Original Research Article

A StylisticAnalysis of the Bordersof Iranian Rugs in the 16ᵗʰAD Century Based on Rug Weaving Centers*

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Abstract

Problem statement: The border of a rug asa frame of decorative systemsisindependent of its context and is a result of repeating a set of motifs with considerable visual capacities. The stable presence of borders with distinctive features in Safavid rugs can indicate the styles which define the context of each region's productions. Therefore, the differences of borders in any of the weaving regions can be considered as the product identifier. In this regard, two questions have been answered; What styles do the decorative elements of 10ᵗʰ-century rugs represent in productions of different regions? How doesthe cultural-artistic situation of the weaving areas relate to the dominant styles on the borders of the rugs?

Research objective: This study attempts to fill the gap onthe classification of rugs based on their borders. The main purpose of this study is to present the stylistic analysisof the rugs in the 10ᵗʰAHcentury based on the borders' differences to present the patterns of the original borderof each region to contemporary designers,who deal with regional rug designs.

Research method: This is qualitative research using structural content analysis based on library and Internet data. Fifty-seven Safavid rugs belonging to the 10ᵗʰ century (the period of Shah Ismail and Shah Tahmasb kingdoms) were selected from documentary sources in a purposeful and non-random manner. Based on the most frequent linear structures extracted from the borders (thirty-eight samples), the styles in association with them were defined.

Conclusion: By analyzing the visual systems governing the borders of the rugs, the dominant styles were introduced based on the dominant motifs (floral arabesque, cloudband arabesque, and animal fights) and dominant composition Ghalamdani, Pictorial,and Mayegan Herati). The continuity of a decorative motif or structure with various forms in the productions of different regions reinforced the idea that visual systems are identifiers influenced by the cultural backgrounds (religion, politics, and art) of the regions in which the art product has been developed.

Keywords: Safavid Rugs, Border, Decorative structure, Style.

Introduction

The flourishing of Iranian carpets coincided with the Safavid rule (1501-1736) and a considerable number of carpets were produced.In the Safavid era, huge workshops were set up to produce large carpets based on special orders and present to interested courtiers and groups (Sour-e-Esrafil, 2016, 22). The study of Safavid carpets and their structural analysis fromdifferent perspectives provides various criteria for their more specific evaluation.In all Safavid carpets, the fixed background-border structure is permanent. The borderis the margin of the carpet which createsa focus on the background and gives coherence to its shape.In her writing, Daryaie (2007, 107-108) statesthat the repetition of decorative structures in the borders creates a rhythm in the whole carpet and can matchthe carpet background design.Carpet borders with such a visualposition can be considered a suitable space for displaying decorative and conceptual systems. The carpets of the16th AD Century are theresult of promoting the art in the courtof ShahIsmail and Shah Tahmasp Safavid, and the supportive policies of the court in each period could have created visual and cultural changes in the products of the regions, compared to the periods before and after.In this article, the authors try to point out the visual power of the carpet's borders of the 16th AD Century as a thought-provoking feature in the regional productions of that era.Also, enumerating the differences in the structure of the borders can be considered a privileged indicator to differentiate the products of different regions.

Research method, hypothesis,and statistical population

The research method is qualitative and hypothesizingthat the carpets ofthe 16th AD Century have a high diversity in the decorative systems of the border, two main questions can be answered. What styles do the decorative carpet's borders of the 16th AD Century represent in the

products of the regions? How doesthe cultural-artistic situation of the Safavid weaving centers relate to the dominant styles on the borders of carpets? Data collection was based on library and Internet studies (museum portals) and structural discourse analysis is used. In this method, formal structures are identified and classified to reveal the characteristics of the index and its application in the samples can be described (Flick, 2009, 347-349). In the border analysis of carpets, samples without damage were required; therefore, purposive and non-random sampling was performed. Non-random selection of samples, limitation of study samples, and their complete analysis are the characteristics of sampling in qualitative research (Ranjbar, Haghdoost, Salsali, Khoshdel, Soleimani, Bahrami, 2012, 244). The statistical population only includes the carpets of the 16th AD Century in the library resources. The borders of 57 carpets were evaluated. The most frequent borders were presented from 38 linear samples ([19] samples with repetitive patterns that were not presented in the tables), analysis and production styles of five weaving centers in Iran (Northwest of Iran, Tabriz, Kashan, Kerman, and Eastern part of Iran) based on dominant motifs or decorative systems.The most frequent borders were presented from 38 linear samples (19 samples with repetitive patterns that were not presented in the tables), analysis and production styles of five weaving centers in Iran (Northwest of Iran, Tabriz, Kashan, Kerman, and Eastern part of Iran) based on dominant motifs or decorative systems.

