Original Research Article

The Convergence of Persian Architecture with Miniature*

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Abstract

Problem statement: Painting is considered as a way for understanding and reviving the principles in Persian -Islamic architecture. In order to understand these paintings, their features should be identified, and the governing principles as well as depicting architecture should be achieved. Evaluating the creation of space and using the principles of Persian architecture by the Iranian artist in his works help to understand Persian paintings better. In addition, the lack of a coherent and systematic method for expressing and understanding the images of paintings, as the historical documents of Islamic architecture, necessitates the recognition of these two arts more than ever.

Research question: Which principles and points can be understood by evaluating the role of Persian architecture in traditional miniature paintings and matching to historical monuments?

Research objective: The present comparative study of the basic concepts related to Persian architecture with painting aimed to find the most widely used principles and concepts of Persian architecture manifested in the paintings.

Research Method: In the present qualitative and comparative study, the sources were collected by the library method and analyzed using qualitative analysis and graphical analysis.

Conclusion: The findings indicated that Iranian painters have painted by following the principles of Persian architecture fully and consciously and using the measures that showed convergence and compliance with the principles in architecture. Subsequently, proving the convergence of the principles in painting with the principles of Persian architecture indicated that the common principles in the concept of diversity in unity, which is one of the basic concepts in Persian -Islamic architecture, had the greatest manifestation in painting.

Keywords: *Persian painting, Persian architecture, Miniature painter, Plurality in unity.*

Introduction

There is little information about the traditional architecture of Iran, especially about architecture in the pre-Safavid period, to simply examine the architectural features of that period because many architectural and urban spaces have been destroyed, and only a small number of spaces have remained. In addition, little information is available about architecture at that time in the historical and literary sources. How to use spaces, architectural and urban principles, and related behavioral patterns is a significant point, some of which can hardly be found on the body of buildings today, while Persian paintings are the only important sources (Soltanzadeh, 2008, 5). Paintings are considered as an important part of historical documents and pictorial sources in the past (Teimouri Gordeh & Heidarnattaj, 2014). Painting is one of the most essential and valuable works. Undoubtedly, it is a brilliant manifestation of our past culture and constitutes and forms an important chapter in the history of art in the world. The paintings which have depicted the architectural spaces of that time hold the understanding of painters on architectural spaces.

Based on spiritual and religious criteria, Persian painting is a kind of traditional art which has indirectly reflected the Islamic principles (Goodarzi & Keshavarz, 2007). Thus, it is necessary to study how these arts affect each other. In order to evaluate the convergent principles in the aforementioned arts, a brief reference was mentioned to the relationship between Persian painting and architecture. First, the general principles used in the field of painting and their matching to the existing principles were briefly mentioned. In Persian- Islamic architecture, they are manifested in the art of Persian- Islamic painting. The definition of "convergence[1]" in expression cannot only explain the principle of unity in plurality but can indicate the presence of unity of principles in both architecture and painting (Mahvash, 2007). The proximity between beliefs and alignment, as well as harmony between values and principles, are among the factors which can be interpreted as convergence in expression. As mentioned, the present study aimed to identify the similarities between the two artistic systems of Persian painting and architecture and match the most significant principles of Persian- Islamic architecture. It should be noted that the present study had no intention to generalize the results to all paintings due to its qualitative nature in evaluating a few paintings. Instead, this study aimed to open a new chapter on the relationship between Persian architecture and the paintings to make more significant studies feasible. Selecting the painting of "Yousef's Escape from Zulaikha" from Bustan of Saadi in Cairo Library in Egypt from the valuable paintings of Kamal al-Din Behzad as an example of the presence of architecture in the world of painting is an appropriate turning point for consideration.

Literature review

Many studies were conducted on painting, mostly in the field of painting and art research, analysis of case studies on miniatures, their history, and style. However, not all of these studies can be included in this study, but a few of them are mentioned, among which there is the book "Isfahan School of Painting" written by Yaghoub Azhand and the book "Manifestation of Wisdom in the Persian Garden" by Tahereh (Soha) and Nasr. Meanwhile, little research has been conducted on the possible relationships between architecture and painting. For example, the articles such as "Architectural and urban spaces in Persian painting" (2008), "The contrast of space in Persian painting and architecture with a thematic approach to the Eighth Climate" (Parva, 2003), and "The atmosphere of music performance in Persian miniatures" (Sabeti, 2002). In summary, the aforementioned studies have slightly evaluated the relationship between architecture and painting. Considering the Persian painting as a source of architectural history has no long history, while such studies on Western painting have often been conducted. An example of such works is Bacon's analysis of architecture and the city (Bacon,

2007). An article in the first issue of Bagh-e Nazar magazine, entitled "Landscape Design in Persian Painting" (Javadi, 2004), addressed the areas where painting and painting have been influenced by traditional Persian architecture. Naturalism and the human relationship with nature have a long history based on Iranians' thoughts and beliefs in architecture and other arts. What we have from the pre-Islamic architecture is the work of buildings designed in gardens and spaces full of water and plants. There were houses, ponds, gardens, and all kinds of trees and flowers. As much as Iranians paid attention to the interior decoration of houses, palaces, schools, bathrooms, and other public places used all kinds of decorations, they also decorated the outer spaces. They used natural elements for everyday life, and the buildings were designed in such a way that the windows, porch, and living room were always open to nature and beautiful landscapes. In Persian painting, we observe beautiful images of this harmony and the relationship between humans and nature in everyday life.

