

Recognition of Emadieh School (Gorgan)

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Abstract

One of the landmarks of Iranian Islamic period is seminaries. The plug in the Seljuk period started making a military and space with creativity and innovations in Safavid era continued. In the era of the Safavid Empire educational institutions have an important role to education on the part of kings, princes Safavi, and the top floor and were noticed by the general public. Mosques, schools, monasteries, schools and libraries were the most important educational organizations. Among these organizations, schools, the number had more than other organizations. The complex consists of a central courtyard space structure plan, multi-input, rooms around the courtyard, and is a lecturer. The key question is that what extent of geometry in school buildings Safavid period (according to the sample above) to? This article is to physical geometrical characteristics in architectural design schools from among a sample of schools was analyzed Safavid period. Obviously, dealing with all aspects of architecture and comprehensive analysis of the effects of an article, it is beyond this article to innovations and changes in the design of the Safavid period studied school and issues such as climate, structures, plants, decorations and the like is left to chance. This research using descriptive - analytical and observational studies and the authors use the library study. And to recall the principles of geometry and symmetry in geometric analysis of the case study method, plan, facade and assuming the exact geometric focal points have been analyzed, such as yard and porch. According to the results of research schools Safavid period mainly from two porches and four porches follow specific architectural pattern.

Keywords: School of Architecture, the architecture of the Safavid schools, geometry and proportion principles

Introduction:

The basic element and fundamental themes of art and engineering, includes the art of architecture, geometry. In the space geometry that regulates everything, including the components of a house and even a city, it can you step forward into the circle. And in an atmosphere of plurality and diversity find their identity and only through geometry that any object can be about the size of their requirements for entry into existence, finds space systems and surface structures and their environment on the learner (Ali Abadi, 2007, p. 68). Schools in our country have a long history. Previously the school was used as an institution for the seminary. Location attached to the mosque, where Islamic sciences, hadith, interpretation, jurisprudence were taught. It has a natural rhythm slowly begin to grow and is likely to major in teaching style was popularized (Hilen Brand, 2001, p. 173). The overall geometry of the design and construction of mosques, Takaya, schools and other fine works of Persian architecture is present in the building geometric Islamic monuments, manifesting the wisdom of Iran's Islamic monuments in the body (Mahdavinejad, 2004, pp. 58-60).

According to theoretical and practical origins of the building is very important in the field of architectural criticism (Mahdavinejad, 2004, p. 70). Thus, the analysis of this group of architectural works, theoretical roots should be considered in addition to geometric specifications (Mahdavinejad and Nagahani, 2004, p. 23). Look at the technical to the Iranian works the interaction between climate, geometry, engineering science and artistic seen beauty (Mahdavinejad and Javanroodi, 2004, p. 70) Issue that is important in the analysis of Iranian Architecture.

The architecture of the Safavid era

One of the brightest periods in Iran is after the Islamic art of the Safavid period. Since the advent of the Safavid dynasty led to the creation of a strong national pride, beginning in engaging in war was prevented from making any large-scale architecture. With the advent of Shah Abbas I of the Safavid architecture golden age began. Although this architecture was not the brightest era, but the era of excellence and the last show architecture Iran architecture Iran. In general architectural style in the Safavid period is more easily met (Keivani, 2005, p. 52). Geometry is simple and forms the broken lines and the common spaces instead of winding lanes or four-sided (square) or rectangle, no buildings in tint and Nhaz (projection and depression) were less common and making beveled edges. And the classification and the same proportion have been used in the building. It was also apparent simplicity of design in buildings but the techniques of various decorations such as brick, tile work, inscriptions, plaster, mirror, wood trim and even some architectural elements such as false, Mogharnas and three corners in its fullest extent in this period used by architects and artists was (Pirnia, 2013, p. 293)

