

Connecting the aesthetics of abstract art of geometric shapes to modern architecture "Formation of architectural blocks and urban spaces"

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Abstract – Architecture differs from other knowledge in that it is closely linked to art, especially composition. Architectural design makes more use of elements. Art because of its importance in human life and this is clear through the common design elements between art and architecture, especially abstract art. The research was based on a descriptive analysis of the values through which the aesthetics of abstract art can be linked to the architectural formation of blocks and spaces and applied practically to a group of abstract art paintings of geometric shapes that were transformed into ideas for architectural projects. This research aims to understand this relationship and shed light on how abstract art concepts can be transformed into architectural and urban design elements.

Keywords: abstract art, Geometric shapes, Formation, and aesthetics, Architectural blocks, Urban spaces

I. INTRODUCTION

Abstract art and modern architecture are two artistic responses that developed in the twentieth century, characterized by an emphasis on abstraction and a move away from traditional details. Although they are different, they share the use of simple geometric shapes and treat them in a fresh and contemporary style. Abstract art is an artistic trend that focuses on expressing shapes and colors alone, without realistic representation of natural elements. In modern architecture, the emphasis is on using simple geometric shapes and stripping designs of traditional details.

In short, the aesthetics of abstract art works to achieve balance, flow and harmony in artistic expression, and these values can also be present in the designs of architectural blocks and urban spaces Which contributes to creating a distinctive aesthetic experience, which will be presented in this research paper in an applied manner, emphasizing the theoretical part.

II. MAIN DEFINITIONS

II.1. Abstract Art

- Abstract art is an artistic movement that originated in the twentieth century and focuses on expressing shapes and colors alone without realistic representation of natural elements.

- Abstract art aims to focus on aesthetic elements such as lines, shapes, and colors, and seeks to achieve a profound aesthetic effect through abstraction and simplicity.

- Abstract art expresses the artist's own artistic feeling and experience and is often open to multiple interpretations by viewers.

II.2. Modern architecture

- Modern architecture is an architectural trend that arose in the twentieth century and aims to move away from traditional designs and excessive decoration, and to

focus on simplicity, practical functionality, and optimal use of available materials and technology.

- Modern architecture uses simple geometric shapes such as squares, rectangles, and circles, and aims to create geometric designs that are both functional and beautiful.

- Modern style focuses on the use of free space and appropriate fittings to enhance the user experience and achieve a balance between space and mass.

The intersection between abstract art and modern architecture:

- In modern architecture, many designs are inspired by the principles of abstract art, such as simplicity, abstraction, and optimal use of geometric shapes.

- Architecture can be influenced by the colors and shapes of abstract art, and these elements are included in the concept and design of buildings and interior spaces.

- Some modern architectural projects include abstract artworks as an embodiment of the design philosophy and to add aesthetics to the buildings.

II.3. Aesthetics Of Abstract Art

Abstract art aesthetics revolve around shapes, colors, lines, and spaces alone, without focusing on depicting reality, providing a clear message, or representing something specific. It focuses instead on pure and aesthetic visual expression based on artistic elements and geometric organization.

1. **Abstraction:** Abstract art is considered the exclusion of details and interpretations and the expression of meanings and emotions in a direct way. He

focuses instead on shapes, colors, lines and geometric arrangements to convey a sense of balance and harmony.

2. **Moving away from realism:** Abstract art separates itself from realistic photography, allowing the artist greater freedom to express and shape ideas in an artistic form free from realistic restrictions.

3. **Color and composition:** Abstract art highlights color and its distribution artistically without being restricted by reality. Abstract artists use color innovatively to achieve exciting visual effects.

4. **Balance and harmony:** Abstract art seeks to achieve balance and harmony between the various artistic elements, which gives abstract works a clear aesthetic and visual appeal.

5. **Personal Expression:** Although abstract art departs from realistic depiction, it strongly reflects the artist's personal expression. Abstract artists can express their own feelings and ideas by using shapes and colors in unique artistic ways.

II.4. Aesthetics Of Architecture

1. **Simplicity and abstraction:** Modern architecture uses simple geometric shapes and reducing excess details to achieve balance and beauty in architectural designs.

2. **Balance and harmony:** Architecture uses geometric architectural blocks to achieve balance and harmony between the various elements in the design.

