The perception of contemporary researcher about this art is different from the audience's perceptions. It is easy to describe many elements of the art than to understand them. The miniature paintings published in a book or album fail to reflect its sacredness or mystery. It can be compared to an icon that has been moved from the church to the museum. This change in texture completely changes the way this art is understood and perceived. In the past, the icon in the church was available to those who attended the church, while the miniature painting was portrayed just for an audience. This unique and important audience, undoubtedly, felt to be the main hero of the image, the perfect man, the sheikh and the like. Today's audience and viewer do not have such a feeling. Though all the allegorical, symbolic relationships in miniature are something of an enigma whose understanding requires the experts' knowledge, it is a simple concept for today's lay people.

These issues imply that the half-hidden of miniature painting can never be restored. Though the truth is sad, it is quite natural. However, such a loss is partly offset by the fact that today's audience is able to experience the charm of the very special and repeatable miniature book of that era.

Given that the elements of the Iranian miniature have received a wide attention by the other miniature schools (Nazarli, 2011), we can investigate the similar works of the other schools in terms of such elements. In so doing, we can better realize the status of painting and miniature in Iran and in the world.

As can be seen, plants in the miniatures are low in number. Also, the species diversity distribution of plants is moderate. It seems that quality is preferred over quantity.

This is also true for the area covered with plants. It seems that the priority in the images is given to individuals than plants. Though the plants are not the urgent priority, they exist in most of the images and are not overlooked by the artist. The plants in the main miniatures of Baysunqur's Shahnameh are low in number. Perhaps the reason for this is that the focus of the miniatures is people than plants. However, in none of the images, the plant is not omitted.

Most of the colors used in the images fall within the warm spectrum. Of these colors, brown is mostly used for painting the trunks and while green is used for the leaves. Though it is at the artist's disposal to choose a variety of colors, he has preferred these colors. This choice can be explained by the artist's beliefs which are shaped by the past events and his ideas. It is evident that plants play a great role in Iranian culture. Plants have come to receive a special attention in Iranian culture and with the same associated concepts are presented in the history. With references to the species of plants in the images and the existing documents, it seems that recurring plants characterized by brown trunks and green leaves and low diversity could be Iranian holy cedars which have received a special attention in the miniature.

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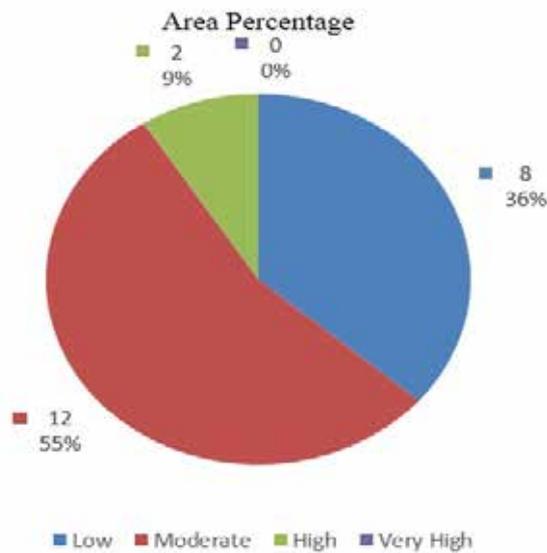
Fig.28. Area percentage .Source: The author.

Fig.29. Non evergreen-evergreen single species. Source: The authors.

Leave Color
We classified the images according to the major color of the leaves. Green, pink and white. Green, pink fall within the warm spectrum and white is within the cold spectrum.

Area
In this section, the divisions were based on the percentage of area in the 25% intervals.
Low: 25%
Moderate:% 50
High: 75%
Very high:% 100

Conclusion

In this paper, we attempted to find a way back to the past and gain a good knowledge of the culture path by shedding light on its different parts. Paintings including miniatures as cultural evidence help us recognize the identity of the culture in a certain time and place. By recognizing the identity of culture, we would be able to reconstruct it. In doing so, the future generation can draw upon the information presented and draw similar paintings. In other words, miniature paintings can be used as a "key" or a small pattern by which we can restore some cultural mechanisms. Such mechanism can be used for analyzing cultural manifestations in the future. Therefore, it is possible to rebuild the relationship with paintings and to discover new paintings by reconstructing such relationships. However, it should be noted that this could be a threat to the interpretations of the findings of the researcher. Using similarities, the researcher will be able to reconstruct any paintings that don't reflect what is in reality. This is almost inevitable in some concepts, and the quality of research depends essentially on how the relationship between realities and unrealities are established.

This means that the nature of art miniature painting is more complex and different than any other contemporary arts. Therefore, different attempts to simplify the interpretation of findings can only complicate the situation.

Table. 28. Area. Source: The author.