History of School Establishment

After the advent of Islam in Iran, two important factors, the first increase and expand sources of jurisprudence and religious rivalries of political, religious and social functions, and the second was the development of schools. Architectural space at the same school, with the change that occurred in the Seljuk period architecture, changed and came in the form of four porches. Plan at least four porches that were known of the Parthian period and were used, as was welcomed and expanded beyond the borders of Iran were also exploited, the use of space in the school that would be assigned to the four religions. Thus, each including the front porch of adjacent space for the followers of a religion can be considered. Given

the important schools in a general classification scheme can be schools, two porches, four porches and porch-like four (two-axle) split, but the variety of projects, especially in mosques and schools so that less can be two or more schools that are quite similar. Most big schools in the vicinity or along the side of the main body of the market and the city were built; in addition, a large number of schools in the neighborhood of the city were built by the Lords and local leaders. (Mohammad Yousef, Kiani, 2004, 122)

Emadieh school of Gorgan



Figure (1) location of the school on the map 2009 marked Figure (2) The distribution of the property.

Gorgan in the old school building located in the 1st District now covers an area of 1550 meters of land (the size of 45 to 34.5) in the neighborhood of Darbnoo (New Gate), in Gorgan (former Esther Abad) is located along water storage and Cemetery and bath and numerous shops and Darbnoo and a few lean tissue Gulshan mosque and elements of the neighborhood and Esther Abad form part of the fabric of the old market. And with schools Mofidieh (probably the same Sadat) Yusefiyeh and Mr. Mohsen in a range of about 200 m was located. Old Gorgan with 128 area Gorgan core is formed. Now the exact address school: Vahdat Square, Imam Khomeini Avenue, Darbnoo.

General typology of School

Generally, the main building each school as classroom space is comprised of several rooms that are often on four sides. And a central courtyard in the middle which is the meeting place and communication space that is rectangular or square. Public four- porch plan and map with the four sacred directions, which is certainly one of the porch entrances, is located on the west side of the yard. Opposite the entrance to the courtyard to the function of the cell, such as prayer or a teacher (teaching position) is dedicated library or a large veranda. Major organs or architecture are better interpreting the main performance spaces in the context of school rooms, teacher, library of ministers (Intersections and phloem, etc.) and health service. In large spaces, such as schools, mosques and baths with hospital was also there at the mosque. It is also known in the western porch a high building minaret muezzin or two dimensions at a height of 2.20 and 1.90, which is the location of the muezzin.

The distribution of different spaces in the building

- 1 – Input
- 2 - The central courtyard
- 3 - (Chamber) Classroom
- 4 - (Three-door room)

5 - (Five-door room)

6 - Place tiles

7 - North Garden

8 - S

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Figure (4) The distribution of spaces on the second floor

Input: passed only through the school district and the west side of the site is Darbnoo through an entrance corridor we entered the courtyard.

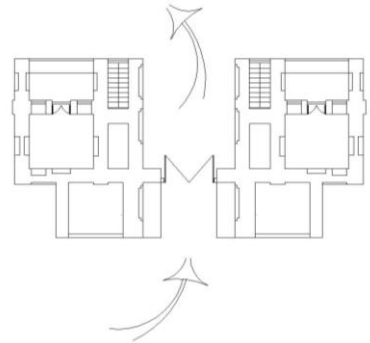


Figure (5) Input plan set

Figure (6) of the input image

Yard

Emadieh school yard stretch it to the North and South rectangular courtyard lined with rubble where the building is beautiful effects. In order to supply drinking water for 8 hexagonal-shaped pool in the center courtyard of a school built in the past through the subterranean water resources of the South porch after filling the pond to the north and it crosses the porch in addition to two water outside the school and in the west wing of the school was that water supply the deserted school yard without paving and services in the North are backyard. It has two courtyards and a central courtyard, is the North and South.

