

The Aesthetic philosophy of Repetitive patterns in Nature and Its Application in Furniture design

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Introduction

Nature, in all its forms of life, contains many aesthetic values. Nature derives its beauty from the absolute beauty of the divine self. These aesthetic values arise through a set of formal foundations that construct and define the general framework upon which this precise system, for the distribution of structural elements that make up the shape of those organisms in nature. Patterns in nature are regular manifestations of the model found in the natural world. These patterns are repeated in different positions and can sometimes be mathematically modeled. Repetition in nature reveals the composition of various elements and objects and emphasizes their visual forms on the eye optical net and shows its beauty through formal philosophical dimensions such as motion, contrast, harmony, proportionality, assertion and unity, and is dominated by a uniform factor of these dimensions, if not one of the most common factors of the diversity formulated for natural elements.

In art and design, just as in nature, repetition highlights the potential of artistic elements within interior design through its rhythmic repetition and its varied, contrasting, symmetrical, and concentric diversity, which emphasizes movement and visual rhythm, and repetition makes the meditator a holistic view of repetitive forms and the relationship between its parts and The aesthetic values of these parts within the design.

The designer purpose to study this natural environment thoroughly and consciously, to devise its design and structural philosophy to reveal the principles, foundations, form and composition of the kinetic rhythm of the objects, and to benefit from these foundations in the field of furniture design and to add these natural aesthetic values to design. The functional and aesthetic of design have to bring comfort and luxury.

Research problem

The desire to draw the philosophical frameworks of the aesthetic aspects in the repetitive patterns found in the natural elements and try to link them with the elements and component of furniture units is the main research problem by analyzing these repetitive patterns and what it contains and discover the relationship between those components and what they can offer of aesthetic aspects which can be applied in furniture design.

Research Thesis

Aesthetic values arise through a set of formal foundations that build and define the general framework upon which this precise system of natural organisms is based. For these patterns and stand on its formal philosophy to extract aesthetic values and apply those values in the field of furniture design.

research aims

Furniture has always been a symbolic aspect of the lifestyle and cultural richness of humanity. The research aims to identify the philosophical frameworks of repetitive patterns in nature and the laws determine their formations and their aesthetic values, which can be applied in the field of furniture design and emphasize the interest in the natural environment, including elements and natural objects of various forms, Sizes. and their direct impact on human life being a source to meet all his needs not only at the physiological field but also at the psychological field and aesthetic sensation.

Research Methodology

Descriptive analytical approach through analysis of the manifestations of repetitive patterns in nature and find the philosophical foundations for the formation of those patterns and identify the aesthetic values contained in them and apply those foundations in the field of furniture design.

1 - Manifestations of repetitive patterns in nature

symmetric – fractals - Spiral - wavy - Chaos, meanders - foam – bubbles Regular - cracks – Spots – stripes.

2- The philosophical aspect of repetitive patterns in nature and their relationship to design

Philosophical studies put us at crossroads of problems. philosophical studies that relate to the aesthetic aspects usually emerge several questions about what is beauty, beautiful and its transformations and differences and manifestations according to different philosophical doctrines - natural, existential, ideal, material and pragmatic - and how to employ those aesthetic values with what beyond the limitations of art, ethics, and thought. and how to be the aesthetic values positive

-movement

The concept of movement in nature is linked to the repetitive patterns of beings in the universe. The universe created by God and its biology and physical objects belonging to nature moves in its own system., The sun orbiting the galaxy, the repetitive heartbeat that drives blood in human veins, the repetitive patterns that we find in the movement of creature's travel, and the repeated sea waves on the beach.

The endless repetition that God has found in the elements of nature also leads to the occurrence of the perpetual motion of the eye lurking within the boundaries of beings, which is reflected in shapes, colors, and spaces, which would create an affirmation of the realization of the shape on the contemplating eye, making a rhythmic repetition of regular, reciprocal, opposite, or symmetrical. To the other forms of repetitions.

Repetition in all its variations contributes significantly to the realization of motion effectiveness, and the movement in art has become the element that determines the components of the work of art from a part to another has become an important objective in the design processes as it achieves the factor of attraction and visual tension, which arouses the interest of the recipient and Direct him to follow and observe this work with sequentially and continuous steps

-Contrast

Contrast is the clear and apparent difference. Each element of nature has a particular shape or form that distinguishes it from other nature elements. Not only does this distinction exist between elements of a divergent visual nature, but it also clearly exists between a single-element society. Individuals of mankind that fills and spreads the Earth are different among themselves not only in height, skin color, or body but also in their Sounds and facial features, and this difference in bodies features of all human beings achieve some kind of disparity that makes each person a distinctive character, and was not the disparity between members of the human element in those differences only the fact that the fingers of one hand of any human be different, each finger different in its form of the rest of the other fingers. Indeed, if we look closely and examine the accuracy of the fingers of one hand, we find a strange and delicate contrast indicating the greatness of the Creator and this disparity lies in the fingerprints of those fingers, where each person unique and distinctive fingerprints can not match with other fingerprints of any other human being.

