**The methodology of activating the Heritage Sustainability concept in interior design of Hospitality building**

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**Abstract:** The interior design is a field that does not deviate from the human search for the heritage identity in the time of accelerating the contemporary challenges to achieve uniqueness and creativity. Based on this concept the Arabian designer seeks in how to express the dimensions of his own historical and cultural unique heritage, and especially after the border opened and spaces expanded to become necessary to confirm their identity, so the Arabian designer must be aware that the greatest target is to open up to the global design, also he needs to uphold with the heritage identity. The theorist and critic Architectural Charles Jencks Says: "we are now witnessing the end of geography no secluded place where independent homeland, or immune culture ". So it was incumbent on the interior designer to understand the philosophical dimensions of the sustainability concepts in heritage and deepen its sense in his own soul. The concepts of sustainability in interior design: (1) Depends on creating a double-dimensional heritage language in interior design, which integrates between all the advantages of originality and contemporary. (2) Depends on creating a unique design language in interior design, which is based on the reformulation of heritage vocabulary with a concept of modern and contemporary. (3) Depends on dealing with interior design philosophy as a matching of constants and variables. And through this concept, the creative values of interior design can be realized, and this consequently leads to a permanent source of heritage inspiration for all the next interior design generations. This paper helps in the ability of interacting with the sustainability intellectual Ideology in interior design by inspiration from the Islamic heritage, and how to deal with the features of heritage identity depending on its intellectual features, but not as rigid element.


**Keywords:** Islamic Heritage - Values - Originality - Contemporary - Inspiration - Dual Language - Morphological - Geometric - Chaotic systems - the Constants - the variables - the identity - Hospitality building

**Introduction**

Islamic heritage in architecture and interior design is a unique value, and it carries the features of the community and meets its needs. Heritage also holds intellectual aspects, combines the spiritual and cultural values, and creates the features of the place and the environment which expresses the identity of the community. Creative values which are reflected from the heritage physical product are depending on the value that is given from the community as the result of many interactions. From this point there is a relationship which has been created between the designer and the Islamic heritage(1).

Islamic heritage in contemporary architecture is a true record of the community culture, so the concept of heritage includes two-pronged basic components:

1. The intellectual side reflects the concepts, ideas, beliefs and cultural values.
2. The physical side reflects heritage ornaments.

**Islamic Heritage and interior design:**

The process of sustainable development depends on reviving the heritage sides, which forms the aesthetic value of Islamic architecture in interior design. The Islamic heritage consists of geometrical and morphological shapes in interior and exterior facades, columns, architecture slots, cladding, carved stones, furniture and colorful fabric design. (2)

**Aesthetic and functional values of the Islamic heritage in Interior Design:**

The original Islamic pattern designs consist of motifs which are made up of geometrical and morphological ornaments that fill the design spaces and surfaces. The different ways of combining these similar ornaments are by expressing it in symmetry groups (3). Combining similar ornament groups by the use of different methods creates a large symmetry group system (design structure), which provided the designer with all the information of the Islamic pattern designs.

Ancient Islamic design established a historical heritage consisting of pattern that were manufactured using many techniques. Pattern design recovery and image processing are of great importance for different purposes in interior design, like the treatment of different levels of walls, floors, ceilings, the design of elements, architectural slots, furniture and lighting units.

The Values of This pattern depend on two types of design concepts:

1) The morphological concept created the shape of the units in the whole system, this forms simulated the formalism system, like the form of plants and
animals which are living in different environments – and also this simulated shape can be based on a geometric abstraction process which can form another type of shapes.

2) The Chaotic systems design, which forms the systems with large number of elements and patterns, seems messy but in fact they are coordinated by complex relationships.

The concept of sustainability in interior design
The concept of Contemporary interior design between the Islamic heritage inspiration and sustainability has grown out of the concept of sustainable development (SD), which defined SD as:

- Development which meets the interior design needs of the present are depending on dealing with the features of heritage identity as an intellectual features, not as heritage rigid ornaments. 

SD will create a very rich values for design thoughts and provide unique solutions which are consistent with the ability of future generations and to meet their own needs.

Interior design sustainability between Originality and Contemporary
Contemporary interior design needs a Dual Language formulation to be Consistent with the intellectual and technological requirements of the present, but at the same time it needs to connect to the original spirit which represents the concept of Originality. This concept can only be achieved through the activation of sustainability concepts that rely on intellectual features dealing with original ornaments as a set of constants and variables.

When dealing with the Islamic heritage elements, we can activate the concept of intellectual sustainability through analysing the elements of unity in the huge Islamic geometrical grid system and use the results of this analysis in a modern grid system such as Chaos system, molecular system, fractal system, nano system, and deconstruction system......, and also on this level the designer can use the basics of interior design process, such as deletion, addition, repetition, displacement, enlargement and reduction.

Dealing with an Islamic heritage as Originality sources (constants) needs a fully aware thought of the complementary relationship between the field of interior design, geometrical sciences and philosophy which are existing in physical output of the heritage. This creates a characterized and unique design solution with an originality spirit, and also bears the contemporary feature expression as (variables).
Methodology of activation the intellectual sustainability of islamic heritage in interior design:

This paper include a practical studies which represent the methodology of the design of contemporary grid design set that is based on pattern (unit) of original ornaments and depending on the activation of the intellectual sustainability concepts in interior design, through selecting one of the Islamic heritage elements as a source of Originality (constants) and then re-drafting of this unit with geometrical modern grid and also with using design basics process, which will create a contemporary design structure grids (variables) - that can be used in interior design.
The Practical study

The methodology of this practical study had been applied on interior design students – and it had been taken through 5 stages - each stage is considered as a very important process for designing the sustainable concept (7), which depends on inspiration of Islamic Heritage ornament - Although there were different interior design projects for each student – however there are a diversity of unique outcomes - which confirmed the positive aspects of this practical study.

