The Role of Arabic Calligraphy in Forming Modern Interior Design

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Abstract

The new resources in producing and configuring a new form of interior architecture in Arab world are the main focus that can adapt with human needs. Many internal and external facades in Arab region buildings always use the Arabic calligraphy as the main feature of decoration, reflecting the power of letters in minimize the impact on the massive scale. Taking into the consideration, the geometrical shapes and forms of Arabic calligraphy they all have the same power to make new designs of methodologies and concepts. The paper aims to look for the result and the interpretations of integrating the interior design contemporary trends within the Arabic cultural context, and find out new creative ideas to reconfigure the modern form in an innovative approach. This paper was cured out by experimental approach at University of Petra/Department of Interior Design, in the academic year 2013-2014. It is as a part of basic design course work (8) samples of the model which were chosen in this experiment that is related to these complexity and simplicity. The students have done these eight forms by transforming two dimensional forms to three dimensional within those three levels of design models and bridging the western trends in design approaches within the spiritual and potentials of the eastern Arabic calligraphy, which is the main focus of this paper.

Finally, the result of teaching methods through seminars was discussed by elaborating the contribution of Arabic calligraphy in producing a new design methodology for contemporary interior design models.

Keywords: role, arabic calligraphy, forming, modern interior design

1. Introduction

The History of calligraphy, like many other histories is cyclical: a new writing style is born, developed and

eventually dies or goes out of interior designs; this is followed by rediscovery, reappraisal and further improvement. (Morgan, M. 2001)

Arabic calligraphy has maintained itself as a timeless craft form with a subjective relationship to the Arab culture and the Islamic heritage. Arabic characters are one of the most important fine art in the elements of the Architecture heritage which has been created by a Muslim artist in order to please the god, also it's a form of creative design, it integrates a cultural language with geometry. since letters can be stretched and transformed in numerous ways to create different motifs.

1.1 The Problems

It has been recently, conventionally, poorly used in interior design and only as an informative tool neglecting the aesthetic considerations. While Typography, calligraphy and letter forming are concerned in art and design they have not been used so far in the interior design as an 3d forms in furniture or organized the indoor spaces.

1.2 Objectives

This research aims to look for the result and the interpretations of integrating the Arabic cultural context within interior design contemporary trends finding out new creative ideas to reconfigure the modern form in an innovative approach.

This study will serve the following:

• To emphasize architectural interior design identity through Arabic letters.

• To communicate with words using Arabic calligraphy , in interior design, without reading.

- To go over more interior design techniques not only in the elevation and furniture but also in the structural design.

2. Literature Review (Important Definitions):

❖ Typography: refers to the general character and appearance of print. Characteristics that can be defined and chosen include the handwriting, font, point size, line length, leading, spacing, tracking and kerning. (Bringhurst, R. 2005). It can also refer to the form of letters or individual characters, words, shapes or symbols (Klimchuck, M. & Karsovec, S. 2012).

❖ Calligraphy: decorative handwriting with the intent of creating beauty. Special pens or brushes are often used to draw the letters and can be used to add an aesthetic expression to the work (Mediavilla, 1996).

❖ Calligraphy includes the elements or letters and the relative arrangement of the letters to achieve an overall organization (Moustapha, H. & Krishmaurt¸ R. July 2001).

❖ Form: Can be either two dimensional (2D) or three dimensional (3D) and is the visible shape, its configuration, or the organization of the whole. 2D form can be measured through height, and width while 3D is measured through height, width and depth. There are two types of form, geometric or man-made and natural, organic form (Chink, 1996).

❖ Regular forms: are those whose parts and related to one another in a regular manner, they are stable and symmetrical about one or more axes. These are frequently geometric forms (Chink, 2007).

❖ Subtractive forms: are the result of a subtraction or removal of part of a form. The form may still retain its identity depending on the portion of the subtraction. For example, a square can lose a portion of its form and become L shaped.

❖ Additive form: is produced by the addition of another form to change the shape of the original (Chink, 2012).

❖ Edge to edge contact: forms have edges. If the edges are in contact with one another they can then pivot around that contact (Chink, 2007).

❖ Face to face contact: forms have faces. For the faces to have contact they must have flat, planar surfaces that are parallel to each other (Chink, 2012).

❖ Interlocking volumes: two forms can interpenetrate each other's space crossing the boundaries of the edges. The forms involved can be quite different from one another and in no way related to each other (Chink, 1996).

❖ Centralized order: like a clock or an array, a number of secondary forms or spaces will be arranged around a dominant and central form or space.

❖ Linear order: is a way of linking forms or spaces along an axis to create a relationship between them (Chink, 2012).

