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Identifying Factors Affecting Bannai Kufic Script Sustainability in Modern Times, and its Course of Use in Logotype Design

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Abstract

Bannai Kufic script is made up of repeating geometric units in vertical, horizontal and parallel forms over a grid (ruler1) and due to the unique visual aspects and its close relationship with architecture, it has many features to be used in contemporary art. This article is about the identification of effective factors on Bannai Kufic script sustainability in modern times and its use in logotype design. By studying structural and geometric properties of the script, the reason for its sustainability as a traditional script with a new spirit can be examined, and extend these properties to logotype design. The structural feature of this line, certain relationships and interaction between savad2 and bayaz3, its simplicity and explicitly of components, having clarity in logic, readability and lack of thickness variations, non-vowel, a traditional history and modernization capacity, the ability to change its positive and negative spaces and textures, has established a set of unique features in this script that makes it suitable for use in the visual arts, especially logotype design.

In addition, simplicity, logical order, cryptography, equal thickness of black and white spaces, proportionality in letter composition, use of flat surfaces, vertical horizontal, and parallel movements, and ability of creation positive and negative spaces, high elasticity and evoking geometric forms, having the highest capacity for layout and composition, alphabetical letters variability in terms of layout and using minimal words, positive and negative spaces and textures are among inherent characteristics of this script, which in modern times, they can have valuable, effective and modernized role and simply be used for textual graphics and logos by modern graphic designers.

Research objectives

Identifying effective factors in Bannai Kufic script survival

Identifying the most important formal and structural features of Bannai Kufic script for logotype design. Research questions:

Which are the effective factors in Bannai Kufic script survival?

Which aspects of Bannai Kofi script structural features can be used in logotype design?

Hypothesis

It seems that Bannai Kufic structural form is responsible for its modernization in modern times, and this script can meet the needs of visual communication of modern times.

Keywords

Bannai Kufic, Structural capability, Savad and Bayaz, Text logo.

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Research framework

Part of the sustainability of Kufic script lies in Bannai Kufic script, as the script has had features of the structural aspects from the past to the present time, and its course of use is still running. Bannai Kufic script has a special place in Iranian architecture, and compared to other Islamic scripts, it includes principles of visual communication. This point can be stated that most visual elements (point, line, form, texture and color) are used in Bannai Kufic script, accordingly, for various cultural and religious reasons and due to structural features of this script, it can be used to create artworks, including logotype design in modern times. Unfortunately, research in this field is very limited and only some brief references in relation to this script are given. Most studies in this field are mostly referred to historical and content aspects of Bannai Kufic script and its aesthetic aspects are less discussed. Some researches done in connection with this script include:

1. An article on Bannai and Magheli scripts in Iranian architecture, written by Hussein's Zomarshidi in 2002, published in the Journal of Art Education. In this paper, a history of Bannai Kufic and its application in Iranian architecture is discussed.

2. Another article by the same researchers under the title of evolution of Bannai script in Safavid architecture with an emphasis on decorative inscriptions of Hakim Mosque of Isfahan in 2011, published in the Journal of Islamic arts. In this article, the aesthetic aspects of the script in inscriptions has been discussed.

3. An article under the title "Roots of script symbols in traditional calligraphy", 2004, by Aboreza Chaarei, in 2004, published in the Journal of Art where traditional calligraphy and design of text symbols based on universal terms are discussed.

4. An article under the title "Tiling art and Bannai script" by Saeed Hakimi in 2001 published in Journal of Art, which mentioned a brief history of using this script in tiling.

In addition, several thesis which include references to Bannai Kufic contents can also be mentioned,

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such as:

1. "Bannai and Magheli Kufic scripts in Hakim Mosque of Isfahan and inspirations to create functional ceramics", by Amin Khodadadi, supervisor: Omid Ghajarian and Doctor Ali Bavandian, 2012, Isfahan Art University.

2. "Graphics characteristics of Bannai Kufic inscriptions in Jama Masjid of Isfahan", by Motahhar Radi, Supervisor: Abdoreza Charei, 2010, Shahed University.

3. A thesis titled "Graphic principles of letters in Kufic inscriptions of Seljuk buildings" by Ali Bakhtiari, Supervisor: Seyyed Abu Torab Ahmad Panah, 2002, Tarbiat Modarres University.

