FRAMEWORK - ARCHITECTURE IN IRANIAN MINIATURES

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Abstract

The objective of this research is to discuss the problem of how architectural spaces exist and attend in Iranian miniatures. That is professional way and planning to encounter particular and valuable architecture that today there is in Iranian miniatures. This study with the aim of identifying framework Structure of conducted architecture and reference to articles, professional resources and survey has attempted to provide an appropriate field for understanding the reason and logic about this valuable architecture. This Structure has been formulated, after identifying miniatures in the first stage and analyzing their contents in the second stage. Among the results gained after miniatures analysis: architecture functionality beyond its social meaning, scale independence of the building and human scale of the buildings, simultaneous images of inside and outside space and special idealism can be mentioned. The results of this study can be considered in architectural planning and urban development of Iran, and can pave the way of future researches.

Keywords: Framework-architecture Structure, Iranian miniatures, architecture, content analysis, architectural space

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INTRODUCTION

Iranian miniatures are deep rooted in Iranian civilization and culture (EBRAHIMI NAGHANI, HOSSEIN, 2008, p. 46). Based on documents and evidences especially outstanding artworks remaining from Elamite eras, it is estimated that miniature history in Iran is at least several thousand years BC. Some evidences suggest the existence of miniature during the Achaemenid, Parthian and Sassanid. Since patriarch era particularly in the Timurid, architectural and urban spaces have been dramatically used in paintings. The method for designing and drawing of architectural spaces depended on miniature subject, painting workshop and painters' trends and skills. Architectural spaces were designed by different painters very diversely which from one hand depended on miniature subject and on the other hand on painter's skill and attitude, however architectural spaces were used in the Timurid and Safavid eras much more than before. There are some works in Herat school in which architectural and urban spaces were paid more attention, there are even some examples in which all miniatures surfaces are allocated to architectural spaces and it is not seen any natural landscape in them (SOLTANZADEH, HOSSEIN, 2008, p. 143). These miniatures, in which contemporaneous buildings and architectures were portrayed, are the result of painters' understandings of architectural spaces in that era. Nader Ardalan in the sense of unity, in surface discussion pointed to display method of architectural spaces in miniatures and he quoted some matters from Seyed Hassan Nasr but did not describe the relation between miniature and architectural space. Klaus herdeg also has stated the features of a shape structure in a miniature and Shah Abbas mosque and said shape structures can be interchanged between two art works, an architectural that complex (Shah square and mosque in Isfahan 1597-1630 AD) and a painting (Iranian miniature, 1520s AD). The comparison of these two-artworks is interesting because indicates similar intellectual characteristics about two different artworks and results in mutual link among two-dimensional surface and mass and three- dimensional volume. Ali-Akbar Saremi also refers to the way of drawing the architectural spaces in Iranian miniatures and analyses them by providing some examples. But, this subject has been reviewed in none of the samples in detailed and comprehensively and the relation between miniature and architectural spaces have not been specified.

Analyzing and comparing the buildings and cities representations in each era with painting, Edmund Becon investigated how to understand the city and urban space. Hanachi and Nejad Ebrahimi Sardorud, Feshangchi and Oluchi (2008) indicated that some architectural portraits are representative of real buildings; and miniatures were used as ancient documents to readout the buildings and urban spaces in Safavid periods. After showing these miniatures positions, this research has been used as architectural and historical documents.

1. Research objectives

- 1.1. The recognition of structural-architectural characteristics of Iranian miniatures.
- 1.2. Case analysis of art-architecture, 21 architectural spaces in Iranian miniatures.

2. Research question

- 2.1. How the structure of Iranian architectural space can be portrayed in the miniatures?
- 2.2. What is common between art and architectural spaces of miniatures about Iranian architecture?

3. Research method

The compilation method of this article is library and documentation methods and the research method is analytical, descriptive and historical methods.

4. Main body of the research

4.1. Iranian miniatures

Start of painting or miniature is considered from Achaemenid period, while this art should be sought from Stone Age and into the cave. Some types of paintings in caveman era have been discovered by archeological research in Lorestan caves including "Mirmelas and Doshantapeh ". In these engravings or miniatures, much attention was made to combat and haunting scenes and animal pictures, some examples of wall pictures have been found in Fahlian hill (Fars), these are also the most ancient samples of Iranian miniature during pre-historical or historical periods. There are seals, signs and specially cylinder seals of jade stone and other stones of about seven thousands years ago which designers, painters and Iranian artists engraved different miniatures on them with utmost delicacy and accuracy, these works show engraving art in addition to painting art. The attraction of these miniatures is the pictures which were done in very small levels and the foundation of Iranian miniature was formed from this place (HATAM, GHOLAMALI, 1997, 7). Some virtuosos believe that the art of painting in Iran is restricted to miniaturization meaning that illustrating of manuscript books, because wall paintings have been lost and Iranian miniature can be judged only by miniatures. Due to Manicheans manuscripts, these paintings have a close relationship with the first samples remained from Islamic era and it can be said that the miniature system in Iran is also a religious system.