❖ Radial forms: begins with a central form or space from which several forms or spaces extend linearly in a radial manner. It can grow into a network where several centers are linked by linear forms (Chink, 2007).

❖ Cluster organization groups: space or forms related first by proximity. The forms or spaces may share characteristics that cause a visual link or repetition of the form. However, the forms or spaces may also be dissimilar and have little to connect them except proximity and an axial ordering.

❖ Grid forms: an organization of spaces or forms that is regulated by a 3D grid (Chink, 1996).

❖ Shapes and forms can be organized according to a set of principles. The way in which these principles are applied affects the expressive content, or the message of the work.

❖ Balance: It is a state of equalized tension and equilibrium, which may not always be calm. This is often organized by a line or axis to which the forms or shapes relate.

❖ Symmetry: when the forms or shapes are balanced evenly around a line, axis, plane or centre they are in symmetry. The arrangement becomes asymmetrical when the balance in the arrangement is both disturbed but maintained informally. This tends to be more dynamic and engage the viewer's or user's attention. One form of balance or symmetry is radial balance which occurs when the forms or shapes are arranged around a central element.

❖ Hierarchy: The creation of visual or spatial significance through the arrangement of elements differentiated by size, shape/form or placement relative to each other. There are three types of hierarchy.

❖ Tree: where elements are arranged in the manner of a tree with a main trunk or section, branches and sub branches that together create an order of significance.

❖ Nesting elements: which relate to one another like a parent to children to grandchildren.

❖ Weighting: a means of creating hierarchy is to give elements a weighting such as through the use of line weights in a drawing, or size, or material with three dimensional forms and shapes. Elements of the same weights belong to the same class of hierarchical position.

❖ Scale/proportion: Focal points can be created by using the relative size of elements against each other. There are three ways to create focal points through scale and proportion.

❖ Size: relationships created between elements of varied sizes.

❖ Ratio: creates a visual harmony through the use of elements in proportional sizes or positions that creates visual ratios.

❖ Divisions: these create focal points that automatically give a sense of relationships.

❖ Dominance: a form or shape can visually dominate through the contrast of size, placement, color, style or shape. A focal point is a dominant element and should dominate the design with scale and contrast and yet not sacrifice the unity of the whole.

❖ Emphasis: Emphasis is used by artists to create dominance and focus in their work through the use of dominant and subdominant elements. This is often achieved through a focal point and a design that leads the eye or user to that point.

❖ Similarity: when two elements are proportionally consistent then they are similar to one another. This adds consistency to a design.

❖ Contrast: a means of placement of elements that creates abrupt transitions rather than gradual, thereby causing the elements, forms or spaces to oppose one another through a comparison or tension.

❖ Movement: The path the eye follows in a composition. This is intentional in the way that the designer or artist sets up the elements, forms and spaces in the design.

❖ Variety: involves difference, shifts and changes in a design using varied line types, colors, textures, and shapes. (Chink, 2012).

❖ Repetition: a repeated element, shape or form. Repetition produces a pattern when the elements are repeated in a regular manner.

❖ Pattern: Pattern is the result of planned or random repetition on a surface or in a space.

❖ Rhythm: It is a type of movement created by reoccurring patterns in a regular or irregular manner.

❖ Gradation: done with elements in terms of size and direction produces linear perspective. Gradation can also be done in two dimensional work through color and shape as a means of moving the viewer's eye around the composition.

❖ Harmony: is a means of combining elements, forms and spaces so that they are unified and provide a visually satisfying effect. Harmony creates a pleasing arrangement of elements.

❖ **Unity: is created when elements, forms and spaces relate in such a way to reinforce one another and the meaning of the design**.

3. Methodology of Research (Experimental Work)

This research was cured out by experimental approach at Petra University/department of interior design, in 2013 and 2014, as a part of basic design course work we have done this eight forms as follows:

❖ Name creating: the student used a primitive object (triangle, rectangle, or, square), and made a composition within them, then divided this composition into a virtual grid to created the name.

❖ The best tow name compositions was chosen by instructors then the student changed the size of their names by used Fibonacci sequence, as numbering not as a ratio, eg: (1,2,3,5....).

❖ The best two calligraphy compositions (complex and simple) were created by the students using the basic unit of their name. They changed its size, flipped and rotated its angle, by using many different orders like (centralized, redial, clustered, grid, linear) form,

❖ The strong design concept was created according to the meaning of the name and personality then applied

the main concept to the form.

❖ Finally the students must transformed the 2d figure into 3d figure by used Addition and subtraction form and connected methods between these unites like: edge to edge contact and face to face , overlapping, interlocking, interlacing volumes .