In all of the researches, the historical aspects of this script is mentioned, and in most cases, practical aspects of the script in inscriptions decorations of buildings are also mentioned. However, in none of the researches, the factors affecting the sustainability of the script and its course of use in logotype4design has been studied.

On this basis, in this study which is done in descriptive analytical method, we have tried to identify the factors affecting the sustainability of this script and the course of these capabilities in contemporary logotypes is scrutinized. In this context, questions have been raised, such as:

What are the factors affecting sustainability and novelty of Bannai Kufic script?

Which structural aspects of Bannai Kufic script can be used in the logotype design?

This study is based on the following hypothesis: Kufic script and its letters, despite its antiquity can play a very efficient role as a modern graphic element in contemporary world of art, due to its inherent relationships, graphic discipline, elegance and visual capacity. Therefore, it seems that structural form of the Kufic script caused it to play a very efficient graphic role in the field of written graphics, hence, the script can meet the demands of contemporary visual communication. This article tries to discuss its capabilities and visual elegance.

Therefore, in this paper, first a brief history of

Bannai Kufic script is provided, then the formal and structural capabilities that have great influence on the sustainability of the script are proposed, and the course of using these features in contemporary logotypes is analyzed.

Introduction

From the dawn of Islam to the present day, calligraphy has been one of the finest types of visual arts and has had a special place. The value of this art owes to scribing Quran, and its glory is certainly related to Islam. With the spread of Islam, Arabic calligraphy spread over other nations and gradually it included many innovations and developments. One of the oldest Islamic scripts is the Kufic script, which has the history as old as the rise of Islam. The script was originally used to script the Quran and throughout the time, it developed variations. Each variation had a unique application, of which the most important one was scribing texts, especially religious texts and the word of God; it also had applications in architecture and decoration of buildings. One of the prime variations of this script is Bannai Kufic script, which due to its frequent use in architecture, it is also known as Magheli, architectural, unique, square, rectangular and overlapping.

About Bannai Kufic script

Kufic script that culminated in the second half of gh has different types. One of them is called Bannai Kufic (Magheli) which is employed in many ancient monuments and mosques, especially the Timurid and Safavid periods in Isfahan and Mashhad and other locations. It is said that rectangular or square-shaped movements of the letters, distinguishes this type of Kufic from other types (Makinejhad, 2008: 87). It can be said that Bannai Kufic is one of the oldest types of Kufic scripts which is employed in Seljuk period for decoration of buildings and dome roofs (Fazayeli, 1983: 160; Imani, 2006: 208). This script is the undecorated type of Kufic, has rectangle and sometimes square movements, which great care is taken in selecting these angles, so that it creates a complete geometric design. It is also known as Bannai, and terms such as Magheli, Benaee, unique, square, rectangular and overlapping is also used (Bahramzadeh, 2003: 87). In fact, it can be argued that the Kufic is the first fine and regulated script that is used in several volumes of Quran, and many of these volumes are survived to this date (Fekrat, 1998: 1). Multiple applications of Kufic script can be observed in places such as: scripting Quran, Islamic coins and especially in building inscriptions for decorating tombs, schools and mosques.

Bannai Kufic is divided into three categories: easy, medium and difficult. According to Habibollah Fazayeli, in the easy form, the text is written freely on a geometric surface in rectangular or square movements while wide spaces and voids are filled with additional lines. In moderate Kufic, the script and background is written in a way that there is not much spaces and extra lines, and the script is written evenly and in parallel. In difficult type of the problem, besides the accuracy and order, Savad and Bayaz should be also maintained and be read, and this type is usually called overlapping Kufic (Fazayeli, 1983: 160). Figures 1 to 3 are examples of these scripts.