4.2. Safavid era miniatures

Safavid era is the flourishing period in painting; particularly the period of Shah Abass Safavi is peak of architecture and painting arts in Iran. Safavid dynasty is one of the most influential dynasties on Islamic art. It can be said that even art reached its peak in this period. Shah Ismail sat on the throne at the age of 15 in 502 AH and the Safavid dynasty was founded. In Shah Ismail despite fighting more with foreign enemies and domestic rivals, sometimes paid attention to painting and did not ignore it. Especially, when they conquered Herat, he faced with some artists, art workshops and art works which apparently took them with him to Tabriz. In the year 928 AH, he appointed Kamal al-Din Behzad with

a command as library president and book layout and so Tabriz school has been gradually formed. Painting and decorations was more important than other art to Safavid. In this era, architectural spaces with complex decorations in paintings were glaring.

5. Architectural spaces in Iranian miniatures

5.1 Appearance of architecture in Iranian miniatures

Too many factors effect on how a painting and drawing and also painting of urban and architectural spaces are created. Historical period to create a painting can be considered as one of the most important factors in this field. It is clear that prior to Mongol invasion commonly careful attention to architectural spaces was less than after this period and mostly urban and architectural spaces were drawn in general form and simply and twodimensional with only some elements in perspective, but after Mongol era and specially in Timurid period more attention was paid to urban and architectural spaces and the use of perspective in design of spaces is more than past. Perspective was used in variety of shapes in combination with flat and two-dimensional surfaces. In some cases especially when a porch or a room was alone shown, often façade surface of the space was drawn two-dimensionally and sidewalls were drawn to indicate the depth of space with perspective.

Façade and outer volume composition of buildings were sometimes drawn twodimensionally, but some parts of façade such as balcony, entrance stairs or window and like them drawn three-dimensionally. In some miniatures, it is considered that some perspective lines were drawn carelessly which can result from design traditions in which did not pay more attention to how perspective was drawn. Imagination, creativity, skill and professional backgrounds on each artist are very important factors in how to regard urban and architectural spaces and how to draw them. There are also a number of other miniatures which some painters drew and provide a subject in different forms. As example, it can be pointed to the paintings in which every painter drew Leili and Majnoon from his point of view.

The impact of miniature schools on how to design and draw the space can be considered more or less as the same or in other words in line with other historical periods, because each school of painting was formed in one period of history. But in the meantime, in each school of painting some design methods and traditions were dominant and impacted on artwork, for example, it can be pointed to the school of Shiraz in which architectural spaces were mostly two-dimensional and in most paintings more attention was paid to human and animal pictures; and landscapes and natural areas were much used. While, in Herat school there are some artworks in which more attention was paid to urban and architectural spaces, even in some examples all miniature surface is allocated to architectural space and there is no natural landscape in the painting. The subjects of miniatures were the most important factors in determining how to regard sophisticated and natural spaces. It should also be considered that painters often pictured their own architectural space; and indigenous elements and architectural spaces were reflected in their works. Due to this, the school which miniature belongs to it should be specified to understand miniature. However, it should be noted that painters moved and it was customary that by changing the rule, capital painters were transferred to new capital city or they moved optionally to these new places. It is natural that painter was loyal to the last tradition at least in a short period of time and obtained architectural spaces from indigenous architecture of his former location (FORUTAN, MANUCHEHR, 2010, 8). Available information about Iranian traditional architecture are limited, particularly about the architecture before Safavid state and the remained works from that period is not so much which architectural features can be easily studied, because on one hand many works, urban and architectural spaces have lost and just a small number of spaces remained and on the other hand there are not more information about architecture of that era in the sources and in literary and historical texts in the country. Some factors and causes in loss of many ancient Iranian architectural works including earthquake- prone in many regions of the country, use of structures and materials vulnerable to earthquakes, phenomena and natural disaster, little attention to ancient works, persistent influx of ethnic groups and different tribes to the cities of the country, change of monarchy and lack of powerful family to support the artists and their brilliant works continuously. Many remained spaces are ritual spaces such as mosques, schools and graveyards because they were often constructed with good materials and on the other hand the buildings have been cared because of the religious significance of the space while the palaces and Kushks for both constructing with common materials and lack of holiness have destructed more and there is a little information about them (SOLTANZADEH, HOSSEIN, 5, 2008).