❖ white and black color in paper and foam was used with a different sizes and thicknesses, kept in mind the masses or layers in sections or in 3d virtual spaces.

❖ The size of the final project must be not more than 50cm height and 30*30cm width and length.

4. Results

4.1 In F1

The name was created with a square and made a simple 2d composition within them, using linear order and repeat it in 3 copies.

The concept was created according to the meaning of the Omar name and personality. transformed the 2d figure into 3d figure by raised the name with a different heights, with the overlapping connected methods in a different unites. paper and foam used with a different thicknesses mass and layers ,the final size was (20* 30*25) cm.

4.2 In F2

Two form of the name has been created with a square, triangle 45º to make a complex 2d composition within them, using centralized order in triangle, redial order in square and repeat all of them in four copies.

The concept was created according to the meaning of the Tasnim name and personality. transformed the 2d into 3d figure by raised the names with a different heights, the overlapping and face to face connected methods were used in these unites. white paper and foam, orange and yellow led lights were used with a different thicknesses mass and layers ,the final size was (20* 20*17) cm.

4.3 In F3

The name was created with a square and made a simple 2d composition within them, using centralized order and repeat it in four copies.

The concept was created according to the meaning of the Mohamed name and personality. transformed the 2d into 3d figure by raised the names with a different heights and elevations, the overlapping and face to face connected methods were used in these unites. white papers and foams, were used with a different thicknesses masses and layers ,the final size was (15* 15*15) cm.

4.4 In F4

Two forms of the name have been created with a rectangle and made a complex 2d composition within them, using linear order and repeat it in four copies. The concept was created according to the meaning of the Ameer name and personality. transformed the 2d figure into 3d figure by raised the compositions with a different heights, the overlapping and face to face, edge to edge connected methods were used in these unites white paper and foam, blew led lights were used with a different thicknesses mass and layers, the final size was (30* 350*50) cm.

4.5 In F5

the name has been created with a square and triangle 45º to make a complex 2d composition within them, using centralized order in cercal and Array 12 copies of them in 360 º. The concept was created according to the meaning of the Azman (times) name . transformed the 2d into 3d figure by raised the names with a different heights, the overlapping connected methods were used in these unites. white and black papers, foam, were used with a different thicknesses of layers ,the final size was 30 cm in the radial of circle and 20 cm heights.

Table.1 show the methods of the application calligraphy projects in (F1,F2,) all photo by researcher

Name	Virtual Grid	Word	2d Composition	3d Composition
عمر Omar F1	Angle 90º		Figure 1. show F1Omar's name 2D composition	Figure 2. show F1Omar's name 3D composition
تسنيم Tasnim F2	Angle 90º Angle 45º		Figure 3. show F2 Tasnim's name 2D composition	Figure 4. show F2 Tasnim's name 3D composition
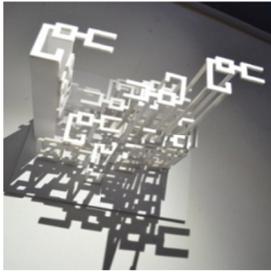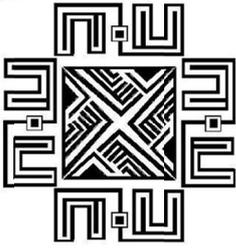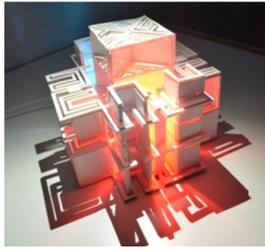
Table2. show the methods applications in calligraphy projects (F3,F4, F5,F6) all photo by researcher

| Name	Virtual Grid	Word	2d Composition	3d Composition
محمد Mohamed F3	Angle 90º Angle 45º		Figure 5. show F3 Mohamed's name 2D composition	Figure 6. show F3 Mohamed's name 3D composition
امير Ameer F4	Angle 90º		Figure 7. show F4 Ameer's name 2D composition	Figure 8. show F4 Ameer's name 3D composition

ازمان Azman (Times) F5	Angle 90º Angle 60º Angle 45º	Repetition and array		
			Figure 9. Show F5 Azman's name 2D composition	Figure 10. Show F5 Azman's name 3D composition
رنا Rana F6	Angle 90º		Figure 11. show F6 Rana's name 2D composition	Figure 12. show F6 Rana's name 3D composition
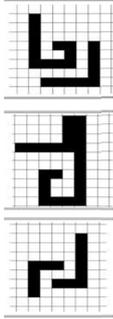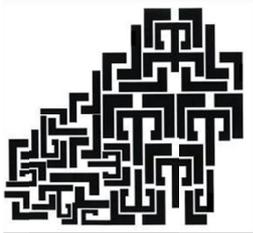
Table.3 show the methods applications in calligraphy projects (F7,F8) all photo by researcher