This script consists of straight and smooth lines placed horizontally and 180 degrees with acute angles and black and white balance has to be observed as a rule (Yarshater, 2005: 35). As the script reached perfection it became known as Magheli. (It does not have. The blueprint of Magheli script is drawn on a plaid page, and then it is tiled using brick or tiles. The dominant material used is brick (adobe). In Magheli script there is no round5 and all of the words are level (Heravi, 1967; Fazayeli, 1983: 161). On space values and positive and negative reules in Bannai script, in the book Thfatol Mohebbin it reads:"... and in the old times the mentioned title was written in Magheli script which is all in surface and has no round, and the best Magheli script is the one of which Savad and Bayaz can be read" (Ahmed Shirazi, 1997: 911). This script is used in buildings' interior façades for capital corners and plinths, and in exterior columns it is used for back-sides, as well as vertical and

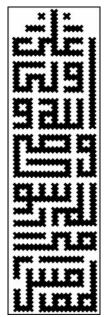




Fig. 1.a. Example of Easy Bannai Kufic (simple). The courtyard of the Jameh Mosque of Isfahan. Source: Halimi, 2011: 165.

Fig. 1.b. Example of Easy Bannai Kufic (simple). The courtyard of the Jameh Mosque of Isfahan. Source: Halimi, 2011: 165.

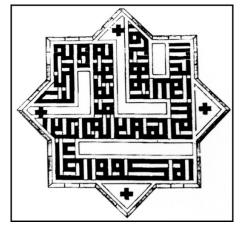


Fig. 3.a. Example of difficult Bannai Kufic script, Tohid Sura is written on the capital of Goharshad Mosque external façade, Imamreza pigrims complex. Source: Mosadeghian, 2005: 75.

horizontal inscriptions on finals, domes surface, and base of the domes as rotated inscriptions in different shapes decorated with Savad and Bayaz, bergamot and flowers (Hakimi, 2001: 103).

In general, geometric structure of the script distinguishes its application and concepts from other fonts, in addition, due to its excellent visual effect,

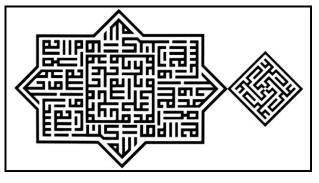


Fig. 2.a. Example of medium Bannai Kufic script, it reads: Muhammad, Ali, Allah, Sohan Allah, Ali Vali Allah, Jame Mosque of Isfahan. Source: Halimi, 2011: 245.

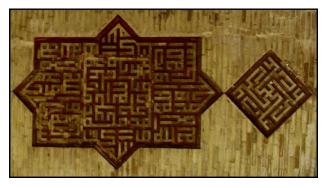


Fig. 2.b Example of medium Bannai Kufic script, it reads: Muhammad, Ali, Allah, Sohan Allah, Ali Vali Allah, Jame Mosque of Isfahan. Source: Halimi, 2011: 245.



Fig. 3.b. Example of difficult Bannai Kufic script, Tohid Sura is written on the capital of Goharshad Mosque external façade, Imamreza pigrims complex. Source: Mosadeghian, 2005: 75.

and its long vicinity with religious texts, as well as simultaneous application in architectural spaces in different periods, the script has created many visual and cultural values.

Structural Analysis of Bannai Kufic script Considering that the Bannai Kufic script is always drawn on a network, it has many geometric and structural features that can be used in different arts. In terms of form, the script has flat surfaces, angled curves, and a constructive structure, and according to the frame on which is formed, it accepts variations. Hence, it has many capabilities in creating positive and negative spaces, huge pliability and a large capability for encrypting text. Iranians begun using Bannai Kufic with a square grid (plaid).

Bannai Kufic script has had properties that had a

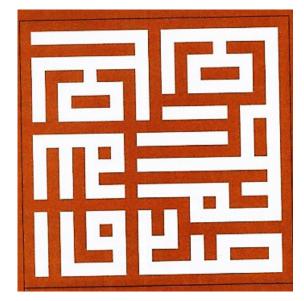


Fig. 4.a. An example of Bannai Kufic script using a grid with the term "Sadaqallah al-ali al-azim" (Believe God Almighty). Source: Shahidi, 2010: However, they could take advantages of other grids such as equilateral triangle. (Maroof, 2014: 61)

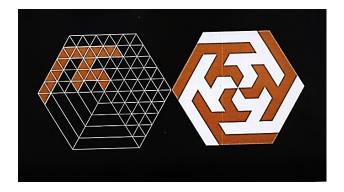


Fig. 5. An example of six repetition of the holy name "Ali": Three times in positive space and three times in negative space. The base of the design is a equilateral triangle. Source: Shahidi, 2010:61.

significant effect on sustainability of the script up to present time. In addition, it includes unique features that can be used in the design of the letters and logos. The following are some of these features.