Very useful information are available about architecture specially Kushks architecture (which a small number of them have been remained) in a number of Iranian paintings in which mosques and other buildings were drawn more or less illustrative. The important point which today some of them can be understood difficultly from buildings body is how urban and architectural spaces and their related behavioral patterns were used. While, Iranian paintings are the only important sources that have excellently shown the usage method of urban and architectural spaces and also some features related to decorations, interior design, furniture and decoration of architectural spaces; and in this regard are valuable sources. Thus, in this study it is tried to put a number of paintings which present some urban and architectural spaces side by side to investigate cognitive characteristics of these works and therefore the properties of these spaces can be better studied. It seems, painters normally used real and objective spaces for modeling and designing and they drew urban and architectural spaces implicitly, inexactly, in a sign and sometimes relatively clear and illustrative and appropriate to miniature subject. Of course, no sophisticated space was drawn in many miniatures pointed to a subject or an event in the natural spaces such as scenes of hunting, war, and feast and such that. Moreover, it is clear that less attention was made to architectural spaces in miniatures prior to Mongol invasion and when the painters wanted to indicate an event in an architectural space, it was simply and most of the times two-dimensionally drawn, while since Patriarch and specially Timurid eras to better illustration of space, exponential depth was used.

The use of perspective in Iranian miniatures never has been completely as today, because the space was mostly indicated two-dimensionally in Iranian miniatures tradition until Timurid era which formed in continuation of Manu paintings and Islamic culture, and the perspective was also used often on the case from Patriarch and Timurid periods. Light & shade was not used and colors were often used as pure-net. This process continued nearly to the Safavid period. In that period, Iranian painting gradually affected by European painting due to existence of a number of European designers and painters and also due to a number of western wall paintings and some of Iranian painters used perspective and light & shade in their works as European style. In Qajar period, this trend weakened the Iranian miniatures and developed the painting as European style.

5.2. Case study- spatial of miniatures in terms of artistic and architectural characteristics

Table 1. Investigation of some spaces with artistic and architectural analysis

		Space	Miniatur(s)	Artistic characteristic	Architectural characteristic	Architectural components and elements
Architectural space	Main space	Behzad mosque (about 854 to 937) dirty old man is stopped to enter the mosque. A scene from Bustane Sadi, Heart, 894 AH, Cairo, Eygpt national library		1-The use of special colors different from real colors. 2-Graphic in the miniature margin. 3-Providing structure in a series of layers. 4-Text above the porch: the mosques belong to God (worship of unique essence), so, anyone except God should not be worshipped. 5-The green dome is a sign of mosque. The most excellent examples of real	1-Height structure. 2-Modeling of the real state of architecture and attention to detail. 3-Lack of perspective. 4-Image can be developed from bottom to top. 5-The principle has been space constructing. 1-Providing different	1-Large yard. 2-Dome 3-Columned Shabestani. 4-Porch. 5-Wooden pillars on stone column foot. 5-Wooden capital with a plan similar to Mogharnas.
		Behzad bathroom (about 854 to 937) Khalifa Al-Mamun in the bathroom Kamse Nezami version, Heart,900 AH, London, British library		and concrete spaces. Graphic in the miniature margin. The use of space elements to display kind of using.	slices of space. 2-Indicating how water is supplied? 3-Picturing the space matched with kind of using.	2- Bine (the main spaces of an <i>Iranian bath</i> houses). 3-Greenhouse 4-Anteroom 5-Dome shaped roof
Archite		Market attributable to Aqa Mirak (Mid-tenth-century) Desert animals are kind to Majnoon Miniature for Khamse King Tahmasebi version, Tabriz, about 947AH, London, British library		1- The use of special colors different from real colors. 2-Structural thematic 3-Presenting the picture in an artistic structure	1-Space integration in architectural and functional layers.	1-Dome shaped roof. 2-Mosque 3-Mosque Minaret 4-Spaces for sale
		Palace Prince chooses a fruit, Bukhara, about 968 AH, Dvfn set		1-The use of special colors different from real colors. 2-True color image of the sky. 3-Relative symmetry in miniature. 4-Picture of King as turning point. 5-The use of verses on the top of secondary entrance.	1-Providing architecture in two parts: inside and outside. 2-Architectural harmony with nature. 3-Architecture with geometric decoration.	1-Water fountain and water route. 2-Decorative dome. 3-Porch 4-Special sitting position.