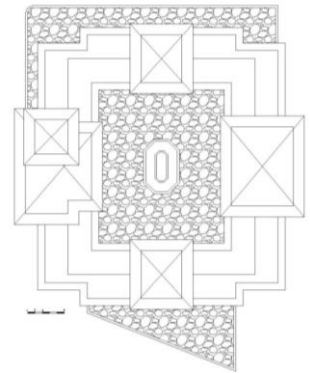


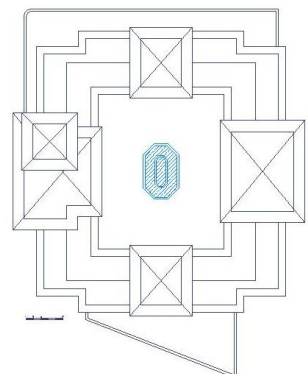
Figure (7) yards map image collection Figure (8) yard and pond water
Introduction video site plan and the elements in it

Figure (1)

Figure (1)



ents



As you can see, this picture is taken from the Eastern Front. Water pond in central located in the North and South. And four orange trees in the courtyard are four. And the rest is covered courtyard garden lawn and brick walkway space in front porch and North and South and West entrances. In the central courtyard in the middle of a creek along the north-south water (waterway) is also

Single minaret or minarets

View of the minaret minarets on the western porch area of about 5.4 square meters and a height of 20.2 meters. To achieve that, should the staircase north side of the school cross the western porch.



Figure (12) or single minaret picture minaret details

Rooms

Emadieh school rooms in the ground floor and it consists of a simple room, some of which the two-door, three-door and four-door some rooms have windows and windowsills several (cupboards), most factions windows of the building were blocked entrance from the courtyard rooms, which passes through the platform that warrant a high step and it's great that reached the top of the stairs is another eivanchehs rectangular space, two windows and a wooden door and in some rooms of a niche lifted and the entrance to the chamber side have closed this niche in the eastern side (inside) the school has taken the floor eivanchehs and communication path to cells schools and school roman arch arches that have been implemented in a manner that is simple. Floor rooms as the platform pavers and stepping on the edge of the preserve and not destroy eivanchehs and blue adorned adornment due out this technique except for the facade of homogeneity and uniformity has been created. There is no place to study and relax ... and each of the rooms, simple, single or three-player and all personal work done on the spot. There are 19 rooms in Emadieh school chambers and the southern half of the northern half of the rooms for students and for teachers.

School rooms (1-rooms 2- three-door rooms' 3- five door room)

