

Artistic Trends of the Actual Motion and its Impact on Dynamics of the Artistic Work

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Abstract:

Actual Movement Art appeared as a result of the technological development. Since the ancient previous ages, artists were interested in motion element in the artistic works in an imposition manner. It has not changed into an actual movement except with the beginnings of the twentieth century as interest in movement element and confirming the fourth dimension represented in time in the artistic work.

Actual movement has been developed in the artistic work in a lot of various forms and shapes each in conformity with the vision and philosophy of the artist and in accordance with formulating the dynamic movement in the artistic work. Actual movement causes diversity in the artistic work with adding the time element to achieve new and innovative artistic and graphical formulations and varieties.

The basis of the motion value in the art is summed up in light movement and extension of the time to make the artistic works take various and multiple dimensions and a various artistic shape since actual movement makes variety in the artistic work by adding time element and achieving variable diversities as if they are new artistic works.

Key Words:

- Movement Art
- Dynamics
- Fourth Dimension

Introduction:

Actual motion art appears as a result of the technological development. Motion element has occupied the interest of the artist since the old ages. However, motion was achieved in a virtual form and was not changed into an actual motion except in the 20th century. The interest in time and motion elements has been increasing in the artistic work.

Such type of motion is considered the movement of a part or a group of parts of work from a point into another point through axes which may be in the form of artificial forces such as engines or electromagnetic forces. Motion may be made by the receiver during watching the work. The motion may be in the form of a moved light (lighting formation) produced by special

machines performing the motion. The works including actual motion in the field of design are characterized with what follows:

1. Possibility of producing various and multiple formations from the one artistic work as a result of motion continuous dynamics included in the actual motion or such motion followed by rest.
2. Changing of the relations between the part and the whole in the one artistic work regarding the visual field of the receiver.
3. Reaction between the artistic work and the receiver. Reaction becomes more positive in such works whose actual motion is made by the receiver.

Importance of the Thesis:

In this thesis, the researcher is concerned about what follows:

- Recognizing the actual motion, its forms and motion dynamics in the artistic work.
- Studying the artistic values for producing the works in the trends of various motion art with innovative formulas.
- Using the actual motion in special effects related to producing created artistic works and having diversity in the actual motion.

Thesis Goals:

This thesis aims to achieve what follows:

- Opening new horizons for design and applying the modern technological means to have artistic works in which motion plays a basic and active role to add the visual and interactivity provocation and achieving the fourth dimension (time).
- Making searches in motion dynamics and their implementation means and the aesthetic values arising from them.
- Confirming the effectiveness of dynamic motion element in the artistic work.

Thesis Terminologies:

- **Kinetic Art:** A term derived from the Greek word (Kinema) which means motion. It means Kinetics Science without considering the cause of motion. The term (Kinetic Art) was used to describe the arts depending basically on the actual motion with the difference of motion implementation means.
- **Fourth Dimension:** This term was formulated since the relative theory recognized and applied the three dimensions. Then, the scientists decided to add time to such dimensions by considering it as the fourth dimension and a noticeable coefficient in the three mathematical dimensions and the time axis.
- **Dynamics:** It means mobilization science. It is one branch of the Applied Mathematics. It is related to bodies, and changes proportionally with the continuous motion in a kinetic dynamic system; namely motion, its causes and its relation to the motion applicable basic laws (Newton Laws of motion) to study the changes with passing of time.

Thesis Methodology:

This thesis applies the analytical descriptive approach of the actual motion and motion dynamics and its impact to help to recognize the possibility of using the media and techniques in producing movable artistic works with a modern feature conforming to the requirements of this age.

Thesis Problem:

The development of actual motion concept requires the existence of knowledge building required for studying the basic artistic trends in the form of actual motion in the visual arts in order to benefit from the additions, visions and new forms provided by technology in the artistic work and its impact in achieving the dynamics. From such point, the thesis problem is defined in the following questions:

- How can we benefit from motion technology to get the actual motion in producing new artistic works?
- How can we create artistic works characterized with the kinetic and dynamic vision?

Thesis Theoretical Frame:**Motion Concept:**

Motion is defined as any change in the direction or the position of the body by passing time. It is also defined as the relation between the force originating motion, the moved object, the distance covered by such object and the time spent to cover such distance. If there is a change in the position of any object relative to an object at rest, it is said that the first object moves relative to the second object. So, motion is relative between the objects. In case there are two objects moving with the same speed, it is said that the relative motion for such two objects is Zero as the two objects are considered at rest relative to each other.