Foroutan (2009), in her dissertation, focused on "How to understand the Persian architectural space from Persian paintings" by indicating the position of paintings as historical documents. For this purpose, different types of data were considered for assessing their validity. In an article entitled "The architectural language of Persian paintings", Foroutan (2010) explained his study and the language of paintings, as well as the representation of architecture by comparing some paintings with their real examples. In this study, he used the comparison of paintings with Islamic architectural buildings in areas other than the cultural area of Iran to identify the paintings and their language. In evaluating the paintings of the great painters, Mozaffarikhah and Goodarzi (2002) examined some of Behzad's works on behalf of the Herat school from the perspective of spaces and features. Sabeti (2002) evaluated a specific subject in paintings such as "bathroom architecture in Persian miniature" by evaluating the features of baths. In another study, Keyvani (2003) focused on

displaying the landscapes in the historical journey of paintings. Soltanzadeh (2004) attempted to achieve some of the architectural features of garden by evaluating the selected paintings, but could not find a regular relationship between the paintings and the garden due to lack of sufficient documents and limited selection of paintings. Soltanzadeh (2008) regarded the paintings representing some types of architectural and urban spaces to better understand the features of the spaces. Seyed Hossein Nasr (1994) evaluated the concepts of space, time, and place with two perspectives on Persian and Western philosophy. By reviewing the above studies, the subject of convergent principles in Persian architecture with miniature art has less been studied. Therefore, the present study can express how the principles of Persian architecture are displayed in the space of paintings.

Theorical Bases

The convergence of Persian architecture and painting in previous centuries, especially from the Safavid and Qajar eras, is not an issue that is hidden according to researchers and contemporary artists in the fields of architecture, painting, and visualization despite the differences in form and appearance. The most important reason for that convergence should be found in the worldview of architects and painters to the concepts of life of that time, which had formed common principles in those arts. In order to express the theoretical foundations of the present subject, it is necessary to examine cohesion, principles governing the formation of spaces and elements in architecture and painting, as well as attitude and thinking.

• **Cohesion between architecture and miniature[2]**
Cohesion between traditional Persian painting with architecture is one of the significant features. The examples of the above-mentioned cohesion can be found and expressed by using semiotics. Creating space in Persian miniature painting and art is one of its visual features and effects. Today, the dominant spaces in paintings include the drawing

of gardens and buildings of the same period, which have formed a critical part of the history of Persian architecture. Other significant examples are the abundant similarities in the use of the components which formed the overall volume and facade of buildings and were used objectively or abstractly in painting. However, one of the most essential aspects of cohesion is the harmonious and similar use of significant aesthetic principles such as color, composition, details, and most importantly proportions so that a non-Iranian observer can find the common origins even if he is not familiar with the history of Persian art. Painting is a term that mostly refers to Persian painting as well as the illustrations of Persian painting in the Islamic period.

Evaluating the Persian-Islamic painting is especially significant because Persian painting answers the questions about the nature of art and understanding of artistic masterpieces astonishingly despite many problems. Such paintings have been imaginative, symbolic[3], and a combination of objectivity and subjectivity (Foroutan, 2009).

It was the peak of Persian painting during the Safavid period when Kamaluddin Behzad was the leading painter of that period. However, th Kamaluddin Behzad, as a great painter in the Safavid period, Hussein Behzad, as a painter in the late Qajar and early Pahlavi period, and Hussein Taherzadeh Behzad, as a carpet designer who was the founder of modern painting schools during the first Pahlavi period appeared in the history of Persian painting.

Painters often depicted their architectural environment, and the elements and spaces of vernacular architecture were reflected in their works (Foroutan, 2010). Even it seems that painters normally used real and objective spaces for modeling (Soltanzadeh, 2009, 5).

For example, evaluating the real examples and paintings (Figs. 1 & 2) indicated the presence of a model for the composition of porch decorations (Asadi, Abhar & Eslamzadeh, 2012).

