A Design Approach for Printed Women Fabrics Benefit from The Aesthetic Structure of Bio Mimicry Science

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Abstract:

Nature has its own principles to preserve the ecosystem. It is the main source of various systems. Nature's capabilities are superior in many fields that allow design solutions to some problems. The concept of biomimicry design combines biology and engineering to achieve complete unity, and to create sustainable design strategies based on taking advantage of solutions found in nature to solve various design problems.

Design is one of the important fields of life. It is an artistic thought that accompanies the trends of arts as a artistic construction process that can be discerned from nature, the organization of elements, blocks, spaces, volumes and interrelations to achieve unity, balance, rhythm and movement within the artwork. For the design process to perform its function successfully in accordance with the concept and requirements of the design media; The biomimicry science became an approach to scientific thinking and engineering systems taken from nature to reach various entrances to artistic creativity.

Biomimicry design is one of the newly emerging scientific and artistic way that produced by simulating nature's systems and employing them in various designs to express and build contemporary design thought that simulates nature and its construction.

Therefore, this study seeks to use the direction of biomimicry design as an aesthetic dimension to present a new vision to devise innovative designs with different tactile, sensual and visual effects for women's printing fabrics through color calculations and repeated formal rhythms.

Keywords:

- Design Approach - Aesthetic Structure - Bio Mimicry Science

Research problem:

The problem of research is that designs of printing women's fabrics retains some traditional patterns and solutions, so the study is aiming to reach contemporary design structures for the printing surfaces of women's fabrics from the direction of biomimicry design; through the analysis, study and development of the foundations of structural systems in nature, and then reach an experimental entrance and innovative new formative visions.

Thus, the problem of research is determined by the following:

- How can we depend on the practical thought based on the variables of the biometric design direction to reach a design construction for the printed surfaces of women's fabrics?
- How to benefit from the development of an updated system to produce a contemporary printed design building for women's fabrics that achieve creative approaches that keep in

DOI: 10.21608/JSOS.2022.163716.1297

touch with fashion to practice the experimental thought of the variables of the direction of biomimicry design.

Research importance:

- Contribute to the identification of the basics and structures of the biomimicry design trend by providing a descriptive, analytical and technical study of the design elements and components.
- Introducing new experimental entries; To find modern aesthetic formulations for the design of women's printed fabrics by making use of some special computer programs in the direction of biomimicry design.
- Overcoming some design and application problems to produce printed designs for women's fabrics.
- Interest in enriching the thought of the textile printing designer; By applying the techniques and tools of specialized design programs to create designs for women's printed fabrics.

Research aims:

The research aims to:

- Reaching a contemporary design structure in the field of textile printing design by taking advantage of the biomimicry design.
- Opening new horizons for the production of women's printed fabrics characterized by unique designs and applications and richness of fine values.

Research Methodology:

The research follows the descriptive analytical method and the experimental method, including the theoretical framework.

Research hypotheses:

The search assumes:

- There is a positive significant relation between the application of the foundations of building design based on the direction of biomimicry design, which is inspired by the foundations of nature and the design of innovative printed women's fabrics.
- The aesthetic construction based on the biomimicry design and printed designs constitutes a new, unconventional, innovative idea that enriches the design of printing women's fabrics.

Research limits:

The study presents a design approach that adopts biomimicry architecture and printing surfaces for women's fabrics, with the use of the techniques of some specialized computer programs, as a new intellectual approach; Enriches the design of women's textile printing through innovative construction processes and design alternatives.

Procedural steps:

The procedural steps are as follows:

Theoretical framework:

- Specifications of simulation of nature.
- The aesthetic structural foundations of the biomimicry design.
- Sources of inspiration from nature through biomimicry.
- Nature simulation methods.
- The interrelationship between textile and fashion printing design, and biomimicry.

Experimental framework:

A design approach to women's printed fabrics, taking advantage of the aesthetic structure of biomimicry science.

Application framework:

- Design experiments implemented for women's printed fabrics, which are inspired by biomimicry architecture.

Statistical analysis study.

Research results:

• There is a positive relation between the application of the of biomimicry science in general and the biomimicry architecture in particular and the design of women's innovative printing fabrics.

• The results of the ten (11) design experiments and their use as models for women's clothing bearing visual, aesthetic and functional features of the research agree with its objectives, which presents a distinctive thought.

• Establishing a design approach for women's printed fabrics by taking advantage of the aesthetic structure of biomimicry science to produce print designs for women's fabrics with an aesthetic, visual and functional dimension that created new concepts for design.

• Developing a fabric design method for women using specialized computer programs. presented many design solutions and alternatives.

Recommendations:

The researcher recommends the following:

• More research and academic studies interest in modern theories.

• Work to encourage and expand the use of digital technologies in design.

• Introducing new experimental approaches to aesthetic formulations based on making use of biomimicry science and textile printing design.

• Raising the efficiency of printed designs for women's fabrics by linking the produt, designer and outlet to Know the market needs.

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