Back To Identity: The Role Of Arabic Calligraphy In Forming Modern Interior Design

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Abstract
The main focus in Arabic world since decades is to search for new resources in configuring and producing new interior architecture form that could adapt the recent human need. The Arabic calligraphy was always the main feature of decoration in shaping the external and the internal facades reflecting the power of letters in mitigating the effect of massive scale. The geometrical forms and shapes of Arabic letters have also the same power toward having new concepts and design methodologies based on finding out what behind the interactions between those letters within worlds.

This paper discussed the result of teaching methods through seminars and workshops in elaborating the contribution of Arabic calligraphy in producing such a design methodology for contemporary interior design models. The simulation was based on a wide spectrum of ideas in adapting the transformation of two dimensional forms to three dimensional within those three levels of design models. Bridging the western trends in design approaches within the spiritual and potentials of the eastern Arabic calligraphy is the main focus of this paper. The paper aims also 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.

Keywords: BACK TO IDENTITY, 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.

It has been recently, conventionally, and poorly used in interior design. It has been used 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 3d forms in furniture or organized the indoor spaces.

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 definition: typography means form writing in old Greece culture, The arrangement of type includes the selection of handwriting, point size, line length, leading, line spacing, tracking...etc. kerning. (Brinthurst, R. 2005). also it can be letterforms or individual characters, words, shapes or symbols.(Klimchuck, M. & Karsovec.S. 2012).

Calligraphy definition "beauty", graphè "writing" in old Greece culture, and it is a type of art related to writing. It is the design and execution of lettering with a broad tip instrument or brush in one stroke as opposed to built up lettering, in which the letters are drawn. In another contemporary definition of calligraphy was "the art of giving form to signs in an expressive, harmonious and skillful manner" (Mediavilla, 1996).

A calligraphic composition is composed of elements (letters) and relations relative arrangement of the letters defining an overall organization. letters and their relative arrangements are updated in each successive iteration,
and the organization redefined. (Moustapha, H. & Krishmaurt, R. July 2001)

Form: may be described as any three dimensional object. Form can be measured, from top to bottom, height, side to side, width and from back to front, depth. There are two types of form, geometric, 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. (Chink, 2007)

Subtractive forms still retain its identity depending on the portion of the subtraction, and An additive form is produced by the addition of another form to its volume (Chink, 2012).

Edge to edge contact: two forms share a common edge, and can pivot about that edge. (Chink, 2007).

Face to face contact: it requires that two forms have flat, planar surfaces that are parallel to each other. (Chink, 2012).

Interlocking volumes: two forms interpenetrate each other’s space. These forms need not share any visual trait. (Chink, 1996).

Centralized order: Consist of a number of secondary forms clustered about a dominant.

Linear order: It results from a proportional change in a form’s dimension or the arrangement of a series of forms along a line. (Chink, 2012).

Radial forms: It can grow into a network where several centers are linked by linear forms. (Chink, 2007).

Cluster organization groups: it’s forms according to functional requirements of size, shape or proximity. It’s flexible enough to incorporate forms of various shapes, sizes, and orientation into the structure.

Grid forms: It’s used to break the scale of a surface down into measurable units and give it an even texture (Chink, 1996).

The Principles are concepts used to organize or arrange the structural elements of design. Again, the way in which these principles are applied affects the expressive content, or the message of the work.

