

**Review Article**

## **OVERVIEW OF CHARACTERISTICS OF TRADITIONAL SCHOOLS BASED ON ISLAMIC TRADITIONAL ARCHITECTURE OF IRAN**

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### **ABSTRACT**

Design, construction and function of new schools inspired of Islamic traditional architecture of Iran which has been reflected in traditional schools and mosques can come effective in strengthening the cultural and historical bonds of these spaces with predecessor buildings. For this, this study intends to examine the characteristics of traditional schools based on Islamic traditional architecture of Iran. To achieve this, we have intended to acquire traditional-Islamic architecture patterns of Iran using library studies and observations via the qualitative approach concerning overview of the schools and the early forms of schools which have been in form of mosques and schools. In the past, in designing various spaces, Iranian architects have considered the details of those spaces, yet currently under the time restriction in construction of schools, the architects have not this opportunity to consider the details of the spaces which have been supposed to undergo the construction, while the effect of school space on student is unavoidable. Furthermore, the traditional values and indicators must be exploited in construction of the schools, for which use of modern technology is also required.

**Keywords:** *Schools, Islamic-Iranian Architecture, Traditional Architecture, Historical Bonds*

### **INTRODUCTION**

Architecture, likewise other constructions and various areas of Islamic-Iranian culture and civilization, has been inspired and influenced of fundamental principles. In this regard, it can witness that form of construction and architecture in Iranian buildings, followed by welcoming Islam by Iranian people, has been obviously changed, whereby several patterns and symbols have been remained from this humanized school (Kleiner, 2009).

On the other hand, with regard to the respect for knowledge and learning among Iranian people and with retrospect to persuasion of this characteristic based on Islamic and religious principles, the position of academic centers and schools has been increasingly taken into account. With this looking, it can witness that many ancient buildings and monuments including the best buildings have been allocated to education centers and schools, indicating the important position of education and schools building program in Islamic culture of Iran. In Iran, schools have been inspired of seminaries and mosques and have taken their function from these places over the time.

However, today by expansion of knowledge, science and technology, the historical bond has been significantly reduced, design, construction and function of new schools inspired of Islamic traditional architecture of Iran which has been reflected in traditional schools and mosques can come effective in strengthening the cultural and historical bonds of these spaces with predecessor buildings.

For this, this study intends to examine the characteristics of traditional schools based on Islamic traditional architecture of Iran. To achieve this, we have intended to acquire traditional-Islamic architecture patterns of Iran using library studies and observations via the qualitative approach concerning overview of the schools and the early forms of schools which have been in form of mosques and schools.

#### ***Mosque-schools in Islamic Traditional Architecture of Iran***

Mosque-school is a type of architecture space in which major functions of mosque and school prevail, and the spaces allocated to them enjoy the same importance in physical perspective (Gabh, 1985). In historical texts, such buildings have been regarded with the titles such as mosque, school and/or mosque-school.

A variety of mosque-schools in physical perspective can be classified into four groups as follows:

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1-the first classification refers to the mosque-schools in which the front entry to qibla has been allocated to the mosque and the three other front entrees have been allocated to school chambers, such as Marvi mosque-school in Tehran.

In some of these mosque-schools, in general health spaces and Lavabo have been being built at the corner of mosque or close to palace for nocturnal prayers (Shabestan) in order that those who refer to out for praying do not disturb the silence of seminarians by entering inside the courtyard.

2-the second classification refers to the buildings in which two front entrees across the Qibla have been allocated to mosque and two western and eastern front entrees have been allocated to school.

Agha Mahmoud mosque- school and Maier al-mamalik in Tehran have been categorized in second classification.

In these buildings, interference of activities with each other and people's coming and going to courtyard avoided the seminaries to have convenience.

3-the third classification refers to a type the buildings in which the ground floor has been allocated to mosque and the first floor has been allocated to school, including Seid mosque-school in Isfahan.

In such buildings, two front entrées have been allocated to mosque and two other front entrees have been allocated to the palace for nocturnal prayers (Shabestan), and several chambers have been build upward two recent chambers.

Further, across all the chambers in each front entry, there existed two lights, yet such a design was not proper for an education space, and the lights across the chambers have not been considered as convenient areas for rest and education of seminaries, as the seminaries have been exposed to be seen by audience.

