



Alexandria University
Faculty of Fine Arts
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Contemporary trends by using modern textile techniques as an aesthetic and functional component in interior design

**A Thesis introduced to the Department of Decor
Masters Degree in Fine Arts
Specialization Decor - Interior Architecture**

Updating of the studies assessed for the degree of Master
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Thesis summary

This research study is discussed in five consecutive chapters: where we address with explanation and analysis several points that compose the realization of the impact of textile of interior architecture in different spaces there for:

Chapter One : Introduction to Textile Science And Its Use in Interior Design

This chapter deals with The Evolution of Textile and its use in interior design and its elements, through the history from the ancient times to the industrial revolution and its effects on technology to the contemporary era finally. It also deals with the definition of textile and gives information about different types of textile such as the Traditional types like using the woven textile and Crochet in design different interior elements, and also some modern types such as Non-woven textiles like Compressed Lint and its uses in designing whole interior space by studying it's criteria in design without disrupt its functions through understanding Flexibility factor in the interior spaces. The objective of the study is to solve a number of problems by using the traditional fabric idea and the development of the raw material by presenting a variety of different models for the use of different types of textile in the designs of internal spaces.

Chapter Two : The Relationship of the Formation of Internal Spreads With Textile techniques

This chapter deals with the flexibility criteria and its impact on the interior space and the ways to achieve its design criteria without disrupt its functions by studying the flexibility factors and the space determinants in the elements of furniture such as Built-in, multi-use convertible and folded units. The impact of design technology was also studied with the way to Implement it in fabrication of structure of the unit to achieve light furniture. Also by using different types of textile to design different furniture units and elements and the way to apply these flexible products at different spaces like commercial, medical or residential spaces to achieve maximum flexibility and configuration, this helped to make weight of elements lighter.

Textiles were the most suitable in the composition and using compared to other materials in terms of durability, light weight and the various ways to achieve comfort and freedom of implementation in the design.

Chapter Three: Mix of Textiles with Other Materials

This chapter deals with the definition of integration textiles with other materials, and the integration of characteristics of the two raw materials then the identification of new common properties and their use in interior design techniques.

Textile Reinforced Concrete has helped in the formation and design of different furniture units until the final form and produce Variety of different furniture's units

1 - Textile Reinforced Concrete are less likely to use concrete because the formation itself is done by textiles, and not consuming large amount of concrete because textiles play a large role in shaping the final structure.

2- it provides new surfaces and designs characterized by the shape or structure of the sculpture, and makes the appearance of the exterior surfaces like sculptures

3 -it has helped to reduce costs, because the use of textile costs in the work of molds less than traditional methods.

Disadvantages: - 1- The shapes became very complex and it became so difficult to analyze these forms, and the final structures became very complicated and eventually became incomprehensible structures.

The process of integrating textiles with plastic produces new materials that combine the properties of each of them to form and design new different elements of different furniture units.

The importance of mineral's uses as a decorative element has an aesthetics value in the interior design helps to highlight the functional and aesthetic values as material that has an important role in the design process of interior space , and the way to merge the textiles with the metals and as result of that it helps in using the reflection of the light and aesthetic aspects in the different designs With textiles to accentuate softness.

Wood is one of the most configurable materials, but it is formed according to cutting or pressing methods only. However, when combining textiles with wood, dynamic fabric softness is produced in the design and wood is added aspects such as hardness, strength and stability to the fabrics.

Chapter Four : Computer Technology, Digital Manufacturing and Its Impact on Fabric in Interior design

This chapter Identify some common characteristics of newly innovated materials, in the purpose of understanding and analyzing its effects on interior design, and this can be achieved by using digital technologies, in order to Exploit it in the optimum and right use in interior design, and illustrate the enormous potential of modern textiles, which enable the interior designer to implement the most complex designs.

The technical characteristics of the computer use in the field of textile design technology has led to the development of modern technologies to revolution similar to the industrial

revolution, and has been associated with textiles and modern materials in the interior design of the development in this area, because the machines were connected to the computer, which were moved according to the orders and coordinates stored by Design, engraving, sculpting, cutting and shaping, so that the machines are connected to computer programs to produce different and variable designs.

it achieved the operational characteristics of the interior designs with precision and high structural strength, to a very high level of perfection, the three-dimensional textile technique is flexible in composition compared to traditional materials characterized by low weight, precision made, small thickness, and durability.

Chapter Four : Future Technologies and Their Relationship to the Fabric

This chapter deals with the definition of smart materials such as smart textile and nanotechnology with the factors that led to the emergence of this technology, which will in turn improve the characteristics of the textiles and materials of interior architecture such as thermal and physical properties, chemical, electrically and photovoltaic.

This chapter includes the impact of intelligent textile technology on furniture and interior space's elements and how to use them at home or in medical centers or nursery and also how to link the function between the textile and interactive furniture as a result of the remarkable development in the field of computer technology and the strong relationship between individuals and computers and electronic devices. Interactive furniture is the culmination of progress in the furniture that interactive furniture items can understand the needs of users and their requirements on their own and thus the ability to take responses.

Interactive furniture also can achieve different functions according to the needs of its users, using smart systems and modern technologies, and answer the question of how to benefit from nanotechnology technology on the different interior spaces elements.