| Area					
Image No.	Area Percentage	Category	Image No.	Area Percentage	Category
1	1/3	Moderate	12	1/2	Moderate
2	1/3	Moderate	13	1/8	Low
3	1/9	Low	14	1/3	Moderate
4	1/9	Low	15	1/3	Moderate
5	1/3	Moderate	16	1/9	Low
6	1/12	Low	17	2/3	Moderate
7	1/3	Moderate	18	2/3	High
8	1/3	Moderate	19	2/3	High
9	1/3	Moderate	20	1/3	Low
10	---	Low	21	1/6	Low
11	1/3	Moderate	22	1/4	Low
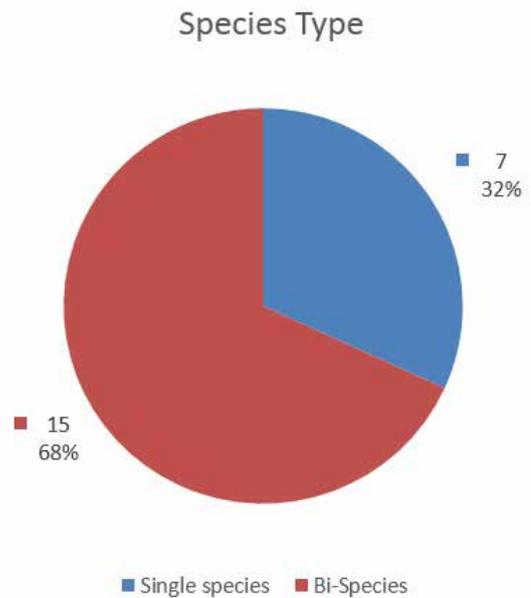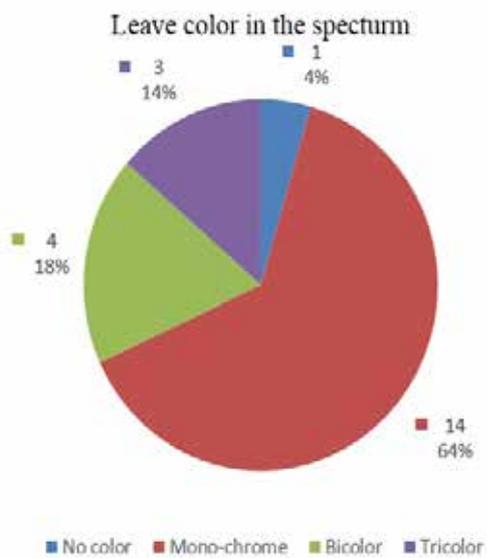
Fig.26. Leave color in the spectrum. Source: author.

Fig.27. Species type distribution. Source: The author.

Trunk Color

We classified the images according to the color of the trunks. Three categories were assigned to the colors: Brown, green and silvery. Brown and green fall within the warm spectrum and silvery is within the cold spectrum.

Table. 26. Leave color. Source: author.

Leave Color					
Image No.	Color	Cold-Warm	Image No.	Color	Cold-Warm
1	Green-White-Pink		12	Green	
2	Green-White-Pink		13	Green	
3	Green -White		14	Green	
4	Green		15	Green	
5	Green		16	Green	
6	Green		17	Green-White	
7	Green-White-Pink		18	Green	
8	Green		19	Green-White	
9	Green		20	Green	
10	---		21	Green-White	
11	Green		22	Green	

Table. 27. Species (Non Evergreen- Evergreen). Source: The author.

| Species			
Image No.		Image No.	
1	Non Evergreen- Evergreen	12	Non Evergreen- Evergreen
2	Non Evergreen- Evergreen	13	Evergreen
3		14	Non Evergreen- Evergreen
4	Evergreen	15	Non Evergreen- Evergreen
5	Non Evergreen- Evergreen	16	Non Evergreen- Evergreen
6	Non Evergreen- Evergreen	17	Non Evergreen- Evergreen
7	Non Evergreen- Evergreen	18	Non Evergreen- Evergreen
8	Non Evergreen- Evergreen	19	Non Evergreen- Evergreen
9	Non Evergreen- Evergreen	20	Non Evergreen- Evergreen
10		21	
11	Evergreen	22	Evergreen
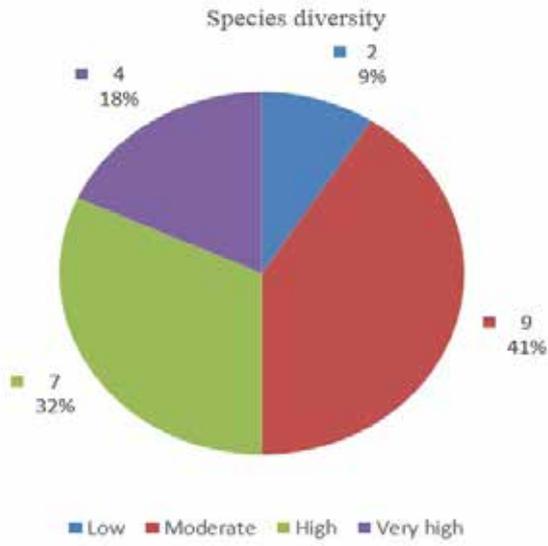
Fig.24: Species diversity distribution. Source: The author.
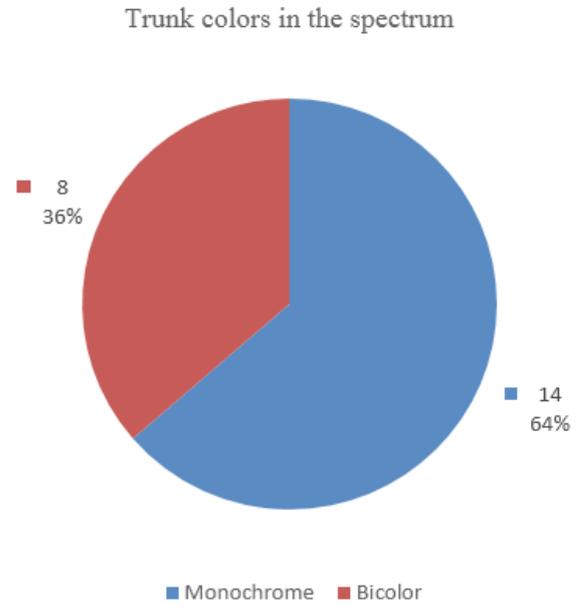