4-the fourth classification refers to the design of mosque-school space including a type of building in which the ground floor has been allocated to mosque and underground has been allocated to school.

This design can be observed in Agha bozorg mosque and school.

Considering the education space in the underground in which there exists a green and convenient yard, results in emergence of a suitable space for seminaries.

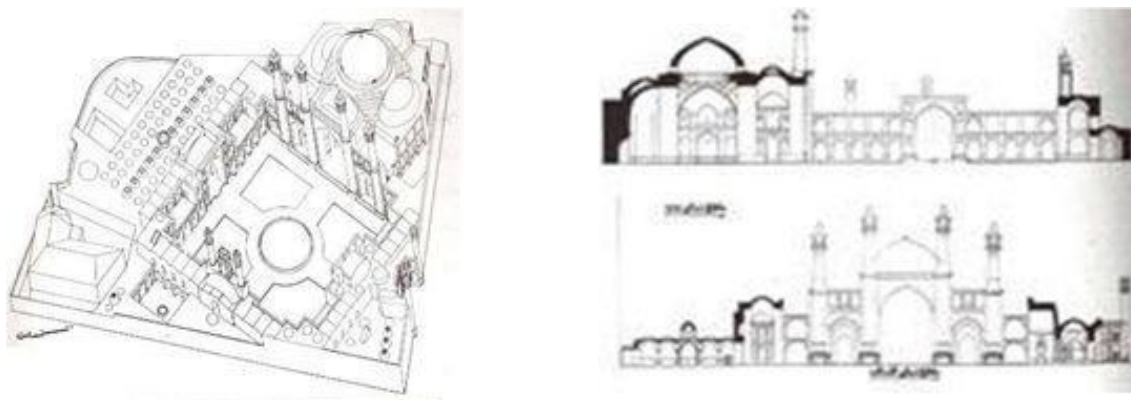
Further, Sash windows and lanes in two sides of chambers to which the accessories are met through these lanes have provided the possibility for protection of internal space in chambers in point of view of the pedestrians (Soltanzade, 1999).

Some prominent mosque-schools include:

Sepahsalar (Shahid Motahari ) Mosque and School

Sepahsalar (Shahid Motahari ) Mosque and School is located in Mostafa Khomeini Avenue. The founders of this mosque were Haj Mirza Hassan Khan Sepahsalar (Chancellor of Naseradin Shah Qajar) and his brother Moshirodoleh monitored all the process of construction of this building (Mostafavi, 1984).

The school is 62m in length and 61 m in width and has 60 chambers.



**Image 1: Sepahsalar (Shahid Motahari ) Mosque and School**

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The dome is 37 m. high. The structure comprises of chambers, porticos, corridors, a two storeyed building, a large dome, minarets, and palace for nocturnal prayers (Shabestan), a reputable library and a gateway.

There are four ivans in this school with a big dome Chamber, in which a space has been emerged which has raised manifesting the external space with a magnificent view, representing the evolution of external manifestation of the building. The open space in the chambers in upward floor is the major feature in the internal space of school. This design can be also witnessed in the Said mosque-school in Isfahan.

Eight minarets in the aforementioned building indicate the designer's attention to this element of architecture. The design of entry has been developed from an indirect route under influence of the best pattern for design of entry of mosques for the access to the courtyard.

The dome chamber of this building enjoys a special feature, such that the major dome has been connected to several semi-domes. It seems that such a feature more likely belongs to the mosques at the Ottoman age and has been more likely taken from some samples of these mosques (Molazade, 2003).

The façade in the school has been covered with various painted tiles, and some samples of exquisite mosaic tiles together with the sample of rainbow tiles with the images belonging to Qajar age, can be witnessed in the façade of the school. This building can be considered as the biggest mosque-school in Tehran in Qajar age, at which it has been recalled Jame mosque-school due to existing numerous palace for nocturnal prayers (Shabestan), chambers and dome chambers.

Further, it has been quoted that such a building has been equipped with kitchen, bathroom and clinic.

### **Marvi Mosque and School**

This building has been built by Haji Mohammad Hossein khan Marvi, an authority in Fathali shah court well known with Fakhr ol-Doleh (Mostafavi, 1984, p. 62). There is a wide yard and two small yards as well as a big palace for nocturnal prayers (Shabestan) in southern entry of Marvi Mosque and School to which there is an accessory from entry lane.