Review of the related literature

Different studies have been done in connection with the frame in the art orborders of the carpet, some of which are as follows. Rahbarnia and Poryazdanpanah (2010) in "Analyzing the Role and Frame Borders of Afshar Carpets in Combining Georg Simmel's Attitude and Reflection Approach" discussed the border of the carpet, the reflection of society, and its type

of administration on the symmetry of nomadic carpet weaving. The border structure of Safavid carpets has not been discussed by researchers. Rashadi and Marasi (2011) in "Study of the position of margins in Qajar pictorial carpets" stated that the background of Qajar carpets, following the visualization of art forms, became illustrated media without removing borders and the statistical population studied by the authors has been Qajar pictorial carpets. Hesami and Hajizadeh (2020) in "Study of types of borders in Safavid period carpets" focusing on 57 Safavid carpets (16th and 17th AD Century) analyzed and described the border designs and temporal and regional classification has been neglected by the authors. It is obvious that the change in the supportive policies of the 16th and 17th AD centuriescould have affected the carpet weaving production in the centers. Ahmadi Payam, Afzal Tousi, and Keshavarzafshar (2020) studied "How to use borders in carpets (pile and pile-free) in Iran until the beginning of Islam" and examined the position of borders and the relationship between motifs, their dimensions, and size in borders with the text of pre-Islamic merchandise. In this study, 6 samples of the pile and pile-free pre-Islamic carpets were analyzed. In the leading article, the authors tried to provide a visual classification focusing on the products of different regions of Iran by distinguishing the carpets of the 16th AD Century (belonging to the rule of Shah Ismail and Shah Tahmasp) from the examples of the 17th AD Century. Accordingly, the audience progresses in analyzing the borders of the carpets and matching the samples with each other until achieving an identifier based on regional separation.

Developing Iranian rug weaving in 16th AD century

After the Timurids, Shah Ismail Safavid came to the throne in 1502 AD. After him, Shah Tahmasp came to power in 1523 AD and his reign (1523-1576 AD) lasted more than half a century and many structural changes took place in Iranian society, culture, and art. Shah Tahmasp established many textile factories such as carpets. During the reigns of Shah Ismail and Shah Tahmasp, Tabriz, Kashan, and Herat were among the largest centers of carpet weaving, and the best carpets were woven in royal workshops (Dimand, 1986, 261). Black has also considered Kerman as the center of carpet production and has considered the function of these products to be equipping royal palaces or political-propaganda gifts (2015, 76). Some introduced Shah Tahmasp as familiar with the details of dyeing, carpet weaving, and design (Allahverdian Tousi, 1992, 120). On the other hand, the production of a considerable number of parts in this period indicates the support of the court and the employment of excellent map designers. Thus, a nascent approach to carpet weaving was formed based on the process of transforming carpets from non-courtly products into magnificent art.Ian Bennett considers this change as the replacement of curved designs with geometry during the 16th AD Century. She attributes this development to the free imagination of designers, the departure from the rule of ethnic customs, and the production of products to furnishroyal palaces,With the mentioned allusions, it is necessary to analyze the visual quality of the borders affected by emerging changes in relation to the carpets in 16th AD Century in five regions (Northwest of Iran, Tabriz, Kashan, Kerman and Eastern part of Iran). Political gifts, the exchange of goods, and European orders (2004,44-45).

• Analysis of the borders of 16th AD century rugsin the northwest of Iran

The northwestern provinces of Safavid Iran were the center of carpet weaving, and the variety of its carpets is due to indigenous designs influenced by court orders. Eight carpets from this area are listed in Table 1. Their main border structure consists of a geometric floral Arabesque pattern (Table 1, No. 3-4) and a curve (Table 1,

Table 1. Samples of the 16ᵗʰ AD Century Rugs of Northwest of Iran with Linear Structure of the Borders. Source: Authors.