Comparing the traditional paintings with architecture

at that time and data analysis showed significant points about the cohesion and convergence of the above-mentioned arts, especially the effectiveness of painting from architectural components. For
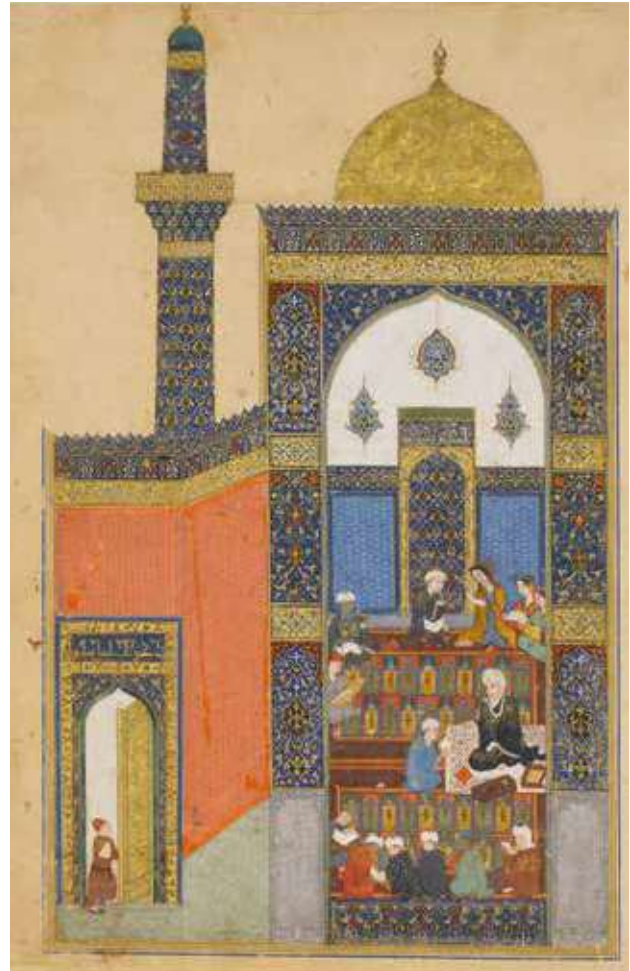

Fig. 1. Example of painting, Khamseh Nezami painting, Shiraz, around 881.Source: Azhand, 2005, 482.

Fig. 2. Real A real example, photo, the porch of Goharshad Mosque, 820-841. Source: www.irna.ir

example, great attention was paid to details of motifs, consistency of decorations, and decorative arts, especially the abstract motifs of plants and animals, the use of Islamic motifs andsimilar colors such as turquoise, ochre, yellow, brown, dark green, and finally khaki, the use of golden proportions, geometry and geometric motifs, axialism, symmetry, and so on.

• **Principles of traditional Persian architecture**
Categorizing and presenting the five principles of Persian architecture, which have been accepted as a theory by the majority of researchers and professors of architecture in Iran is considered one of the most significant achievements of Professor Mohammad Karim Pirnia for the Persian architectural community. Such principles are familiar to all Iranian readers of this study and should not be repeated, but it has probably non-Iranian readers since Bagh-e Nazar magazine has an international status. Thus, it is required to present the five principles of traditional Persian architecture Pirnia (2010) in this study.

1. Introversion
One of the cultural and religious Iranian beliefs has been the privacy of their personal lives, which has made Persian architecture introverted. By organizing the different parts of the building around one or more Sahns, the Iranian architects separated the building from the outside environment, and only an indirect entrance called "vestibule" connected these two spaces. Introverted houses in hot and dry climates are like paradise. Introversion seeks to preserve the privacy of the environment where the physical conditions have found a genuine peace and a harmonious and transcendent order through thought, contemplation, and worship.

2. Avoidance of futility
The avoidance of futility means avoiding extravagance and useless work in construction, which was observed even before Islam.

3. Humanism
Artistic architecture in ancient Iran was dependent on the lives of people. Humanism refers to observing

the proportions between building parts and human organs according to human needs and the function of spaces in the building. This principle is the main basis of architecture in the construction, and the use of proportions in creating the building spaces causes beauty. The width of the bedroom is the size of a bed, and the niche height is such that it is easily accessible while sitting or standing. On the other hand, the hall which is specific to guests, is spacious enough to be suitable for reception.

4. Self-sufficiency
Iranian architects have always attempted to obtain the required construction materials from the nearest places and built it in such a way that the builders require any other materials and are self-sufficient. In this way, the construction work was performed more quickly, and the building became more compatible with the surrounding nature. In addition, the required materials for the renovation of the building were always available. Iranian architects believed that building should be vernacular .

5. Niyarash
The term " Niyarash" has been used a lot in the past architecture of Iran. Niyarash refers to static knowledge, construction technology, and structural science. Architects highly focused on the construction of a building without any beauty. Peymoon refers to a small uniform size which was used wherever it was needed. Following Peymoon had removed any concern of architects about the instability or ugliness of the building.