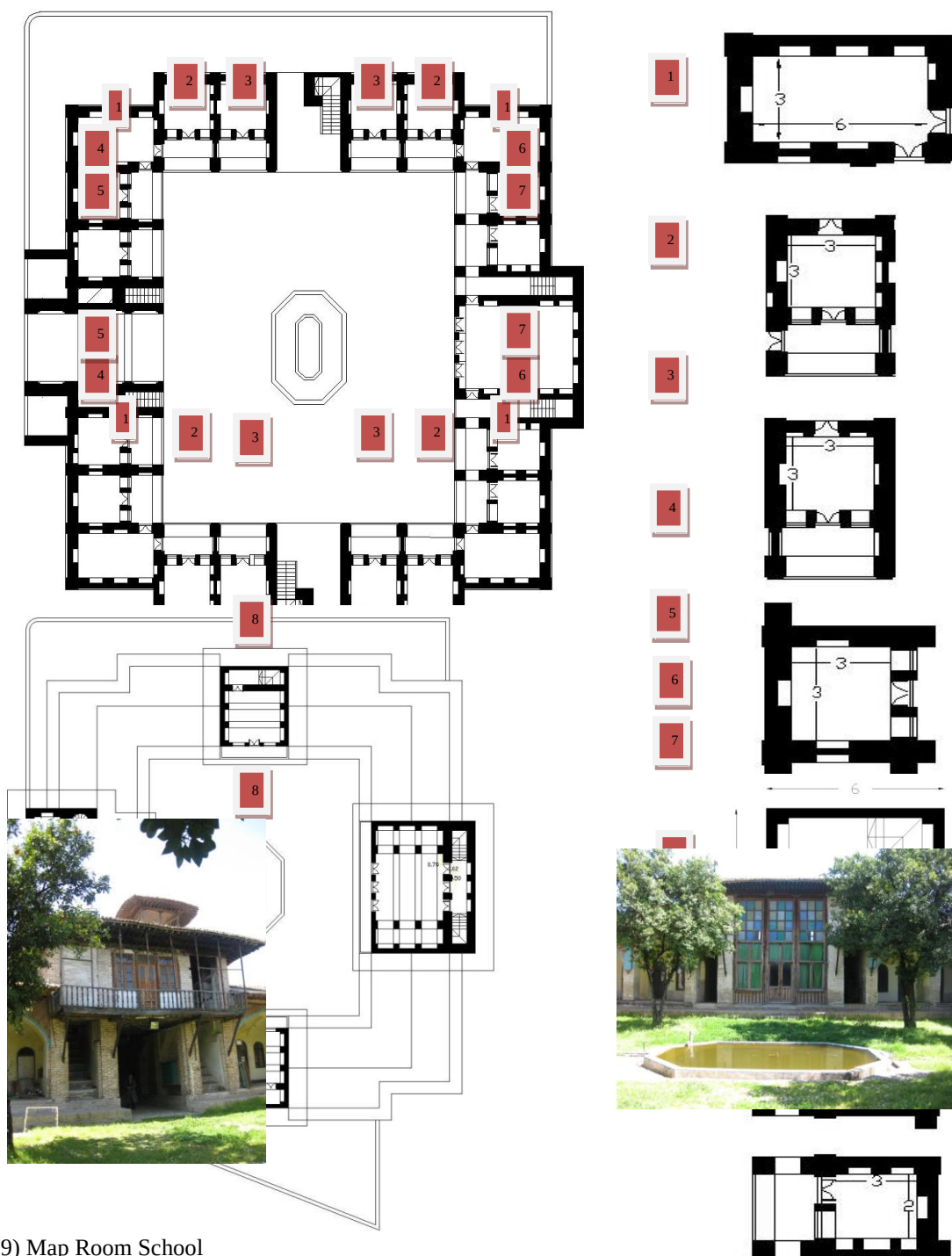


Figure (9) Map Room School

Figure (15) Eastern porch view after repair

Figure (13) Image western porch

Western porch

As noted, the western porch, entrance porch to school and two floors. In the south and north entrance, two staircases to the first floor. Included in this is the path of porch Mazeneh school is available in the form of stairs northern entrance porch pergola and west. Mazeneh square space that has elevated wooden beams vertical, horizontal, slope and pottery is capped.

Eastern porch

One of the important areas in schools, teachers in most schools as a single unit in eastern porch, the instructor Emadieh building is built on two floors. After the platform, the school's main entrance and windows with wooden doors on which to console continues. Additional windows and have the same Orsi. The initial input lathe wooden fence that was in the middle of the communication route in a simple form.



Figure (16) North porch view

Figure (16) South veranda view

South porch

A view of the south porch - school entrance from the side of the Safavid to Qajar period was late. The two-story porch in terms of dimensions and size are East and West porch. The ground floor is connected by a staircase to the first floor. This step is a wooden fence and the edge of each step of the wood work to prevent the bricks from demolition and displacement. Unlike other porch ground space of the porch is covered by a zigzag arch Roman-style bricks semi-implemented.

North porch

North porch is the yard and porch of the northern courtyard. Second floor staircase located in the corridor. The south porch is quite similar porch on the back stairs of the porch can be seen the remains of a pointed arch or pesto. This space is now completely blocked and determining its users to speculation and require more detailed studies. The porch on the north and northwest linked to the backyard and in the northwest

of school health services, which include three toilets and one bathroom and now also the new face and a water services also is attached to this position.

Plan Analysis

Emadieh school with a rectangular plan and for four porches and a central courtyard form that all its elements symmetrically and with regular rhythm and the same form and have been together.

