

## **Applied methods of hand tufting carpets as a source for designing and producing textile pendants with Egyptian character and identity**

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### **Abstract :**

The research aims to take advantage of the applied methods of hand tufted carpets as a source for the design and production of textile pendants with Egyptian character and identity, and to achieve the objectives of the study, a group of (10) designs were made, through the foundations of design and technology of hand tufted carpets, using some Islamic geometrics, vegetarian, and Islamic Mafroka, to emphasize and enrich the aesthetic values of the fabric hanging design. A number of designs were selected and implemented using hand tufted carpet techniques (Tuft), and to determine the quality level of designs, their relevance implementation technology, and the achievement of the Egyptian identity, a tool (evaluation form) was designed and applied by referees specialized in the field, after the application of the questionnaire, its data were statistically processed and the best (5) designs were reached, in the end, the study reached a set of conclusions and recommendations, if applied, it can achieve an advanced level in the quality of hand tufting carpet industry in general, and the design and production of pile textile in particular.

### **Key words:**

Hand tufting carpets - pile weaving pendants - Islamic geometric motifs

### **Study problem / the most important elements of the research problem can be identified in the following:**

#### **First/**

1. The scarcity of studies and researches on how to apply semi-automatic carpet techniques.
2. The high cost of selling lanugo textile products.
3. The limited designs implemented in manual and automatic carpets in the Egyptian local market.
4. The limitation of the techniques for the implementation of terry textiles in the local market to a limited number of techniques that do not meet the need for professional development in the textile sector.

### **Second /To Answer the following questions:**

- 1- What is the possibility of creating designs for woven and purely Egyptian-style pendants?
- 2- What is the possibility of benefiting from the semi-automatic (tuft) carpet method in the production of lanugo pendants?

### **Study importance:**

- 1- The study contributes to opening a wider field of experimentation in the field of semi-automatic (Taft) carpet industry.
- 2- Providing specialists in the field of designing and producing pendants with innovative designs inspired by the Egyptian Islamic heritage for use as pendants and berries.

### **Objectives of the study:**

- 1- The study aims to take advantage of the applied methods of semi-automatic carpets as a source for the design and production of textile pendants with an Egyptian character and identity.
- 2- Filling and meeting the Egyptian and Arab market requirements for everything new and innovative in the field of textile pendants.
- 3- Developing techniques of manual and semi-automatic carpets with new and innovative methods that, if applied, can achieve an advanced level in the design and implementation of textile pendants for competition in the local and international markets.
- 4- Analytical study of Islamic motifs (geometric and botanicals) and making use of them in contemporary designs for tapestry pendants.

### **Study hypotheses / the current study is based on the following assumptions:**

- 1- There are statistically significant differences between the averages of the arbitrators' opinions on the elements of quotation and design of the executed piece.
- 2- There are statistically significant differences between the averages of the arbitrators' opinions on the extent to which the design principles are met.
- 3- There are statistically significant differences between the averages of arbitrators' opinions on the illusory third dimension and its employment in the executed pieces.
- 4- There are statistically significant differences between the averages of the arbitrators' opinions on the functional aspect of the tissue pieces performed.

### **Limitations and tools of the study:**

- 1- Using hand tufting carpet production techniques to design and implement the study samples.
- 2- Using various materials (cotton, wool, viscose, and polyacrylic).
- 3- The use of Islamic motifs in the proposed designs (geometric, architectural, botanical, Arabic calligraphy).
- 4- The field of employment: woven and loose pendants suitable for use in the field of interior design for contemporary homes and tourist villages.
- 5- The number of proposed designs: 10 designs, and the number of designs implemented: 5 designs.

### Study Approach :

- Given the nature of the study and its dimensions, the current study follows the descriptive and analytical approach to achieve the goals.