• **Principles of Persian painting**
 Any principle which is universally accepted as a theory cannot be considered as painting, unlike architecture. However, some researchers have mentioned principles for painting. Azhand mentioned these principles in the book "Seven principles of decoration in Persian art" (2014), including Arabesque, Khatai, Western, Fasali and Nilofar, Cloud, Vagh, 7- Girih tiles or Roman band. Keshmiri & Rahbarnia (2018) re-read the principles of Persian painting based on the principles of perception in Al-Manazer by Ibn Haithm to three

principles: modeling, micro-painting and volumetric design. In general, Table 1 shows the principles of Persian painting.

In addition to the above-mentioned facts, some researchers conducted some studies on the spirit governing the painter and its manifestation in creating space in paintings, including Goodarzi & Keshavarz (2007), Nowruzi Talab (2008) and Bahari (1997). In their studies, the principles governing the painting spaces were presented from another perspective, the critical points of which are presented in Table 2.

Methods for dealing with painting principles

Based on the aforementioned objective and perceptual principles and concepts, analyzing the findings of the theoretical foundations of the study indicated that both traditional Persian architecture and painting could be categorized and explained in terms of three important aspects as follows. Performance through which functions can be extracted, perceptual signs and symbols through which well-known symbols can be obtained, and aesthetics, which uses historical wisdom as well as and worldview to dominate geometric proportions and be manifested in decorations.

Evaluating the characteristics of Persian painting space, and analyszing their foundations indicatedthat painters have used three methods in dealing with painting and creating spaces in their paintings such as functional principles, symbolic principles, and decorative principles to express their pictorial concepts, the most obvious of which are symbolic principles in most painting spaces.

In addition, painters used some methods to express these principles as presented in Table 3.

Method

This study aimed to achieve the most widely used principles and concepts of Persian architecture manifested in the space of paintings and how a kind of convergence in traditional Persian architecture and painting, which began mainly in the Safavid era and affected the painting art during the Zandieh and Qajar eras. Thus, it was necessary to recognize and study the prominent paintings and miniatures and analyze traditional Persian architecture. Then, the paintings were matched in terms of space and paying attention to details and similarities, requiring the researchers to select the comparative research method. For this reason, a qualitative method with comparative patterns was used in this study. In this way, first the written sources related to the subject and problem of the study were collected using the library method and written documents. In collecting the relevant data, special attention

Table1. Principles of Persian painting. Source:Authors.

Principle		Concept
Modeling (Why patterns repeat in painting)	Mode patterns	Representation of astonishment and surprise
	Personality patterns	Mainly a dance by the victorious king, public bar, a hunting tent
	Conceptualization	Exaggerating the positions like the ancient statues of Taq-e Bostan
Micro-painting		Micro-painting can be explained in line with modeling to understand the meaning of paintings.
Volumetric design		Based on the attitude that the painter considers the perception of the volume of things as dependent on the viewer's familiarity with the volumes around him, not seeing their true volume. Accurate representation of volume is not a fundamental principle.

was paid to previous studies, some of which were mentioned in the review of the literature section to avoid repeated works and play a complementary role for the possible achievements of previous studies. Then, the similarities and differences were identified using the qualitative and graphical analysis of the data. Finally, the relationships and interactions were determined and arranged in tables by matching the painting, especially the works of Persian painting including Behzad's famous work called "Yousef's escape from Zulaikha " to the principles of Persian architecture to achieve the architecture convergence and painting of the artist predecessors in Iran.

Table 2. Principles governing the painting spaces. Source: Authors.

specifications	Descriptions
Different angle of view	By using a different angle of view and changing his angle in an instant, the artist has better expressed the current spirit and reality in that moment by showing more essential details.
Symbolic colors	By using pictorial elements and symbolic colors, expressing typical traits, shadows, and light, and avoiding iconography, the painter changes the physical concept of time and leaves the form in terms of its normal history and time. In this way, meanings find a way to be expressed at all times and an art is created, which is not limited to a specific time.
Lack of realism and avoidance of perspective	The lack of realism prevails in the world of ideas[4]. Based on this idea, Iranian painters never sought a true representation of nature. Other features of this world is related to its thoughtfulness, introversion, contemporaneity, scattering of light throughout the work, and spiral composition.
Emphasizing the element of decoration and imaginary spatial visualization	Relying on the element of calligraphy for separating surfaces and following the traditions of painting in the form of expression, using the art of calligraphy to explain the image, combining nature and human in equilibrium with the same value, combining human and environment by applying the Euclidean geometry, and creating decorative forms in architecture and nature in a balanced way are among the general features of Persian painting (Nowruzi Talab, 2008). In Islamic paintings, the significance of decoration becomes clear when no surface can be found in the image without decoration. In addition, Abadullah Bahari referred to some details of painting, such as excellent decorations, tiling of the building, elements of nature, etc., and considered all of them as the representatives of Behzad's style and emphasized the correctness of attributing this painting to him (Bahari, 1997).