Since design does not depart from being a visual art, our visual perception of the work of art is no different from that of any other visual field, because the work of art is in fact an object that is recognized as other perceptions, as well as the difference in art and design does not differ from the contrast in any perception we deal with him in various manifestations of life

- Harmony

Harmony can be considered as a pattern of movement. Harmony is achieved by contrasting the repetitive patterns of natural elements, which are repeated in a regular sequence by repeating lines, colors and shapes. Replication is the simplest way to create rhythm and harmony by shapes, light, size and ratio.

Harmony is an area for realizing movement. Harmony in many ways is a term for the frequency of movement on a regular basis that combines unity with change in the perception of the morphological features of the visual model.

Everything in nature is subject to the laws of harmony. Man also feels that beauty that based on laws of proportionality. The proportionate nature reveals in its formations a deeper beauty than the apparent beauty, that is, the beauty of truth hidden in all its diversity. Man's sense of beauty reflects the structure of man himself, based on natural laws of harmony; human consciousness is, in essence, a harmony with nature.

Nature constantly tends to create more complex models; at the same time, it maintains a basic pattern. The complexes of natural structures can be traced back to the conflict and overlap of fundamental fractals. Thus, in the midst of the chaos which nature prone, we find a systematic type of proportionality laws.

- Balance

Balance is equilibrium, and equitable distribution of elements around the form so that does not prevail over one of them to the other; balance means the equilibrium of the two sides in the weight placed in both, and balance is an instinctive feeling resulting from the nature of gravity. it is a phenomenon associated with the nature of the universe. The build and structure of the human being achieve his balance. This is also the case for plants in terms of leaf distribution on both sides. This brings him balance and birds as well as the presence of wings on both sides and the distribution of feathers achieve a natural balance.

Balance is one of the main characteristics that have an important role in each matter, such as the aesthetics of design or coloring, so as to achieve a sense of psychological comfort and tranquility when viewed, and man soul seeks to find the balanced relationship that resulted from aesthetic unity of form elements, and balance is one of the most important foundations in art that relates to form, resulting in a balanced relationship between shapes, colors and lines in any artwork.

-predominance

We see the great importance of the principle of predominance in forms and designs. The unit of form requires that the lines of a special nature or a certain direction or areas of a special form or a certain texture or size prevail, so that the composition is a priority part that draws attention to it and the predominant center of artistic work, whatever its nature is the nucleus that the work is built around

- Unity

It does not necessarily mean the similarity of the components of natural formation, but rather the achievement of two basic considerations in the composition are the harmony that forms the relationship of the parts of the composition to create a sense of the continuous link between these parts and confirm its connection, and the way that forms the relationship of each part separately with the general form of integration without the dispersion or confusion.

The important aspect of the visual unit is that the form controls its parts where seeing the design elements with each other before observing the separate elements and each element may contain a special meaning, but it adds another meaning to the composition as a whole and the viewer sees the overall design from the simple compilation of units

3 - The concept of furniture design

The term “design” raises many questions. Many researches have dealt with many of the opinions around in its definition, and the origin of the word design is to move on for planning some thing or solving a problem. the meaning of design has exceeded the word verbal meaning to the terminological meaning. Design is an innovative process that arises in mind and is guided by the will of the individual to appear in physical forms.

- Results

Nature does not convince of a particular pattern, but nature abounds in an infinite range of forms and patterns of repetition, those patterns of repetition - with different manifestations, from symmetric pattern to fractals, Spiral, wavy, Chaos, meanders foam – bubbles Regular cracks Spots, stripes. all these types of patterns can also be modeled mathematically and even this chaotic pattern, which seems difficult to understand and analysis can also through observation and computational analysis predict his behavior and the way it works. Therefore, these repetitive patterns contain a set of formal aesthetic foundations, which can be applied in the field of furniture design, and those foundations are

- Harmony - Motion - Contrast - Balance - Proportion - Unity - predominance

- The aesthetic formal foundations in the repetitive patterns in the natural elements are not individual.

- Recommendations

- Nature in all forms of life was and is still the first human teacher, who always returns to it to have experience. we find that nature is still a wide field of enrichment and an inexhaustible source for the imagination of the designer and his creations, but he must ponder, observe, research, discover and try to understand nature around him to provide new solutions Aesthetic, functional and technical aspects.

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