No.	Rug Image	Image ID	Linear Structure	No.	Rug Image	Image ID	Linear Structure
1		Garden Rug, Vienna Museum of Industrial Arts. Source: Bassam, Farjoo & Zorieh Zahra, 2004, 34 Main Border: Geometric Herati		5		Tree Rug. Source: Pope & Akerman, 2008, 1126 Main Border: Floral Arabesque Sub-Border: Khatai	
2		Lachak- Toranj Rug. Source: Pope & Akerman, 2008, 1114 Main Border: Geometric Framing (Khatai and Arabesque) Sub-Border: Khatai- Arabesque		6		Toranj Animal Rug. Source: Bassam et al., 2004, 46 Main Border: Floral Arabesque Sub-Border: Herati (Khatai)	
3		Hunting Rug, Poldi Pezzoli Museum. Source: Bassam et al., 2004, 35 Main Border: Floral Arabesque Sub-Border: Khatai- Arabesque		7		Prayer Rug. Source: Pope & Akerman, 2008, 1165 Main Border: Floral Arabesque Sub-Border: Herati (Khatai- Arabesque)	
4		Lachak- Toranj Rug, Gulbenkian Museum. Source: Black, 2015, 77 Main border: Floral Arabesque Sub-border: Khatai		8		Prayer Rug. Source: Source:https://www.metmuseum.org/art/collection/search/446951 Main Border: Khatai-Arabesque Sub-Border: Khatai-Arabesque	

No. 5-7), a knotted geometric pattern (Table 1, No. 2), and a single-border Herati geometric pattern (Table 1, No. 1) with square and oblique petals. The composition of Herati, two-fish and round flower (with a human face) was in the middle, which changed from fish to leaf during the Islamic period. Pope & Akerman considered some examples (Table 1, No. 1 & 5) as a traditional and local pattern in the production of northwestern Iran, which could be the basis of special innovations for the production of royal carpets (2008, 2648). The strong efforts of local artists to satisfy royal desires led to the transfer of professional designers from other art centers and the strengthening of traditional-decorative reserves. The main borders of the carpets in this group (Table 1, No. 7 & 8) consist of two parts, the lower half with floral decorative systems (Khatai and Arabesque) and the upper half with written motifs (Quranic verses and religious rites). Floral Arabesque as the dominant array and various plant (Khatai) motifs are secondary and complementary arrays on the borders carpets of the northwest. The sub-borders do not have a stable pattern compared to the main borders.

• **Analysis of the Borders of 16th AD Century Rugsof Tabriz**

Tabriz, the capital of the Safavids, was one of the major centers of carpet production in the northwest of Iran. Two kings interested in carpet weaving (Shah Ismail and Shah Tahmasp) ruled in this area. Cyrus Parham (2020, 93) believed that the glorious period of carpet weaving in Tabriz and its royal workshops has flourished. Workshops where the production of their court products was based on the presence of high-ranking artists who came to the Safavid capital by order of the King or of their own free will to benefit from the court support. Twelve carpets of Tabriz in the 16ᵗʰ AD Century were presented

in Table 2 based on the library documents. Qalamdani border consists of interconnected frames, one of the most frequent borders in Tabriz carpets (Table 2, No. 5-12). Qalamdani structure is adapted from the form of armbands or belts of Iranian heroes and is often repeated in the borders of carpets (Daneshgar, 1993). Connected frames mainly contain plant, animal, and talim(in poems) motifs and their complementary motifs

are plant arrays (Khatai- Arabesque) between the frames. The Reciprocating design is one of the common patterns of Tabriz carpets border (Table 2, No. 1), which is the result of the intermittent inverse placement of thecloudband arabesque in two different colors. The reciprocating design before the 16th AD Century was common in imitation and painting (Pope & Akerman, 2008, 2649-2650). But Cyrus Parham (1985,

Table 2. Samples ofthe16th AD Century Rugs of Tabriz with Linear Structure of Borders. Source: Authors.