Name	Virtual Grid	Word	2d Composition	3d Composition
العيون Aloyon F7	Angle 90º		Figure 13. show F7 Aloyon's name 2D composition	Figure 14. show F7 Aloyon's name 3D composition
عماره Amara F8	Angle 90º		Figure 15. show F8 Amara's name 2D composition	Figure 16. show F8 Amara's name 3D composition
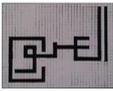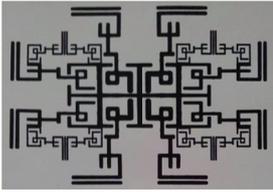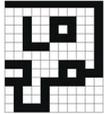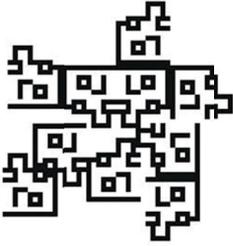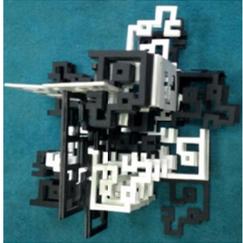
4.6 In F6

Three forms of the name have been created with a rectangle in a different scale and made a complex 2d composition within them, using clustered order and flips, rotates and repeats them in many copies.

The concept was created according to the meaning of the Rana name and personality. transformed the 2d figure into 3d figure by raised the compositions with a different heights, the overlapping and face to face, edge to edge connected methods were used in these unites white, black, papers and foams, were used with a different thicknesses mass and layers, the final size was (30* 35*7) cm.

4.7 In F7

The name has been created with a square and , in a three different scales and made a complex 2d composition within them, using redial order and flips, rotates and repeats them in many copies.

The concept was created according to the meaning of the Aloyoon (The eyes) name and Eyes components. transformed the 2d into 3d figure by raised the names with a different heights, the overlapping and face to face connected methods were used in these unites. black and white papers ,foams, were used with a different thicknesses mass and layers , and scales, the final size was (20* 10*15) cm.

4.8 In F8

The name has been created with a square and made a complex 2d composition within them, using clustered order and flips, rotates ,repeats them in many copies.

The concept was created according to the meaning of the (Amara) (Architecture) name and it's definition, kind periods, components. transformed the 2d into 3d figure by raised the names with a different heights, the overlapping and face to face connected methods were used in these unites. black and white papers ,foams, were used with a different thicknesses mass and layers , and scales, the final size was (20* 10*15) cm.

5. Conclusions

- The simple composition in the figure (F1,) Find a new creative ideas in sculpture, fountain, as a new accessories of interior design integrating the Arabic cultural context within the indoor space.

- The simple and complex compositions in the figures (F2, F3, F4) the find a new creative ideas to reconfigure the modern form and stricture in buildings to communicate with words using Arabic calligraphy without reading.

- The simple and complex compositions in the figures (F5, F7, F8) are serves to emphasize inferior design identity through Arabic letters in furniture.

- The complex compositions in the figure (F6) is find a new creative ideas for indoor and outdoor ceiling integrating the Arabic cultural.

- The Arabic designer should use this study to emphasize Arabian identity through the utilization of Arabic letters in different design techniques in the interior and exterior design .

- Design, in general, encompasses many disciplines such as interior design. our projects shares a systematic approach to the arrangement of parts in order to create a complete artistic unit. This systematic approach to design is based upon the application and manipulation of the elements and principles of design. The elements of design can be thought of as the 'vocabulary in design language, and the eight principles can be likened to the grammar, or rules for applying those elements.

- Elements and principles of design also create a platform for designers to communicate their identity using the effects of Arabic calligraphy in there interior design.

- The use of Arabic letters comes from the fact that they reflect history, culture and identity.

- Various Arabic calligraphy styles and types in squire grid were shown to give great flexibility for utilization in different interior design elements even in structural design.

6. Recommendations

This paper calls for new and comprehensive visions of the scientific and technological foundations of a society of the future which is using of Arabic calligraphy , one which is , attractive, and fulfills the humans culture needs

the usage of Arabic calligraphy in the Interior design can carry a purposeful message through its detailed design elements expressing culture and history in which identity can be emphasized through the character of the Arabic letters to be used in furniture columns ceiling and flooring or the organization space.

one of the important thing in to design a modern Arabic interior spaces it's back to identity by using Arabic letter forming and calligraphy especially as a geometric letters arrangement.

These projects can transferring Arabic calligraphy from fine grid drawn on paper to computer monitors then subsequently facilitates the usage of these digital graphic designs on forming 3d spaces.

Acknowledgment

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