There are thirty chambers around courtyard, and there are four ivans centered at entry fronts of each building, indicating that two backward spaces at western and eastern ivans have been allocated to the school. Most of the chambers in this school are large and each chamber has been developed from an ivan. It should be noted that some parts of the building have been renovated in recent decades.

### **Philosoph ol Doleh Mosque and School**

This mosque-school has been built by Kazem Philosoph ol doleh (deceased in 1323 AH), the prominent physician in Naseri age. Surrounding area of the courtyard has been enclosed with twelve chambers and two divans, and there is a big palace for nocturnal prayers (Shabestan) in front of the entry which has been being used to hold praying rituals. Entrance of the building has an indirect route to the courtyard and designed in a way in which the elements such as forecourt, porch and patio have been employed (Mostafavi, 1984).



**Image 2: Entry and Finials of Philosoph ol doleh mosque and school**

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The tomb besides a small yard backward the major courtyard is the main feature in this building, whereby this building can be called mosque-school-tomb. Further, elegant and beautiful tiles have been employed in this building, that it seems that two minarets in both sides of entry of building have left incomplete. There are two entries for male and female in the palace for nocturnal prayers (Shabestan) that a curtain has been used to separate the part for male and female.

#### **Old Sepahsalar (Shahid Motahari ) Mosque and School**

This building has been built by Mirza Mohammadkhan Ghajar who had the position in United States Department of War. He died at 1284 AH in Mashhad. This mosque-school has been built before 1277 AH (Mostafavi, 1986). In front of quibble and in front of two palaces for nocturnal prayers (Shabestan), several chambers have been built that columned stoicism has been set in front of them. The palace for nocturnal prayers (Shabestan) in front of quibble, which is more important, has a height equivalent to two stories, yet the palace for nocturnal prayers (Shabestan) in front of quibble is shorter.



**Image 3: A façade of the chambers in old Sepahsalar (Shahid Motahari ) Mosque and School**

There is a large forecourt and two tiled minarets in two sides of entry in this building, and the accessory route to the yard has a special form. Old Sepahsalar (Shahid Motahari ) Mosque and School has been renovated in recent years, transformed to a new form.

#### **Overview of Several Schools Oriented on Traditional Architecture of Iran**

##### **Shiraz's Khan School**

This school belongs to the Safavieh period that made by command of King Abase safavi and continued by his son Imam Gholi Khan and end in 1024 A.H. This school is one of the most famous and greatest schools in Shiraz that located in Isaac Big district. There are beautiful decorations and tiling in entrance of school. The name of the architecture pointed in the hall of the school name Hussein Shamaee.

There are special features in the Shiraz's Khan School that have been less likely witnessed in the buildings in Safavid age, including applying the sacred numbers in construction of this school.

-there are 100 chambers by the Abjad numerals of Prophet Mohammad (peace is upon him).

-Five instructors were involved in this school, that one instructor belonged to Mola sadra and rest of four instructors belonged to the rest of instructors.

-there is one mosque in each school, that there are 12 corridors in this mosque.

-there are on the whole 14 rooms in this school besides all the classrooms. Summing up the entire elements, the number 110 by the Abjad numerals belonging to Imam Ali (AS) is obtained.

Adding four rooms including servant room, lighted room and prayer room and time room, on the whole number 114 is acquired that equals to the number of surahs in Quran.

The chambers in this school are 3.62×3.30 m in length, whereby the school was simply warmed in winter. The climate was chilly in this school in summer, due to a garden in surrounding this school. There has been a small Ivan for one person in the chambers and there has been a closet including warehouse, library and so forth. A crossed arch can be witnessed in the school's entrance, covered with colored tiles, decorated with flower and orange images, that the under the arch has been decorated with colorful mosaic

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tiles. The body and forecourts in both sides of the arch have been covered with colorful tiles, decorated with various arabesque floral designs. There are various patterns of images of birds, flowers, trees and arabesque lines on difference contexts on these tiles (Zargar, 2007).

There are two inscriptions above forecourts in the school's entrance and under the arch, on which Quranic verses with large font have been written. Quranic verses have been written in tiling on this school's entrance in a way that all the first and last words are connected to each other.