No.	Rug Image	Image ID	Linear Structure	No.	Rug Image	Image ID	Linear Structure
1		Toranj-Toranj Rug. Source:https://collections.vam.ac.uk/item/O85144/the-chelsea-carpet-carpet-unknown Main Border: Medahil (Arabesque-Khatai-Animal) Sub-Border: Arabesque and Khatai		7		Toranj Rug. Source: Pope & Akerman, 2008, 1158 Main Border: Qalamdani (Arabesque- Khatai-Written) Sub-Border: Arabesque-Khatai	
2		Toranj Rug. Source: Bassam et al., 2004, 40 Main Border: Arabesque-Khatai-animal Sub-Border: Khatai		8		Toranj Rug. Source: Pope & Akerman, 2008, 1159 Main Border: Qalamdani (Arabesque-Talim) Sub-Border: Khatai-Talim	
3		Arabesque Toranj Rug. Source: https://www.metmuseum.org/art/collection/search/450716 Main Border: Arabesque-Khatai Sub-Border: Arabesque-Khatai		9		Lachak-Toranj Rug. Source: Pope & Akerman, 2008, 1153 Main Border: Qalamdani (Talim-Animal-Khatai) Sub-Border: Arabesque-Khatai	
4		Lachak-Toranj Rug. Source: https://www.vam.ac.uk/articles/the-ardabil-carpet Main Border: Qalamdani (Arabesque-Khatai) Sub-Border: Arabesque-Khatai		10		Toranj Rug. Source: Pope & Akerman, 2008, 1162 Main Border: Qalamdani (Talim-Khatai) Sub-Border: Khatai	
5		Tree Frame Rug. Source: Pope & Akerman, 2008, 1143 Main Border: Qalamdani (Arabesque-Khatai) Sub-Border: Khatai		11		Toranj Rug. Source: Bassam et al., 2004, 44 Main Border: Qalamdani (Animal-Khatai-Human) Sub-Border: Khatai	
6		Lachak-Toranj Rug. Source: Bassam et al., 2004, 42 Main Border: Qalamdani (Arabesque-Khata-Talim) Sub-Border: Khatai		12		Animal-Toranj Rug. Source: Pope & Akerman, 2008, 1151 Main Border: Floral Arabesque and Animal Sub-Border: Khatai	
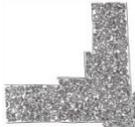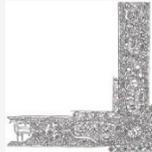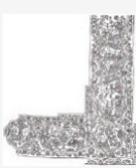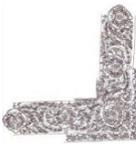
35) believes that the basis of this hypothesis is only the presence of borders, flexibility, and hunting design carpet in the design of the cover of ancient books (similar to the structure of the carpet), without considering the limitations of the art of imitation. Although the most prominent painters in their works depicted some aspects of carpets, Behzad depicted the interconnected frames of the borders of the carpets, and Qasem Ali Chehreh Gosha his tasteful colleague, showed the composite borders (Fig. 1) with the delicacy of the image (Pope & Akerman, 2008, 2664-2665). The prevalence of the mentioned visual systems in Tabriz art workshops shows the two-way adaptation of the arts due to the artists' relationship with each other and their interest in depicting these patterns.In the Tabriz
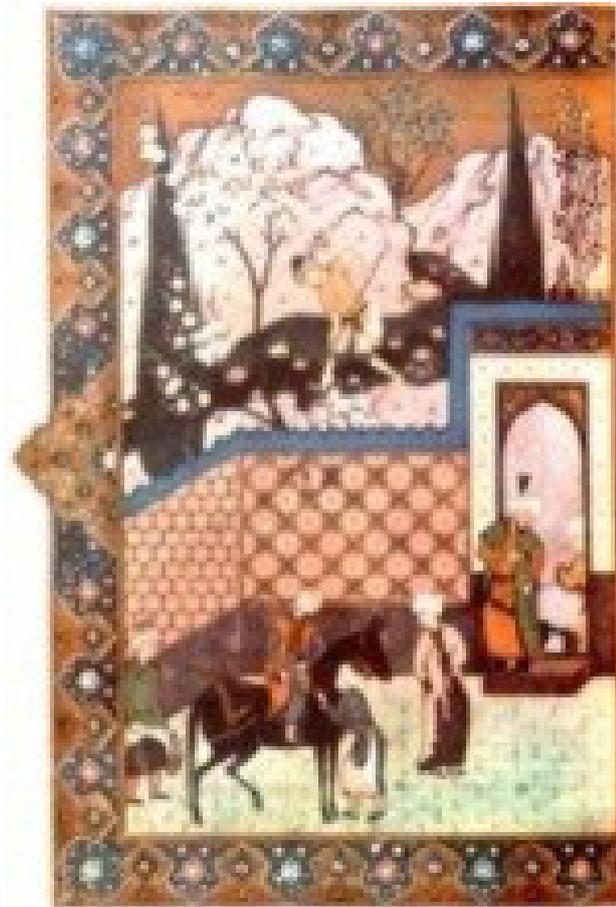
Fig. 1. Yusuf and Zulaikha, Khamsa of Nizami, 16th AD Century, Qasim Ali Chehregosha, Reciprocating plan in the border. Source: Monshi Ghomi, 1973, 133.