1- Determine the interior design project and architecture modification:

The first stage had been adopted on determining the interior design projects for each student – which has been selected to be as several projects and several functions of different architectural building such as Hospitality building (hotel) (fig 6) and Hospitality Building (resort)- (fig 7) - all the students designed the architectural program depending on the building design needs and its function.

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**Methodology of the practical study**

1. **First model, Hospitality building (hotel)**
   - De style trend
   - Arabian Heritage
   - Nanoscale concept

2. **Second model, Hospitality building (resort)**
   - Deconstruction trend
   - Arabian Heritage
   - Chaos concept

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**Fig 6**

![Hospitality building (hotel) and Hospitality Building (resort)](image_url)
2-Selecting the contemporary architectural trend

In this stage, each student selected a contemporary architectural trend which is related to the function and architecture message of his project - two type of building (table 1):

<table>
<thead>
<tr>
<th>De style trend</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>deconstruction trend</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 1-A</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitality building (hotel)</td>
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<table>
<thead>
<tr>
<th>Table 1-B</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitality building (resort)</td>
<td></td>
</tr>
</tbody>
</table>
3 - Selecting the Islamic Arabian ornament

In this stage, each student selects an Islamic Arabian ornament – and then they analyse this ornament to reach its geometrical drawing rules and its basic structure.
- (The mafruqa) was a (hotel) project concept source. Mafruqa is a geometrical Arabian ornament
- (The meqhalh) was a (resort) project concept source. Meqhalh is used as a makeup tool by arabian women

4 - Connecting between the heritage inspiration ornament and contemporary architectural trend

To show the Clarification about this connection in the first model - Hospitality building (hotel) - as be shown in - Fig 8
- De stijl trend
- Islamic Arabian ornament

- The nanoscale concept matches the small parts and appearance of mafruqa structures, also they are related and integrated with the trend that have been suggested, and this process will be completed by the use of basic rules of design (deletion, addition, repetition, displacement, enlargement and reduction).

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**Table 2** Methodology of Selecting the Arabian heritage as a source of inspiration

<table>
<thead>
<tr>
<th>Table 2-A</th>
<th>Table 2-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational building (architecture college)</td>
<td>Hospitality building (resort)</td>
</tr>
<tr>
<td>Mafruqa is a geometrical Islamic Arabian ornament</td>
<td>- Meqhalh is used as a makeup tool by arabian women</td>
</tr>
</tbody>
</table>

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A
The Clarification of the connection in second model (Hospitality building - (resort)- as be shown in - Fig 9
- deconstruction trend
- Arabian ornament
- chaos concept: chaos is the opposite of geometric order; it is represented by forms and relationships that are complex to describe with the mathematical language - this philosophy translates the maqhalh parts nature and structure, also they are related and integrated with the trend that have been suggested, and this process will be completed by the use of basic rules of design (deletion, addition, repetition, displacement, enlargement and reduction).

5 Apply the previous stage in the interior design's plan and elevation
In this stage, each student tries to apply their final concept – in the project plans – and connect between their concept and the interior design needs and functions by dealing with the plan as a way of Formation approach. - fig 10.
Hospitality building (hotel)

Fig 11 – shows the hotel hall ground floor Plan, the concept grid, the Installation process and the plan with the designed grid – in this stage of interior design process the student only focuses on the form and not the spatial function.

Fig 12 – shows the sketches of the hall ground floor Plan in this stage the interior design process determines the traffic Paths from the grids as a guide to create the formalism Features of the design and that will be the Start point to design all parts of the plan.

Fig 13 - shows the Final plan with the abstraction grids, interior design functions and traffic Paths with suggested colors.

Fig 14. shows the vertical level with the same grids - but this time the interior design process respected the heights and architectures slots. The heritage concept always formed the interior design elements to have the Features between the Islamic heritage and contemporary concept.

Hospitality building (resort)

Fig 15 - shows the second project, which confirms the same previous design process - but with a different building (the resort), and different Arabian heritage motif (the meqhalh, the contemporary trend deconstruction and chaos concept).
Fig 13
Table 3

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Islamic heritage pattern</th>
<th>the intellectual sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Originality (constants)</td>
<td>Contemporary (variables)</td>
</tr>
<tr>
<td>1</td>
<td>(The islamic Turban) a headband and it still have a great value for arabian men</td>
<td>the design process adopted on inspiration from the lines of the turban, then analyzed and stripped these lines in the form of chaos system grid</td>
</tr>
<tr>
<td>2</td>
<td>(The islamic roshan) which as a window</td>
<td>The selective pattern (Unite)</td>
</tr>
</tbody>
</table>
Results

1. The intellectual sustainability of the Islamic heritage in interior design depends on creating a double-dimensional language in interior design, which integrate between the Features of Originality and contemporary.

2. The intellectual sustainability of the Islamic heritage in interior design depends on dealing with interior design philosophy as a kind of matching between Constants and variable standard.

3. The interior design students need to search for the aesthetic value of the Arabian and Islamic heritage – and by solving the interior design problems, the students will be inspired by the heritage.

Acknowledgment

I deeply thank my senior grade students in king of Abdul Aziz University, interior design department.

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