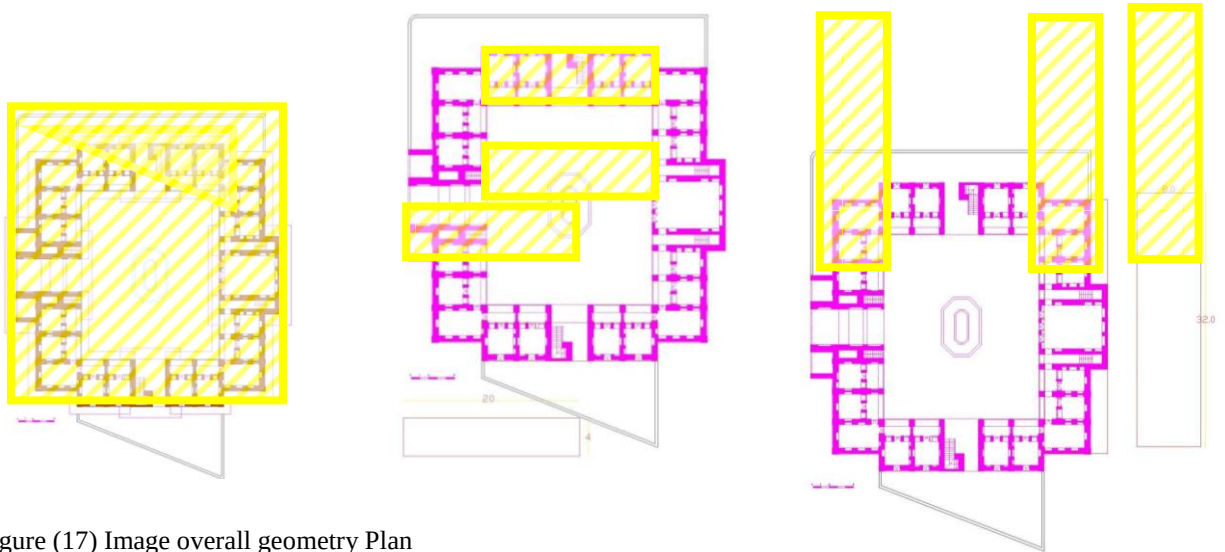


Figure (17) Image overall geometry Plan

The overall geometry of the plan, as can be seen from the south of the square is a triangular-shaped courtyard is attached to it. Yard line in the direction of South America and of course all the rectangular geometry of the spaces is filled.



Figure (18) Image Geometry plan details

Plans that include components are golden rectangles with fitness center axis of the dock are all rectangles. In fact, the geometric center of the intersection point of the axis of symmetry dock is planned. School

plan for total nearly symmetrical rectangular is square. Plan on four sides of a central courtyard, which is a symmetry axis of symmetry in the central courtyard of the each other emphasis on symmetry and space in the building elements were common. This is particularly true in the case of Ivan and Emadieh school rooms, the school plan is almost rectangular courtyard with most other elements to form symmetrical and regular rhythm and the same face or put together the layout of components and building elements based on two perpendicular axes Ivan mentioned that the most significant of them is the same view.