- Simplicity: Letter components are vertical or horizontal, and their repetition creates parallel forms that indicate a robust construction. Bannai scripts are usually needless of punctuation, accent or pointing. This script is free from any decoration and is considered as the easiest type of Kufic script.

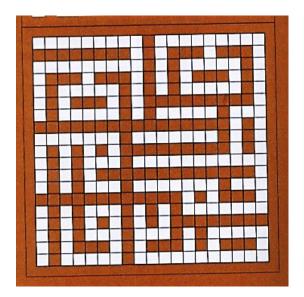


Fig. 4.b. An example of Bannai Kufic script using a grid with the term "Sadaqallah al-ali al-azim" (Believe God Almighty). Source: Shahidi, 2010: However, they could take advantages of other grids such as equilateral triangle. (Maroof, 2014: 61)

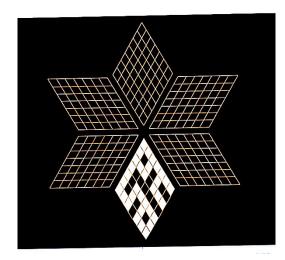


Fig. 6. An example of Bannai Kufic with name of Muhammad drawn on a rhombus grid. Each rhombus is made of two equilateral triangles. Source: Shahidi, 2010: 63.

Having logical discipline and sequence: Bannai Kufic script is typically framed in square or rectangle and sometime other geometric shapes. The number of squares in each frame has to be an odd number. The script movements and intersection of components and letters takes place under 90 degrees angle. These properties caused the script to have a distinguished frame and discipline, and even in some cases, despite the complexity that can be seen in this script, it can be easily read and can be put along with other drawings. In some cases this script is placed in 45 degrees, which is also known as Chalipa Bannai Kufic script, which makes a 45 degrees angle with horizontal line. Figure 7 is an example of Chalipa Bannai Kufic script.

Briefness of the script's structural form: The texts written on objects or buildings in Kufic script are considered simple compared to other scripts, and they are written in simple and brief form. It can be argued that this script has no complexity and decoration and letters and phrases are in their most simple form.

Encryption along with readability: Bannai Kufic Script is sometimes written in encrypted and complex forms, however, despite the encryption, texts written by this script do not lose readability due to simplicity.



Fig. 7. An example of Chalipa Bannai Kufic script at an angle of 45 degrees, with the text "Alhokm lellah" on plinths of Goharshad mosque, Shrine of Imam Reza (AS). Source: Mosadeghyan, 2005: 74.

The existence of black and white space next to each other: In Kufic script, black and white spaces are lie next to each other in a balanced way, so that the two spaces can be read at the same time. Width of black and white spaces are equal but the length is free. In no part of writing combination, width should not more than one square. This equality of white and black spaces is considered a specific property of a sign or text logo.

Free from circumference thickness changes, and sometimes punctuations and accents: observing proportionality at combining letters and their uniformity, same thickness in all Bannai Kufic scripts and lack of many changes in accents and punctuation are among the other properties of Kufic script.

• Having a traditional and religious background: As already mentioned, Muslims used the scripts in different forms in buildings and documents throughout the time. In general, script and writing has a traditional and religious background, one of the oldest which traditional and religious background that one of the oldest examples used in inscription of Quran and architecture using Bannai Kufic, where the trend has continued until the present time.

• Geometric capabilities of the letters: One of the precise applications of this script is due to its geometric properties that distinguishes it from the other scripts. It can be said that although the script lies in square and rectangle or other of regular shapes, it does not lose its readability.

• Wrapping at vertical, horizontal and geometric templates: Bannai Kufic script has fonts that form simple and consolidated combinations with vertical or horizontal lines, with a beautiful combination of balance between vertical and horizontal lines. This property of Bannai Kufic script cause it to be used in different parts of architecture.

• Small and capital letters having the same value: In this script, Arabic letters such as 'r, z, d, a, k, and l' which are written in small and capital,

have the same value and height, and in writing them much care should be taken not to make any difference between some long or short letters. This issue can be solved in Kufic script through changing the number of squares and artistic use of Savad and Bayaz spaces.