Fig.25. Trunk colors in the spectrum . Source: author.
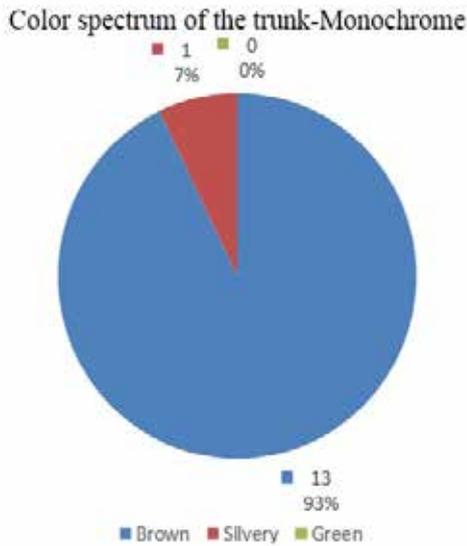
Fig. 26. Color spectrum of the trunk-Monochrome. Source: author.
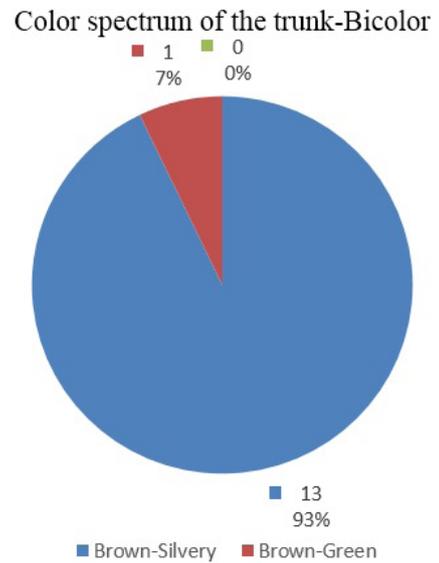
Fig. 27. Color spectrum of the trunk-Bicolor. Source: The author.

Table. 24. Species diversity distribution. Source: The author.

Species diversity Distribution

Image No.	Species diversity	Category	Image No.	Frequency	Category
1	7	Very High	12	3	Moderate
2	6	Very High	13	1	Low
3	2	Moderate	14	2	Moderate
4	2	Moderate	15	6	Very High
5	4	High	16	5	High
6	5	High	17	5	High
7	5	High	18	3	Moderate
8	3	Moderate	19	5	High
9	6	Very High	20	5	High
10	1	Low	21	2	Moderate
11	2	Moderate	22	3	Moderate

Table. 25. Trunk color. Source: author.

Trunk Color					
Image No.	Color	Cold-Warm	Image No.	Color	Cold-Warm
1	Brown	Warm	12	Brown	Warm
2	Brown-Silvery	Warm-Cold	13	Brown	Warm
3	Brown-Silvery	Warm-Cold	14	Silvery	Cold
4	Brown	Warm	15	Brown	Warm
5	Brown	Warm	16	Brown	Warm
6	Brown	Warm	17	Brown-Silvery	Warm-Cold
7	Brown-Silvery	Warm-Cold	18	Brown-Silvery	Warm-Cold
8	Brown	Warm- Warm	19	Brown-Silvery	Warm-Cold
9	Brown-Green	Warm-	20	Brown-Silvery	Warm-Cold
10	Brown	Warm	21	Brown	Warm
11	Brown	Warm	22	Brown	Warm

Results

Frequency:

This category shows the number of plants in each image. It should be noted that due to the research scope, we excluded the existing covering plants in the images.

The classification method is as follows: Four categories were assigned to the frequency levels: low, moderate, high and very high.

To develop the categories, the largest number in the table which is 22 was divided into 4 and the intervals were specified.

Low:

$22 \times 25\% = 5.5$

Moderate:

$22 \times 50\% = 11$

High:

$22 \times 75\% = 16.5$

Very High:

$22 \times 100\% = 22$

(Table 23 & Fig23)

Table. 23. Frequency Distribution. Source: author.

Species diversity Distribution					
Image No.	Species diversity	Category	Image No.	Frequency	Category
1	7	Very High	12	3	Moderate
2	6	Very High	13	1	Low
3	2	Moderate	14	2	Moderate
4	2	Moderate	15	6	Very High
5	4	High	16	5	High
6	5	High	17	5	High
7	5	High	18	3	Moderate
8	3	Moderate	19	5	High
9	6	Very High	20	5	High
10	1	Low	21	2	Moderate
11	2	Moderate	22	3	Moderate

Fig.23. Frequency distribution. Source: The author.

results of the study can be summarized in following the pie chart.

Species Diversity:

Based on the results, the percentage distribution of Species diversity can be summarized as follows: This category shows the species diversity of the plants in the images. The sorting method was the same as the one we explained earlier.

We divided 7, the largest number of Species diversity, into four categories.

Low:

$7 \times 25\% = 1.75$

Moderate:

$7 \times 50\% = 3.5$

High:

$7 \times 75\% = 5.25$

Very High:

$7 \times 100\% = 7$

(Table.24 & Fig.24)
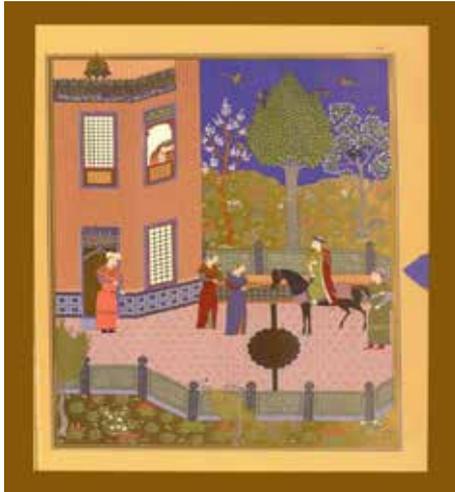
| Criteria	
Frequency	1+5
Species Diversity	5
Trunk Color	Brown-Silver
Leave Color	Green-White
Species Type	Non Evergreen- Evergreen
Position	3/2 at the top and 3/2 at the bottom
Area percentage	3/2
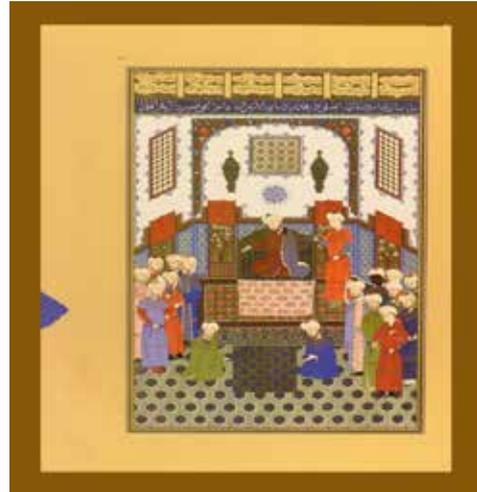
Criteria	
Frequency	4
Species Diversity	2
Trunk Color	Brown
Leave Color	Green- Brown
Species Type	Non Evergreen
Position	3/1 in the middle
Area percentage	6/1
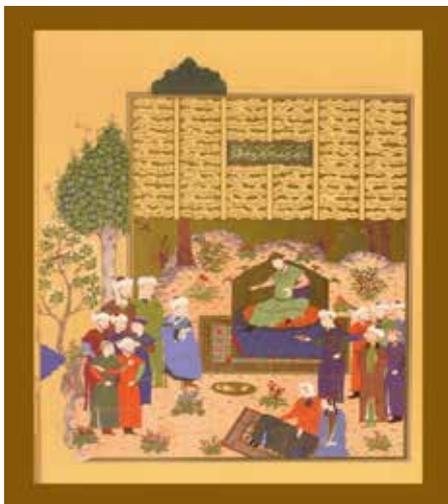
Criteria	
Frequency	1+5
Species Diversity	5
Trunk Color	Brown-Silver
Leave Color	Green
Species Type	Non Evergreen- Evergreen
Position	3/1 on the right and at the top
Area percentage	3/2
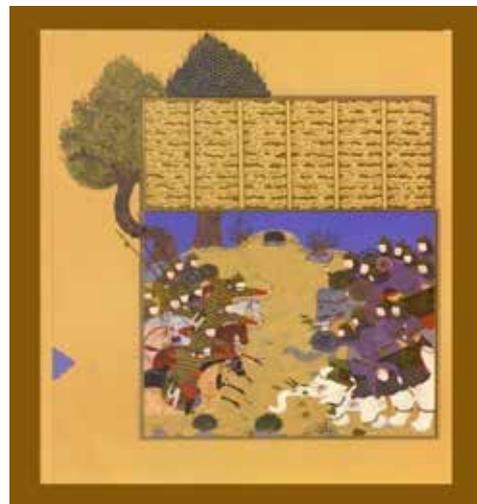
Criteria	
Frequency	1+2
Species Diversity	3
Trunk Color	Brown
Leave Color	Green-
Species Type	Evergreen
Position	Upper left
Area percentage	¼

Criteria	
Frequency	1+18
Species Diversity	6
Trunk Color	Brown
Leaves Color	Green
Species Type	Non Evergreen- Evergreen
Position	The whole picture
Area percentage	3/1
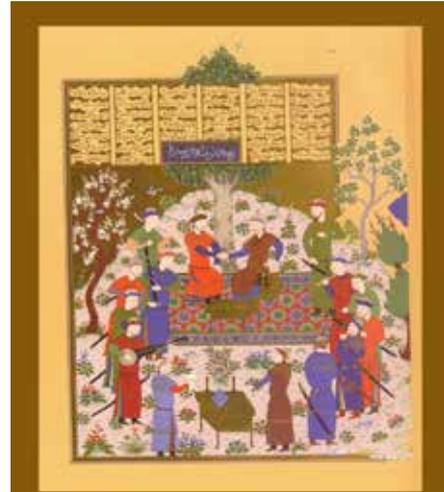
Criteria	
Frequency	1+5
Species Diversity	5
Trunk Color	Brown-Silver
Leave Color	Green-White
Species Type	Non Evergreen- Evergreen
Position	3/2 at the top
Area percentage	3/2
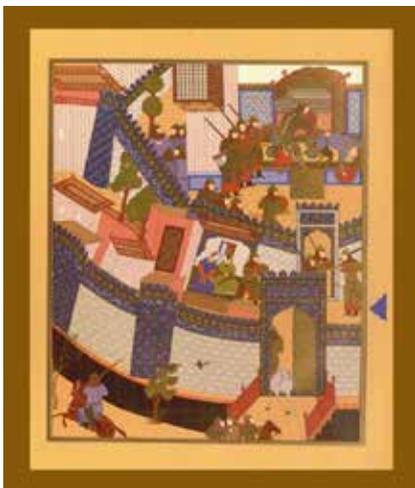
Criteria	
Frequency	5
Species Diversity	5
Trunk Color	Brown
Leave Color	Green
Species Type	Non Evergreen- Evergreen
Position	----
Area percentage	1/9
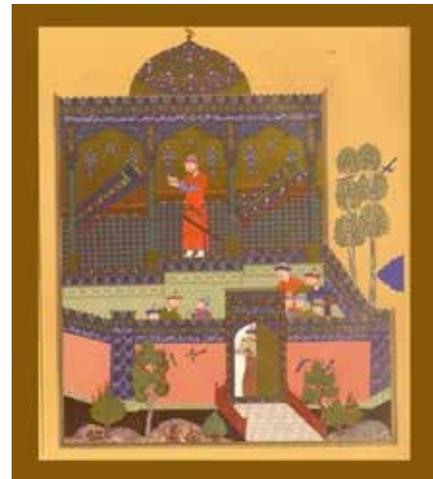
| Criteria	
Frequency	1+8
Species Diversity	3
Trunk Color	Brown-Silver
Leave Color	Green
Species Type	Non Evergreen- Evergreen
Position	3/1 at the bottom and 3/1 on the right
Area percentage	3/2