rugs borders, the predominant combination of Qalamdani borders and floral decorations (floral Arabesque, cloudband Arabesque, and Khatai) and animal are secondary arrays.

Analysis ofthe borders of16ᵗʰ AD century rugs of kashan

Kashan silk carpets, dating to approximately 1539 AD, can be related to the logical organization and reputation of this region for the production of silk weaves (Yar-Shater, 2005,80). Kashan has long been famous for its silk weaving and from the second half of the 16th AD Century, it became famous for producing delicate silk carpets withperfect finesse (Parham, 2020, 95). Eight pieces of Kashan carpets belonging to the 16th AD Centuryare presented in Table 3. The most noticeable pattern of borders in them has a pictorial system; that is, they have a narrative and asymmetrical structure in the details of the designs. These systems contain extraterrestrial scenes (Table 3, No. 1) or narrating a royal feast (Fig. 23). In some borders (Table 3, No. 4-8) there are shield frames with Shah Abbasi flowers and plant and animal arrays among them.Khatai design with animal motifs and Vaq design is also visible in the borders (Table 3, No. 6). The Vaq Mayegani design, including plants with faces, was one of the principles of Persian painting in the borders of the paintings of 16th AD Century and was used as decorations for buildings, carpets and tents in the paintings of the Shiraz and Herat schools (Koechlin & Migeon, 1987, 21). The Safavids used the decorative achievements of the Herat school to reinforce the practical systems in Tabriz art (Azhand, 2015, 179). The tradition of using multi-layer decorative pragmatics is not evident in Kashan examples. In Kashan carpets, the dominant arrays in the borders are more prominent than the dominant decorative composition, and these samples were distinguished from other products due to the high density and delicacy of the designs.

Table 3. Samples of the 16th AD Century Rugs of Kashan with Linear Structure of the Borders. Source: Authors.

No.	Rug Image	Image ID	Linear Structure	No.	Rug Image	Image ID	Linear Structure
1		Hunting Rug. Source: Pope & Akerman, 2008,1191 Main Border: pictorial Sub-Border: Khatai		5		Animal Rug. Source: https://www.metmuseum. org/art/collection/ search/446642 Main Border: Khatai and Animal Sub-Border: Arabesque-Khatai (Herati)	
2		Hunting Rug. Source: https://collections.mfa.org/ objects/49170/hunting-carpet Main Border: Pictorial Sub-Border: Khatai-Arabesque		6		Animal Rug. Source: Bassam et al., 2004, 60 Main Border: Khatai (Vagh Design) Sub-Border: Khatai (Herati)	
3		Lachak-Toranj Rug. Source: Pope & Akerman, 2008, 1193 Main border: Khatai and Blooming trees Sub-border: Khatai-Arabesque		7		Animal Rug. Source: Bassam et al., 2004, 61 Main Border: Khatai and Animal Sub-Border: Qalamdani/ Herati (Khatai)	
4		Lachak-Toranj Rug. Source: Pope & Akerman, 2008, 1197 Main Border: Khatai Sub-Border: Khatai-Arabesque		8		Lachak-Toranj Rug. Source: Pope & Akerman, 2008, 1201 Main Border: Khatai Sub-Border: Khatai	
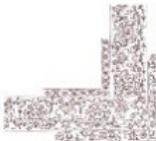
• Analysis of the borders of 16th century rugs in kerman