• Writing by least materials such as bricks: It can be said that Bannai script in combination with tiling developed in a way that the calligraphers used it to create intricate and beautiful scripts in holy places for decoration of mosques, shrines, and religious schools. However, the structure of this script is in a way that it is capable of using minimum architectural materials such as brick, in such a way that a beautiful combination of text in inscription can be created with minimum architectural elements.

• Alphabetical transformation: Sometimes, in order to make integration and balance in letters, some letters are put in the text with extra elongation, therefore, these letters are essentially transformed.

• Removing useless, non-textual spaces in the text. The ability of Bannai Kufic script in practical fields is very interesting, it can be said that with the least elements the concept can be grasped in easiest way, and sometimes with the words the concept can be inferred without any inconsistency in composition, and in some cases by removing points the concept can be conveyed.

The possibility of interchanging positive and negative spaces

As seen in the previous examples, the most common structure in Bannai Kufic is the equilibrium between positive and negative spaces, however, Iranian artists through making a change in the Savad and Bayaz proportion (positive and negative spaces), added various features to this script, sometime the negative space is reduced by half and sometimes is reached to a minimum, the following the example shows the extraordinary creativity in designing the script. "However, this attractive approach has a long history. One of the most precious samples in reducing the negative space can be seen in the tomb of Peer Bakran in Isfahan" (Maroof, 2014: 60).

Textural capability: Another visual capabilities of the script is its textural capacity to catch audience attention. In the following image, the mat-like texture on the surface and edges of the text has increased the visual effect of the text, the artist was able to minimize the negative spaces, start the unique Salavat (prayer) text from top left and in a rotating manner terminate it in center of the frame.

Using Bannai Kufic as logotype

Bannai Kufic perhaps can be considered as one of the closest scripts to the visual communication branch, because in visual communication the most minimal and clear elements are used to convey the concept. Likewise, Bannai Kufic is written in the easiest shape and with least elements yet in a beautiful and variable forms, it can be said that this features is common between the two methods. Accordingly, the simplicity and conciseness of the script can be used in the creation of visual communication effects. For example, in designing the logotypes and texts, maximum simplicity and minimal use of components is one of the most important things that should be kept in mind, so that with using lowest elements,

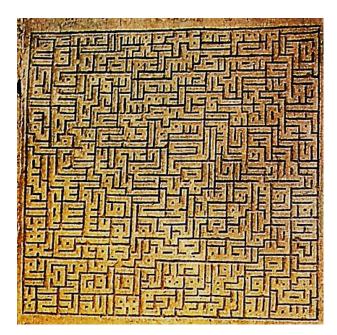


Fig. 8. An example of Bannai Kufic script inspired by mat-like texture. (The text reads greeting to Mohammad and the great religious leaders). Source: Maheronaghsh, 1991: 175.

contraction and expansion, positive and negative spaces and visual rhythms, a composition with ultimate beauty can be reached. Bannai script, due to having the above mentioned properties, is among the most suitable scripts for this purpose. Of course, in this regard, knowing how to use, employ and put script in line with visual communication purposes is very important. Through observation of Bannai Kufic scripts and different methods of inscription as well as understanding the features of the script, it can be used as a model for creating visual works. In the following examples, the Bannai Kufic script used for creating logos are analyzed (Table 1).

Table 1. Examples of the Bannai Kufic script used for creating logos are analyzed. Source: authors.

Logotype	Logo name	designer	Description
	Movie Book	Mostafa Asadollahi	Removing Bayaz space so that the value and readability of the logo has not gone away, creating a visual rhythm through using sequence of letters in the two seats and their proper replacement.
	Behzad Golpaigani	Dariush Mokhtari	Equal height of letters, simultaneous use of positive and negative spaces together, correct symmetry in the letter "G" on the right and left sides of the logo, correct layout of points to fill the space between letters.
گرافیکا	Grafika	Ali Javaher	Equal height of the letters, making rotation in the letter 'K' and reversing it in such a way that evokes spinning the text Kufic script.
<i>iiii?!!</i> //	Dariush	Dariush Mokhtari	Letters placed together sequentially and created visual rhythm in the logo; creating symmetry in asymmetry by placing the letter "yo" in the middle of the logo and linking the first and last letters of the logo.
	Maktab Honar Rezvan	Sareh Arbab	Placing the text in desired frame, evoking solar frame and creating a rhythmic harmony with the text, appropriate use of the space inside the letters, such as "t" in the word Maktab and "a" in the word Rezvan.
	Memar Parsi	Behnam Chareii	The use of word rotation in the form of a square, which is encircled and is a reminder of Chalipa Bannai Kufic script, lack of points in other words which is another characteristics of Bannai Kufic
	Roghiyeh	Reza Bakhtyari fard	Evokes square geometric shape, the use of the "N" and "A" on top and bottom of logo to make the logo symmetric, and using visual rhythms using this property.