Criteria	
Frequency	1+8
Species Diversity	1
Trunk Color	Brown
Leave Color	Green
Species Type	Non Evergreen
Position	3/1 at the top and 3/1 at the bottom
Area percentage	3/1
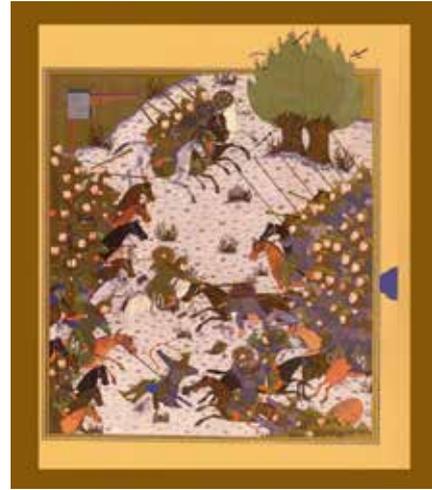
Criteria	
Frequency	1+2
Species Diversity	1
Trunk Color	Brown
Leaves Color	Green
Species Type	Non Evergreen
Position	Upper-right corner
Area percentage	8/1
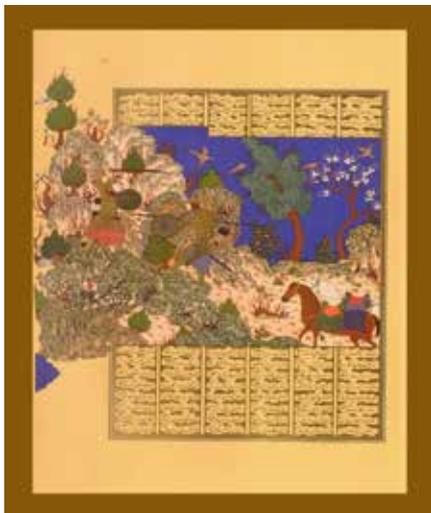
Criteria	
Frequency	1+18
Species Diversity	3
Trunk Color	Brown
Leave Color	Green
Species Type	Non Evergreen- Evergreen
Position	3/1 at the top and on the left
Area percentage	2/1
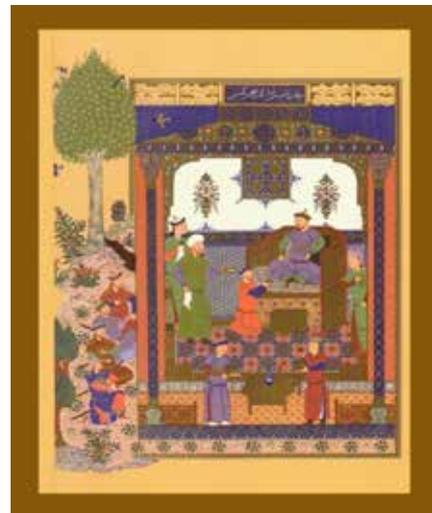
Criteria	
Frequency	1+3
Species Diversity	1
Trunk Color	Brown
Leave Color	Green
Species Type	Non Evergreen- Evergreen
Position	3/1 on the left
Area percentage	3/1
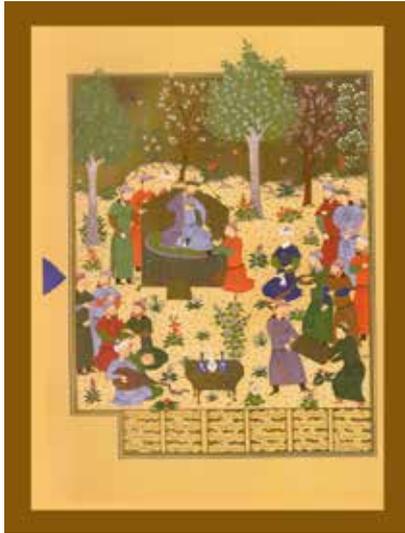
Criteria	
Frequency	1+5
Species Diversity	5
Trunk Color	Brown-Silver
Leave Color	Dark Green-Light Green-White-Pink
Species Type	Non Evergreen- Evergreen
Position	3/1 at the top
Area percentage	3/1
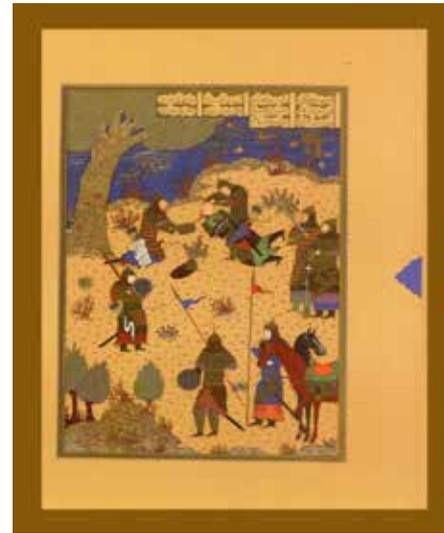
Criteria	
Frequency	1+9
Species Diversity	6
Trunk Color	Brown- Green
Leave Color	Dark Green-Light Green
Species Type	Non Evergreen- Evergreen
Position	3/1 at the top and 3/1 at the bottom
Area percentage	3/1