3. **Flow and movement:** This can also be demonstrated in architectural designs by organizing architectural blocks in a way that makes them appear to flow or move.

4. **Repetition and harmony:** Abstract art may use repetition to create patterns and achieve visual harmony. In architectural design, repetition of architectural blocks and geometric shapes may be used to achieve unity and harmony in a project.

5. **Investing in spaces:** In abstract art, negative space is an essential part of the composition. This concept may also be reflected in architectural design by thinking about urban spaces and making optimal use of them to improve the quality of the project.

III. **SIMPLICITY AND ABSTRACTION BETWEEN ABSTRACT ART AND MODERN ARCHITECTURE AND URBANISM**

Minimalism and abstraction are two concepts associated with abstract art, modern architecture, and urbanism in general. Each of them has its role and applications in the artistic, architectural, and urban context. Let's explore how these two concepts are embodied in both abstract art and modern architecture and urbanism:

	abstract art	modern architecture	urbanism
Minimalism	It is characterized by simplicity of expression, as it reduces excess detail and decoration, and aims to focus on simple shapes, colors, and basic aesthetic elements. Abstract paintings may be composed of simple geometric shapes, straight lines, and bright colors.	Simplicity and abstraction as well, and it seeks to remove excess decoration and unnecessary elements from architectural designs. Focuses on the use of simple geometric shapes such as rectangles, squares and clean surfaces.	Modern cities try to simplify their designs and organize spaces comfortably and functionally for residents. Focuses on providing the necessary infrastructure and public services efficiently.
Abstraction	Freedom from realistic representation and focus on expressing shapes and colors for themselves. Abstract paintings may express feelings or ideas without having to depict the outside world.	It embodies abstraction by moving away from traditional designs and decorations that are of no practical use, and aims to highlight the intrinsic structure and visual form of the building.	Abstract urban planning aims to be free from traditional elements and complex designs and focus on logical organization and exploitation of spaces in an innovative and attractive way.

tab. 1. Simplicity and abstraction between abstract art and modern architecture and urbanism

In general, minimalism and abstraction show commonalities between abstract art and modern architecture and urbanism, as both aim to achieve beauty in simple ways and more focused on shapes, lines, colors, and spaces.

IV. BALANCE AND HARMONY BETWEEN ABSTRACT ART, MODERN ARCHITECTURE AND URBANISM

Balance and harmony are important concepts in abstract art and modern architecture and urbanism, as each seeks to achieve balance and harmony in designs and layouts to create a calm and attractive aesthetic appearance. Let's look at how these two concepts are embodied in each of them.

	abstract art	modern architecture	urbanism
Balance	By distributing shapes, colors, and lines harmoniously on the canvas. Balance is achieved when all elements appear balanced and harmonious without one overpowering the other	Architects and city planners strive to achieve balance in building designs and urban projects. Balance is achieved when architectural blocks and urban spaces are balanced and give the impression of visual balance	
Harmony	Abstract art aims to achieve harmony between shapes, colors and lines so that they are harmonious and complementary to each other. Harmony is achieved when elements are harmonious and fit together in a calm and attractive way.	Modern architecture and urbanism aim to achieve harmony between the buildings, spaces and urban spaces surrounding them. Harmony is achieved when buildings blend well with the surroundings and enhance the quality of the surrounding urban spaces	

tab. 2. Balance and harmony between abstract art, modern architecture, and urbanism

In general, balance and harmony are common aspects between abstract art, modern architecture, and urbanism. Each aims to create balanced and harmonious aesthetic designs and layouts that provide a calm and comfortable

experience for the viewer and user. Balance and harmony play an important role in creating comfortable and attractive urban spaces and in giving order and aesthetics to abstract art and modern architectural designs.