Based on the documents of the libraries of six carpets attributed to Kerman in the 16th AD Century, they were presented according to Table 4. Some of them belong to the Twelve Collection of Sanguszko rugs (the name of the owner of the most luxurious piece) (Bennett, 2004, 48). They were woven inthe late 16thAD Century (Pope & Akerman, 2008, 2695). Border ornaments are mainly floral Arabesque and Khatai (Table 4, No. 1 & 5), animal fights and animal heads (Table 4, No. 2 & 4), and human figures (Table 4, No. 6) in separate frames. Animal fights are formed in a structure based on alternating animal and plant systems (Yar-Shater, 2005, 82). He attributes the richness and complexity of the compositions to the gilding, but some attributethe designers of these carpets to silk weavers or painters (Pope & Akerman, 2008, 2696-2698). The distinctive feature of Kerman carpets is the combination of both composition and dominant drawings. Summary of Herati Mayegan based on broad-flowered Arabesque, dominant composition, and scalloped frames, and animals involved are considered to be the dominant arrays in these specimens.

• Analysis of the borders of eastern Iranian rugsin 16th AD century

The most important center of carpet production in the Eastern part of Iran in the 16th AD Century was Herat as thecapital and main city of Khorasan province. According to the decree issued by Shah Tahmaseb in 1544 AD that in the reception of Humayun, the king of the Timurids of India, "Khorasan silk carpets will be developed", it turns out that luxurious silk carpets were produced in eastern Iran (Kiani & Afshar, 1981, 816). Edwards

Table 4. Samples of the 16th AD Century Rugs of Kerman with Linear Structure of the Borders. Source: Authors.

No.	Rug Image	Image ID	Linear Structure	No.	Rug Image	Image ID	Linear Structure
1		Lachak-Toranj Rug. Source: Pope & Akerman, 2008, 1205 Main Border: floral Arabesque (animal involved) Sub-Border: Herati(Khatai and Vaq)		4		Animal-Toranj Rug. Source: Black, 2015, 79 Main Border: circular frames (Animal fights) Sub-Border: Herati (Khatai)	
2		Lachak-Toranj Rug. Source: Pope & Akerman, 2008, 1206 Main Border: Circular Frames (Animal fights) Sub-Border: Herati (Khatai and Vaq)		5		Round carpet with plant motif. Source: Pope & Akerman, 2008, 1212 Main Border: Khatai-Arabesque Sub-Border: Herati (Khatai)	
3		Animal-Human Frames Rug. Source: Bennett, 2004, 61 Main Border: Qalamdani (Khatai and Animal Motifs Sub-Border: (Khatai and Vaq)		6		Pictorial Rug. Source: Bassam et al., 2004, 58 Main Border: Khatai and circular frames (human motifs) Sub-Border: Herati (Khatai andVaq)	

Table 5. Eastern IranianRugs in 16th AD Century with Linear Structure of the Borders. Source: Authors.

No.	Rug Image	Image ID	Linear Structure	No.	Rug Image	Image ID	Linear Structure
1		Afshan Rug. Source: Bassam et al., 2004, 59 Main Border: Herati (Khatai) Sub-Border: Herati (Khatai)		3		Afshan Rug. Source: Pope & Akerman, 2008, 1186 Main Border: Floral Arabesque Sub-Border: Qalamdani (Arabesque)	
2		Afshan Rug. Source: https://www.metmuseum.org/art/collection/search/450509 Main Border: Khatai- Arabesque Sub-Border:Arabesque -Khatai		4		Floral Rug. Source: Bassam et al., 2004, 68 Main Border: Khatai Sub-Border: Khatai/ Geometric Chain	

(1989, pp186-187) believes that the writings of tourists and painters indicate the support of carpet weavers in this region. Four pieces of carpet of the Eastern part of Iran in the 16th AD Century are presented in Table 5. The decorative structure of the borders of these carpets mainly consists of Herati plant compositions. Distinctive imagesof these borders are Shah Abbasi ridged flowers and leaf-shaped. The combination of the dominant array and composition is evident in the borders of the eastern carpets. Arrays of Shah Abbasi flowers are leaf-shaped and jaded-leaf which are the predominant composition of Herati. The structure of Herati in the borders of Iranian carpetsmainly consists of Shah Abbasi flowers with curved branchesdivided by those that were used in the main and secondary borders of carpets in eastern Iran.