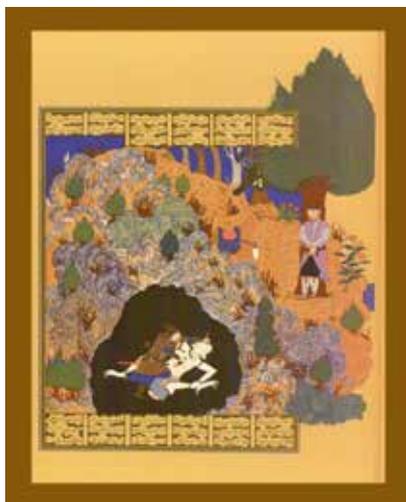
| Criteria	
Frequency	1+22
Species Diversity	3
Trunk Color	Brown
Leave Color	Dark Green-Light Green
Species Type	Non Evergreen- Evergreen
Position	The whole picture
Area percentage	3/1
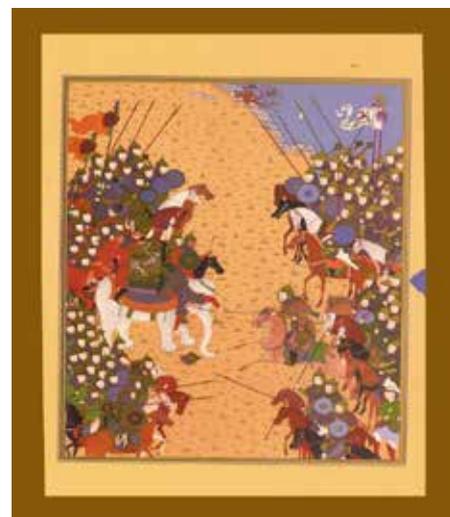
Criteria	
Frequency	1+1
Species Diversity	1
Trunk Color	Brown
Leave Color	-----
Species Type	Non Evergreen
Position	at the top and in the middle
Area percentage	------
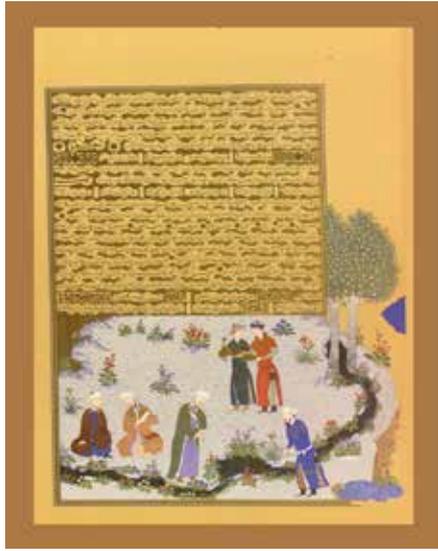
Criteria	
Frequency	1+3
Species Diversity	3
Trunk Color	Brown- Silvery
Leave Color	Green- white
Species Type	non Evergreen
Position	1/3 on the right
Area percentage	1/9
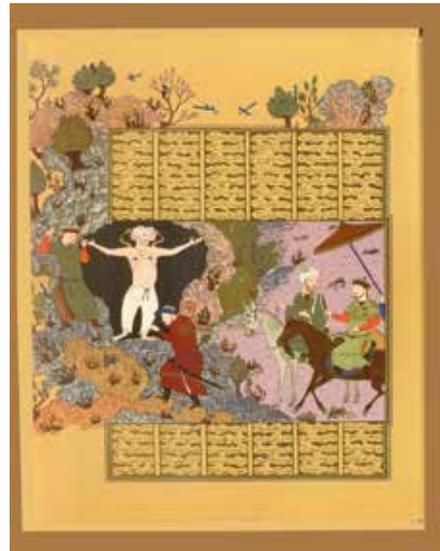
Criteria	
Frequency	1+12
Species Diversity	4
Trunk Color	Brown
Leave Color	Green
Species	Evergreen-non Evergreen
Position	3/1 on the left 3/1 at the top
Area percentage	1/9
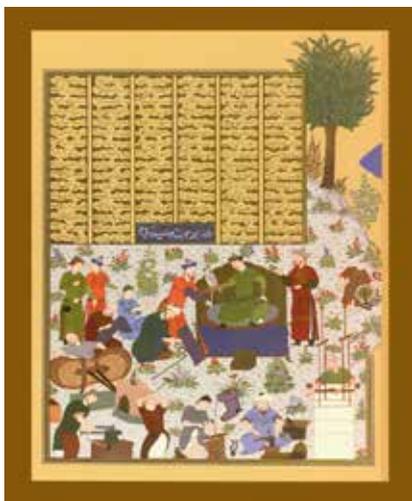
Criteria	
Frequency	1+1
Species Diversity	2
Trunk Color	Brown
Leave Color	Green
Species Type	Evergreen
Position	3/1 on the right 3/1 at the top
Area percentage	1/9
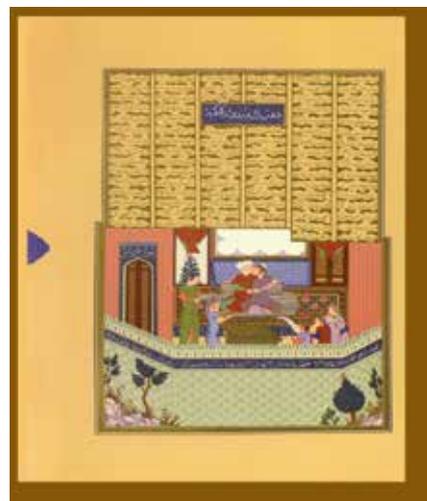
Criteria	
Frequency	1+6
Species Diversity	5
Trunk Color	Brown
Leave Color	Dark Green
Species Type	Non Evergreen- Evergreen
Position	3/1at the bottom
Area percentage	12/1