	Space	Miniatur(s)	Artistic characteristic	Architectural characteristic	Architectural components and elements
	Garden, Feast of love, Bukhara, about 968 AH, Private collection.		 1-Real image of the sky and meadow. 2- Graphic in the miniature margin. 3-Cypress tree that is sacred in all miniatures. 4-It has been satisfied Only to draw a few trees. 	1-Creating the architecture based on natural structure. 2-Architectural space was pictured implicitly. 3-Enclosed space (creating privacy).	1-Short wall to divide the distance between inside and outside.
	School Lily and Qais in school Miniature of Kamse Nezami Shiraz , About 881AH,Istanbol, Topkapi Sarayi		1- The use of special colors different from real colors. 2-The existence of verses on tile of architectural space. 3-Artistic elements especially on walls. 4-Particular arrangement of the scene.	1-Architecture of schools has not any particular spatial pattern. 2-Dome type used in the Timurid period was also considered. 3-The existence of decorative mogharnas in minaret. 4-The use of arabesque designs.	1-Groove dome 2-Minaret 3-Decorations
	Yard Mehr and Nahid wedding night A scene from Assar Jupiter love version Bukhara, 930 AH, Washington Freier's Gallery		1- The use of special colors different from real colors. 2-The existence of graphic on the top margin of miniature. 3-Providing structure in a series of layers. 4-The statement of traditions in artistic language. 5-Put the visions in the frame	1-Architecture transparency 2-Inside and outside spaces	1- Inside and outside spaces. 2-Wall for space separating.
	Balcony Heidar Qoli Khosrow in front of Shirin's mansion balcony, Khamse Nezami Shirazi, about 1034 AH, National library, Paris.		 The use of special colors different from real colors. Graphic in the miniature margin. Creating a space for dialogue especially in the illustration. 	1-Providing an overview to an architectural element.	1-Balcony 2-Architectural element with a special geometry.

		Space	Miniatur(s)	Artistic characteristic	Architectural characteristic	Architectural components and elements
		Sleeping space Attributable to Heidar Qoli Khosrow is murdered while asleep. A scene of Khamseh Nizami Ganjavi Shiraz version, about 1034 AH, Paris, national library		1-The use of special colors different from real colors. 2- Graphic in the miniature margin. 3- Providing structure in a series of layers	1- single space	1-Building inside the garden. 2-Specific architectural components.
Architectural space		summer house Khosrow under shirin's palace windows, Khamseh Nizami version, Tabriz, about 901 AH,Kayr set		1- The use of special colors different from real colors. 2- Graphic in the miniature margin and down. 3-Observing artistic symmetry.	1- The existence of transparency. 2-The pictured singlespace and its harmony with the real space.	1- summer house 2-Garden space
		propylaeum Desecration of Bustan A scene of Haft Orange Jami Qazvin or Mashhad Among the years 937 to 964 AH Washington, Freier's Gallery.	- CC	 1- The use of special colors different from real colors. 2- Graphic in the miniature margin. 3- Providing structure in a series of layers. 	1-Consideration to the particular architecture of garden. 2-Architecture combined with green space.	1- The paths between gardens. 2-Alcove in the garden. 3- Wall for separating the architectural space.
		Pool Attributable to Mirza Ali (midtenth-century) Father's advice about love A session of Haft Orange Jami Qazvin or Mashhad, Among the years 964 to 973 AH, Washington, Freier's Gallery.		1-Unique picturing of art. 2- Graphic in the miniature margin. 3-Providing margin with self-structured green space.	1-Nature combined with architecture. 2- Appearance of functional space. 3-Aclove 4- Garden green space.	1-Pool 2-Water path
		Aclove Wrestling in the presence of prince A scene of Illustrated version of Sadi Gulistan Bukhara school 962 AH, Paris, National library.		 The use of special colors different from real colors. Graphic in the miniature margin. Providing structure in a series of layers. 	1- Separating the royal sitting space.2-The use of Height structure.	1-Outdoor ceremony.