• **A Stylistic Study ofthe Borders of Rugsin 16th AD Century**

The structure of the rug can be distinguished by environmental, geographical, and indigenous factors.Indicative formal components in a work

or group of works of art are called style or style of art, which must refer to a single expression with an integrated connection (Pakbaz, 2002, 298). Style is the principle of harmony to unify works of art in a category or collection (Gell, 2011, 224). Pope & Akerman (2008, 2265) statethat the style of carpet should, along with its traditions, cultural status, and geography, reflect the characteristics of the society that created the product, and the temporal and spatial separation of products determines the cultural boundaries of the time. Thus, it can be said that the artistic styles that have emerged throughout history represent the tendencies of the groups and classes that create them (Alexander, 2011, 114). Every work of art in the process of formation is consistent with the environmental, cultural,and historical conventions of its time. The importance of cultural requirements in the creation of works of art is such that the individual taste of the artist is notable to ignore the aesthetic frameworks focused on the cultural components of its time and place. Therefore, the function of artistic style in relation to its community does not depend only on the artist, and in fact, according to Duvignaud (2000, 76), style is formed based on a collective expectation. Carpet borders as part of a work of art can also be a lasting element to present style. Border styles in the the16th AD Century rugs can be defined by focusing on the predominant primary arrays (floral Arabesque, cloudbandArabesque, animal fights) and dominant compositions (Qalamdani, pictorial,and Herati). Some are specific to one area (pictorial) and some are all-encompassing (Qalamdani, Herati or floral Arabesque) and differ in the density of patterns and placement in the borders. The mentioned cases are reproducible formal identifiers whose stability in the borders, in addition to being the distinguishing feature of the products ofone or more regions, are also considered as the cultural identity of the production centers. The study areas are the cultural predecessors of Iran in 638 the

16th AD Century and areaswhich were pioneering to promote cultural components (religion, politics, and art). Geometric floral Arabesque style with a focus on traditional structures in the borders of Iran's northwestern carpets can be related to the traditional and religious approach of the region. In this area, the city of Ardabil is the religious capital of the Safavids which with the advent of Sheikh Safi al-Din Ardabili, became known as Daral-Ershad and was always the center of Sufi gatherings (Baba-Safari, 1991, 84-85). Thus, the structure of floral Arabesque stability in the borders can indicate the religious (Shiism) and traditionalmotives of the producers. Azhand (2015, 49) says that Zina al-Abedin, Ali Abdi Beigi, known as Navidi Shirazi, was one of thepoets and historians of the Safavid era (Safavi, 2009, 95) which in his Masnavi focus on the decorations of the palaces of Shah Tahmasp and has mentioned Islamic or Arabesque. Also, in his introduction to Bahram Mirza'sscrapbook dated 1544 AD, Dost Mohammad Hadravi refers to Navidi's claim that an Arabesque invention was attributed to Imam Ali (as). Therefore, the repeated use of a fixed decorative pattern can be related to the cultural-religious background of the region.Tabriz was also known as a region of style due to its Qalamdani borders (Talim, plant motifs). For a while, this city was the capital of Safavid and until the end of this dynasty, it was the second most important city in terms of religion, politics, and culture.The city of Tabriz was religiously and demographically diverse, and the creation of unity at the center of this diversity became a lofty goal through the language of a single-focused art. The texture of carpets and the reproduction of decorative patterns arising from Persian literature, based on the theatrical capacity of the borders of carpets, emphasizesthe position of Tabriz as the cultural-political capital of the Safavids. In the margins of Kashan carpets, the pictorial style with rich and dense paintings can refer to the artistic background of this region.