and the plant elements are the second priority. However, this does not mean that they were of low value.

Criteria and indices of the case study:

As previously stated, this paper is an attempt to understand the aesthetics of the plants by analyzing the dominating patterns in the miniatures of this work. To do this, the following criteria were first selected:

1. Frequency: The number of plants in the image.

2- Species diversity: The number of species in the image.

3-Trunk color: The color of the trunk and its color spectrum.

4- Leave color: The color of leaves and its color spectrum.

5- Species Type: Evergreen or non-Evergreen.

6. The position of the plants.

7- Area: The percentage of the area covered with plants in the image.
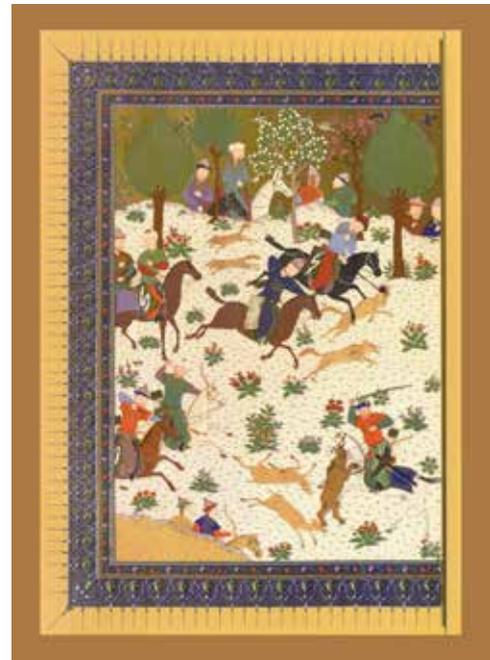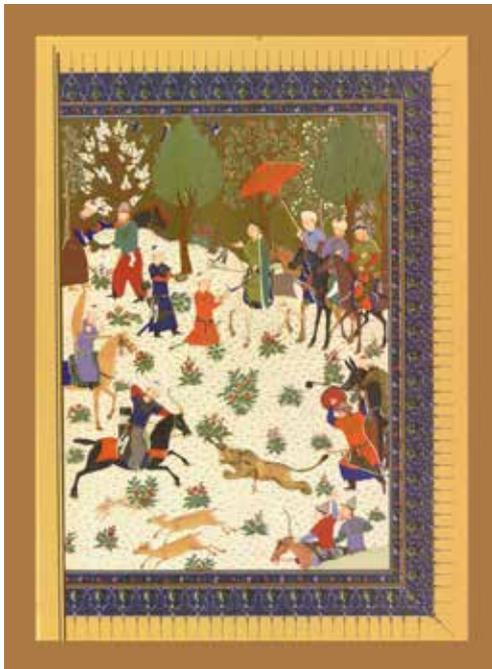
Figs. 1-22. Sample of Miniatures. Source: Ferdowsi, 1972.

Tables. 1-22.The specifications of the miniature Source: author.

Criteria	
Frequency	1+7
Species Diversity	7
Trunk Color	Brown
Leave Color	Green- white- pink
Species Type	Evergreen-non Evergreen
Position	1/3at the top
Area percentage	1/3

Criteria	
Frequency	1+6
Species Diversity	6
Trunk Color	Brown- Silvery
Leave Color	Green- white-pink
Species Type	Evergreen-non Evergreen
Position	1/3at the top
Area percentage	1/3

the data used in this method was numerical, then we can claim that the validity of this method had been established.

Miniature Paintings

Qomi, the medieval art theorist, describes the art of the miniature teachers of Tabriz as follows.

Rough designs, unbeautiful compositions, coarse painting, but "strange fantasies and odd motives.."

The Eastern Islamic Muslims' miniature paintings astonished and fascinated the West's artistic intellectuals as soon as it gained its recognition. Both prominent art enthusiasts and famous artists were fascinated by the artworks. For instance, Auguste Renoir was surprised how medieval expert painters managed to do the difficult coloring job. Henry Matisse was probably influenced by the art, changed his creative style. Vasily Kandinsky wrote in a commentary from Munich: "I do not believe that these have been made by a man!" It seems you are standing against something that has self- existence or is revealed from heaven. Its simplicity goes almost beyond the border and its complexity is dazzling ... He (the painter) has been able to make a simple and clear expression (Which is totally dominant and cannot be destroyed by anything, and we, Europeans, mistakenly try to design it as an ornament) and mix with all the fervent components."

No wonder why Arthur Pope, an artist and expert in the art of the East in 1930 (1309s), explained the sixteenth century miniaturist in this way: "The golden sky and silvery water, dark green cedars alongside white-flowered trees, autumnal leaves of the vast plains, bicolor horses in the brown-honey dessert, a gathering of people in red dresses, raspberries, lazuli, designed tiles, delicate designs and ghosts, bloomy gardens at the back of the great red fences make all the most comforting symphonies possible. In the miniature art, people used to add fresher to the color to have a sweet smell of musk or amber, they used the same colors with different concentrations and the background of the image had the flower color (Aleksei, 2011).