Due to destruction, tiling on this school's entrance at the age of Naser al-Din Shah has been renovated, whereby Naser al-Din Shah's name has been inscribed under two arches. Firstly, in four sides of the school, there have been 100 chambers for seminaries in two stories, that currently there are seventy chambers.



**Image 4: The courtyard in Shiraz's Khan School**

There have been several gardens for the entertainment of the seminaries in both sides of the school, transformed to house, street and alley. There is an octagonal pond centered at the yard, that there are six gardens around it in which palm and orange trees have been harvested. There is an entrance vestibule in an octagonal form with brick grid design inside the school, in which the ceiling has been covered with mosaic tiles and arabesque lines likewise tiling in Nasir ol molk mosque. There is a hall above the entrance vestibule which has been considered for the teaching area for Mola sadra Shirazi, whereby it has been conventionalized to hall of Sadra. The western arch is the most magnificent arch which is located at the back of entrance vestibule among four existing arches in the school (Kiani, 1984).



**Image 5: The destructed chambers remained of the old fabric of Shiraz's Khan School**

This school was destructed in 1229 Ah due to earthquake, and Haji Lotfali, a merchant in Shiraz, engaged in renovating it, and also inscribing Quranic verses on the tiles of its wall. He finished the renovation of

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this school in 1249 AH. In recent years, this building has been renovated. This school has been recorded in 1931 in the checklist of national works.

#### *Shokatieh School-Birjand*

This school is one of historical buildings of the city with an area of 3,178 constructed in 1313 AH. In 1326 AH it was used as the first primary school and today it is located inside the old texture of the city.

It has 2 entrances with special Iranian and local architecture.

There are fine and nice ornaments and decoration inside the building like plaster-work, paintings etc.

Presently it is used as mourning place.

Concurrently with constitutional revolution, under influence of Amir Kabir's action for establishment of Dar ol-Fonun school in the mosque Shokatieh to hold mourning rituals by his brother (Amir Ismaeil khan), Shokat al-Molk decided to establish Shokatieh School-Birjand.

It should be noted that Shokatieh School-Birjand followed by Dar ol-Fonun school and Roshdieh primary school well-known with Roshdieh in Tehran, has been considered as the third school among the new schools in Iran.

Shokatieh School-Birjand has been built by professors and instructors in Yazd in two stories with a big ivan and porches, various rooms, and entrance since 1929 to 1932.



**Image 6: Shokatieh School-Birjand**

This school which has been being executed under supervision of Shokat al-Molk, the name of this school has been changed to culture later (Kiani, 1984).

#### *Islamic Schools in Khorasan*

The schools in Khorasan especially Mashhad enjoys a special place in the history of Islamic schools in Iran, that some are as follows:

##### *School Mirza Jafar*

The school is located on the northern side of the courtyard and the building of the Safavid period is the calendar year 1059, thanks to a man named Mirza Jafar 1285 calendar made by mosaic tiles style architecture Momtazi decoration has become.

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**Image 7: The chambers of School Mirza Jafar**

The northern ivan in School Mirza Jafar has remained intact in the last reconstruction, in which the mosaic tiling, rainbow and various types of lines and the inscriptions together with plasters have been witnessed, and such features have been considered in the Islamic buildings (Soltanzade, 1999).

Façade of the walls inside the yard and the forecourt at the chambers and the columns in the northern and southern ivans have been decorated with beautiful inscriptions via beautiful colors.

*Madrasa-i Parizad of Mashhad*

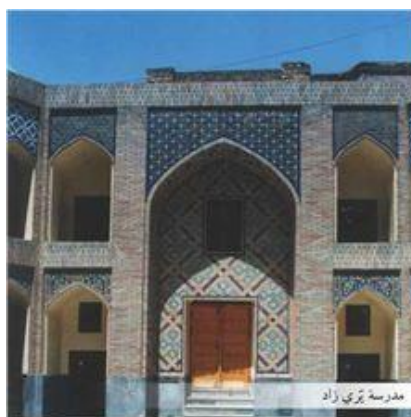
This school which belongs to Timurid era is founded by Shahrokh Mirza's spouse and dated back to the year 823 AH and built near the mosque.