	Space	Miniatur(s)	Artistic characteristic	Architectural characteristic	Architectural components and elements
	Tent Anonymous painter supervised by Sultan Mohammad Salm and tour received Fereydoon and Manucher Messages Shah Tahmasebi Shahnameh, Tabriz, about 937 AH private collections.		1-The use of special colors different from real colors. 2- Graphic in the miniature top margin. 3- Providing structure in a series of layers	1-Temporary architecture in division of miniature spaces.	1-Temporary structures for temporary use of the space.
	Columned porch Sheikh Sanan rave A session of illustrated version of Lesan o teir masnavi of Mir Ali Shir navaee Bukhara, about 963 AH, Paris, National library.		1-The use of warm colors. 2-Graphic in the miniature margin. 3-Entering the fire element to the scene. 4-The existence of verses in architectural surfaces. 5-Overall symmetry in presenting the picture.	1-Control communication between the spaces. 2-Observing the spatial hierarchy.	1- Wooden pillars on stone column foot. 2- Wooden capital with a plan similar to Mogharnas. 3-Columned porch 4- firebox.
	sara-pardeh (tenting for the kings during the travel) Attributable to Behzad (about 854 to 937) miniature lady and shroff Khamseh Amir Khosrow Dehlavi version, Heart, 890 AH, Dublin, Chesterbiti library.		1-The scene picture inside and on the box. 2- Graphic in the miniature margin. 3-The existence of symbolic trees. 4-Indicating a special season. 5-Separating the structure by the color.	1-Creation of the space with enclosing the space.	1-sara-pardeh 2-Flooring
	Square Siavosh offers his skill in playing polo A scene of a Shahnameh version Qazvin, about 987 AH private collections.	Control Spine Street	1-The use of special colors different from real colors. 2-Graphic in the miniature margin. 3- The scene picture outside and on the box. 4- Nature image in particular.	1-Square design in simple spatial form was pictured in a non-designed environment.	1-The existence of non-load bearing columns with particular type of using. 2-Open space for performing sport skill.

	Space	Miniatur(s)	Artistic characteristic	Architectural characteristic	Architectural components and elements
	Cemetery		1- The use of special colors	1-Simple presentation	1-Sanitary washing
	Sheikhzadeh (Demise: early		different from real colors.	of architecture	space.
	tenth century) Mourning in		2- Graphic in the miniature margin.	appropriate to type of	2-Semi-enclosed
	lily's husband death		3- Providing structure in a series of	using.	space.
	A scene of Khamseh Nezami,	200	layers		
	Heart, 900 AH, London,	T. Anil S			
	British library.				
	Castle		1- The use of special colors	1-Considering the	1-Monitoring space
	Attributable to Siavosh		different from real colors.	created architecture	of castle.
	Defeated in battle with	2	2- Graphic in the miniature margin.	appropriate to place	
	Iranian troops	The same	3- Unconventional margin.	conditions.	
	Miniature of a Shahnameh				
	version named the second	1			
	Ismail King, Qazvin, 984 AH,				
	Kayr set				
	City faces		1-Artistic Symbolization	1-Providing overall	1-Urban elements
	Ascension of the prophet		2-Graphic among miniatures	view of a city in a	
	Illustrated version of Khamseh		structure.	sequence.	
	Nizami Tabriz, 911 AH private,		3-Simultaneous presentation of two	2-Special use of	
	Kayr set		layers of information.	architectural signs and	
	Huyi set			concepts.	
	The route		1-The use of special colors different	Natural special	
	Mahmood religion		from real colors.	architecture in	
	(Tenth century) Sultan Sanjar		2-Graphic in the miniature margin.	illustrator layers	
	and the old woman		3-Providing natural structure		
	A scene of Khamseh Nizami		formed from traffic.		
	Bukhara, 952AH, Paris,	J. C. L.			
	National library.				

CONCLUSION

It can be concluded that:

- 1- Architectural building may have a social meaning beyond its real-time and function; and its usual function has also a symbolic meaning.
- 2- Iranian painter creates the time and location which are independent and abstract; and have especial traits. Therefore, different spatial understandings, in terms of both visual angle and time, are near and along each other.
- 3- Iranian miniature tends to combine two illustrating principles namely symbolic recreation of space and creating decorative aspects.
- 4- In architecture and painting, the perception of space is dependent to aesthetic rules of common sense.
- 5- In miniatures, space components are always complete but the entire space is rarely full.
- 6- Iranian painter did not draw the world from his point of view, but the world was pictured as it should be.
- 7- In miniatures in which the city was pictured, there is an example of each urban element and the overall space of the city as an intertwined tissue is in contrast to the outside natural space.
- 8- Real relative observance of components with entire space.
- 9- Independence of building scale and human scale.
- 10- The use of component to total permissible.
- 11- Two-dimensional to three-dimensional reference.
- 12- Simultaneous picture of inside and outside the space.
- 13- Lack of shadow in Iranian painting is due to certain idealism.
- 14- Miniature was made for being seen from close distance and careful observation and experts' admiration.
- 15- Analyzing the miniatures, architectural elements without any available /with a very few samples can be recognized and recreated; for example houses, observatories, hospitals and libraries before Safavid period.

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