Table 3. Methods for dealing with painting principles. Source: Authors.

Functional principles	Symbolic principles	Decorative principles
- Possibility to see more visually through multi-dimensional spaces - Use of parallel surfaces for the sequence of vision and movement in the image - The simultaneity of spaces, combination of inner and outer spaces Non-observance of perspective - Creating the fourth dimension (time) and inducing three dimensions - The angle of view from above (Tajvidi, 1996: 14)	- Creating a transcendental and illusory space - Using unrealistic, pure and bright colors - Lack of physical effects of light - The Garden in the painting is an allegory of paradise. - Using essential natural elements such as water, wind, soil, and fire - Light is the most symbolic allegory of the manifestation of plurality in unity - Geometric and Arabesque symbols	- In addition to the aesthetic aspect, decorations in paintings have intrinsic and unifying meanings and make the work readable. - Use of inscriptions for guiding the eye and change direction - Decorative spaces are a factor of visual mobility - Reduced purity of colors through decorations - Geometric and plant decorations are a stunning factor for the eyes - The presence of tiles, illuminated manuscript , Arabesque and geometric patterns, calligraphy, etc. implies the spiritual space in paintings.

Discussion

• Matching the principles of paintings to the principles of Persian architecture

In expressing the theoretical foundations and relevant principles and based on the findings of the research background, some points should be highlighted.

Details of motifs, especially decorations, both in architecture (e.g. tiles, Girih tiles, Ainakari, etc.) and painting (e.g. abundance of plants, display of details and building materials of buildings, clouds and sky-forming components, twisty ground, etc.) played a role in expressing the plurality which even exists in the ancient literature of Iran. The attention of the architect and painter to all this diversity and multiplicity can be related to their similar understanding of their surrounding environment.

Naturalism and the use of natural components are highly evident in architectural paintings and spaces, expressing the common attitude and understanding of the traditional architect and painter with respect to nature.

Despite the abundance of components in architecture and painting, which has led to plurality, unity, harmony, and integrity can be observed in the work. It has been derived from the mastery, artistic abilities, visual taste, and creativity of the artists at that time as if the artist has used all those various details to show a single message consciously and deliberately.

Paying attention to life, as well as the liveliness and dynamism of the environment, has had a great effect on the creation of architectural spaces. The contemporary painter looked at life flow with the same attitude of the architect, and they borrowed architectural forms and created abstraction to show the life flow in landscapes and buildings in creating spaces in paintings.

Based on spiritual and religious criteria, Persian painting is a kind of traditional art that indirectly reflects Islamic principles. Art causes humans to move from forms to principles and from principles to the original creator. Beautiful forms of art in all their various forms, remind the unity of truth in their multiple forms (Bahraminejad, Naghizadeh & Babaki, 2013). Among the Islamic concepts, three basic concepts are considered as the basis on which art and architecture deal with the physical expression of such concepts in various ways. One of these three concepts is the concept of a journey from plurality to unity, which is an essential slogan of monotheism (Noghrekar, 2014). Contemporary architects and urban planners should pay attention to the concepts and values presented in the theoretical and practical wisdom of Islam, affecting traditional architecture and painting and experiencing the methods of achieving appropriate architecture so that they can meet the material needs of human beings and design in accordance with spiritual needs and for human growth.

Since there is not eouugh literature related to painting, and its matching to the principles of traditional and is limited to a few studies withfocus on specific subjects such as Persian garden during the last two decades, there is still a long way to reach the theoretical foundations and theorizing in this regard. Since this study considered the issue according to the convergence of architecture and painting, it had no conflict with previous studies and continued to work in the same direction.Due to the great significance of the concepts mentioned in Persian architecture, the concept of the journey from plurality to unity and the common principles of architecture using the comparative method with the art of painting are shown in Table. 4 Some measures were considered for expressing these concepts in both Persian architecture and painting. Although there are many similarities in expressing these principles in the art of painting and the way of expressing in Persian architecture, they have some differences in the way of expression.

Results

• Manifestation of common principles in Persian architecture in a selected painting (Yousef's escapes from Zulaikha[5])

Based on the findings obtained from the common principles, the most important findings were analyzed in the painting of

Table 4. Common concepts and principles of Persian painting and architecture. Source: Authors.