A Brief History of Herat School:

It is said that Timur was interested in drawing and designing books. He liked the Manichean school. No much work is available from the time of Timur. Under his patronage, the art of designing book became popular in Tabriz and Shiraz, especially in Herat. Among these, the Shiraz style of painting is the best manifestation of ancient Iranian art traditions.

In the workshops of Shahrokh Teimouri and Mirza, the achievements of the painters of Tabriz and Shiraz were influenced by Chinese paintings and resulted in Heart school. Baysunqur's Shahnameh exemplifies the Herat style. Maulana Khalil, Ghiasuddin, Mansour, Roohollah Mirk and Kamal al-Din Behzad are popular for Herat style. This style can be examined into two phases: The first phase of the Timurid School is characterized by softness, a harmony of blue and gold colors, and the freedom of peoples' movements and the naturalness of these statuses. Thereafter, there was a change in the style of Iranian painting and imagery. This style was replaced with a subtle style and poetry overshadowed the subjects of the paintings. The figures of the paintings, men and women, were delicately drawn and shown full of feeling. In the second phase of Timurids School, the paintings produced under the influence of Herat School were brighter and more subtle than the first phase and has a variety of colors (Sharifzadeh, 2014). Shahnamehs are the most important works of art in Iran. They were written at different periods. They usually explain the affairs of the Shah. Bayesnqari Shahnameh is about Baysunqur Mirza, the son of Shahrokh, in the Timurids. This work was written at his time and is currently being kept at the Palace of the Golestan Museum. It consists of twenty- two valuable miniatures, of which evidently a large part is missing (Ibid). Given that this book is about the most important people of their periods, the primary and important parts of the miniatures belong to the characters

Introduction

A look at the history of arts shows that the association among the arts of a nation has been well established because all arts are subordinate to the culture. In fact, art is an expression of the culture of a nation. Given that the Iranian people have long been familiar with religion and are essentially religious, it is expected that their artworks reflect the religion. Natural elements have long enjoyed special privilege in various religions in Iran. They are worshiped in a true sense of the word or regarded as a sign of deity. Some have also received a special attention and become symbolized.

Painting has long been a popular art in Iran and is a narrative of Iranian culture and customs. Regarding the importance of natural elements such as plants in Iranian culture, it is very likely that the painters include such elements in the miniature paintings. The number of miniatures that don't portray the plants is quite limited. Even in fewer, the plants have not received attention (Javadi, 2016).

From aestheticism to aesthetics, is the title of research in which the researcher sought to understand the very fundamentals of aesthetics in that art while analyzing the element of aesthetics in Iranian art. The current paper is an attempt to analyze the plants in the miniatures of Baysunqur's Shahnameh and present their specifications.

To this end, the researchers developed the selecting criteria based on the available elements in the miniature paintings. With reference to the total number of elements, we chose different intervals.

By examining the characteristics of plants in the miniature paintings of Baysunqur's Shahnameh, we attempted to discover the recurring patterns of the plant elements in this work.

Scope and purpose of the study

The scope of this research is the representation of Persian garden in other Iranian arts. In general, this research attempts to quantify the Iranian garden elements in the painting art. To this end, the role of plants in Iranian miniature paintings has been studied. In fact, we have attempted to evaluate the importance and presence of plants in the miniature. The purpose of this work is two-fold. First, we aimed at discovering what is brought to the paintings or what seems to be beautiful in the eyes of the artist and then, we discovered the rule behind the pattern of aestheticism" and indeed "aesthetics" of plant elements in Iranian miniature.

Due to a large number of Iranian miniature works in different time frames, we limited our study to Baysunqur's Shahnameh. The important point about Iranian miniature is that the painting style in the major miniatures of Iran is the same (Javadi, 2016). This is much observable in the miniature works created during the Timurid period. Due to the similarity among the painting styles of this period and the very long timeframe from which artworks are selected, we would be able to search for the similarities of the elements and discover the patterns among the works. Moreover, this study helps us have a better understanding of the way Iranian people interpret the universe.

Research Methodology

We adopted a deductive approach to the data and looked for the shared features in the samples (The miniature works of **Baysunqur's** Shahnameh) through quantitative method. In other words, the data analysis was carried out to discover the common rules for presenting the plants in the miniatures. After presenting the data numerically, we interpreted them. In so doing, we could discover the taste and aesthetics of the Iranian painter in the Timurid Age by analyzing a small part of his works and interpreting the analysis. As

Plant Aesthetics
in Baysunqur's Shahnameh

Hossein Parvin
Ph.D candidate in landscape architecture, University of Tehran, Iran.
hosseinparvin@gmail.com

Abstract

In the art world, there are some rules that cannot be easily expressed. Discovering the rules requires examining the artifacts and looking for fixed patterns among them. As the arts of each nation are a subdivision of its culture, the bilateral impact of the art and culture on each other are inevitable. Analyzing the certain rules in particular artworks show that the creators of the art have been influenced by those rules and interpreted the world through the lens of them.

The present paper is an attempt to analyze the plant, a main element of the Iranian Miniature paintings, quantitatively and discover their recurring patterns. We have limited the scope of the current study to two major parameters namely the plant and the miniature. Given the plentiful variety of plants, some were excluded. In the case of the miniature, just Shahnameh was analyzed. The reason for selecting this book was a limited number of miniatures on a specific topic and in a specific time frame.

The data analysis shows that Iranian people revere the nature as a holy sacred and nature is an important element in Iranian. Miniature art, as one of the most important Iranian arts, clearly depicts the status of nature among Iranians over time. Only a few miniatures have not included nature. One of the important elements of nature in these works is a variety of plants that are sacred and have a special value among the Persians.

Keywords