Forms of Actual Motion:

Actual motion is one of the design forms applied in the artistic work. It has been extended in time like its extension in place. Actual motion shows the ability to express freely upon distributing the formation elements in new dimensions; i.e. the language with which the artist expresses his recognition for space reality and the possibilities of his visual and graphical vocabularies. So, the existence of motion is a reactive existence. It increases the strength of synonymy and unity among the parts of the artistic work. The more the actual motion is, the more effect it has on the receiver. In addition, the relation between man and the existed objects, tangible objects and visualized objects in nature is not a pure contemplative theoretical relation but it is a dynamic relation due to being distinguished with the actual motion and **so the impacts are exchanged between him and them such as:**

1. Rectilinear Motion.
2. Rotary Motion
3. Spiral Motion
4. Frequent Motion
5. Radial Motion
6. Scattering Motion
7. Joined Motion

8. Wave Motion
9. Oscillatory Motion
10. Free Motion

Motion Rate:

It is considered the motion measurement. It is defined according to the change in the speed at each point. It is named change in (the speed amount) motion or variable motion rate. It is related with motion system as the actual motion includes by its nature dealing with distance and time variables.

First: Visual Feature:

In such feature, the apparent motion of the object or the contemplator's motion produces a severe sensation with the change and the motion (dramatic motion). It has a voluntary and involuntary intellectual and emotional significance.

Second: Self Motion:

It is such a type of motion depends on the easiness of motion with rationalizing the use of self-motion means, such as mobiles depended on natural forces in generating the actual motion such as air and wind. It depends on the joint connection techniques with using hinges controlling the type and form of motion such as the work of the artist Alexander Calder which has been previously mentioned and like the artist \ Alx Rodchenko in making the formation of a suspended object in 1920 composed of a series of intertwined rings. Motion takes place among the rings through pushing air in the formation.

Third: Kinetic Acts:

It is called variable motion related with such motion resulting by the viewer and the receiver to move the parts of the artistic work or to rearrange it to provide a visual experience.

The beginning was with the use of reflecting surfaces with multiple angles as well as through the vision angle and the motion of the receiver providing the ability to see new formations and different artistic relations in every motion due to changing the relations among the shapes. The regularity of such relations is various in the light of the assisting constructing variables helping to achieve the change cases within the artistic work with achieving the aesthetic bases and the values resulting from them as well as achieving soft or violent kinetic systems implementing the various forms of motion.

Fourth: Formative Changes:

It is called the optical art or kinetic optical art such as the works of Yuacov Agam who is an Israeli optical artist whose works are characterized with being kinetic pure works according to the vision of the viewer and his participation and the use of light and sound.

Fifth: Mechanical Forces (Engines):

They are such kinetic artistic works provided with machines and an engine and is equipped with tools and equipment allowing motion and with a rotation arm and blocks performing the pushing and pulling and rotation operations. In such kind of mechanized works, a new language of the

artistic form appears as the machine is the symbol of the modern time and the symbol of the mechanical motion achieved during the time. It may become apparent or hidden according to the vision of the artist and his use for the machine.

In some works, there is merging taken place between the mechanical energy represented in the used engines and the electromagnetic energy. We can find such merging in the work of Billes sur unplaeau in 1971 as he used steel spheres, magnet and electric motor to combine between two forces generating the motion constantly so that it can go away from the earth gravity with approaching the imagination. Motions crowd together in the work as in making 2000 steel spheres on an area connected with an engine activating the magnetic motion of the spheres. The works of Billes sur unplaeau is a combination between mechanism, machine, **science and art.**

Sixth: Light Works:

They are works whose motion depends on a light source by using the light as a technical medium. Such kind of works could get a great amount of interest in the sixties as an independent artistic motion since light belongs to the most formative elements to be used in building designs in which the color value is not defined.

Light achievements have been spreading like the works made by Moholy Nagy (1895 – 1946) – a Hungarian Painter (portraitist) and Photographer. He was a professor in Albao House School. He was affected with constructionism. He was from the pioneers of merging technology and industry in arts.

Analyzing and Explaining the Results:

- Variety of motion form with all its various and different types and trends in giving constructing structures, formative and designing shapes.
- Achieving the motion value in the dynamic artistic work and getting various optical forms.
- Confirming the fact indicating that the kinetic art has the conception of dynamics and achieves the reactivity in the true time and the extension in time and place.

Recommendations and Proposals:

- Paying attention and more interest in Kinetic art and its various trends and its methods of achievement due to the broadness of its field with the increase of the technological development.
- Studying the motion design and its dynamic impact on achieving it regarding opening new horizons for creativity, imagination with achieving effectiveness, incitement and the aesthetic values.

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