	The principle	The factor causing principle in painting architecture	The factor causing principle in Persian
The concept of journey from plurality to unity	**The principle of introversion**	In the paintings, Behzad creates the twisty space and introversion by emphasizing the doors (Kazemi, Shoarian, Sattari, & Sediq Akbari, 2013). 2. In addition, Jami referred to the seven twisty houses, "You took it into the twistty house" In this verse, Jami described the complex, introverted and nested space of the mansion (Foroutan, 2009)	1. The use of appropriate longitudinal and transverse axes and creating centrality at their intersection and in the middle of the waterfall by providing indoor open space could provide an enclosed, desirable and calm space (Noghrekar 2009) 2. The use of geometry (center-oriented), for example, geometry centered in a circle (Bemanian & Azimi, 2010) 3. In the role of plant and geometric elements, despite their great multiplicity, the qualitative essences of all forms tend to a central goal (Makinejad, 2014)
	The principle of spatial orientation	1. Emphasis on the longitudinal axis: The revitalization of elongated entrances to emphasize vertical compositions, a change of the ratio of height and width of the room, and an increase in the height of the building and narrow compositions to make the details of the building appear (Foroutan, 2009)	1. Emphasis on pairing or symmetry and spatial-physical orientation (Noghrehkar, 2014): It makes the space human-like, transcendent, calm, and motionless (Navaei and Haji- Ghasemi, 2012). Symmetry was used for creating glory and weight, and asymmetry was used in doors and pavilions. In case of asymmetry, there is symmetry. 2. Placement of main spaces on the main axes (Noghrekar, 2014): The main axis of each garden, which is one of the significant elements of any garden, is the location of elements such as portal, pavilion, water pond, and water stream (Khanlari & Ghasemi, 2015)
	The principle of spatial hierarchy	1. Space layout[6]: Outer space (marginal space), interface space (stairs), inner space (main porch and balcony), and hierarchy are observed. 2. Perception of space as a spiral journey which tends to the inner center and the look is from outside to inside. In architecture, this is in the form of indirect movements at the edge of the central space (Foroutan, 2009)	1. Privacy: It creates spaces with different spirits and functions and is divided into public, semi-public, private, and semi-private areas (Khosrojerdi & Mahmoudi, 2014). 2. Movement: In some gardens, water enters the pond or pool after a distance at different distances. This pond or pool is usually constructed in the form of a square or rectangle in front of the main pavilion. The creation of this hierarchy defines the pause space. In addition, there is movement in the gardens (Khanlari & Ghasemi, 2015) 3.Classification in paintings and arrays from base painting to flower painting (Noghrekar, 2008).
	The principle of organizing movement in space (fluidity)	Synchronization of space: Different perceptions of space in terms of angle and time next to and along with each other 2. Color contrast: Visual measures such as a range of brick colors of railings, on the floor, carpets, and clothes of Zulaikha with cold color, especially the head of the slave, the sequence of movement and stillness (Nadafipour, Afshari & Moghanipour, 2011) 3. Movement: The viewer's eye goes from part to another part, often from right to left, and from one surface to another, and gradually enters the two-dimensional space.	1. Movement (Darab Diba): The penetration of open and closed spaces creates somewhat tangled, consecutive, and intersecting spaces. Fluid space carries a message from a phenomenon which has another phenomenon within it, and moving towards it is moving towards another space (Diba, 1999). 2.Transparency: "Mere movement and moving imagination in understanding the types of Islamic architecture such as the bazaar[7]" (Noghrekar, 2008) , and creating transparency by moving from material quality to spiritual quality (Firoozian, 2013)

Rest of Table 4.

The principle		The factor causing principle in painting	The factor causing principle in Persian architecture
The concept of journey from plurality to unity	The principle of journey from horizontal geometry to psychic geometry in the presence of architectural spaces	1. Using a frame as a virtual inside and outside. Frame in painting is a metaphor of the current life and the invisible world beyond the frame. 2. The metaphor of frame has created another metaphor of dome by using the domed architectural structures in paintings, where all or a part of this dome has lost its frame. 3.Dome is a metaphor for expressing a supernatural concept in its supernatural meaning, which is a symbol of paradise and extraterrestrials. The purpose of passing through the material dimension to perceive the spiritual truths behind every material appearance (Goodarzi & Keshavarz, 2007).	2. Using motifs which do not end in themselves and expanding the curved and galactic lines on the ceiling, as well as intensifying this principle with the help of light and fluid shadows of light around the ceiling. 2. Regular and symmetrical landscaping with the centrality of a waterfall, causing the connection in plant nature, towards the divine unity with the combination of water and sky (Noghrekar, 2008). 3. Dome has a unifying and introverted unit inviting people to the interior space (it is a symbol of self-construction and journey in the soul). The minarets, while not being united, indicate the journey in the horizons and the invitation of the community (Journey to the horizons and the manifestation of socialization)
	The principle of conceptualism in symbols (semiotics and symbolism)	The connection of soul and meaning with body and face: the cause of creating such relations (semiotics). Using stylized symbolism[8] and formal symbolism (Noghrekar, 2008). 2. The use of natural elements and decorations: The flames around the head of Yousef are a symbol of the halo of light, specific to the prophets and imams, and a sign of divine light and holiness. The image of the sky in two forms, blue and golden sky, the symbol of the luminous sky. Inscriptions, in addition to an architectural and written element, indicate the connection between the subject and the mystical journey and religious aspect of the subject.	1. Conceptual semiotics: The natural elements related to the manifestation of divine traits and names and the informant of every rational viewer from every green leaf of the verses and attributes of the wise and life-giving creators (Noghrekar, 2008). The theme of multiplicity in directions on Earth and the earthly world is related to the symbol of the square and then through the hierarchy to the sky with the symbol of the sphere in which the direction and place are not mentioned (Halabi & Sattarifard, 2015) . 2. Semantics in natural elements: The purpose of symbolic reflection of stagnant water in architecture with a semantic view, following the emergence of ideas. For example, the pool in front of the Chehel Sotun building, where the architects created the reflection of 20 columns of the palace in the pond for showing the number forty, which is a symbol of multiplicity and abundance in mysticism (Raeisi , Noghrekar, & Mardomi, 2014).