Ravandi (2008, 396-397) has emphasized the production of silk carpets in Kashan and the transfer of the art of carpet weaving from this city to India. With the return of Humayun of the Mughal Empire to India (1544 AD) with the designers and weavers of Ardabil, Kashan,and Khorasan, the school of Iranian carpet weaving was established in India. Kashan was also a Shiite city and interested in Safavid rule. The court sculptures with the covering components of the Ghezelbash, the symbol of the ethnic structure and the Shiite supporters of Shah Ismail and Shah Tahmasp, are among the visual contracts of the visual borders of Kashan carpets.Elegance and excellent bordercharacteristics in Kerman carpets can be evidence of Kerman's outstanding artistic position. The artistic background and proximity of this region to the art centers of the East (Khorasan) and the center (Isfahan and Kashan) caused Kerman to become a thriving artistic center.In Kerman, industries such as carpet weaving and shawl weaving had a special place. During the Safavid period, weaving workshops were established in Kerman and weavers were an important social class. The wealthy classes were the shawl and carpet merchants and the common people were shawl weavers and carpet weavers (Najm Al-Dini, 2006, 67). The existence of Herati style based on local arrays on the borders in 16th AD Century rugs in eastern Iran is related to the cultural-artistic background of Herat city. The Safavids inherited the art schools of eastern Iran, and the production of works based on a solid basis of the cultural life of the Timurids guaranteed the excellent quality of the visual components. Ian Bennett (2004, 49) says that in the first two decades of the 16th AD Century, many leading artists such as Mirak, Mirza Ali, Sultan Mohammad, and Mirseyyed Ali left Herat for Tabriz, the capital of the Safavids andKamal al-din Bihzad was appointed head of the court library. However, the increasing complexity of the carpets produced in the first decades of

the Safavid dynasty was due to the presence of veteran artists and designers, and the presence of decorative treasures in this area paved the way for the emergence of later magnificent works. The Safavids were the only determining authority through which the arts had the opportunity to emerge and flourish. Thus, the reproduction and repetition of some visual patterns became the products of regions with religious, cultural-artistic, and political status, and the cultural management of the Safavids in those states was provided.

Conclusion

The visual foundation of the carpet is formed based onborders and text and it is possible to classify them based on distinct identifiers in each section. In response to the first question of the article, based on the identification of styles in the production of different regions and decorative arrays of the borders of 16th AD Century carpets, 57 pieces in 16th AD Century carpets were examined. Repetitive systems based on the dominant array or combination in the main border were identified as distinctive features of regional production and style. Relying on the linear structures extracted from the samples (38 pieces), the mentioned styles in the borders of the carpets with the focus on the system of repetitive primary arrays including floral Arabesque styles, cloudband Arabesque, and animal fights and the style based on the predominant combination system including Mayegan Herati, Qalamdani and Pictorial. Based on this, 6 styles were obtained in the set of studied borders. In response to the second question about the relationship between the styles governing the borders of the carpets and the cultural-artistic situation of the weaving areas, it was established that in designing the borders of the carpets of the five regions studied, significant styles of the six mentioned styles prevail. Geometric floral Arabesque style can be found in rugs on the northwestern of Iran, Qalamdani style

(Talim and plant motifs) in Tabriz rugs, pictorial style in Kashan rugs, and Herati style in the eastern part of Iran rugs. Since carpet production is not an individual process and is considered a collective process, it can be a set of collective representations arising from the society of its time. Accordingly, the continuity of the display of special characteristics in a part of the works of art of a region is a category that follows the cultural and aesthetic taste of its time. Therefore, the presented styles based on the borders of the carpets of each region are an identity that makes the works easy toberead based on the cultural background of the region in which they were produced. With the dominance of the mentioned styles in each region and the analysis of the cultural background of the regions producing the studied carpets, the possibility was strengthened which the five centers were prominent from three perspectives: cultural-political (Tabriz), cultural-religious (Northwestern and Kashan) and cultural-artistic (Kashan, Kerman, and Herat).Designers and weavers in these regions, by establishing the cultural-artistic characteristics of the societies of their time, found the ability to achieve the emergence and development of sustainable and purposeful styles in various aspects of works of art, such as carpet borders.

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