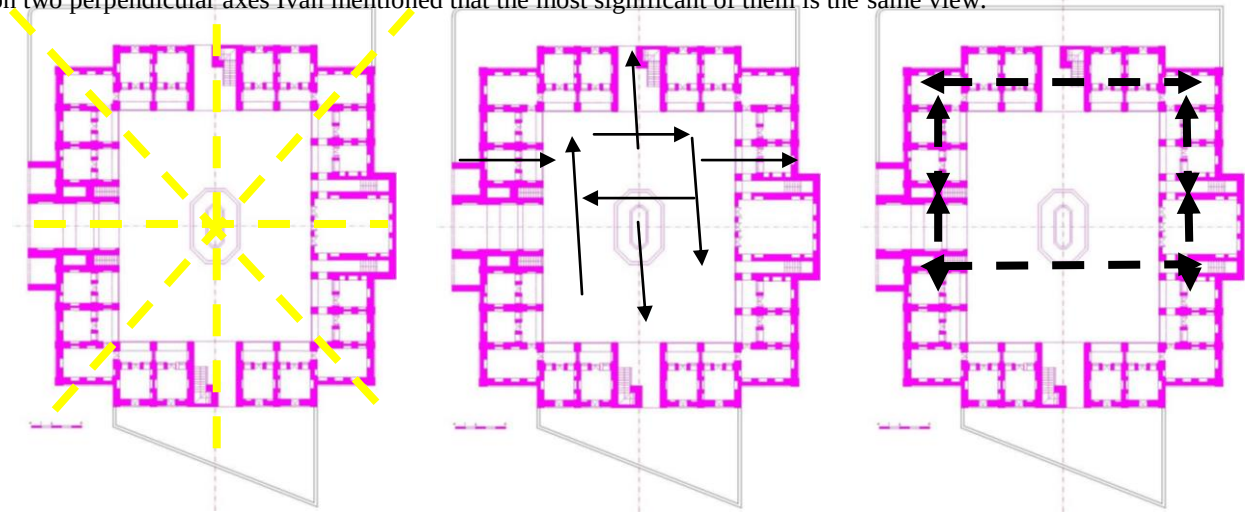


Figure (21) in circulation on the porch

Figure (20) circulation in the yard

Figure (19) Image axes of symmetry in plan

Circulation in the yard

Application yard as a space divider and connecting routes and regulation of all the main spaces around it is very important that seen in other schools.

According modulation grid for the horizontal and vertical axis is perpendicular cross.

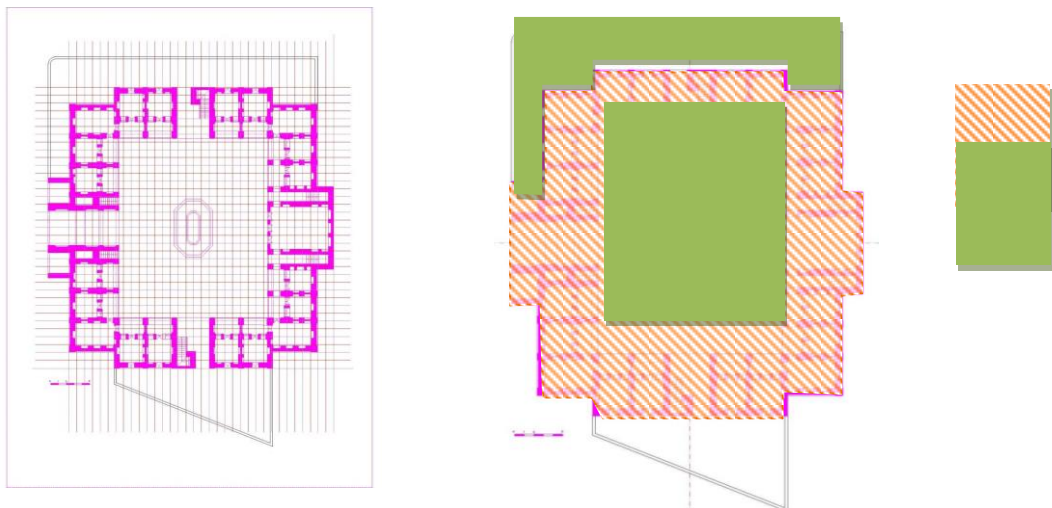


Figure (23) Map full and empty spaces Review

Figure (22) Picture regulation plan

Rooms, chambers three-door, five-door, porch and entrance and corridors spaces are filled.

Analysis Views

- 1- Views with the axis of symmetry that to this axis, all were symmetrical building components.
2. Repeat and harmony and rhythm around posing as a class, a model was created to fit the system creates a certain sense of unity and oneness, and also acquires in space.
3. Emphasis on the porch with their tall, has an advantage over other views were visually and exponential.
4. Create any decorations and ornaments of architecture, luxurious interior in school were avoided, except in large schools and majestic architecture of the variety of art and the techniques they used to glory.
5. Fencing spaces and architectural elements commonly used to decorate the surface of the vault and were practical.