### Practical and applied study:

- This part deals with the design and implementation vision of the study designs, as the study dealt with preparing a group of 10 proposed designs inspired by the heritage of Egyptian Islamic art. The best 5 designs were chosen according to the opinions of the arbitrators to be executed using the semi-automatic carpet method.
- The following is a presentation of the design vision adopted by the study for the proposed designs:



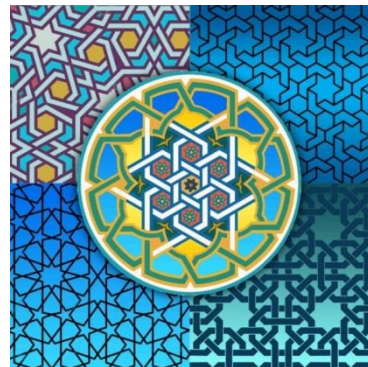
design 2



design 1



design 4



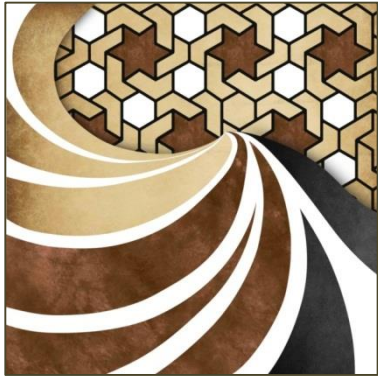


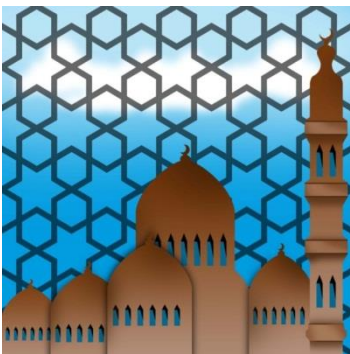
design 3







design 6



design 5

 <p>Design 8</p>	 <p>design 7</p>
 <p>Design 10</p>	 <p>design 9</p>

## Second / Execution specifications for executed pieces:

 <p>pendant design (7) using wool / acrylic / cotton yarn with a height of 18 mm: 122 cm length x 122 cm wide</p>	 <p>pendant design (6) using viscose / acrylic yarns of 18 mm pile height 120 cm length x 120 cm wide</p>
 <p>pendant Design (9) using wool / cotton / acrylic yarn with a height of 18 pile 130 cm length x 130 cm wide</p>	 <p>pendant Design (8) using wool / viscose / acrylic yarn of 18 mm pile height 130 cm length x 130 cm wide</p>



pendant Design (10) using wool / viscose yarn with a height of 18 mm pile  
130 cm length x 130 cm wide

**Results: After applying the design evaluation form, analyzing and treating the data statistically, the following were found:**

- 1- All opinions agreed on the diversity of designs, the surface texture, the materials used, and the aesthetic harmony between the colors, the decorative units, and the floor, in a way that is largely compatible with the functional purpose of textile and bare pendants.
- 2- The use of all kinds of Islamic art decorations helped produce contemporary weaving pendants in terms of shape and design.
- 3- The prominent and sunken effect was obtained clearly by using the etching method in the textile pendants produced by the semi-automatic (tuft) carpet method.
- 4- Its contemporary character and keeping up with modern thought was achieved by implementing innovative design ideas and obtaining aesthetic effects by using computer programs in research designs.
- 5- The executed weaving pendants achieved the design coherence in familiarity and harmony, which led to the emergence of the artwork in a single coherent entity.
- 6- The use of modern methods in the production of wall hangings enriches their aesthetic value, and it also allows the freedom to produce the hanging in different shapes, whether square, rectangular, and circular or any other shape.

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### Recommendations:

- 1- Expanding studies and research related to the textile industry in general, designing and manufacturing tufted carpets in particular, and taking advantage of the applied methods of the semi-automatic carpet method to obtain textile pendants characterized by uniqueness, modernity and diversity in height and littance.
- 2- Holding periodic and permanent art exhibitions that depend on innovation and renewal to enrich the art of textile hanging.
- 3- The need to pay attention to historical arts, such as Pharaonic, Coptic and Islamic art, to make use of it as a source for textile design.
- 4- The designer must resort to a source of inspiration or be influenced by a source that represents for him an incentive for creativity, so designers must make field visits to museums and archaeological areas, which increase the ability to inspire, innovation and creativity in design.
- 5- Establishing some small and specialized projects in the production of semi-automatic carpets in its various forms, thus contributing to finding job opportunities for graduates specialized in textile design and manufacture.
- 6- The necessity of providing the faculty laboratories with semi-automatic carpet manufacturing machines and specialized design programs, aiming to train students to produce this important quality of carpets and to facilitate graduate students to carry out their applied research.

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