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Rozaneh publications	Ebrahim Haghighi	Inverting the Persian word "v" in the seats above the logo and creating visual balance by placing the two "v" at the top and bottom, putting the points in the middle of the logo.
Mohrsazan Sabz (Green Seal makers)	Iraj Mirza Alikhani	Proper rotation and layout of letters, evokes square geometric shape, the correct positioning of the points on the square sides which is one of the characteristics of Bannai Kufic used in the logo, also making the cuts at the corners of the logo which created attractiveness and coordination
Serat Publication Institute	Seyed Mohammad Ehsaee	Equality and alignments of the letters, using rotational arrangement, continuity of the letters in clockwise in addition to demonstrating the way (Serat) and the rotational angle in Bannai Kufic, repeating the letters in the logo and making visual harmony, making good use of Bayaz space and creating a balance in the middle of the logo.

Conclusion

Islamic calligraphy, whether it is Kufic or not, has a rich scientific, religious, cultural and artistic background that is responsible for its beauty, grandeur and survival. Besides its long history, Bannai Kufic script is like a fountain which is always new and refreshing in its core, due to structural consolidation and visual power, and especially, because of its structural geometry, it is highly capable of renewal and modernization. Through studying structural capabilities of this line, it can be very well used as creating modern artistic works. Generally, this script is divided into three types of simple, average and difficult, and its superior characteristics is responsible for sustainability of Bannai Kufic script in the modern times. These influencing factors are flat surfaces, vertical, horizontal, parallel, angular geometric and structural movements and it has a great ability to create positive and negative spaces, high ductility and a large capacity for mystification and encryption of the texts.

In addition, its simplicity, having logical clarity, text structure being concise, encryption and complexity while maintaining readability, equal wide and black spaces, proportionality and uniformity in the composition of letters, no changes in round thickness, and lack of many changes in points and accents, conveying a geometric frame and its pliability, use of the letters with similar height and value, layout capability and combination with minimal architectural elements in inscription, changing the arrangement of the letters in order to regulate them, minimal use of words, sometimes removing the points due to clarity of the text, the ability to change the positive and negative spaces and variable textures are among the important characteristics that lies at the heart of this script, and caused it to be considered as modern and efficient graphic tool and serve the modern graphic designers of the time.

Therefore, by knowing and employing these characteristics, one can use them for designing logotypes which is one of the most important topics in visual communication. A visual communication designer with an awareness and understanding of this script, and regarding to subject of the logotype and its functionality, while properly employs the shape and structure of the script, help the audience to better understand the subject by using technics such as removal, adding, exaggeration, replacement, repetition, combination and ... Accordingly, by reviewing the script and understand its properties the most of which is simplicity and visual clarity, the script can be used for designing logotypes, so that all these properties emphasizes the necessity of attention to this font in visual communication design of Iran today. This all show that although Bannai Kufic script is the oldest known Arabic script, yet due to simple geometry, relationships, graphic discipline and capacities visual delicacy, it has been succeeded to feature as a modern and up to date graphic element in the contemporary word of art.

The simple geometry of Bannai Kufic, which is often based on a square shaped grid (Mastar), provides a perfect opportunity to understand the nature of the letters.

It seems that perception and understanding of Islamic scripts begins with studying Bannai Kufic, because in the world of visual communication geometry has undeniable presence, the geometric figures of these letters in the course evolution could be the start of teaching letters and words.

Endnote

- 1. Mosattar
- 2. black
- 3. white

4. Logotypes are types of logos in which only linguistic elements are used and include one name or some letters (Pahlavan, 2006: 32)

5. Straight and curved lines made is calligraphy are called Surface (Sat'h), and Round (dowr), respectively.

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