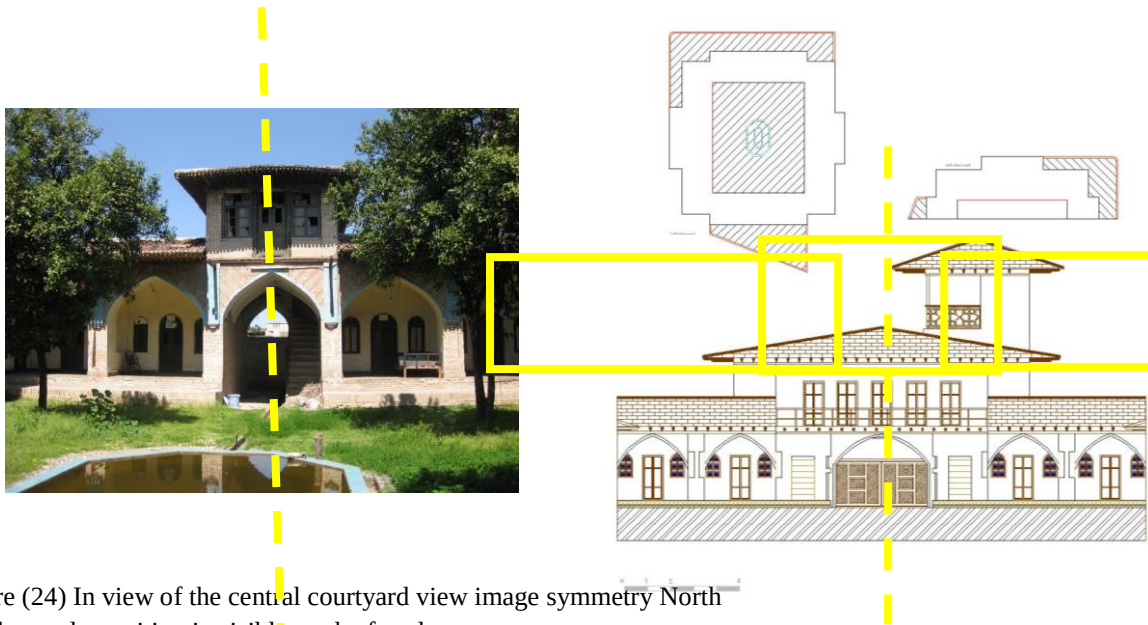


Figure (24) In view of the central courtyard view image symmetry North
Rhythm and repetition is visible on the facade.

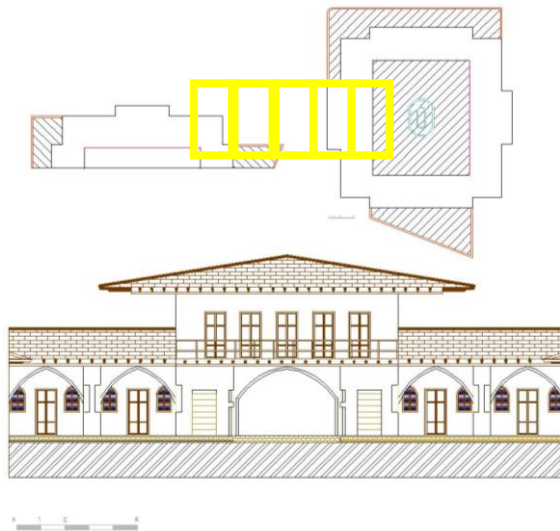
Figure (25) symmetry is evident in the facade. Except the minaret which is located in the northern part of the western porch



Figure (27) Image details outside view of the southern façade

Figure (26) Central north facade interior picture details

Emphasis on the porch with their tall, has an advantage over other views were visually and exponential. Rhythm and repetition is evident in the facade windows



Decorations

Especially in schools, seminaries, like other buildings such as mosques and holy special attention to be decorated.

Emadieh School was decorated in a forgotten issue. That includes: Views arch and vault and arches, brick decorations Beauty and straight.. and on top of the arch and connected by arcades brick pillar-like columns, porches and rooms, painted cobalt blue and purple color contrast in the two bricks and milk floors, railings woodturning by terraces, courtyard paving, flooring, paving the podium and eivanchehs and cells, bricks forget stream of water, pond water and tile and ...

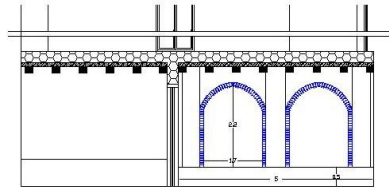
However, the rate of visual beauty with it on the porch of a uniform height. That is to be prevented.