Yousef and Zulaikha (Fig.3). Based on the details related to the space of the above-mentioned painting, the painter with full mastery of the components of the building such as the composition of porches, doors, windows, facades, and even building material designs and placing people at the turning points of the painting focused on the plurality in the components which shape the image so that that the viewer can see a general unity first in the whole work and then consider the individuals and building components in the form of the same general unity governing the painting.
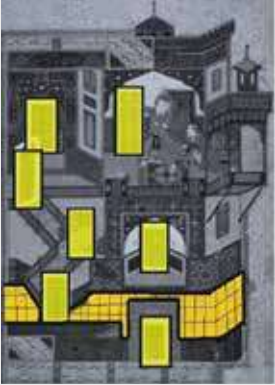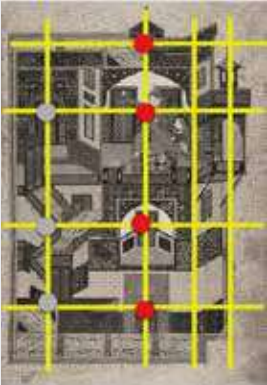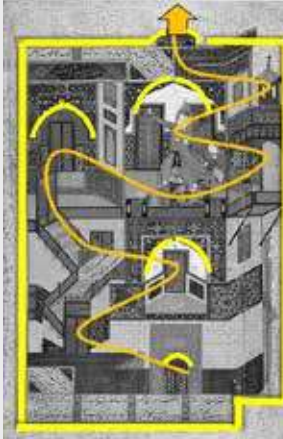
Table 5 indicates the results of matching and analyzing data that show the common principles of architecture in the painting of Yousef and Zuleikha.

Conclusion

Environmental conditions, insight, wisdom, worldview, ancient history, existing cultural and belief perceptions, and many other factors led to the formation of a single look to life among contemporary architects and painters. This point caused the sharing of taste and convergence in the creation of works and space in the respective arts. For example, the taste in using similar colors can be shared, and details can be observed by matching the design and architecture of its time.

Table 5. Matching the common principles in Persian architecture in the selected painting space. Source: Authors.

Description	Principles in Persian architecture	Description	Principles in Persian architecture
	The principle of introversion		The principle of spatial orientation
In this painting, Behzad expressed introversion with an emphasis on "doors". In addition, the pictorial representation of the yard in the painting is another factor for emphasizing the principle of introversion. - Yards are normally painted at the bottom of the painting		Observing the principle of spatial orientation in the paintings causes a special emphasis on the points that the painter has used for painting special places or special figures.- Such as placing Yousef and Zulaikha at the point of emphasis of space in the painting (the intersection of the main and secondary axes)	
	The principle of spatial hierarchy	The representation of the principle of movement and fluidity in space in this painting was created using diagonal linear elements. - A horizontal movement can be seen from inside the architectural spaces on the second floor, being created by the balcony, through which the interior space is integrated with the exterior space of the building, and the spatial fluidity and transparency in this design creates the relationship between indoor space and outdoor space as the main factor in moving inside spaces.	The principle of organizing movement in space (fluidity)
- In this painting, the principle of spatial hierarchy is observed. Exterior inscriptions in the margins of the painting are like the outer fence of the mansion. after passing through the entrance and a small porch, and passing through the stairs, we reach the main porch where Yousef and Zulaikha are located. After passing through the inner frame, we encounter the margin of the painting, representing the open space.			
	The principle of journey from horizontal geometry to psychic geometry		The principle of conceptualism in symbols
The use of arrow-like elements such as architecture such as arches at the porch entrance and roof skylights as well as the placement of the statues in the vertical direction of eye movement inducing an upward movement and connectin g of the architecture to the view of the sky and the earth.		In this painting, using the symbol of the unity of light is used as flames around the head of Yusuf, which is a sign of holiness and divine light. The elements of the hut and the balcony refer to a transcendental space. Using the numerical concept of "seven" as a symbol in the painting is marked with seven doors.	