1. balance: It is a state of equalized tension and equilibrium, which may not always be calm.
2. symmetry: Asymmetrical produces an informal balance that is attention attracting and dynamic. Radial balance: is arranged around a central element. The elements placed in a radial balance. Overall is a mosaic form of balance which normally arises from too many elements being put on a page.
3. Hierarchy: A good design contains elements that lead the reader through each element in order of its significance. there are 3 type of hierarchy : a Tree: elements arrange in the order of a tree with a trunk branches and sub branches, b. Nests elements mapped on to each other as parents children grand children, c. Weight: elements of the same weights belong to the same class of hierarchical position.
4. Scale/proportion: Using the relative size of elements against each other can attract attention to a focal point. there are 3 types of it: 1. size: elements of different size in relationships with each other. 2. ratio: elements related to each other in a ratio appear together in visual harmony, 3. divisions: these create focal points that automatically give a sense of relationships.
5. Dominance: is created by contrasting size, positioning, color, style, or shape. The focal point should dominate the design with scale and contrast without sacrificing the unity of the whole.
6. Similarity: Planning a consistent and similar design is an important aspect of a designer's work to make their focal point visible.
7. Repetition with variation is interesting, without variation repetition can become monotonous.
8. Gradation of size and direction produce linear perspective
9. Contrast: is the juxtaposition of opposing elements.
10. Harmony in painting is the visually satisfying effect of combining similar, related elements.
11. unity: Relating the design elements to the idea being expressed in a painting reinforces the principal of unity, eg.
12. Emphasis: Emphasis is used by artists to create dominance and focus in their work.
13. Movement: The way the artist leads the eye in, around, and through a composition. The path the eye follows.
14. Pattern: Pattern uses the art elements in planned or random repetition to enhance surfaces or paintings or sculptures.
15. Rhythm: It is a type of movement in an artwork or design often created by repeated objects. -There are different types of rhythm: 1. Regular, 2. Irregular-
16. variety: It is achieved through diversity and change. Using different line types, colors, textures, shapes…(Chink, 2012)

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:
1. 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.

2. 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,...).

3. 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,

4. The strong design concept was created according to the meaning of the name and personality then applied the main concept to the form.

5. 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.

6. 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.

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

4. The 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 45° 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.
Table 1: show the methods of the application calligraphy projects in (F1,F2,) all photo by researcher.

<table>
<thead>
<tr>
<th>Name</th>
<th>Virtual Grid</th>
<th>Word</th>
<th>2d Composition</th>
<th>3d Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omar</td>
<td>Angle 90°</td>
<td>🇮 🇼 🇪 🇻 🇪 🇼 🇮</td>
<td>Fig. 1 show F1 Omar's name 2D composition</td>
<td>Fig. 2 show F1 Omar's name 3D composition</td>
</tr>
<tr>
<td>Tasnim</td>
<td>Angle 90°</td>
<td>🇮 🇿 🇳 🇲 🇳 🇿 🇮</td>
<td>Fig. 3 show F2 Tasnim's name 2D composition</td>
<td>Fig. 4 show F2 Tasnim's name 3D composition</td>
</tr>
<tr>
<td>Mohamed</td>
<td>Angle 90°</td>
<td>נּ נּ נּ נּ</td>
<td>Fig. 5 show F3 Mohamed's name 2D composition</td>
<td>Fig. 6 show F3 Mohamed's name 3D composition</td>
</tr>
<tr>
<td>Ameer</td>
<td>Angle 90°</td>
<td>🇮 🇳 🇭 🇯 🇰 🇭 🇮</td>
<td>Fig. 7 show F4 Ameer's name 2D composition</td>
<td>Fig. 8 show F4 Ameer's name 3D composition</td>
</tr>
</tbody>
</table>

Table 2: show the methods applications in calligraphy projects (F3,F4, F5,F6) all photo by researcher.

<table>
<thead>
<tr>
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</thead>
<tbody>
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<td>Fig. 8 show F4 Ameer's name 3D composition</td>
</tr>
</tbody>
</table>
4.5: In F5: the name has been created with a square and triangle 45° to make a complex 2d composition within them, using centralized order in cercal and Array 12 copies of them in 360°. 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.

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.

7. 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 recon figure 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.

8. 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.
9. Acknowledgment
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10. References :


About the author: * Dr. Mayyadah Fahmi Hussein is an Interior Designer Working as Faculty member , Assistant Professor of Interior design at department of interior design/ Faculty of Architecture and Design/ University of Petra/ Amman Jordan, She was born in Iraq 1973, She had her Ph. D in Interior Design from Baghdad University, Baghdad, Iraq, 2004. in very good degree. M.A in Interior Design, from Baghdad University, Baghdad, Iraq, 2001 in Excellent degree . and B.A . in Arts. (Interior Design) Baghdad University, Baghdad, Iraq, 1994. Her area of interest includes the relationship between art and design in different fields such as, Interior Design and Architecture, focusing in her studies on Arabic Identity roles like Arabic Calligraphy and there benefits and applications in Modern Interior Design.