

## The Impact of Movement on Artwork Structure

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### **Abstract**

The research is concerned with Movement in artworks and its effect on the structure of artistic works, The study deals with Movement as a terminological definition and as an artistic concept. The artwork structure consists of a group of elements when any changes occurs to one of them, the other elements changing as well. This changes in the artwork structure must have motivation in order to transform from one state to another, that is what we call (movement). The research focused on the real external movement, not the virtual movement. the research also focused on the apparent types of movement and affirming its role in the structure of the artwork, with a clarification of its effect on the artwork structure and its external form. Therefore, the researcher divided the types of movement into four main categories, namely the optical illusion movement, which is represented in the optical art, a hybrid art that combine two disciplines; Art and Psychology. This kind of art makes the recipient involved with the artwork, sharing his own experiences to understand the artistic visual structures. The research study the actual movement, which is areal movement accrues by the artwork elements. Either the movement caused automatically powered by any energy source, or the recipient himself becomes the driving mechanical forces, or these forces are natural like (wind, water or sun it is a real movement). Another type of movement is occurs by moving 2D image sequentially, which we call it (video). Video Art is no doubt one of the most important artistic medium that indicate movement within a visual form, Another kind of Movement in artworks depends on light which act as an artistic medium creating movement by generating colored and luminous shapes.

### **Keywords**

Movement, Structure, Artworks

### **Research Problem**

- 1- Is the effect of movement on the artwork followed by a change in its outward appearance?
- 2- Is it possible to access kinetic techniques that enrich the value of the artwork?

### **Research Importance**

- 1- Emphasis on the role of movement and its impact on the apparent structure of the artistic work.
- 2- Explain the different types of movement (whether for two-dimensional or three-dimensional work, and whether it is an appreciative movement or a realistic movement).

### **Research Aims**

- 1- Emphasis on the element of movement in the artwork and its importance.

### **Research Hypotheses**

The research assumes that the movement has a clear effect on the difference in the external structure of the artwork.

### **Research Methodology**

Descriptive and analytical approach

### **Search Limits**

The research analyzes the works of artists from the twentieth century and the present era.

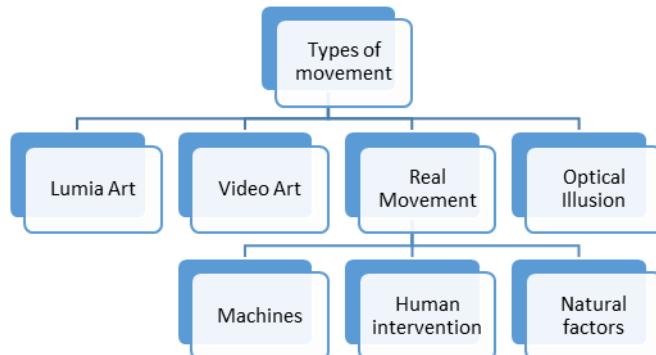
#### **The effect of movement on the structure of the artwork**

Strauss asserted in the conventional definition that a structure consists of a group of elements, when a change takes place in one of them, a change occurs in the rest of the elements. So any change in those relationships will bring about a change in the outward structure of the artwork. If we divide the human arts so that (sculpture - drawing - photography) is called space arts and (music - poetry - literature) is called time arts, just as (dance - dramatic acting - video arts) is one of the temporal - spatial arts, then the arts can be transformed. Spatiality to dynamism by adding the element of motion, which expresses time, and "motion is the link between time and space (space), and the study of the dynamics of bodies confirms that space and time are in fact two aspects of a single structure called spacetime, and if space is related in the human mind to space, then Time embodies movement.

### **Types Of Movement**

The researcher divided the movement into four sections:

- 1- Optical Illusion.
- 2- Real Movement.
- 3- Motion picture (video) Video Art.
- 4- Lumia Art Works.



### **First: Movement Of Optical Illusion**

It is represented in Optical Art, which is a hybrid art between abstract engineering and the scientific, visual and psychological foundations in the field of psychology. It is a network of lines, areas and geometric shapes (square - triangle - circles) that are placed in a geometric

organization with a spatial depth that has a repetitive characteristic, so the beholder perceives the dynamic suggestive movement as a kind of visual deception and this art is related to the scientific theories of visual perception, it has a psychological aspect related to the system. The vision of the recipient is because the viewer's eye forms part of the components of the work, so by its movement the internal movement of the artwork changes. The visual movement can be considered the essence of this art. The aesthetic view is done through the eye, then it is analyzed and perceived the existing relationships between the parts and then assembled these parts into the overall body. So the eye's function is perception. The visual and the mind and its function is mental perception.