Parizad small school and 4 porches including booths and rooms and decorations include: the brickwork and tiled entrance porch, entrance pavilion with arabesque on school ground. Further, this school is inside Imam Reza shrine, regarded as a historical-Islamic memorial.

Likewise the rest of buildings at Timurid era, there are four porches in this historical building, in which twenty two chambers have been built. There is a small porch in each chamber decorated with inscribed tiles. The courtyard in the building is so small, that irregularities are seen in the interior spaces especially chambers, due to the reconstruction in the next years.

All façade in the courtyard especially forecourt and the entrance have been covered with various engraved tiles and beautiful plasters.

The entrance and two parts in the entrance which have been arranged with tile and brick are the splendid part in the school. This building has been reconstructed through tiling on the entrance of school at Safavid era.



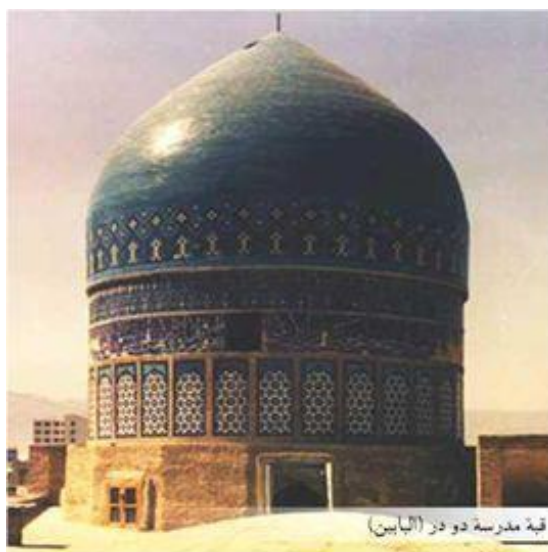
**Image 8: Façade of Madrasa-i Parizad of Mashhad**

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#### *Dodar School*

The building is one of the most beautiful and original sample of architecture at Timurid age. At the early, this building has been near to the most prominent Mashhad market called Zanjir market, yet it has been located at the Mashhad shrine (Hoshyari, 2013).

This building is located near the shrine and Parizad front of the school and the inscription has been applied on the façade of the year 843 AH during the reign of the Timurid Shahrukh Ghiyathodd. The school has 4 porches and includes booths and rooms on two floors, two turquoise dome and decorative mosaic tiles and is frank. The building has been refurbished in 1088 of the Safavid era. The area of this building is reported roughly about 500 m<sup>4</sup> in two stories, including 32 chambers which follow the architecture of the buildings with four porches at Timurid age. This building is of importance in sake of decoration, tiling, lines and motifs. Type of design and arrangement of two domes at the school in turquoise color have been considered as the major features of architecture in this building.



**Image 9: Dome at the school in Mashhad**

To date, this building has been reconstructed for several times, that reconstruction of school by Shah Suleiman Safavid's mother has been mentioned as the most important case for reconstruction. Followed by victory of Islamic revolution, the building has been reconstructed.

### **CONCLUSION**

Traditional architecture of Iran enjoys some values which require permanence, which must be taken into account in construction of schools. In the past, Iranian architects paid attention to the design of various spaces and considered them, yet currently time constraints in construction of school has taken this opportunity from the architects, while effects of space of school on student is unavoidable. Furthermore, the traditional values and indicators must be considered in construction of schools and use of modern technology must be also considered. Use of Iranian architecture in construction of schools does not imply that such architecture must be witnessed in the façade of the building, such that the comfort from the Iranian architecture will represent the Iranian feature in the architecture. Hence, as the man if worthwhile in Iranian culture, we must look into the students as a person deserved for the best of the bests. Value – oriented look into the man causes his needs and expectations including the need for Islamic-Iranian school are taken into account. Awakening retells the reflection of our experience from the world and time, i.e. our historical fact which has been our identity; in today's world, identity is required for the existence. There will be nothing without identity; the concepts including time, place, perception and experience which form the identity undergoing the transformation have not been gathered altogether as an



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architecture space in a certain period of time for the formation of identity. The issue of formation of identity in a structure as the museum has been mentioned as a new issue which can transform the museum from the display function to the divine function, that such function has been used in the buildings such as mosques and religious buildings.

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