V. FLUIDITY AND MOVEMENT BETWEEN ABSTRACT ART, MODERN ARCHITECTURE AND URBANISM

	abstract art	modern architecture	urbanism
Fluidity	Fluidity is achieved by stripping forms of traditional detail and using curved lines and organic shapes that appear to move in natural motion	Flow can be achieved through the use of curves and organic shapes in the design of buildings and urban projects. Fluidity gives designs a feeling of movement and fluidity and makes them appear cohesive and flowing	
Movement	Some abstract works may suggest movement and dynamism. Abstract paintings may use color and shape to convey the impression of movement and change over time	Modern architecture may show movement in designs through the dynamic layout of buildings and the use of geometric shapes and curves to create a sense of movement and dynamism. Modern architecture may also be abstract architecture that uses clean lines and simple geometric form to convey the impression of movement and vitality.	

tab. 3. Fluidity and movement between abstract art, modern architecture, and urbanism

In general, fluidity and movement are aspects common to abstract art, modern architecture, and urbanism. Each of them seeks to achieve vitality and dynamism in designs and projects, whether it is through abstract artworks that express visual movement or through architectural design and urban planning that uses shape and geometric shapes to create flow and movement within the building or city.

VI. APPLIED MODELS

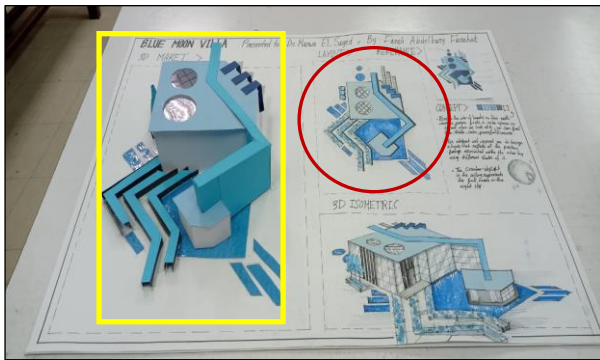


fig. 1. A residential villa project proposal taken from an abstract painting of geometric shapes.



fig. 2. A proposal for a cultural complex project taken from an abstract painting of geometric shapes.

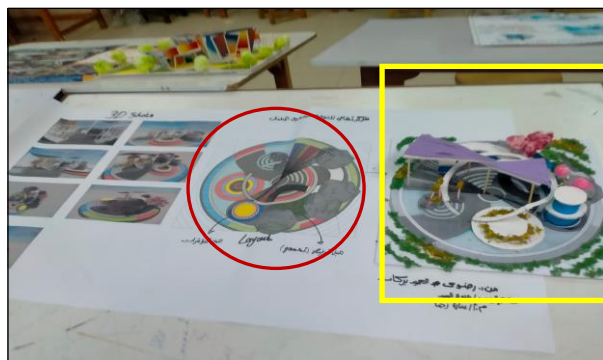


fig. 3. An exhibition group project proposal taken from an abstract painting of geometric shapes.



fig. 4. A museum project proposal taken from an abstract painting of geometric shapes.



fig. 5. The Aquarium Museum project proposal is taken from an abstract painting of geometric shapes.



fig. 6. The Music Education Center project proposal is taken from an abstract painting of geometric shapes.

○	Original abstract painting
□	A three-dimensional model of the architectural project proposal, the design idea of which is taken from an abstract painting

VII. CONCLUSION

- Abstract arts are considered one of the most unique and distinctive artistic experiences in the world of contemporary art. Abstract art is believed to open the door for artists to express their thoughts and feelings in innovative ways that differ from traditional realism. In this context, geometric shapes come as a distinctive and prominent element in this art.
- Geometric shapes are an outstanding example of simplification and order in the artistic world. These geometric shapes represent a fundamental concept in abstract art and highlight the geometric dimensions of beauty and design. Ranging from rectangles and circles to triangles and triangles, these shapes offer unlimited creative possibilities for artists to explore and embody their ideas.

- The use of geometric shapes in abstract art has a profound impact on architecture and the design of buildings and urban spaces. These forms represent a challenge for architects to activate them concretely in the architectural structure and urban environment. Geometric shapes can add aesthetic and beautiful touches to an architectural structure and be a distinctive element that differs from traditional styles.
- In addition to aesthetics, geometric shapes contribute to directing architectural design towards simplicity and harmony. They contribute to finding a balance between the aesthetic and functional dimensions of buildings and urban spaces. Therefore, architectural aesthetics and visual quality are achieved in conjunction with meeting practical needs and uses.
- Geometric shapes can be seen as an architectural bridge between abstract art, architecture and urban design, as their aesthetics and simplification add distinctive and beautiful artistic touches to the built world around us.

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