Hanging on the porch

Emadieh school has Ivan in 4 the East and West, North and south 4 and 4 of the porch on the second floor have their school yard has been woodturning counter board fences are beautiful with the prospect of the artificial nature and handmade yard (trees, gardens, pool, etc.) are. Wooden floor (tattoo) by picket beneath the counters and wooden columns from the top of the console and the valve are connected. Details wooden terrace on minarets and handmade yard (trees, gardens, pool, etc.). Wooden floor (tattoo) by picket beneath the counters and wooden columns from the top of the console and the valve are connected.

Details wooden terrace on minarets

Figure (29) mosaic decoration on wood
Figure (30) Western porch view picture details
Hanging in the corridors
Figure (31) Details corridors
Figure (33) Image details Image porch with pointed arches
Figure (32) hanging on fences (woodturning)
The revolving wooden balconies



Rooms with regular rhythm and the same form and beauty are in the ground around the yard. And by what Ivan (the half Ivan - counter) are distinguished. The rooms all have eivanchehs a door and two windows with pointed arches covered with bricks, half-way Roman Arch run in the front row with blue decorated arch brick decorations top of this is the color of contrast of the adorned. (Bricklaying as dormant and orders) and half columns in brickwork of the method (Herrera O)

Structures

School structures for (pier to 100 cm) are load-bearing wall. Roof Coatings for (chamber roof dome) arch Chevron and final coating for sloped ceilings with beams of wood and is coated. Tattoo wearing floor of the brick structure (using wooden boards) is used.



Figure (34) Details Sloping roof with clay and wooden beams
Bed

The building is mainly about 2 meters below the divider wall and the approximate width of 115 cm and a depth of about 150 cm area with a mixture of limestone and clay materials such as concrete rubble river is located. Chinese seat height 70 cm and width of 2 meters with brick have been implemented.

Conclusion:

No geometry does not mean a monument of architecture distinguishes is the arrangement of geometric shapes. Building on the original Iranian-Islamic architecture of any one or more of the main components has been combined. These components include spaces if not more important and larger, space property, and according to certain principles act as extensions to the main spaces.

An overview of the architecture patterns Iran before the modern era played a decisive role in the spatial organization of semi-open spaces makes clear. These transition organs in traditional schools as Ivan, gallery or terrace, filed a ring enclosed spaces (rooms) and outdoors (yard) and the main areas of school performance are introduced. By definition, these schools lack quality components such as dynamic space, flexibility, and mobility. Safavid School features a very simple and clear and stable course, traditionalists are enclosed. They often benefited from four porches pattern. However Architecture School Emadieh of knowledge about proportional system and has enjoyed drawing geometric shapes. Because the location of architectural elements in plan, layout architectural elements of the facade, the fit between architectural spaces, and create decorative building, the geometry and perfect match is used.

References:

- Ali Abadi, M., (2007), Eternal geometry in Islamic architecture, International Journal of Engineering, Issue 5, page 18
- Cultural Heritage site in Golestan province
- Cultural Heritage, Emadieh school registration report (2006), Cultural Heritage
- Encyclopedia on the history of architecture Iranshahr
- Hilen Brand, Robert, (2001), Islamic architecture, the translation of the late Baqir Ayatollah Shirazi, Tehran, Press orifice
- Kiani, Mohammad Yousuf, (2005), Architecture of Islamic Iran, the Tehran, Center for Humanities Research (side)
- Mahdavinejad, MJ, (2005) review of the role of intermediary organs in the spatial organization of schools in traditional Iranian architecture, the first International Congress on new horizons in architecture and urbanism, Tehran, Tarbiat Modarres University School of Art and Architecture
- Oghabi, MM., (1999), Encyclopedia of Islamic monuments (schools, religious buildings), Tehran, Islamic Research Institute of Culture and Arts, Sura
- Pirnia, Mohammad Karim, (2013), Islamic architecture of Iran, Tehran, University of Science and Technology

