a variety of sensible types (tile and brick), seven colors, and so on. Future research can examine schools of other periods of contemporary history in Isfahan or in particular the architecture of contemporary schools in other cities.

Endnotes

- 1. One of the main factors for industrial development in the first Pahlavi period was the establishment of vocational technical schools for the education of young people in science and industry. Isfahan was founded in 1936, at Isfahan Technical School (Abuzar). Due to the demolition of the primary building during the Second Pahlavi period and the lack of building documentation, the conservatory's plan is not available.
- 2. You can find a full description of French missionary schools in an article published by the authors (Karahmadi, Kiani & Ghasemi Sichani, 2018).
- 3. There was no written or authoritative information on the name of the school building instructors.
- 4. This high school was renamed Adab High School by the order of Reza Shah, Stewart Memorial College, in the 6th year. The building was completely demolished in the 1960s, and a new one was erected instead of the previous one. The description is based on a documentary study by the authors of the Isfahan Museum of Education and old school images.
- 5. The school was completely demolished in the late 60s and a new building was erected in its place. The description is based on a documentary study by the authors of the Isfahan Museum of Education and old school images.
- 6. Teachers' Elementary College
- 7. This building is currently one of the buildings of the Education Department of Isfahan Province.
- 8. The map of the building of Saadi High School was designed by Maxim Siro under the supervision of André Godard and (Masjedi Esfahani, 2005, 45). It should be noted that the style of the glazed porcelain bricks of the wall around the roof of the building have been conceived of as Ali ghapoo magnificent mansion.
- 9. Isa Bahadori accepted the responsibility of designing and approving the conservatory.

Reference list

- Akhjaste, G. & Advari, M. (2012). Barrasi-ye vaz'iyat-e masael-e amouzeshi-ye aghalliat-ha-ye dini dar dore-ye Mozaffar-al-din Shah [Investigating the status of educational issues of religious minorities in the Mozaffar-al-din Shah]. *Payam-e Baharestan*, 2(17), 665-686.
- Connell, W. F. (1980). *A History Of Education In The Twentieth Century World*. Canberra: Curriculum Development Centre.
- Dehbashi Sharif, M. (2000). Avamel-e Mo'asser bar Tarh-e Faza-ha-ye Amouzeshi-ye Novin dar Dore-ye Pahlavi-ye Avval [Factors Affecting the Design of Modern Educational Spaces in the First Pahlavi Period]. Unpublished Master Thesis, Islamic Azad University Science and Research Branch, Tehran, Iran.
- Falamaki, M. M. (1992). *Sheklgiri-ye Me'mari dar Tajarob-e Iran va Gharb* [Architectural Formation in the Experiences of Iran and the West]. Tehran: Nashr-e Faza.
- Ghani-nejad, M. (1998). *Modernism and Development in Contemporary Iran*. Tehran: Nashr-e Markaz.
- Hekmat, A. A. (1964). Madares-e Moballeghin-e Masihi dar Iran, va Madares-e Aghalliat-ha-ye Mazhabi [Schools of Christian Missionaries in Iran, and Schools of Religious Minorities]. Tehran: Iranshahr, UNESCO National Commission Publication of Iran.
- Imanieh, M. (1976). *Tarikh-e Farhang-e Esfahan* [History of Isfahan Culture]. Isfahan: Isfahan University Press
- Karahmadi, M., Kiani, M. & Ghasemi Sichani, M. (2018). Comparative study of the architecture of Armenians and French missionaries' schools in Isfahan City in the contemporary period from the view of historical and stylistic evolution. *Maremat & Memari-ye Iran*, 1(15), 137-154
 Kajbaf, A. A. & Dehghannejad, M. (2008). Missioner-ha-ye Faransavi dar Esfahan-e asr-e Ghajar [French missionaries in Isfahan Qajar era]. *Farhang*, 21(3), 215-284.
- Kiani, M. (2004). Me'mari-ye Dore-ye Pahlavi-ye Avval: Degargouni-ye Andishe-ha, Peydayesh va Sheklgiri-ye Me'mari-ye Dore-ye Bist-sale-ye Mo'aser-e Iran 1299-1320 [Architecture of the First Pahlavi Period, the Transformation of Thoughts, the Origin and Formation of Contemporary Iranian Twenty Year Architecture 1920-1941]. Tehran: Institute for Iranian Contemporary Historical Studies.
- Masjedi Esfahani, M. (2005). Me'mari-ye banaha-ye amouzeshi-ye Esfahan dar doran-e mo'aser [Architecture of Isfahan modern educational buildings]. *Danesh-e Nama* (124-124), 36-38.
- Motamedi, E. (2007). Isfahan, Modern Schools and its



Glories. Isfahan: Recreational and Cultural Organization of the Municipality of Isfahan.

- Nategh, H. (2001). *Karname-ye Farhangi-ye Farangi dar Iran 1837-1921* [The Cultural History of Iran in 1837-1921]. Tehran: Mo'aser Pajouhan.
- Rajaee, A. (2014). *Barg-ha-yi az Tarikh-e Ejtema'i-ye Esfahan-e Mo'aser* [Leaves of Isfahan Contemporary Social History]. Isfahan: Jahad-e Daneshgahi of Isfahan University.
- Sami Azar, A. (1997). *History of the Development of Schools in IRAN*. Tehran: Organization for Development, Renovation and Equipping Schools of I. R. Iran.
- Taher Sima, S. (2015). Educational Systems Influence on Typology of Tehran Schools in Transition Period (from Mashrute Revolution to Pahlavi). Unpublished Ph.D Thesis of Architecture, Islamic Azad University, Central Tehran Branch, Tehran, Iran.

COPYRIGHTS

Copyright for this article is retained by the author(s), with publication rights granted to the Bagh-e Nazar Journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/).



HOW TO CITE THIS ARTICLE

Karahmadi, M., Kiani, M. & Ghasemi Sichani, M. (2020). Evaluation of Isfahan's New Schools in the Late Qajar and the First Pahlavi Periods, based on Shaping Factors and Physical Components. *Bagh-e Nazar*, 17(88), 5-20.

DOI: 10.22034/BAGH.2020.190920.4177

URL: http://www.bagh-sj.com/article_111685_en.html