### **Second: Real Movement**

A work of art may include different types of movement. Either there is motive energy and the artwork moves automatically, or the recipient himself participates in this interaction so he himself becomes the moving forces, or these forces are natural moving energy (wind, water or sun).

#### 1- Natural movement

The natural factors are wind, water, sun, and any natural source from which we can extract energy, and many artists have used wind and water energy to move the sculptures.

#### 2- Movement resulting from human intervention

#### **It Includes Two Parts:**

- The discretionary movement: it is the result of a person moving in front of the artwork, which creates a visual overlap in the shapes.
- Manual movement: It is the result of manual intervention, whether by moving an element or by reconstructing a work of art according to its structural nature.

#### 3- Kinetic Movement

With the development of technology and the expansion of the art movement, mobile work has become intertwined in many fields to produce huge works such as programming with mechanics and design.

### **Third: Video Art**

There is no doubt that video arts is one of the most important artistic images that indicate movement within a visual form, which is a formation of visual symbols, moving shapes and colors. Although most of the video arts are shown in the art galleries, it is the only art that can go to the recipient wherever he is - without looking at his language or culture - as it has the ability to display and watch via screens anywhere.

### **Fourth: Lumia Art**

He called it "Lumia Art" after Thomas Wilfred, who was the pioneer of this art. He held his first exhibition in 1919 under the name Lumia (Art - Light - Movement) before the advent of video technology, and Wilfred began to experiment with light as his main artistic medium. He developed the means for controlling the colorful and luminous shapes that were compared to the aurora borealis.

The researcher chose the most important type of movement, which is (the Real Movement) and made an analysis of some works and the impact of the movement on them:

Movement type	Static	Kinetic
Natural Factors		

The work by the artist Anthony Howe as it moves as a result of the wind and thus the work is set in its direction, and the wind begins to push it and it moves from the center inward and then turns again in a state of continuous rotation.  
The work can be seen at <https://www.youtube.com/watch?v=YPkw0bDygVA>

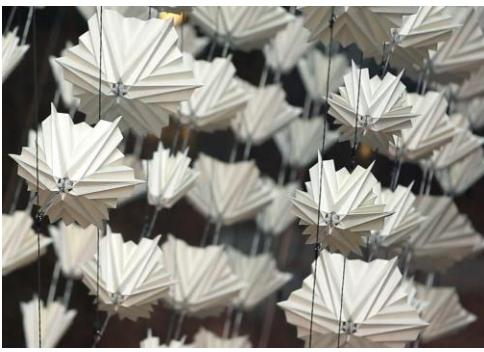
Movement type	Static	Kinetic
Discretionary Movement		

The work is by the artist Yaacov Agam, and it depends on the human movement in front of the artwork, The receiver starts viewing from the right angle, for example, and when moving to the end of the painting, various variables appear on its surface to its end, so the painting appears complete again, and the estimated movement depends, as we mentioned before, on the human movement.  
Watch the video: <https://www.youtube.com/watch?v=iD-d3uc7aC8&t=29s>

Movement type	Static	Kinetic
Manual Movement		

The work by David Roy is moving by hand. When moving, the parts of the work rotate on the main axis in a countercurrent fashion and at calculated times, resulting in the rotation of various interference forms.

The work can be viewed at <https://www.youtube.com/watch?v=UhxTTVjPisw>

Movement type	Static	Kinetic
Machines Movement		
<p><b>A collaboration between Hypersonic, Plebian Design and SosoLimited is the 'Diffusion Choir', which is a set of collapsible (origami) structures made of high-density polyethylene fibers, the Tyvek brand holds 400 pieces that hang mimicking the movement of birds in their flight. The team programs a program that synchronizes each component with the opening and closing time, and the movements are constantly evolving</b></p> <p>The work can be viewed at <a href="https://www.youtube.com/watch?v=X3Y4dqWDYIY">https://www.youtube.com/watch?v=X3Y4dqWDYIY</a></p>		

## Research Results

- 1- The importance of movement in the structure of the artwork.
- 2- The interest of contemporary artists in the movement component in his artistic achievement.
- 3- The different forms of movement in contemporary art by taking advantage of the technological possibilities.
- 4- Technology helped to use movement in a more complex way, and many types of movement were intertwined together, such as optical movement with machines.
- 5- The movement component showed the link between science and art, and it includes science (psychology curricula - mathematics - mechanics - computer programs).
- 6- Infer different structural relationships with the movement component.

## Research recommendations

- 1- The researcher recommends that the study of the mechanics of movement as well as the special arts of light be included in the educational curricula.
- 2- Using kinetic actions in field coordination, which gives greater interaction with the recipient.

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