Some principles of Persian architecture, such as introversion, have created a deep geometric and semantic relationship in the visual elements in the paintings, and its formal elements play an important role in the studied painting (Behzad school). Such principles have been used in painting for symbolizing. Thus, painting is a symbolic and conceptual space. For example, the elements of "door" (Selected painting of Yousef's Escape from Zulaikha, Table 5) has been highly used as a place for passing from outside to inside, inspired by the principle of introversion in addition to its functional concept. In addition, it has a symbolic meaning in some places.

Despite the differences in expressing and illustrating both arts, including the proportions and formal ratios
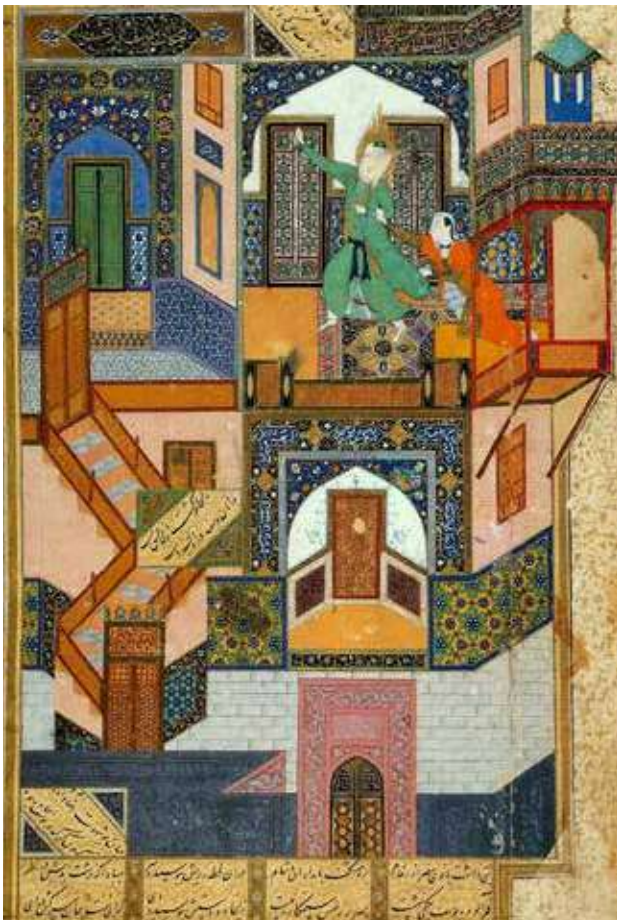
between the components, the similarities outweigh the differences. In summary, the results obtained by comparing the art of painting with contemporary architecture are as follows.

The principle of introversion in Persian painting for twisty representation is related to the principle of spatial fluidity. In Persian architecture, this principle has always been associated with privacy and spatial fluidity.

The factors which are effective in the spatial fluidity and movement of the viewer's eye in the painting level are creating spaces at the painting level simultaneously (drawing outside and inside in an image), and using color contrasts, and painting diagonal linear elements and communication elements such as stairs, balconies, etc.

The spatial hierarchy in Persian painting is performed by spiral compositions as well as drawing frames and margins.

The principle of spatial orientation has created special emphasis points on the surface of the painting, which is the location of certain elements and people.

Fig. 3. .The painting of Yousef's escape from Zuleikha, by Behzad, Herat school, from the Bustan of Saadi, a copy preserved in the library of Cairo, 893, 1488. Source: Rasouli, 2004.

Endnote

1.Convergence not only means having the same way of expression,but it means expressing the concepts and topics which have been originated from a similar source. In other words, the source of architectural principles is derived from the same or homogeneous source. The literal meaning of convergence in Moeen dictionary is "convergence, the quality of approaching the components of a whole".

2. Burkhart first considered different areas of culture and art such as painting and architecture, or Cuneo addressed the significance of paintings as documents for the study of the city and Persian architecture. However, since the language of Persian paintings is different from Western paintings and he is unfamiliar with it, he did not analyze such paintings.

3. For further reading, refer to Maryam Yahaghi's master's thesis entitled "Symbolic Elements in Persian Painting (Herat School)", Faculty of Fine Arts, University of Tehran.

4. The worlds of existence are based on four worlds: the world of intellects, the world of pure beings, dual limbos, and the world of ideas.

5.The painting of Yousef's escape from Zuleikha, by Behzad, Herat school, from the Bustan of Saadi, a copy preserved in the library of Cairo, 893, 1488 (Rasouli, 2004).

6. In the painting of Yousef and Zulaikha, the journey has three stages from outside to inside

7. According to Nader Ardalan (Ardalan, only movement and its imagination in understanding the types of Islamic architecture such as bazaar is necessary because a dynamic look is required for understanding the active and passive aspects of space.

8. Stylized symbolism summarizes and simplifies the patterns and faces of animals and plants. Formal symbolism is inspiring

or imitating the form and volume of the elements in nature.

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